



AGENDA NOTES

**63rd Meeting of the Board of Governors
of National Institute of Technology Durgapur**



**TO BE HELD IN THE ONLINE MODE
ON MICROSOFT TEAMS PLATFORM
ON WEDNESDAY, FEBRUARY 8, 2023
FROM 3.30 P.M**

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AGENDA NOTES

For the

63rd Meeting of the Board of Governors of National Institute of Technology Durgapur to be held on Wednesday, February 8, 2023 at 3.30 PM in the online mode over Microsoft Teams platform.

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63.05	To consider the minutes of the 68 th (Extraordinary) Senate meeting held on 29 th November 2022. i) To consider the Guidelines for Technology Transfer by NIT Durgapur as recommended by the Senate. ii) To ratify the MoU with Technology Information, Forecasting and Assessment Council (TIFAC) for IP management at NIT Durgapur as recommended by the Senate and approved by the Chairperson, BoG.	3
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63.09	To ratify the Annual Report 2021-22 of the Institute	4
63.10	Any other item with the permission of the Chair.	4

63.01 To confirm the Minutes of the 62nd Meeting of the Board of Governors held in the online mode in MS-Team Platform on October 10, 2022

The 62nd Meeting of the Board of Governors of NIT Durgapur held in the online mode in MS-Team Platform on October 10, 2022.

The Minutes of the said meeting was circulated amongst the Board members for their comments. However, no comments were received from the members. The final Minutes is now being placed as **Annexure - A (BoG) (Pages: A.1- A.5)** for consideration and confirmation of the Members of the Board of Governors.

63.02 To note the Actions Taken on the Minutes of the 62nd Meeting of the Board of Governors held in the online mode in MS-Team Platform on October 10, 2022.

The detailed report on the Actions Taken on the Minutes of the 62nd Meeting of the Board of Governors held in the online mode in MS-Team Platform on October 10, 2022 is attached in **Annexure - B; (Pages: B.1 - B.3)**

63.03 To consider the Minutes of the 57th Meeting of the Finance Committee held on February 8, 2023 at 3 PM in the online mode over Microsoft Teams platform.

The Minutes of the 57th Meeting of the Finance Committee held on February 08, 2023 at 3 PM in the online mode over Microsoft Teams platform shall be placed on the table.

63.04 To note the Director's Report on the initiatives undertaken since the last meeting of the Board of Governors.

A Report on the initiatives undertaken since the last meeting of the Board of Governors shall be presented by the Director (**Annexure - C to be placed on the table**).

63.05 To consider the minutes of the 68th (Extraordinary) Senate meeting held on 29th November 2022.

(i) To consider the Guidelines for Technology Transfer by NIT Durgapur as recommended by the Senate

The Board may consider the Guidelines for Technology Transfer by NIT Durgapur as recommended by the Senate in its 68th (Extraordinary) meeting (Item No. 1). (**Annexure - D; Page: D.1 - D.10**)

(ii) To ratify the MoU with Technology Information, Forecasting and Assessment Council (TIFAC) for IP management at NIT Durgapur as recommended by the Senate and approved by the Chairperson, BoG

The Board may ratify the MoU with Technology Information, Forecasting and Assessment Council (TIFAC) for IP management at NIT Durgapur as recommended by the Senate in its 68th (Extraordinary) meeting (Item No. 2) and approved by the Chairperson, BoG. (**Annexure - E; Page: E.1 - E.9**)

63.06 To consider the minutes of the 69th Senate Meeting to be held on 23rd January 2023:

(i) To approve the award of PhD degrees as recommended by the Senate

The recommendation of the Senate, in its 69th meeting to be held on 23rd January, 2023 (Item No. 69.5) for the award of PhD degrees is placed before the Board of Governors for approval. **(Annexure - F; to be circulated later).**

(ii) To consider signing MoUs with institutions and universities in India as recommended by the Senate

The recommendation of the Senate, in its 69th meeting to be held on 23rd January, 2023 (Item No. 69.6) for signing MoUs with institutions and universities in India is placed before the Board of Governors for approval. **(Annexure - F; to be circulated later)**

63.07 To consider the application for recognition of "NIT Durgapur Faculty Association" and grant permission to use "NIT Durgapur, Mahatma Gandhi Avenue, Durgapur 713209" as its official contact address

The faculty members of NIT Durgapur have formed an association named "NIT Durgapur Faculty Association". A MoA has been prepared by them as per the requirement of the West Bengal Society Registration Act 1961, and an application for its registration will be submitted shortly. They have applied to the Institute for the recognition of "NIT Durgapur Faculty Association" and requested for the grant of permission to use "NIT Durgapur, Mahatma Gandhi Avenue, Durgapur 713209" as its official contact address. **(Annexure - G; Pages: G.1 - G. 20)**

Placed before the Board of Governors for approval.

63.08 To report to the Board the status of legal matters.

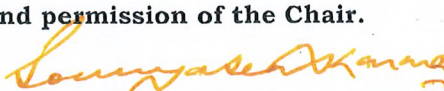
The status of legal matters of the Institute is placed before the Board of Governors for kind information. **(Annexure - H; Pages: H.1 - H.3)**

63.09 To ratify the Annual Report 2021-22 of the Institute

The Annual Report 2021-22 of the Institute was approved by the Chairperson, BoG. **(Annexure - I; Pages: I.1 - I. 374)**

Placed before the Board of Governors for ratification.

63.10 Any other matter with the kind permission of the Chair.


Registrar & Secretary
Board of Governors
NIT Durgapur-713209

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NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR
MAHATMA GANDHI AVENUE, DURGAPUR-713209, WEST BENGAL, INDIA

Minutes for the meeting of 62nd Meeting of the BoG of National Institute of Technology Durgapur held on Monday, October 10th, 2022 in the online mode in MS-Team Platform from 04:30 p.m. onward

The following members attended the Meeting:

1.	Prof. (Retd.) Sadanand Sadashiv Gokhale Chairperson National Institute of Technology Durgapur	Chairperson
2.	Prof. Anupam Basu Director National Institute of Technology Durgapur	Member
3.	Ms. Soumya Gupta Joint Secretary, Department of Higher Education Ministry of Human Resource Development Government of India, New Delhi	Member
4.	Mr. Anil Kumar Director (Finance), Department of Higher Education Ministry of Human Resource Development Government of India, New Delhi	Member
5.	Dr. D.K. Majumdar Former Professor, DIPSAR, University of Delhi	Member
6.	Dr. Mitali Mukerji, Professor and Head, Department of Bioscience & Bioengineering, Faculty, School of Artificial Intelligence and Data Science (AIDE), Indian Institute of Technology Jodhpur, NH-62, Karwar, Rajasthan - 342037	Member
7.	Professor Apurba Kumar Patra Professor, Department of Chemistry, National Institute of Technology Durgapur.	Member
8.	Dr. Jayati Dey, Associate Professor, Department of Electrical Engineering, National Institute of Technology Durgapur.	Member
9.	Shri Soumya Sen Sharma Registrar, National institute of Technology Durgapur	Secretary

Dr. Jyotsna Dhawan, Chief Scientist, CCMB, Hyderabad, Prof. V.K. Tewari Director, IIT Kharagpur, Mr. Sanjay Jhunjhunwala, CEO, Mani Group could not attend the meeting and were granted leave of absence by the Chairperson, Board of Governors.

At the outset, the Chairperson, Board of Governors (BoG), extended a warm welcome to all members of the Board. Thereafter, the following Agenda Items were taken up sequentially by the BoG and the decisions of the Committee were noted as follows against each individual item:

62.01 To confirm the Minutes of the 61st Meeting of the Board of Governors of National Institute of Technology Durgapur, held on May 24, 2022 from 5:00 p.m. onwards in the NIT Transit House, New Delhi

The Board confirmed the Minutes of the 61st Meeting of the Board of Governors of the Institute, held on May 24, 2022 in the NIT Transit House, New Delhi

62.02 To note the Action Taken on the Minutes of the 61st Meeting of the Board of Governors of National Institute of Technology Durgapur, held on May 24, 2022 in the NIT Transit House, New Delhi

The Board noted the Action Taken on the Minutes of the 61st Meeting of the Board of Governors held on May 24, 2022 from 5:00 p.m. onwards in the NIT Transit House, New Delhi

62.03 To consider the Minutes of the 56th Meeting of the Finance Committee held on Monday, October 10, 2022 from 3:00 p.m. in the online mode over Microsoft Teams platform

The Board approved the Minutes of the 56th meeting of the Finance Committee held online via MS-Teams (Online) on Monday, October 10, 2022

62.04 Director's Report on the initiatives undertaken since the last meeting of the Board of Governors.

The initiatives undertaken by the Director were noted with due appreciation.

- 62.05 To consider matters related to the conduction of the 18th Convocation of the Institute on Saturday, October 22, 2022 and to approve the list of UG, PG and PhD degree recipients; recipients of the Institute Gold Medals; recipients of the endowment gold medals; recipients of the Distinguished Alumni Award.**

The Board approved the list of UG, PG and PhD degree recipients; recipients of the Institute Gold Medals; recipients of the endowment gold medals; recipients of the Distinguished Alumni Award as recommended by the Senate of the Institute. It was suggested that in future the Academic performance of the Student (CGPA) should be presented before the Board for approval. The Chairman invited all Board members to attend the forthcoming 18th Convocation of the Institute on Saturday, October 22, 2022 at NIT Durgapur.

- 62.06 To consider for approval the Revised Reservation Roster and the Vacancy List for Faculty Selection**

The Board deliberated on the Maintenance of Reservation Roster and the Vacancy List for Faculty Selection, and approved the Maintenance of Reservation Roster and the cadre-wise and category-wise Faculty vacancy list as presented to the BoG (Annexure I). It was further approved that the movement of the existing faculty members of the Institute to higher Pay Levels shall be made as per Gazette Notification dated 21st July, 2017, Note 1(5) of Schedule 'E' [Statute 23(5)(a)]. It was decided that, Chairperson, BoG will write to Secretary MoE to permit the Director to initiate the faculty recruitment process.

- 62.07 To consider the Report on the Assessment of the Performance of the Institute vis-à-vis Targets (2021-22) as per MoU with MoEdu**

The Board noted the "Excellent" rating of the Institute with a consolidated score of 90.3 with due appreciation.

- 62.08 To ratify the approval of the Hon'ble Chairperson for signing of MoUs with Sister Nivedita University Kolkata and Vilnius Gediminas Technical University, Lithuania (Item No. 67.8 of the Senate of its 67th meeting held on September 20, 2022)**

The Board approved the signing of MoUs with Sister Nivedita University Kolkata and Vilnius Gediminas Technical University, Lithuania.

62.09 To report to the Board the status of legal matters

The Board was informed that no new Court Case was filed against the Institute since the last Board meeting and in two of the Court cases the verdict was given in favor of the Institute.

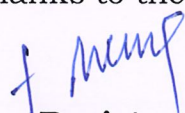
62.10 Any other item with the permission of the Chair.

- 1) To ratify the prayer of Ms. Jyoti Ranjan ex-Career Development Advisor to re-join the Institute in the same post with the same terms and conditions:

It was informed to the Board that Ms. Jyoti Ranjan left the Institute on July 27, 2022 to join IIM Jammu as Assistant Administrative Officer (Placement) in regular position, as she was serving NIT Durgapur on Contractual basis. Chairman BoG has already approved her re-joining as she intended to join the Institute within 3 months of leaving the Institute and her conduct in the Institute during her service period was excellent.

The Board ratified the re-joining of Ms. Jyoti Ranjan.

The meeting ended with a vote of thanks to the chair.


**Registrar & Secretary,
Board of Governors
National Institute of Technology
Durgapur - 713209**

Faculty Vacancy List (Cadre-wise and category-wise)

Category →	UR	SC	ST	OBC	EWS	TOTAL
CADRE						
Assistant Professor	15	4	2	8	3	32
Associate Professor	1	0	0	0	0	1
Professor	1	0	0	0	0	1
TOTAL VACANCY	17	4	2	8	3	34

Annexure – B

Item No.	Agenda Item	Decision taken on the item	Action Taken
62.01	To confirm the Minutes of the 61 st Meeting of the Board of Governors of National Institute of Technology Durgapur, held on May 24, 2022 from 5:00 p.m. onwards in the NIT Transit House, New Delhi.	The Board confirmed the Minutes of the 61 st Meeting of the Board of Governors of the Institute, held on May 24, 2022 in the NIT Transit House, New Delhi.	Uploaded on the Institute Website.
62.02	To note the Action Taken on the Minutes of the 61 st Meeting of the Board of Governors of National Institute of Technology Durgapur, held on May 24, 2022 in the NIT Transit House, New Delhi.	The Board noted the Action Taken on the Minutes of the 61 st Meeting of the Board of Governors held on May 24, 2022 from 5:00 p.m. onwards in the NIT Transit House, New Delhi.	Noted
62.03	To consider the Minutes of the 56 th Meeting of the Finance Committee held on Monday, October 10, 2022 from 3:00 p.m. in the online mode over Microsoft Teams platform.	The Board approved the Minutes of the 56 th meeting of the Finance Committee held online via MS-Teams (Online) on Monday, October 10, 2022.	Uploaded on the Institute Website.
62.04	Director's Report on the initiatives undertaken since the last meeting of the Board of Governors.	The initiatives undertaken by the Director were noted with due appreciation.	Noted
62.05	To consider matters related to the conduction of the 18 th Convocation of the Institute on Saturday, October 22, 2022 and to approve the list of UG, PG and PhD degree recipients; recipients of the Institute Gold Medals; recipients of the endowment gold medals; recipients of the Distinguished Alumni Award.	The Board approved the list of UG, PG and PhD degree recipients; recipients of the Institute Gold Medals; recipients of the endowment gold medals; recipients of the Distinguished Alumni Award as recommended by the Senate of the Institute. It was suggested that in future the Academic performance of the Student (CGPA) should be presented before the Board for approval. The Chairman invited all Board members to attend	Action Completed

		the forthcoming 18 th Convocation of the Institute on Saturday, October 22, 2022 at NIT Durgapur.																																											
62.06	To consider for approval the Revised Reservation Roster and the Vacancy List for Faculty Selection.	<p>The Board deliberated on the Maintenance of Reservation Roster and the Vacancy List for Faculty Selection, and approved the Maintenance of Reservation Roster and the cadre-wise and category-wise Faculty vacancy list as presented to the BoG (Annexure I). It was further approved that the movement of the existing faculty members of the Institute to higher Pay Levels shall be made as per Gazette Notification dated 21st July, 2017, Note 1(5) of Schedule ‘E’ [Statute 23(5)(a)]. It was decided that, Chairperson, BoG will write to Secretary MoE to permit the Director to initiate the faculty recruitment process.</p> <p style="text-align: right;">Annexure- I</p> <p>Faculty Vacancy List (Cadre-wise and category-wise)</p> <table><tr><th>Category →</th><th>UR</th><th>SC</th><th>ST</th><th>OBC</th><th>EWS</th><th>TOTAL</th></tr><tr><td>CADRE</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Assistant Professor</td><td>15</td><td>4</td><td>2</td><td>8</td><td>3</td><td>32</td></tr><tr><td>Associate Professor</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td></tr><tr><td>Professor</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td></tr><tr><td>TOTAL VACANCY</td><td>17</td><td>4</td><td>2</td><td>8</td><td>3</td><td>34</td></tr></table>	Category →	UR	SC	ST	OBC	EWS	TOTAL	CADRE							Assistant Professor	15	4	2	8	3	32	Associate Professor	1	0	0	0	0	1	Professor	1	0	0	0	0	1	TOTAL VACANCY	17	4	2	8	3	34	Action Completed
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62.07	To consider the Report on the Assessment of the Performance of the Institute vis-à-vis Targets (2021-22) as per MoU with MoEdu	The Board noted the “Excellent” rating of the Institute with a consolidated score of 90.3 with due appreciation.	Noted
62.08	To ratify the approval of the Hon’ble Chairperson for signing of MoUs with Sister Nivedita University Kolkata and Vilnius Gediminas Technical University, Lithuania (Item No. 67.8 of the Senate of its 67 th meeting held on September 20, 2022	The Board approved the signing of MoUs with Sister Nivedita University Kolkata and Vilnius Gediminas Technical University, Lithuania.	SNU- Action completed. VGTU - Approval from the Ministry still awaited.
62.09	To report to the Board the status of legal matters	The Board was informed that no new Court Case was filed against the Institute since the last Board meeting and in two of the Court cases the verdict was given in favor of the Institute.	Noted
62.10	Any other item with the permission of the Chair. 1) To ratify the prayer of Ms. Jyoti Ranjan ex-Career Development Advisor to re-join the Institute in the same post with the same terms and conditions: It was informed to the Board that Ms. Jyoti Ranjan left the Institute on July 27, 2022 to join IIM Jammu as Assistant Administrative Officer (Placement) in regular position, as she was serving NIT Durgapur on Contractual basis. Chairman BoG has already approved her re-joining as she intended to join the Institute within 3 months of leaving the Institute and her conduct in the Institute during her service period was excellent. The Board ratified the re-joining of Ms. Jyoti Ranjan.		Action Completed

NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR

EXTRAORDINARY MEETING OF THE SENATE

HELD ON
TUESDAY, NOVEMBER 29, 2022
FROM 11 AM ONWARD
AT THE SENATE ROOM, S.R. RAY MEMORIAL BUILDING
NIT DURGAPUR



MINUTES

MINUTES: EXTRAORDINARY MEETING OF THE SENATE

National Institute of Technology Durgapur

The meeting was attended by the following members:

1. **Prof. Anupam Basu** : Chairman
Director & Chairman-Senate
NIT Durgapur
2. **Prof. K. Aikat** : Member
Department of Biotechnology,
NIT Durgapur
3. **Dr. Debjani Dutta** : Member
HoD, Department of Biotechnology,
NIT Durgapur
4. **Prof. S. S. Mukhopadhyay** : Member
Department of Biotechnology,
NIT Durgapur
5. **Prof. Dalia Dasgupta Mandal** : Member
Department of Biotechnology,
NIT Durgapur
6. **Prof. A. Dey** : Member
Department of Biotechnology,
NIT Durgapur
7. **Prof. A.K. Patra** : Member
Department of Chemistry,
NIT Durgapur
8. **Prof. Rajnarayan Saha** : Member
Department of Chemistry,
NIT Durgapur
9. **Prof. Sankar Ch. Moi** : Member
HoD Department of Chemistry,
NIT Durgapur
10. **Prof. P. Gupta** : Member
Department of Chemical Engineering,
NIT Durgapur
11. **Prof. K. C. Ghanta** : Member
Dean (R&C)
Department of Chemical Engineering,
NIT Durgapur

MINUTES: EXTRAORDINARY MEETING OF THE SENATE

National Institute of Technology Durgapur

- | | | | |
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| 12. | Prof. S. Dutta
Department of Chemical Engineering,
NIT Durgapur | : | Member |
| 13. | Prof. Gopinath Halder
Department of Chemical Engineering,
NIT Durgapur | : | Member |
| 14. | Prof. Tamal Mandal
Department of Chemical Engineering,
NIT Durgapur | : | Member |
| 15. | Dr. Jaya Sikder
HoD , Department of Chemical Engineering,
NIT Durgapur | : | Member |
| 16. | Prof. P. Pal
Department of Chemical Engineering,
NIT Durgapur | : | Member |
| 17. | Prof. A. K. Sadhukhan
Department of Chemical Engineering,
NIT Durgapur | : | Member |
| 18. | Prof. D.K. Singha Roy
Department of Civil Engineering,
NIT Durgapur | : | Member |
| 19. | Prof. S. Bhattacharyya
Department of Civil Engineering,
NIT Durgapur | : | Member |
| 20. | Prof. A.K. Banik
Department of Civil Engineering,
NIT Durgapur | : | Member |
| 21. | Prof. Amiya Kr Samanta
Department of Civil Engineering,
NIT Durgapur | : | Member |
| 22. | Prof. A. Das
Department of Civil Engineering,
NIT Durgapur | : | Member |

MINUTES: EXTRAORDINARY MEETING OF THE SENATE

National Institute of Technology Durgapur

23. **Dr. Diptesh Das** : Member
Associate Professor
HoD, Civil Engineering
24. **Prof. S. Saha** : Member
Department of Civil Engineering,
NIT Durgapur
25. **Prof. (Mrs.) T. Pal** : Member
Dept. of Computer Science & Engg.
NIT Durgapur
26. **Prof. Tanmay Dey** : Member
Dept. of Computer Science & Engg.
NIT Durgapur
27. **Prof. Subrata Nandi** : Member
HoD, Dept. of Computer Science & Engg.
NIT Durgapur
28. **Prof. (Mrs.) Suchismita Roy** : Member
Dean (FW)
Dept. of Computer Science & Engg.
NIT Durgapur
29. **Prof. Subhrabrata Choudhury** : Member
Dept. of Computer Science & Engg.
NIT Durgapur
30. **Prof. D. Nandi** : Member
Dept. of Computer Science & Engg.
NIT Durgapur
31. **Prof. Avijan Dutta** : Member
Dept. of Management Studies
NIT Durgapur
32. **Prof. Gautam Bandopadhyay** : Member
Dept. of Management Studies
NIT Durgapur
33. **Dr. Kaushik Mandal** : Member
HoD, Dept. of Management Studies
NIT Durgapur
34. **Prof. Mousumi Roy** : Member
Dept. of Management Studies
NIT Durgapur

MINUTES: EXTRAORDINARY MEETING OF THE SENATE

National Institute of Technology Durgapur

35. **Prof. A.K. Bhattacharjee** : Member
Dept. of Electronics & Communication Engineering
NIT Durgapur
36. **Dr. Durbadal Mondal** : Member
HoD, Dept. of Electronics & Communication Engineering
NIT Durgapur
37. **Prof. Rowdra Ghatak** : Member
Dept. of Electronics & Communication Engineering
NIT Durgapur
38. **Prof. R. Mahapatra** : Member
Dean (SW)
Dept. of Electronics & Communication Engineering
NIT Durgapur
39. **Prof. G.K. Mahanti** : Member
Dept. of Electronics & Communication Engineering
NIT Durgapur
40. **Prof. Sumit Kundu** : Member
Dept. of Electronics & Communication Engineering
NIT Durgapur
41. **Prof. B. Maji** : Member
Dept. of Electronics & Communication Engineering
NIT Durgapur
42. **Prof. S.S. Thakur** : Member
Dept. of Electrical Engineering
NIT Durgapur
43. **Prof. S. N. Mahato** : Member
HoD, Dept. of Electrical Engineering
NIT Durgapur
44. **Prof. T. K. Saha** : Member
Dept. of Electrical Engineering
NIT Durgapur
45. **Prof. C. Koley** : Member
Dept. of Electrical Engineering
NIT Durgapur
46. **Prof. Parimal Acharjee** : Member
Dept. of Electrical Engineering
NIT Durgapur
47. **Prof. S. Banerjee** : Member
Dept. of Electrical Engineering
NIT Durgapur

MINUTES: EXTRAORDINARY MEETING OF THE SENATE

National Institute of Technology Durgapur

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| 48. | Dr. Arindam Modak
HoD, Dept. of Humanities and Social Sciences
NIT Durgapur | : | Member |
| 49. | Dr. Lakshmi Kanta Dey
HoD, Dept. of Mathematics
NIT Durgapur | : | Member |
| 50. | Prof. (Mrs.) Seema Sarkar (Mondal)
Dept. of Mathematics
NIT Durgapur | : | Member |
| 51. | Prof. S. Kar
Dept. of Mathematics
NIT Durgapur | : | Member |
| 52. | Prof. B. Halder
Dept. of Mechanical Engineering
NIT Durgapur | : | Member |
| 53. | Prof. N. B. Hui
Dean (Academic Courses)
Dept. of Mechanical Engineering
NIT Durgapur | : | Member |
| 54. | Prof. N. Banerjee
Dept. of Mechanical Engineering
NIT Durgapur | : | Member |
| 55. | Prof. A. Layek
Dept. of Mechanical Engineering
NIT Durgapur | : | Member |
| 56. | Dr. Sumit Mukhopadhyay
HoD, Dept. of Mechanical Engineering
NIT Durgapur | : | Member |
| 57. | Prof. I. Basak
Dept. of Mechanical Engineering
NIT Durgapur | : | Member |
| 58. | Prof. A. B. Puri
Dept. of Mechanical Engineering
NIT Durgapur | : | Member |
| 59. | Dr. Supriya Bera
HoD, Dept. of MME
NIT Durgapur | : | Member |
| 60. | Prof. K. S. Ghosh
Dept. of MME
NIT Durgapur | : | Member |

MINUTES: EXTRAORDINARY MEETING OF THE SENATE

National Institute of Technology Durgapur

61. **Dr. P. S. Bhowmik** : Member
Associate Dean (Academic Research)
Representative of Dean (Academic Research)
NIT Durgapur
62. **Prof. A. K. Meikap** : Member
Dept. of Physics
NIT Durgapur
63. **Dr. Sukadev Sahoo** : Member
HoD, Dept. of Physics
NIT Durgapur
64. **Dr. Bibhash Sen** : Member
Head, Computer Centre
NIT Durgapur
65. **Mr. Soumya Sen Sharma** : Secretary
Registrar
NIT Durgapur

Prof. Ajitava Raychaudhuri, Prof. Siddhartha Sen, Prof. (Mrs.) Swagata Dasgupta, Sri S. Chatterjee, Mr. B. Bhattacharya, Prof. S. S. Roy, Prof. K. Adhikari, Prof. N.K. Roy, Prof. P. Ray, Prof. K. Bhattacharya, Prof. M. Maji, Prof. D. Sukul, Prof.(Ms.) Surabhi Chaudhuri, Prof. S. Chattopadhyay, Ms. Ishani Ray, Prof.(Mrs.) Kajla Basu, Prof. A. N. Mullick, Prof. Ashis Kr. Mal, Prof. Amit Kr. Chakraborty and Prof. Joydeep Maity could not attend the meeting and were granted leave of absence.

At the outset, the Chairman formally welcomed Prof. (Retd.) Sadanand Sadashiv Gokhale, who was present in the meeting as a Special Invitee. The Chairman, Senate also welcomed the Senate members to the meeting and requested Secretary, Senate to present the agenda of the Extraordinary meeting of the Senate.

Item No. 1 **To consider the Guidelines for Technology Transfer by NIT Durgapur.**

The Senate recommended the proposed Guidelines for Technology Transfer by NIT Durgapur. The Senate also deliberated on the mode of technology transfer (exclusive and non-exclusive) and further recommended sharing of 40% of the technology transfer fee with the innovator/s.

Item No. 2 **To consider the MoU with TIFAC for IP management at NIT Durgapur.**

The Senate recommended signing the proposed MoU with TIFAC for IP management at NIT Durgapur.

Item No. 3 **To discuss the issue of grade reduction for the students due to low attendance.**

The Senate resolved that the reduction in grade for the students due to low attendance shall be made as per the existing academic regulations.

MINUTES: EXTRAORDINARY MEETING OF THE SENATE

National Institute of Technology Durgapur

However, the issue may be discussed by the appropriate bodies in the future for possible revision in the regulations if needed.

Item No. 4

To discuss the issue of re-admission of a B. Tech. student of the Department of Computer Science & Engineering.

The Senate resolved that Sambit Saha (Roll No. 20CS8110), a B. Tech. student of Computer Science & Engineering department, shall be allowed to be readmitted in the third semester of the academic session 2023-24 for the continuation of his studies.

Item No. 5

To consider the issues and proposals of academic importance to be mooted by the Chairman, Senate.

The Chairman, Senate mooted the following proposals for initiating these in the future.

- A new MS by Research program with primary focus on the research project and less on other credit courses may be offered for the research project staff of the Institute.
- A department of Architecture & Regional Planning may be created, and Department of Civil Engineering may take the lead in its planning.
- A multi-disciplinary centre for Design & Mechatronics may be set up. Departments of Mechanical, Civil, Electronics & Communication and Computer Science Engineering may take the lead in its planning.

The Senate highly appreciated the proposals, and resolved to follow it up by the appropriate bodies.

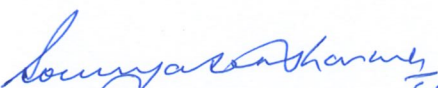
Item No. 6

Any other matter with the permission of the chair.

Prof. S. S. Gokhale, Chairperson, Board of Governors and a Special Invitee to the meeting, shared his valuable thoughts with the Senate on research and collaboration and wider dissemination of the rules laid down in the NIT Act and Statute among all the faculty members. The Senate noted the same.

The Senate unanimously acknowledged the outstanding contribution of Prof. Anupam Basu towards the development of the Institute and placing it onto a higher trajectory of growth path during his tenure as the Director of the Institute.

The meeting ended with a vote of thanks to the chair.


Registrar & Secretary, Senate
NIT Durgapur

Broad Guidelines for Technology Transfer in NIT Durgapur

This policy is applicable to all the NIT Durgapur Personnel – students, faculty, staff, researchers and others related.

1. Ownership

NIT Durgapur owns all the Intellectual Property (IP) that is produced by all NIT Durgapur personnel. NIT Durgapur reserves the right to apply for IP protection in India / throughout the world / specific countries for suitable protection of the IP generated.

2. Disclosure

NITD encourages timely disclosure of all potential IP / Inventions / Innovations generated (conceived or reduced to practice in whole or in part) by members of the faculty or staff (including research staff, doctoral students, students and visiting scholars) of the Institute in the course of their Institute related activities. Disclosure enables prompt action by NITD to appropriately protect and disseminate the research activities occurring at NITD.

3. Filing and Publishing of Patent

NITD encourages immediate filing of the patent and subsequent publishing of the same. However, it has to be kept in mind that the patenting is not possible if the invention has already been publicly disclosed before it gets filed with the appropriate patent authority.

4. Evaluation of the Base Price of the IP

The evaluation of the Base Price of the IP will be carried out in the following manner:

Project Direct Cost	Rs. 100
Project Indirect Cost (15%)	Rs. 15
Base Price of the IP	Rs. 115

5. Ensuring Fair Price of the IP

NITD encourages open tendering process for finding prospective buyers of the IP to ensure fair price of the IP before the transfer of technology. Tendering may be done in either of the following two modes only:

- i) IP will be awarded to the bidder who is offering highest one-time price that is at least more than the already determined base price

ii) IP will be awarded to the bidder who is offering highest share of royalty over the duration of the IP.

6. Revenue Sharing

The revenue sharing ratio between the inventor team and NITD will be determined based on the relevant Government Guidelines in respect of Technology Transfer as amended time to time.

MEMORANDUM OF UNDERSTANDING

BETWEEN



TIFAC

**Technology Information, Forecasting and Assessment
Council (TIFAC)**

(An Autonomous body under Department of Science and technology, Govt. of India)
AI Block-II, Technology Bhawan, New Mehrauli Road
New Delhi 110016, India.

AND



National Institute of Technology Durgapur

(An Institute of National Importance under Ministry of Education, Government of India)
M G Road, Durgapur, West Bengal, PIN 713209, INDIA

for

***Intellectual Property Management Cell (IPMC) at
NIT Durgapur***

November 2022

Memorandum of Understanding (MoU)

This Memorandum of Understanding (MoU) is entered into this ____ day of **November 2022**

BETWEEN

Technology Information, Forecasting and Assessment Council, is a society registered under the Societies Registration Act 1860, having its office at AI Block, 5th Floor, Technology Bhavan, New Mehrauli Road, New Delhi 110016, India (hereinafter referred to as “**TIFAC**” which term shall, unless it be repugnant to the context or meaning thereof, be deemed to include its successors and permitted assigns).

AND

National Institute of Technology Durgapur (NITD), An Institute of National Importance under Ministry of Education, Government of India is a Central Funded Technical Institute with its registered office at M G Road, Durgapur, West Bengal, PIN 713209 (hereinafter referred to as “**NITD**” which term shall, unless it be repugnant to the context or meaning thereof, be deemed to include its successors and permitted assigns).

AND WHEREAS TIFAC is an autonomous organization set up in 1988 under the Department of Science & Technology to look ahead in technology domain, assess the technology trajectories, and support innovation by networked actions in selected areas of national importance. TIFAC with its experience of Technology innovation support and IP management of about 3 decades has taken up challenge of commercialization of IP and technology in consortia mode. It offers membership to academic institutions, government R&D institutions and industry for *IPCC*’s effective functioning at their location.

WHEREAS NITD with the vision to impart quality technical education and focus on research and innovation to cater to the need of the country working at the service of nation with mission to impart quality technical and scientific education and produce engineers, technologists, scientists and citizens who will contribute meaningfully to the growth and development of the country and excel in various disciplines of knowledge.

AND WHEREAS both the parties have expressed their willingness to partner with each other in establishing TIFAC IP Protection & Commercialization Cell (*IPCC*) at NIT Durgapur by way of NITD becoming member of *IPCC*'s scheme of TIFAC. The membership shall offer a complete package for IP management and technology transfer in India and abroad through single platform for maximizing the benefits of R&D and appropriately harnessing IP potential of NITD and innovators at NITD.

Now therefore, in consideration of the premises and mutual covenants hereinafter contained, the parties hereto agree as follows:

1. Subject to the conditions hereinafter contained that 'TIFAC' agrees to join hands with NITD for providing the following expert services

- 1.1 Quarterly review/audit of IP of the NITD
- 1.2 Assessment of Protect ability of creative outcomes (without any limit in number) at NITD on priority basis which would include comparative statement of prior art and alleged invention to initiate further discussion with inventors from the NITD to ascertain the novelty of invention for filing of patents, on the basis of mutually agreed time frame.
- 1.3 Explore possibility of protection of creative work through other forms of IP such as copyrights, trademarks, industrial design, IC lay-out design, plant variety etc. TIFAC has desired expertise and resources including subscription to databases.
- 1.4 Full technical, legal and financial support for filing, prosecuting, securing grant and managing through payment of renewal fee by utilising various schemes of Government (including eligible financial support) through single window. In other words, TIFAC would facilitate filing of patents and other IP applications as TIFAC has panel of IP Attorney firms and would meet the cost through different schemes with no additional cost to NITD. TIFAC will explore the scope of the existing filed patents of NIT Durgapur, and will extend services under the *IPCC*'s scheme if found to be appropriate.
- 1.5 Undertake activities such as preparing marketing abstracts, seeking protection through allied IPs, drafting and enforcing IP and Technology Transfer related agreements.
- 1.6 Help managing royalties and other aspects of IP and TT Management to NITD.
- 1.7 Do liaising with Industry, scientists and different Government Departments offering financial and other support to leverage benefits to NITD.

- 1.8 Provide legal and management support for Technology Transfer/Commercialization
 - 1.9 Provide post licensing management of technology, technology fee and royalties.
 - 1.10 Will Mentor Scientists and start-ups; besides the aforesaid services mentioned in point nos. 1.1 to 1.9, regular awareness/training to *IPCC* of the institutes on sustained basis. All the services as mentioned point nos. 1.1 to 1.9 does not involve any additional cost to NITD.
 - 1.11 TIFAC is in a process of developing portal for IP and Technology Transfer. NITD will have free access to portal for processing their IP protection and technology transfer needs once it is in place, till then, all the workload would be managed through e-mails, letters and other means of communication and tools.
2. In order to enable TIFAC to offer services mentioned under clause 1, NITD will provide following facilities hereunder with no hinderance and without any cost:
- 2.1 Access to documentation in consultation with concerned researchers/faculty of the institute.
 - 2.2 Timely response to queries by TIFAC.
 - 2.3 Execution of documents such PoA etc. in the name of IP Attorney firms on TIFAC panel; filing of which are necessary during filing and prosecuting IP applications in the name of NITD.
 - 2.4 Participation from the institute for negotiation and PoA to TIFAC for negotiating technology transfer deal on behalf of NITD.
 - 2.5 Stay, local travel and local hospitality at Durgapur without any charges for TIFAC officials/representative for execution of work within the scope this MoU.
 - 2.6. NITD to provide office support, infrastructure and the faculty coordinator for IPCC.

3. Confidentiality

Each Party recognises that they may be privy to certain Confidential Information relating to the other Party or its Affiliates and their businesses. In consideration of the benefits accruing to the Parties from their association under this MoU, each Party hereby agrees that it shall:

- 3.1 keep all Confidential Information and other materials passing between it and the other Party confidential and shall not, without the prior written consent of the Party to whom such Confidential Information belongs or relates to (the “**Disclosing Party**”), divulge such Confidential Information to any other Person or use such Confidential Information other than for the purposes of carrying out this MoU;
- 3.4 take all steps as may be reasonably necessary to protect the integrity of the Confidential Information and to ensure against any unauthorised disclosure thereof;

- 3.5 promptly inform the Disclosing Party of any potential or accidental disclosure of the Confidential Information and take all steps, together with the Disclosing Party, to retrieve and protect the said Confidential Information;
- 3.6 ensure that all its employees and/or representatives who are given access to the Confidential Information shall at all times be bound by legally valid and written non-disclosure obligations under their employment contracts; and
- 3.7 use the Confidential Information only for the purpose for which it was provided and not profit from the same in an un-authorised manner to the exclusion of the Disclosing Party.

4. Financial

- 4.1 NITD will pay Institutional membership amount of ₹10 Lakhs per year for first 3 years and subsequently ₹ 5 Lakhs per year to TIFAC.
- 4.2 NITD also agree to share 20% of benefits accrued to NITD in the form of lump sum or royalty income from technology transfer with TIFAC after benefits exceeds ₹10 lakhs.

5. Validity of MoU

This MoU shall be valid for five (5) years and may be extended on mutual consent of both the parties. This MoU can be terminated through prior three months written notice by either of the parties. The MoU may also be revised for deletion/addition/modification of any clause as and when felt necessary through mutual consultations.

6. Termination

If either party fails to fulfill its respective obligations as set out in the aforesaid clauses of this MoU, both parties shall urgently consult one another with a view to correcting the default by the party concerned. If even thereafter the default is not rectified by the defaulting party, the other party may terminate this MoU by giving thirty (30) days' notice in writing to the defaulting party provided that such termination shall not affect the rights of the parties to MoU which have been accrued prior to such termination. In case of termination the IPs that are already taken under the IPCC's scheme will continue its successive steps without any additional cost to NITD.

7. Legal Terms and Conditions

This MOU is accepted in New Delhi and it is agreed by the parties concerned that all matters, claims and dispute arising in respect of the terms and conditions hereof shall be settled and paid by the parties in New Delhi and that in respect of all disputes in connection with or arising out of the MOU, shall be subject to the jurisdiction of the Competent Court at New Delhi and that the said Court alone shall

subject as aforesaid be said to have jurisdiction to hear any suit or take any cognizance or deal with any proceeding in connection with or arising out of this MOU.

8. Dispute resolution

In the event of a disagreement between the Parties arising out of or relating to this MoU or performance hereunder, or the breach thereof, the parties shall attempt to negotiate a mutually satisfactory resolution or settlement. Each Party agrees that during such negotiation, it will faithfully continue performance as outlined herein. Should such negotiations fail, the parties shall refer the dispute to Arbitration, such Arbitration shall be conducted by a sole Arbitrator, agreed upon and appointed by both Parties, in accordance with the (Indian) Arbitration and Conciliation Act, 1996. The decision of the arbitrators shall be final and binding upon the Parties. The venue of the arbitration shall be at New Delhi and the language of the arbitration and the award shall be English.

9. Arbitration and Jurisdiction

If any dispute or difference arises between the Parties hereto as to the construction, interpretation, effect and implication of any provision of this MOU including the rights or liabilities or any claim or demand of any Party against other or in regard to any matter under these presents but excluding any matters, decisions of determination of which is expressly provided for in this MOU, such disputes or differences shall be referred to the sole arbitration appointed by Delhi International Arbitration Centre, Delhi High Court Campus, Shershah Road, New Delhi-110503 and the decision of the Sole Arbitrator shall be final and binding on all the Parties. A reference to the arbitration under this Clause shall be deemed to be submission within the meaning of the Arbitration and Reconciliation Act, 1996, and the rules framed thereunder for the time being in force. The parties also agree with the following:

- 9.1. The venue of the Arbitration shall be at Delhi.
- 9.2. The Parties hereby agree to consent to the extension of time for making the award by the Sole Arbitrator, if the sole arbitrator so requires
- 9.3. Each Party shall bear and pay its own cost of the arbitration proceedings unless the arbitrator otherwise decides in the award.
- 9.4. The provision of this clause shall not be frustrated, abrogated or become in-operative, notwithstanding this MOU expires or ceases to exist or is terminated or revoked or declared unlawful.

9.5. The Courts at Delhi shall have exclusive jurisdiction in all matters concerning this MOU, including any matter arising out of the arbitration proceedings or any award made therein.

9.6. If NITD does not make any claim or demand or raise any dispute or difference in terms the preceding clause within six months from the date on which such claim or demand arises, it shall be deemed to have waived and abandoned such claim or demand or the right to raise such dispute or difference against “TIFAC”.

10. Notices

All notices, requests and other communications (“**Notices**”) under this MoU must be in writing, in the English language and mailed by registered post acknowledgement due or certified mail, or pre-paid courier, or delivered by hand to the Party to whom such Notices is required or permitted to be given, or sent by e-mail:

11. Force Majeure

11.1 No Party shall be responsible for any delays in performance of their duties and obligations under this MoU by reason of any acts of god, including floods, fire, earthquake, volcano, riots, civil wars, civil commotion, terrorist activity or any other event, not attributable to either of the Parties (“**Force Majeure Event**”).

11.2 If any Party becomes aware of circumstances of a Force Majeure Event, which may give rise to or which are likely to give rise to any failure or delay on its part in performing its duties and obligations hereunder, it shall with immediate effect notify the other Parties by the most expeditious method then available and shall inform the other Parties of the period for which it is estimated that such failure or delay shall continue. It is clarified that Covid 19 shall not be treated as a Force Majeure Event unless Covid 19 and any related Government containment measures such as a nationwide lockdown is likely to give rise to any failure or delay on its part in performing its duties and obligations hereunder.

11.3 If the Force Majeure Event persists for more than 30 (thirty) days, the Party whose rights are affected by such Force Majeure Event, may terminate this MoU by way of a prior notice of 30 (thirty) days to the other Parties

12. TIFAC and NITD agree to review the progress of the MoU once in every six months.

13. This MoU shall become effective on and from the date it is signed.

IN WITNESS WHEREOF, both the parties herein set their respective hands on the day, month and year first above written in the presence of following witnesses.

For and on behalf of
TIFAC, New Delhi

For and on behalf of
NIT, Durgapur

(Dr. Pradeep Srivastava)
Executive Director

(.....)
.....

Witnesses:

Witnesses:

1. Signature:
Name:
Address:

1. Signature:
Name:
Address:

2. Signature:
Name:
Address:

2. Signature:
Name:
Address:

NOTE SHEET

Date: 16/09/2022

In reference to the offer of Services relating to IP Protection and Commercialization given by the TIFAC, DST, Gov. of India through File No. P-16015/4/2022-HoD (IPR)-TIFAC Dated 03/08/2022, the offer has been reviewed by the institute IPR committee through meetings conducted in physical and online mode. Based on this, the committee recommended the proposal and forwarded the same to the MoU committee. The same has also been recommended and was placed in the Extraordinary Senate Meeting (Agenda Item No. 2) held on November 29, 2022.

The MoU has also been passed through the Senate.

On the basis of the Senate recommendation, approval for the signing of the MoU may kindly be given.

Anupam Ban 30/11/22
Director, NIT Durgapur

Approved
Chairman
30.11.2022
Chairman, NIT Durgapur

Annexure - G

To

19.01.2023

The Director

NIT Durgapur

Durgapur – 713209

Sub: Appeal for recognition of "NIT Durgapur Faculty Association" and to grant permission to use the address of the Institute as address of the said Association.

Dear Sir,

1. The Faculty members of the Institute, in a meeting held on 15.12.2022, resolved after detailed deliberations to form a Faculty association named **"NIT Durgapur Faculty Association"** like many other NITs and IITs have. The members also constituted an initial Executive Committee (Governing Body) comprising of seven members with mandates to complete all official formalities like preparation of Memorandum of Association, Regulations / Bye laws of the Association (**Annexure 1 – Resolutions of the meeting**).
2. It may be noted that Rule 5.d(i) of Central Civil Service (Recognition of Service Associations) Rules, 1993 (**Annexure – II**) requires a minimum 35% of total number of a category of employees to form a recognised Association. Willingness has already been obtained from 68% of the total present faculty members to join the Association as a member till date (**Annexure – III**).
3. The importance of the role of a faculty association at NIT has been appreciated by the Council of NITSER too in its "Functions" (sl. No. 10) (**Annexure – IV**).
4. In a General meeting held on 19.01.2023, the members accepted after minor modifications the draft Memorandum of Association and the Regulations, prepared and placed by the Executive Committee (Governing Body) as per the requirement of the West Bengal Society Registration Act 1961 (**Annexure – v, Resolutions of the meeting & the MoA**). An application for the registration of "NIT Durgapur Faculty Association" will be submitted shortly.
5. In view of the important role that a Faculty Association can play towards the overall development of an institution, it is appealed to give recognition to the newly formed "NIT Durgapur Faculty Association" and grant permission to use "NIT Durgapur Faculty Association, NIT Durgapur, Mahatma Gandhi Avenue, Durgapur 713209" as its official contact address.

With best regards,

Sudit S. Mukhopadhyay
Prof. Sudit S. Mukhopadhyay 19/01/2023

(Secretary)

Kalyan Adhikari 19/01/2023
Prof. Kalyan Adhikari

(President)

Resolution of the meeting of the faculty members, dated December 15th 2022

The first meeting of faculty members in order to formation of Faculty Association was held on December 15th 2022 in the Assembly Hall. The resolutions of the meeting are given below which have been unanimously decided by the faculty members present (list attached):

1. Formation of NIT Durgapur Faculty Association has been decided.
2. Unanimous decision has been made to register the Association in the name of "NIT Durgapur Faculty Association".
3. Initially seven members have been selected for the formation of the Executive body/ Governing body of the Association which is required for the registration of the Association. Later this executive body will be dissolved and new body will be made through general election process.
4. Initial Rs 500 has been decided as yearly membership fees for the association.
5. Members authorised the Executive body to work for the registration of the NIT Durgapur Faculty Association.

Executive Body of the NIT Durgapur Faculty Association

1. **President-** Dr. Kalyan Adhikari, Professor, Department of Earth and Environmental Studies.
2. **Vice President-** Dr. Susmita Dutta, Professor, Department of Chemical Engineering.
3. **General Secretary-** Dr. Sudit S. Mukhopadhyay, Professor, Department of Biotechnology
4. **Assistant General Secretary-** Dr. Supriya Bera, Associate Professor, Department of Metallurgical and Material Science
5. **Treasurer-** Dr. Anupam De, Associate Professor, Department Management Studies
6. **Member-** Dr. Sanghita Bhattacharjee, Asst. Professor, Department of Computer Science
7. **Member-** Dr. Tapas Saha, Professor, Department of Electrical Engineering

Sudit S. Mukhopadhyay
(Secretary)

Adhikari 15/12/2022
(President)

No. 2/10/80/-JCA
CENTRAL CIVIL SERVICES (RECOGNITION OF SERVICE ASSOCIATIONS)
RULES, 1993

MINISTRY OF PERSONNEL , PUBLIC GRIEVANCES & PENSIONS

(Department of Personnel & Training)

NOTIFICATION

New Delhi, the 5th November, 1993

G.S.R. 689(E).-In exercise of the powers conferred by the proviso to article 309 and clause (5) of article 148 of the Constitution, after consultation with the Comptroller and Auditor General in relation to persons serving in the Indian Audit and Accounts Department, and in supersession of the Central Civil Services (Recognition of Service Associations) Rules, 1959 except as respects things done or omitted to be done before such supersession, the President hereby makes the following rules, namely :

1. Short title and commencement : (1) These rules may be called the Central Civil Services (Recognition of Service Associations) Rules, 1993.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. Definition : In these rules, unless the context otherwise requires, -

a. "Government" means the Central Government.

b. "Government servant" means any person to whom the Central Civil Services (Conduct) Rules, 1964, apply.

3. Application : These rules shall apply to Service Associations of all Government servants including civilian Government servants in the Defence Services but shall not apply to industrial employees of the Ministry of Railways and workers employed in Defence Installations of Ministry of Defence for whom separate Rules of Recognition exist.

4. Service Associations already recognized : A Service Association or a Federation which has been recognized by the Government before the commencement of these rules and in respect of which the recognition is subsisting at such commencement, shall continue to be so recognized for a period of one year from such commencement or till the date on which the recognition is withdrawn, whichever is earlier.

5. Conditions for recognition of Service Associations : A Service Association which fulfills the following conditions may be recognized by the Government, namely :-

- a. An application for recognition of Service Association has been made to the Government containing Memorandum of Association, Constitution, Bye-laws of the Association, Names of Office-Bearers, total membership and any other information as may be required by the Government;
- b. the Service Association has been formed primarily with the object of promoting the common service interest of its members;
- c. membership of the Service Association has been restricted to a distinct category of Government servants having common interest, all such Government servants' being eligible for membership of the Service Association;
- d. (i) The Association re-presents mini-mum 35 per cent of total number of a category of employees provided that where there is only one Association which commands more than 35 per cent membership, another Association with second highest membership, although less than 35 per cent may be recognized if it commands at least 15 per cent membership;

(ii) The membership of the Government servant shall be automatically discontinued on his ceasing to belong to such category;
- e. Government employees who are in service shall be members or office bearers of the Service Association;
- f. the Service Association shall not be formed to represent the interests, or on the basis, of any caste, tribe or religious denomination or of any group within or section of such caste, tribe or religious denomination;
- g. the Executive of the Service Association has been appointed from amongst the members only; and
- h. the funds of the Service Association consist exclusively of subscriptions from members and grants, if any, made by the Government, and are applied only for the furtherance of the objects of the Service Association.

6. Conditions subject to which recognition is continued : Every Service Association recognized under these Rules shall comply with the following conditions, namely :-

- a. the Service Association shall not send any representation or deputation

except in connection with a matter which is of common interest to members of the Service Association.

- b. the Service Association shall not espouse or support the cause of individual Government Servants relating to service matters;
- c. the Service Association shall not maintain any political fund or lend itself to the propagation of the views of any political party or a member of such party;
- d. all representations by the Service Association shall be submitted through proper channel and shall be addressed to the Secretary to the Government/Head of the Organisation or Head of the Department or office;
- e. a list of members and office bearers and up-to-date copy of the rules and an audited statement of accounts of the Service Association shall be furnished to the Government annually through proper channel after the general annual meeting so as to reach the Government before the 1st day of July each year.
- f. The Service Association shall abide by, and comply with all the provisions of its constitution/by-laws;
- g. Any amendment in the constitution/by-laws of the Service Associations, after its recognition under these Rules, shall be made only with the prior approval of the Government;
- h. The Service Association shall not start or publish any periodical, magazine or bulletin without the previous approval of the Government;
- i. The Service Association shall cease to publish any periodical, magazine or bulletin, if directed by the Government to do so, on the ground that the publication thereof is pre-judicial to the interests of the Central Government, the Government of any State or any Government authority, or to good relations between the Government of India and the Government of India and the Government of a foreign state;
- j. the Service Association shall not address any communication to, or enter into correspondence with, a foreign authority except through the Government which shall have the right to withhold it;
- k. the Service Association shall not do any act or assist in the doing of any act which, if done by a Government servant, would contravene any or the provisions of the Central Civil Services (Conduct) Rules, 1964; and
- l. Communications addressed by the Service Association or by any office-

bearer on its behalf to the Government or a Government authority shall not contain any disrespectful or improper language.

7. Verification of membership : (1) The verification of membership for the purpose of recognition of a Service Association shall be done by the Check-Off-System in pay-rolls at such intervals and in such manner as the Government may by order prescribe.

(2) The Government may, at any time, order a special verification of membership if it is of the opinion, after an enquiry, that the Service Association does not have the membership required under sub-clause (i) of clause (d) of rule 5.

8. Withdrawal of Recognition : If, in the opinion of the Government, a Service Association recognized under these rules has failed to comply with any of the conditions set out in rule 5 or rule 6 or rule 7 the Government may after giving an opportunity to the Service Association to present its case, withdraw the recognition accorded to such Association.

9. Relaxation : The Government may dispense with or relax the requirements of any of these rules to such extent and subject to such conditions as it may deem fit in regard to any Service Association.

10. Interpretation : If any question arises as to the interpretation of any of the provisions of these rules or if there is any dispute relating to fulfillment of conditions for recognition it shall be referred to the Government, whose decision thereon shall be final.

[F.No. 2/10/80-JCA (Vol.IV)]
J.S. Mathur, Jt. Secy.

Resolutions of General Body Meeting of NIT Durgapur Faculty Association held on
19/01/2023 at 5.30pm at Assembly Hall

1. Draft Memorandum of Association and Regulations was placed before the General body members by the President of the Association. Detail deliberations were made by the members. The MOA and the Regulations after few modifications have been accepted and approved by the members present in the General Body meeting.
2. Address of the Association was proposed as below:
NIT Durgapur Faculty Association, NIT Durgapur, M.G. Avenue, Durgapur 713209,
Paschim Bardhaman, West Bengal, India
3. To Apply to NIT Durgapur Authority for recognition of the NIT Durgapur Faculty Association and to allow to use the proposed address as communication address of the Association.

The meeting was ended with thanks to all the members by the Secretary.

Sudit S. Mukhopadhyay
Prof. Sudit S. Mukhopadhyay
(Secretary)

Prof. Kalyan Adhikari 19/01/2023
Prof. Kalyan Adhikari
(President)

An emergency General Body Meeting of NIT Durgapur Faculty Association has been called at 5.30pm on 19 Jan 2023 at Assembly Hall to discuss the following agenda:

1. To discuss and finalize the Memorandum of Association and Regulation of the Association.
2. To discuss regarding address of Association and seeking recognition of the Association from the competent Authority of NIT Durgapur

Members present

1. ARINDAM MODAK Arindam 19/1/23
2. ANITA PAL - APal 19/01/2023
3. TAPAS KUMAR SAHA - Tapas 19/1/23
4. Sudit S. Munipadhyay - Sudit 19/1/23
5. Debasis Chakraborty - Debas 19/1/23
6. Kazy Sufia Uhaman - Kazy 19/1/23
7. Sujay Saha Sujay
8. S. CHANDER - S. Chander
9. Jayak Jayak
10. Parag Gaha Thakur - Parag
11. Sutanuka Banerjee 19.01.23
12. Mamata Dalui - Mamata
13. Prasannjit Choudhury - Prasannjit 19.01.23
14. Apurba Dey - Apurba 19.01.2023
15. Rajnarayan Saha - Rajnarayan 19.01.23
16. D. Suvul - D. Suvul 19/1/23
17. Shreya Karmakar - Shreya 19/1/23
18. SUMAN HALDER - Suman Halder, 19/1/23
19. Chiranjib Khatun - Chiranjib 19/01/23
20. Sandip Mondal - Sandip Mondal
21. Ishtan Ahmed Ishtan
22. Manoj Kr. Dey - Manoj 19/1/23
23. Sajal Mukhopadhyay Sajal 19/01/23
24. Subhas Chandra Saha Subhas 19/1/23
25. Gangadhar Bhattacharya Gangadhar 19/1/23
26. Jitendra Kumar Bhowmik Jitendra 19/1/23
27. A.K. Mitra - A.K. 19/01/2023
28. A. De, DMS A. De 19/1/23
29. Ashish Bhattacharya Ashish 19/01/23
30. Gyanendra Banerjee Gyanendra 19/1/23
31. Anjan Ghosh - Anjan 19/1/23
32. Ujjwal Kanti Paul - Ujjwal 19/01/23
33. Susmita Dutta - Susmita 19/1/23
34. Sougata Saha Sougata 19/1/23
35. K. Aikat K. Aikat 19/1/23
36. A. Hens, Ahas A. Hens 19.1.23
37. Bikash Kr Mondal 19.1.2023
38. Aniruddha Bhattacharya 19.01.2023
39. Aniruddha Dey 19.01.2023
40. Subhodh Kumar 19.01.2023
41. A. Samanta A. Samanta 19/01/23
42. K. C. Garg K. C. Garg 19/01/23
43. S. Banerjee S. Banerjee 19/01/23
44. S. N. Mahato - S. N. Mahato 19.01.23
45. D. Mondal - D. Mondal 19/01/23
46. P. Kumar P. Kumar 19/1/23
47. A. K. Chakraborty A. K. Chakraborty 19/1/23
48. Goutam Panigrahi 19.1.23
49. Nanda Dulal Jana 19.1.23
50. P. Saha 19/01/23

Contd. from page ①

81. K HINTYALU M. P. PRAMATH ~~Pratham~~ 19/01/23

51. SOUMEN BASU - ~~Basu~~ 19.01.2023
52. HEMACHANDR SUBRAMANIAN ~~SB~~ 19/01/23
53. KARTHIKEYAN J - ~~SB~~ 19/01/2023
54. JAYDEEP HOMLADDER - ~~SB~~ 19/01/2023
55. ANKUSH ACHARYA ~~acharya~~ 19/01/23
56. SUPRIYA PAZ ~~SB~~ 19/01/23
57. PRONAB ROY - ~~SB~~ 19/01/23
58. Dipak Das - ~~SB~~ 19.1.23
59. SANKAR CH. MOI ~~SB~~ 19/01/23
60. SOURAV LAHA ~~Sourav Laha~~ 19.01.23
61. MANIKA SAHA ~~Manika~~ 19.01.21
62. SUJAN KUMAR SAHA ~~SB~~ 19/01/23
63. Sirshendu Mondal ~~SB~~ 19/01/23
64. Morenal Ranti Mandal - ~~MMandal~~ 19/01/2023
65. Aashish Kumar Bohue ~~A~~ 19/01/2023
66. Supriya Berce - ~~SB~~ 19.01.2023
67. Tandha Pal - ~~T. Pal~~ 19/01/2023
68. MOUSUMI SAHA - ~~Maha~~ 19/01/2023
69. Sanjit Sadhu - ~~SB~~ 19/01/23
70. Apurba Rayal - ~~SB~~ 19/01/23
71. Kallol Khan - ~~SB~~
72. Nilanjan Chattaraj - ~~SB~~ 19.01.2023
73. ANIRUDDHA CHANDRA - ~~SB~~ 19/01/23
74. R. Ghatak - ~~SB~~ 19/01/2023
75. S. Kundu ~~SB~~ 19/01/2023
76. S. Kumar ~~SB~~ 19/01/23
77. A. K. MAL ~~SB~~ 19/01/2023
78. NILANJAN BISWAS ~~SB~~ 19/01/2023
79. RAJAT MAHAPATRA ~~SB~~ 19/01/2023
80. RAJIB KAR ~~SB~~ 19.07.23
82. DEBASIS MITRA , ~~SB~~ 19/01/23
83. Kalyan Adhikari. ~~SB~~
84. Kaushik Mandal ~~SB~~
85. M. K. MONDAL - ~~SB~~ 19/01/23
86. DEB RANJAN BANERJEE, ~~SB~~ 19.01.23
89. SUBHAS GHOSH ~~SB~~ 19/01/23
90. L K Dey ~~SB~~ 19/01/23
91. S Basu ~~SB~~ 19/01/23

<http://nitcouncil.org.in/index.php/site/console/siteAboutCouncil>

Council of NITSER

About the Council

The Council of NITSER is the supreme governing body of India's 31 National Institute of Technology (NITs), Indian Institute of Engineering Science and Technology (IIST), Shibpur (West Bengal) and Indian Institute of Science Education and Research (IISERs) as per provisions under Section 30 of the NITSER Act, 2007. As like the Council of IITs and modeled very much similarly to its IIT counterpart, the Council of NITSER consists of Chairperson-Board of Governors, Director of all NITs, IIST and IISER along with the Government nominees from various sectors with the Education Minister, Govt. of India as its Chairperson and Secretary, Department of Higher Education as Vice - Chairperson of the Council of NITSER. The Council of NITSER is the highest decision making body and is answerable only to the Government of India. The Council is expected to meet regularly once in a year and take steps conducive for maximum growth of the NITs as whole in the near future.

Functions:

1. To recommend regulations regarding transactions of business by the Council viz., frequency of meeting, quorum for a meeting and such other connected business transactions;
2. To recommend guidelines and regulations regarding empowerment of Chairman of the Council to deal with specific matters as well as matters of emergency on behalf of the Council in consultation with the Standing Committee;
3. To advise the Chairman of the Council whether an item requires urgent consideration by him.
4. To finalise agenda items for the consideration of the council.
5. To advise the Chairman of the Council on specific items within his purview as well as any emergency matters that may be referred to him;
6. To draft resolutions which would empower the council to make statutes of common policy covering all NITs;
7. To formulate guidelines on items/issues to be considered and approved by the Standing Committee on behalf of the Council;
8. To recommend the structure of the Council's Secretariat for consideration of the Government;
9. To screen all proposals coming within the purview of the Council under the National Institutes of Technology Act, 2007 and make appropriate recommendations to the council;
10. To consider all items within the jurisdiction of the Council and referred by the various Board of Governors of the individual NITs or the individual Directors of the NITs or other groups within the NITs, such as the Senates and the Faculty Associations or the Council for items within his purview for emergent consideration or to the Council itself at a normal scheduled meeting or for final disposal for items delegated to the Standing Committee.

West Bengal Societies Registration Act, 1961

Memorandum of Association
of
NIT DURGAPUR FACULTY ASSOCIATION

1. Name of the Society shall be : NIT Durgapur Faculty Association
2. The Registered office of the Society shall be situated at : National Institute of Technology Durgapur
M. G. Road, Durgapur- 713209
Dist - Paschim Bardhaman, West Bengal.
3. The objects for which the society is established are:
 - a) To encourage the diffusion of useful knowledge and promote development in engineering, science, humanities, social sciences and management towards enhancing the brand image of NIT Durgapur in the country and globally;
 - b) To foster a spirit of unity and goodwill among the faculty members so as to leverage their combined strength for the betterment of the Institute;
 - c) To strive for the welfare of NIT Durgapur faculty members and students, work for the protection of their legitimate rights, and also nurture educational/professional excellence among them;
 - d) To promote the common service interests of its members
 - e) To organize social welfare activities, lectures, debates, seminars & excursion, maintain website and publish periodicals for the diffusion of knowledge;
 - f) To undertake all such other lawful acts, deeds or things as are incidental or conducive to the attainment of any or all of the above objects.

The functions and objects of the society shall always remain restricted within the meaning of the section 4(2) of the West Bengal Societies Registration Act 1961 irrespective of any object mentioned in the present document in agreement or opposed to the said section.

The functions and objects of the society shall always remain restricted within the Rules 1 to 10 of Central Civil Service (Recognition of Service Associations) Rules, 1993 (No.2/10/80/-JCA) and any modification thereafter irrespective of any object mentioned in the present document in agreement or opposed to the said rules.

Before commencing the activities of the Society necessary approval/ permission will be obtained from the Govt. or other appropriate / concerned authorities as and when required.

The income and properties of the society whatsoever derived or obtained shall be applied solely towards the promotion of the objects of the society and no portion thereof shall be paid to or divided amongst any of its members by way of profits.

[Signature]

Sudat S. Munhopadhyay

4. The Names, Address and Descriptions of the members of the Governing Body :

SL NO.	NAME & Phone No.	PHOTO	ADDRESS	DESCRIPTION
1.	Dr. Kalyan Adhikari		Department of Earth and Environmental Studies NIT Durgapur M.G. Avenue Durgapur -713209	President
2.	Dr. Susmita Dutta		Department of Chemical Engineering NIT Durgapur M.G. Avenue Durgapur -713209	Vice President
3.	Dr. Sudit S. Mukhopadhyay		Department of Biotechnology NIT Durgapur M.G. Avenue Durgapur -713209	Secretary
4.	Dr. Supriya Bera		Department of Metallurgical and Materials Engineering NIT Durgapur M.G. Avenue Durgapur -713209	Asst. Secretary
5.	Dr. Anupam De		Department of Management Studies NIT Durgapur M.G. Avenue Durgapur -713209	Treasurer
6.	Dr. Sanghita Bhattacharjee		Department of Computer Science and Engineering NIT Durgapur M.G. Avenue Durgapur -713209	Member
7.	Dr. Tapas Kumar Saha		Department of Electrical Engineering NIT Durgapur M.G. Avenue Durgapur -713209	Member

Dr. Kalyan Adhikari

Sudit S. Mukhopadhyay

5. We the several persons whose names, address and occupations are hereunto subscribed are desirous being formed into an association in pursuance of this memorandum of association.

SL NO	SIGNATURE	ADDRESS	OCCUPATION
1.	Dr. Kalyan Adhikari	Department of Earth and Environmental Studies NIT Durgapur M.G. Avenue Durgapur -713209	Service
2.	Dr. Susmita Dutta	Department of Chemical Engineering NIT Durgapur M.G. Avenue Durgapur -713209	Service
3.	Dr. Sudit S. Mukhopadhyay	Department of Biotechnology NIT Durgapur M.G. Avenue Durgapur -713209	Service
4.	Dr. Supriya Bera	Department of Metallurgical and Materials Engineering NIT Durgapur M.G. Avenue Durgapur -713209	Service
5.	Dr. Anupam De	Department of Management Studies NIT Durgapur M.G. Avenue Durgapur -713209	Service
6.	Dr. Sanghita Bhattacharjee	Department of Computer Science and Engineering NIT Durgapur M.G. Avenue Durgapur -713209	Service
7.	Dr. Tapas Kumar Saha	Department of Electrical Engineering NIT Durgapur M.G. Avenue Durgapur -713209	Service

Witness to the Above Signatures,

Signature: Schongder
(SUVAMOY CHANGDER)

Address: Dept. of CSE, NIT DURGAPUR, W.B, PIN- 713209

Occupation: Service.

Sudit S. Mukhopadhyay

Sudit S. Mukhopadhyay

**THE WEST BENGAL SOCIETIES
REGISTRATION ACT, 1961**

**Regulations
of
NIT DURGAPUR FACULTY ASSOCIATION**

REGULATION OF MEMBERSHIP:

1. ADMISSION :

- a) The signatories to the Memorandum of Association & the office bearers of the Governing Body of the society shall first be the members of the Society.
- b) The Governing Body may admit to membership any person of any caste, creed or sex who is a Faculty member on pay roll of NIT Durgapur and agreed in writing to be bound by the Memorandum of Association and regulations of the Society and who is in the opinion of the objects of the Society.

The Governing Body shall have the sole and absolute power to admit member

2. TYPES OF MEMBERS :

- i) Member : Any person, qualified to be a member and paying prescribed membership fee may be admitted as member of the Society.

3. CESSATION OF MEMBERSHIP :

Any member shall cease to be a member –

- (a) on the acceptance of his resignation from membership,
- (b) on his becoming insane or insolvent,
- (c) on his conviction of any offence in connection with the formation, promotion, management or conduct of affairs of society or a body corporate or of any offence involving moral turpitude.
- (d) On superannuation or resignation from the service of NIT Durgapur
- (e) On his/ her ceasing to belong the particular category i.e. Faculty member

4. REGISTER OF MEMBERS :

The society shall maintain a Register of members containing the names, address and their occupations, the date of admission and of cessation of membership. The Register will be kept open for inspection of the members of the society on requisition. All entries required to be made therein shall be entered within a period of 15 days.

5. RIGHTS AND OBLIGATIONS OF MEMBERS :



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Sudesh S. Mukhopadhyay

Any member of the society has the right

- (a) to elect and to be elected in any election of the association;
- (b) to submit suggestion for discussion to the Governing Body and sub-committee on any matter relating to association;
- (c) to inspect the accounts and the proceedings of the meetings of the association on any working day giving a notice of seven days on appointment with the secretary;
- (d) to pay his/her subscription within the prescribe time. Defaulting members shall not be allowed to take part or vote in a meeting. Members shall have one vote each.

(e) to cast vote in the Governing Body Elections/ General Body meeting of the Association

6. **EXPULSION & REMOVAL :**

Frequent actions of any member, if found by the Governing Body detrimental to the interest and is in violation of the rules and regulations of the Society, he may be after due enquiry, censured, suspended or expelled from the members by the Governing Body. In that case the Governing Body shall first serve the member concerned with a show cause showing therein the charges framed and ask him to submit his statement of defence within a month. On receipt of the explanation, the Governing Body shall have the power to take a suitable action against the delinquent member after allowing him to defend his case. If no reply to show cause notice is received within a month, the Governing Body may take an ex- party decision.

For any act of expulsion or termination no such member shall be entitled to prefer any claim for compensation or damage even if proved on subsequent date that such of expulsion or termination was wrongful and/or unlawful.

GOVERNING BODY

1. Composition, election / appointment, registration /removal, terms of office :

There shall be a Governing Body (GB) consisting of not less than 7 members and not more than nine members. The officebearers of Governing Body shall comprise of President, Vice-President, Secretary, Asst.Secretary, Treasurer and other Committee members. The Office bearers & other Committee members shall be elected at the Annual General Meeting (AGM)

The resignation and removal of the GB members shall be dealt with as has been prescribed as in the case of other members. The recommendation of GB will be placed in the AGM / Special General Meeting for necessary action.

The term of office of the GB shall ordinarily be usually two years, unless it is dissolved / terminated early under unforeseen circumstances. After election, the old Governing



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Body will continue to function till the new Body takes over charge which shall under no circumstances be more than 30 days from the date of election. Any GB member may contest election maximum for two terms.

2. Meeting :

A meeting of Governing Body shall be held at least once in three months at such place, date and time, as the president or the Secretary may determine . Any four members of the Governing Body may requisition the meeting and the Secretary shall summon the same within seven days and failing which the President may do so provided no business other than specified in the notice shall be transacted in such meeting.

3. Notice and quorum :

7 days' notice of the meeting specifying the place, time and the general nature of business to be transacted, shall be given to every member of the Governing Body. Emergency meeting may be called on 24 hours notice. 2/3rd members personally present shall constitute a quorum for the meeting and if a quorum is not present within 30 minutes of the time, members present shall adjourn the meeting.

4. Procedure of the meeting:

The President or in his/her absence the Vice-President shall preside over all meetings of the Governing Body and in their absence member present shall elect a Chairman of

the meeting . All questions before the meeting will be decided by a majority of votes

, each members having one vote . The President or the Chairman shall have a secondor casting vote in addition to his own vote in case of equality of votes.

5. Powers and Duties of the Governing Body :-

The Governing Body shall have general power of supervision and conduct over all the affairs of the society and in particular shall discharge the following duties:-

- (i) To appoint sub-committee with such power and duties as may be considered necessary or expedient.
- (ii) To accept donation, gift, subscription, grant, movable or immovable property for the objects of the society.
- (iii) To keep proper accounts of the society and to open bank account in the name of the Society in one or more banks.
- (iv) To co-opt not more than two members to the Governing Body.
- (v) To appoint a person or persons on payment to assist the Secretary / Treasurer in the maintenance of account, etc.



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- (vi) Society can acquire both movable and immovable property for the Society.
- (vii) In case of any dispute arises among the members, then a Dispute Resolve Committee will be formed by vote and the decision of the Committee shall be binding on all the members.

SAFE CUSTODY OF PROPERTIES

1. The Governing Body shall be responsible for the safe custody of the funds, properties and assets of the society.
2. The funds of the society shall be kept in banks/post offices

BOOKS OF ACCOUNTS & INSPECTION

The books of accounts and other statutory books shall be kept at the registered office and shall be open to inspection of the members at such time and place as the Governing Body directors on a written request made by any member.

ACCOUNTING YEAR

The accounting year of the society shall be from 1st day of April of each year to 31st day March of following year.

GENERAL MEETINGS

Annual General Meeting :

Notice : The Secretary shall annually call the Annual General Meeting as per provision of W.B.S.R. Act 1961 giving at least 14 days' notice to all members. The notice shall contain the place, date, day and time of the meeting.

Agenda : The business to be transacted at the A.G.M shall be :

- (a) to confirm the minutes of the last A.G.M and of special general meeting if any,
- (b) to adopt with or without modification the report of the working of the Society for the previous year;
- (c) to pass audited accounts of the Society for the previous year ended;
- (d) to appoint qualified Auditor or Auditors;
- (e) to transact such business as may be fixed by the Governing Body;
- (f) to transact such other business as may be brought forward by giving 14 days previous notice from any member;
- (g) to conduct general election.

Quorum of the meeting : 1/3rd members personally present at the commencement of the Meeting shall constitute the quorum.

Manner and Method of Voting : The Chairman of the meeting shall decide the manner



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and method of voting at the outset of the meeting.

Special General Meeting ;

A Special General Meeting may be convened by the Governing Body at any time in view of urgency of the matter. At least 7 days' notice shall be given to every member for special general meeting.

Members may request the Governing Body for special General meeting by placing a requisition signed by 2/3rd of total members. In that case the Governing Body shall convene a special general meeting within a month from the receipt of such notice. In default by the Governing Body, the requisitionists shall hold such meeting provided no business other than those specified in the notice shall be transacted.

Extra-ordinary general meeting :

The Governing Body may direct to convene an Extra-ordinary general meeting for consideration of addition, alteration or amendment of the memorandum/regulations, of the Society. 7 days' notice along with the proposed draft of change shall be sent to the members of the meeting. The resolution for change, amendment etc. of the Memorandum and Regulations be carried out if accepted by the three fourths of the members present at the meeting.

ELECTION PROCEDURES

- The Returning Officer (RO) for the conduct of the general election shall be elected sufficiently in advance in a GB meeting.
- The returning officer shall issue notice 10 days prior to the date fixed for election.
- The RO shall conduct election by secret ballot.
- RO shall fix last date for receipt of nomination, scrutiny, withdrawal and election.
- RO shall prepare the ballot paper bearing in mind the need to preserve utmost secrecy of the ballot.
- Counting of votes shall be conducted by the RO in the presence of contestants.
- The decision of the RO shall be final and binding on any objections or recounting requests raised by the contestants.
- The ballot papers shall be destroyed by RO 30 days after declaration of election results if no complaints are pending.
- RO shall be free to adopt any other steps, he thinks essential for conduct of a free and impartial election.
- RO shall have the freedom to seek the assistance of any member or members other than the contestants.
- RO shall not contest for EC election.

Election campaigning by the candidates shall be limited to the following activities only

i) Emails, e messages from the candidate to the members

ii) Election debates to be organized by the Governing Body and attended by the members where all the candidates will enunciate their vision and plan and reply to the questions from the members present.



Sudat S. Manoharadhyay 8/10

DUTIES OF THE OFFICE BEARERS

President :

- He/She shall
- (a) preside over all meetings of the Association;
 - (b) take all disciplinary actions such as removals, dismissals etc.
 - (c) advice the Secretary in any matter requiring urgent attention;
 - (d) call emergency meeting.

Vice- President :

In the absence of the President, the Vice President shall perform all the duties of the President.

Secretary :

- shall
- (a) convene all meetings of the Society;
 - (b) maintain minute books of all meetings;
 - (c) issue general circulars and notices;
 - (d) receive all applications for membership which shall be placed before the Governing Body;
 - (e) sign on behalf of the Society all receipts for all sums received as subscriptions etc.;
 - (f) sign and give pay order on all bills for payments;
 - (g) get the accounts of the Society audited by a Chartered Accountant;
 - (h) ensure compliance with statutory requirements;
 - (i) transact all other business subject to the direction of the Governing Body.

Asst. Secretary :

In the absence of the Secretary, the Asst. Secretary shall perform all the duties of the Secretary.

Treasurer :

He/She shall (a) collect and receive all sorts of subscription, donations and deposit of money and grant receipts thereof ; (b) maintain and keep cash book and such other accounts as are necessary; (c) operate bank account jointly either with the Secretary or the president; (d) prepare the budget in consultation with the Secretary for consideration of the Governing Body.

MAINTENANCE AND AUDIT OF ACCOUNTS

The Society shall maintain books of accounts as required under Sec.15(1)(a), (b) of the Act. The accounts shall be audited by a duly qualified auditor as stated in Sec.15(2) of the Act.



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SUIT & LEGAL PROCEEDINGS

All suits and legal proceedings by or against the Society shall be in the name of the Secretary or such person as shall be appointed by the Committee. Any such legal proceedings will be under the Jurisdiction of Durgapur Court.

ALTERATION OF MEMORANDUM & REGULATIONS

The Memorandum and Regulations may be altered, modified, rescinded or added by special resolutions passed by the 3/4th members in a general meeting called for the purpose.

The Governing Body shall have powers to make, alter modify or rescinded such regulations as may be considered necessary in the interest of smooth functioning of the society.

DISSOLUTION OF SOCIETY

Subject to the provision of Sections 24 & 27 of the West Bengal Societies Registration Act.1961 or any Statutory modifications thereof, the Society may be dissolved by a resolution to that effect passed by 3/4th members of the society at a general meeting. The said meeting shall also decide the manner of disbursement of the funds and assets of the Association, if any, after dissolution.

We, the undersigned members of the Governing Body of the Society, do hereby certify that the above is a true copy of the Regulations of Society.

Signature of three members of the Governing Body :

1. *Abhishek Singh (Prot. Kalyan Adhikari)*
2. *Sanghita Bhattacharjee*
3. *Sudit S. Munhopadhyay*

Dated :19th Day of January , 2023.

Abhishek Singh

Sudit S. Munhopadhyay

Annexure - H

LIST OF COURT CASES AGAINST NIT DURGAPUR IN THE CALCUTTA HIGH COURT:-

<u>SL No.</u>	<u>Case No.</u>	<u>Date of Filing</u>	<u>Name Of Concerned Parties /Organization</u>	<u>Case Status</u>	<u>Case Detail</u>
1.	R.V.W. No 133 of 2022	19.07.2022	NATIONAL INSTITUTE OF TECHNOLOGY, DURGAPUR VS BIJOY KRISHNA DAS & ORS	PENDING	The Hostel/Mess employees working in various Hostels of R.E. College enjoyed revised pay scale under Govt. of West Bengal w.e.f. 01.04.1989 vide Govt. order No. 1583(100)- Edn.(U) dated 19.10.1981, w.e.f. 01.01.1996 vide order No. 148(11) – Edn.(U)/IU-8/96 Pt. Dated 14.02.2000 and w.e.f. 01.01.2006 vide Memorandum Issued by the Finance Department, Govt. of West Bengal respectively. They are appointed by the respective Hostel Committee/ Central Student Welfare committee.
2.	R.V.W. No 132 of 2022	19.07.2022	NATIONAL INSTITUTE OF TECHNOLOGY, DURGAPUR VS ANANGA MOHAN MAJHI & ORS	PENDING	All the 37 applicants are engaged by the students in their respective Messes. Students pay their wages from the student fund and NIT Durgapur is not involved in their engagement and does not pay anything to these 37 applicants. The petitioners have not been appointed either by college or by Central Hostel Committee. The petitioners have been recruited by the students themselves and their salary is borne by the students.
3.	FMA 76 of 2020	02.01.2019	AVERI MUKHOPADHYAY VS UOI &ORS.	PENDING	The case filed by Averi Mukhopadhyay states the non-appearance of her name in the shortlist of candidates for the post of Assistant Professor inspite of possessing excellent academic background requisite for the post and other obligations and in addition for the relaxation of certain norms and showing favour towards respondent No 8 in order to accommodate her for the said post.
4.	CPAN 1164 of 2019	29.09.2019	ARANYA BASU ROY VS UNION OF INDIA & ORS	DISPOSED OF	Case was filed by the employees of erstwhile NATIONAL TECHNICAL MANPOWER INFORMATION SYSTEMS (NTMIS) on 29.09.2019 for absorption in suitable permanent posts of the Institute.
5.	W.P. No.24114 (W) of 2016	29.09.2016	SANDHYA RANI KAR VS NIT	PENDING	Matter relating to compassionate employment of Sanat Kar whose father was mess employee of NIT. New application (CAN No. 2100 of 2015) filed in 2015 by mother is listed before High Court but not yet served on us.

LIST OF COURT CASES AGAINST NIT DURGAPUR IN THE CALCUTTA HIGH COURT:-

6.	W.P.NO.20 934 (W) OF 2011	05.12.2011	KALPANA SHARMA (DAS) –VS- UNION OF INDIA AND ORS.	PENDING	Dismissed for default on 19.03.2013. Restoration application filed. Petitioner seeking letter of appointment as she was working as office assistant in the MBA Department since 2005 at Rs. 3500/- per month. Application for restoration filed along with application for condonation of delay. The said applications are due to be listed before the Hon'ble Justice Subroto Talukdar.
7.	CPAN 129 of 2016	27.01.2016	ASIMA LAHIRI VS NIT	DISPOSED OF	Appeal filed by NIT challenging order of Single Judge, preferring permanent absorption of Ms. Lahiri on compassionate grounds and giving her full scale together with arrears. Petitioner was compassionately employed at Rs.8,000/- in LDC post as Library Assistant on death of her husband, Prof. Lahiri Division Bench admitted the appeal on condition that the NIT would employ.
8.	W.P.2580 (w) of 2011	07.02.2011	SUBHASHIS KHAN VS NIT	DISPOSED OF	Casual driver at NIT engaged for long years seeking permanent employment as employees of NIT.
9.	W.P.26042 (w) 2012	06.12.2012	SK SHAHDOT VS NIT	PENDING	Sk. Shahdot is seeking promotion to the post of skilled staff, pursuant to his compassionate employment in view of his qualifications.
10.	FMA 545 of 2013	14.08.2012	PRABIR CHATTOPADHYAY VS NIT	PENDING	Writ petition now pending in appeal filed by unsuccessful candidate in recruitment for the post of physical training instructor. Appointment of Sri Hillool Mukherjee is under challenge. Single Judge dismissed the writ petition. Appeal is pending.
11.	W.P.No. 30647(W) of 2015	23.12.2015	SARAVANAN CHANDRAN VS NIT	PENDING	Petitioner's grievance is that although he was recruited as Assistant Professor (Non-Faculty), Governing Council of NIT approved after intervention by HRD, Ministry that he should be treated as Assistant Professor (Faculty). Now the computer centre where he was engaged has been directed to be wound up. The petitioner is claiming permanent absorption and arrears of salary. Affidavits to be filed. Draft sent to NIT. Must be filed immediately.
12.	W P No. 14690 (W) of 2019	31.07.2019	Ranjan Kumar Mitra Vs. Union of India and Others	PENDING	Shri Ranjan Kumar Mitra is seeking promotion to the post of Associate Professor.

LIST OF COURT CASES AGAINST NIT DURGAPUR IN THE CALCUTTA HIGH COURT:-

13.	W P No. 14709 (W) of 2019	31.07.2019	Sujit Karmakar Vs. The Union of India and Others.	PENDING	Shri Sujit Karmakar is seeking promotion to the post of Associate Professor.
14.	W P No. 14691 (W)of 2019	31.07.2019	Shantanu Pramanik Vs. The Union of India and Others.	PENDING	Shri Shantanu Pramanik is seeking promotion to the post of Associate Professor.
15.	W P No. 14693 (W)of 2019	31.07.2019	Rabindra Nath Barman Vs. The Union of India and Others.	PENDING	Shri Rabindra Nath Barman is seeking promotion to the post of Associate Professor.
16.	W.P.20741 (w) of 2016	14.09.2016	SUBHAS CHANDRA ROY VS NIT	PENDING	The court has asked us file and affidavit to show why the records are not traceable. Affidavit ready and matter is pending.
17.	W.P.A NO.3512 OF 2021	02.02.2021	SUNANDA MAZUMDER VS NATIONAL INSTITUTE OF TECHNOLOGY.	DISPOSED OF	WAITING FOR HEARING.
18.	MAT 1045 OF 2022	08.07.2022	SUJIT KARMAKAR MAZUMDER VS NATIONAL INSTITUTE OF TECHNOLOGY.	DISPOSED OF	Stay Order of Faculty recruitment
19.	WPA No. 3901 of 2020	26.02.2020	Hilloi Mukherjee VS Union of India and Others.	DISPOSED OF	Mr. Hillol Mukherjee is seeking promotion to the post of SAS Officer w.e.f 12 th June 2012.
20	CPAN 1263 of 2019	06.09.2022	Anupam Bagchi VS R. Subrahmanyam & Ors	DISPOSED OF	Case was filed by the employees of erstwhile NATIONAL TECHNICAL MANPOWER INFORMATION SYSTEMS (NTMIS) on 29.09.2019 for absorption in suitable permanent posts of the Institute.

**Fwd: Annual Report 2021-22 of NIT Durgapur - reg.**

2 messages

Director NIT Durgapur <director@admin.nitdgp.ac.in>
To: P Gupta <parthapratim.gupta@che.nitdgp.ac.in>

Fri, Jan 20, 2023 at 9:10 PM

----- Forwarded message -----

From: **Sadanand Gokhale** <ssgok1@gmail.com>
Date: Wed, Jan 4, 2023 at 4:01 PM
Subject: Re: Annual Report 2021-22 of NIT Durgapur - reg.
To: Director NIT Durgapur <director@admin.nitdgp.ac.in>
Cc: Prof. Sadanand Sadashiv Gokhale <chairperson.bog@nitdgp.ac.in>

Approved, please proceed.
Sadanand Gokhale
January 4, 2023

On Wed, Jan 4, 2023 at 10:40 AM Director NIT Durgapur <director@admin.nitdgp.ac.in> wrote:
Respected Sir,

Attached is the Annual Report 2021-22 of NIT Durgapur for your kind perusal. This report requires the approval of the Board of Governors of the Institute before circulation and submission to the MoE. As the Board is not yet fully formed, you are requested to approve it which will be rectified in the next Board Meeting.

Submitted for your kind approval please.

Thanking you,

Yours sincerely,

Prof. Indrajit Basak
Director (Officiating)
National Institute of Technology Durgapur
Mahatma Gandhi Avenue
Durgapur – 713 209 (W.B.), India

Director NIT Durgapur <director@admin.nitdgp.ac.in>
To: P Gupta <parthapratim.gupta@che.nitdgp.ac.in>

Fri, Jan 20, 2023 at 9:10 PM

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62ND Annual Report

2021-22



राष्ट्रीय प्रौद्योगिकी संस्थान दुर्गापुर
NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR

An Institute of National Importance under Ministry of Education (Shiksha Mantralaya), Government of India
Mahatma Gandhi Avenue, Durgapur- 713209, West Bengal, India

62 ND

ANNUAL REPORT
2021-2022

(APRIL 01, 2021 - MARCH 31, 2022)



राष्ट्रीय प्रौद्योगिकी संस्थान दुर्गापुर

NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR

MAHATMA GANDHI AVENUE, DURGAPUR-713209,
WEST BENGAL, INDIA

An Institute of National Importance
under
Ministry of Education (Shiksha Mantralaya)
Government of India



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From Director's Desk



It is my pleasure to publish the 62nd Annual Report 2021-22 of the Institute highlighting the progress made during the last financial year

National Institute of Technology Durgapur, an Institute of National Importance fully funded by the Ministry of Education, Government of India, has traditionally been engaged in imparting quality technical education and pursuing active research in cutting edge areas. The students are also encouraged and supported to get initiated to research and innovation early. Curriculum is revised continually to facilitate flexible, multi-disciplinary learning and stimulate pursuance of their passion.

Two new M. Tech. programs were introduced in 2021-22. Fourteen Minor programs and eighth semester internship in the industries have been introduced in the B. Tech. program. The curriculum and syllabus of all M. Tech. and MBA programs were revised.

The faculty and the students have 567 research articles published/accepted in top peer-reviewed journals in the last year. 102 PhD degrees were awarded. 95 sponsored projects are being executed by the faculty members with sponsored projects from DST, DBT, MEITY, DRDO, MoES, DAE, ICMR, UGC-UKIERI, MNRE, CSIR, ICSSR, etc. It is also a member institute of BRICS Network University Programme under the thematic area “Water Resources and Pollution Treatment”. In its pursuit towards strengthening its common research and academic infrastructure and encourage multi-disciplinary research, it is setting up *Utkarsha Bhavan* through HEFA loan and established four new advanced centres of research.

The efforts by the Institute attaining excellence in academics, research and outreach has been recognised by the NIRF-2022, where it was ranked 34th in Engineering and 72nd overall. The Institute also received 4-star rating from Innovation and Incubation council, Ministry of Education, Government of India.

The Institute has also made its mark in its outreach activity through participation in Unnat Bharat Abhiyan (UBA) and Rashtiya Avishkar Abhiyan (RAA) programs. A Centre for Digital Learning, which will prepare e-learning resources and offer online courses was inaugurated. Through this centre, rural school students belonging to socio-economically disadvantaged groups will be educated in vernacular language by distance education, in line with the NEP-2020. 49 workshops/seminars were organized by various departments of the Institute.

I look forward to further strides of the institute to newer heights.

Indrajit Basak

Director (Officiating)

National Institute of Technology Durgapur

Progress at a Glance (2021-2022)

- The faculty members of the Institute have publication and acceptance of 567 research articles/reviews in peer-reviewed journals, and also published 213 papers in proceedings of national and international conferences.
- 102 PhD degrees were awarded by the Institute.
- Two new M. Tech. in Electrical Engineering (Specialization: Instrumentation & Control) and M. Tech. in Chemical Engineering (Specialization: Energy Resources and Sustainable Environmental Engineering) were started in 2021-22.
- Fourteen Minor programs and eighth semester internship in the industries have been introduced in the B. Tech. program.
- The curriculum and syllabus of all M. Tech. and MBA programs were revised.
- 95 sponsored projects are being executed by the faculty members during the financial year.
- Faculty members acted as reviewers for 388 peer-reviewed journals.
- 721 UG & PG students were placed through in-campus interviews in the session 2020-21. In addition to that 132 UG & PG students secured more than one job. 218 companies, including most of the global players, visited the campus to recruit UG students while 103 and 17 companies recruited the M Tech and MBA students respectively.
- 49 online/off-line workshops/seminars were organized by various departments of the Institute.
- To fill up vacancies, online faculty selection interviews were conducted, and the recruitment of officers was initiated too.
- The 17th Convocation of the Institute was held on January 12, 2022 in hybrid mode. Dr. Anil Kakodkar, former Chairman, Atomic Energy Commission of India graced the occasion as the Chief Guest, while Dr. Purnendu Chatterjee, Founder & Chairman, The Chatterjee Group was the Guest of Honour. In the 17th Convocation, 659 B. Tech., 224 M. Tech., 22 MBA, 28 MCA, 48 MSc and 106 PhD degrees were awarded.
- The projects like expansion of Computer Science & Engineering department, construction of Electrical Engineering Measurement laboratory and renovation of the Central library have been completed. Lifts were installed at different points of the institute as a part of infrastructure development for differently-abled persons.
- *Utkarsha Bhavan*, a 10-storied research-academic building, is being constructed with the HEFA loan. It will house four centres of advanced research and central research and common laboratory facilities.
- Under *Unnat Bharat Ahiyan*, NIT Durgapur acts as the Regional Coordinating Institute for West Bengal and Sikkim with the Perennial Fund Award.
- Centre for Digital Learning was inaugurated.
- The Institute completed successfully the TEQIP-III program, a World Bank-assisted programme for improvement in quality of technical education and research.
- Treasury Single Account (TSA) of PFMS, as mandated by the RBI, was fully implemented.



1. Introduction

1.1 Vision

To impart quality technical education and focus on research and innovation to cater to the need of the country.

1.2 Mission

1. To impart quality technical and scientific education and produce engineers, technologists, scientists and citizens who will contribute meaningfully to the growth and development of the country and excel in various disciplines of knowledge.
2. To create a research-oriented teaching-learning environment in the Institute with a focus on excellence and innovation.
3. To embark upon an inclusive growth path committed to the uplift of the community.
4. To have an increased global presence.

1.3 Historical Background

National Institute of Technology Durgapur was established as one of the 17 Regional Engineering Colleges in 1960 as a joint venture of the Government of India and the Government of West Bengal and was registered under the Register of Societies Act. With introduction of cutting-edge technology in the emerging areas, the Institute maintained its momentum with definite mission and vision, which enabled it to get the prestigious status of National Institute of Technology under full administrative and financial control of the Government of India with a “Deemed to be University” status with effect from July 03, 2003. The Institute has now been declared as an “Institute of National Importance” by the Govt. of India, vide NIT Act 2007 (29 of 2007) implemented on August 15, 2007.

It started with only four branches of engineering: Civil, Mechanical, Metallurgical and Electrical Engineering for undergraduate studies in 1960. Chemical Engineering was started in 1964. At present, the Institute offers eight B. Tech. programmes and eighteen M. Tech. programmes. Apart from this, two-year MBA programme is also offered. The Institute also runs M. Sc. programmes in Applied Geology and Geo-Informatics, Physics, Chemistry, Life Sciences and Mathematics.

1.4 Location

NIT Durgapur is located in the heartland of industrial activities and the mineral-rich region of West Bengal, also known as ‘The Ruhr of India’. The city of Durgapur is well connected by rail with Kolkata, 158 km away, and is an important railway station on the main New Delhi-Kolkata route. It is a two and a half hours’ drive from Kolkata airport along Durgapur Expressway and NH2, and there is a military airport at Panagarh, only 20 km from Durgapur, in addition there is a Civil Airport, Kazi Nazrul Islam Airport Durgapur, only 15 km from the Institute. The place is only an hour’s drive from Tagore’s Santiniketan and has quite a few tourist spots nearby. The climate is moderate.

1.5 Campus

The Institute campus, spreading over 187 acres, is known for its serene environment. Buildings housing the departments and laboratories, residential blocks for faculty and staff, students’ hostels are far outnumbered by the trees in the campus which is self-reliant with facilities like roads, water supply, power distribution network, a market complex, banks and post office.

1.6 Notable Achievements

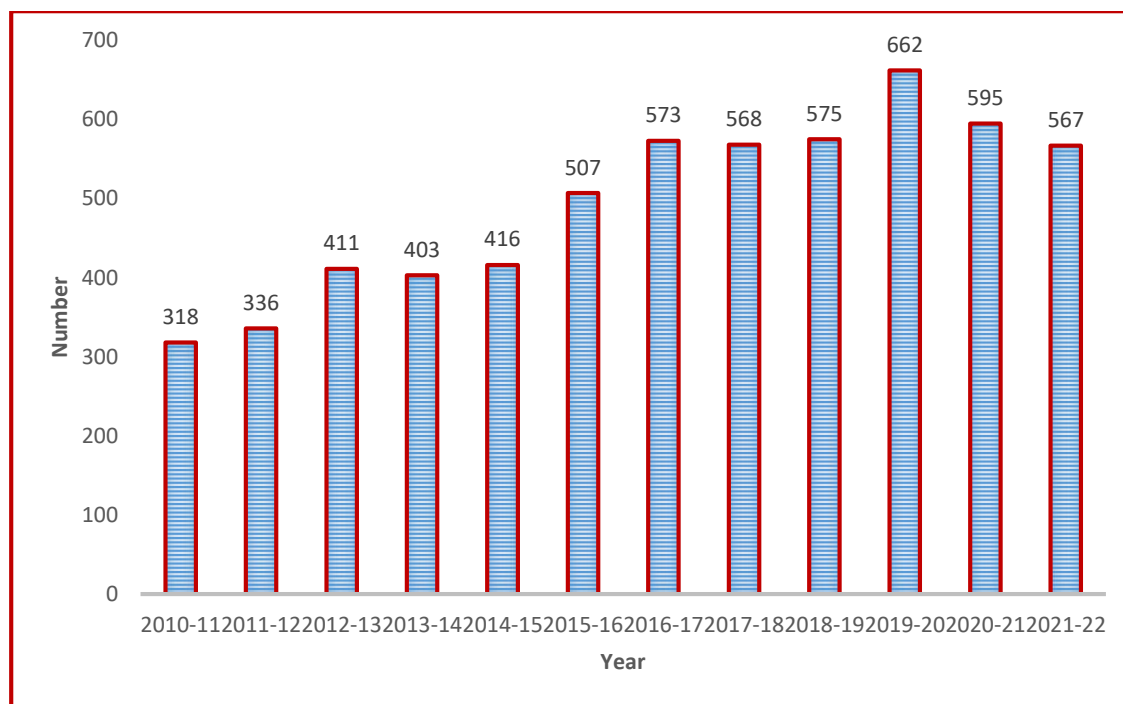


Fig. 1. Publication in journals in the last few years

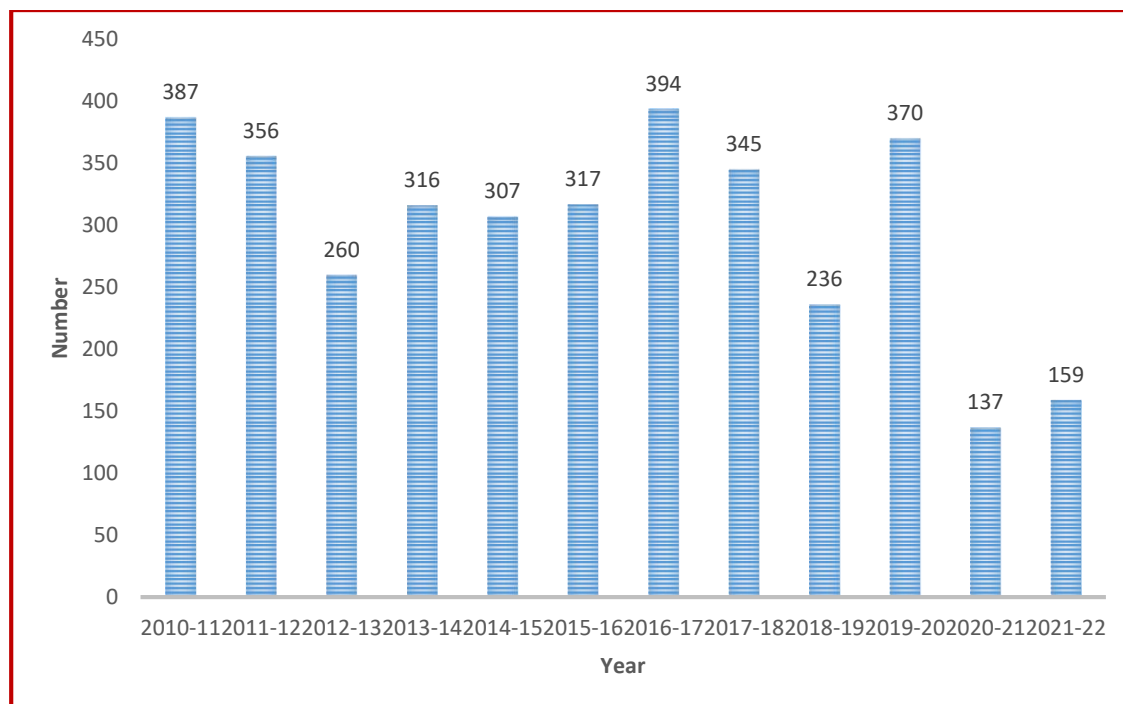


Fig. 2. Presentation in conferences/symposiums in the last few years

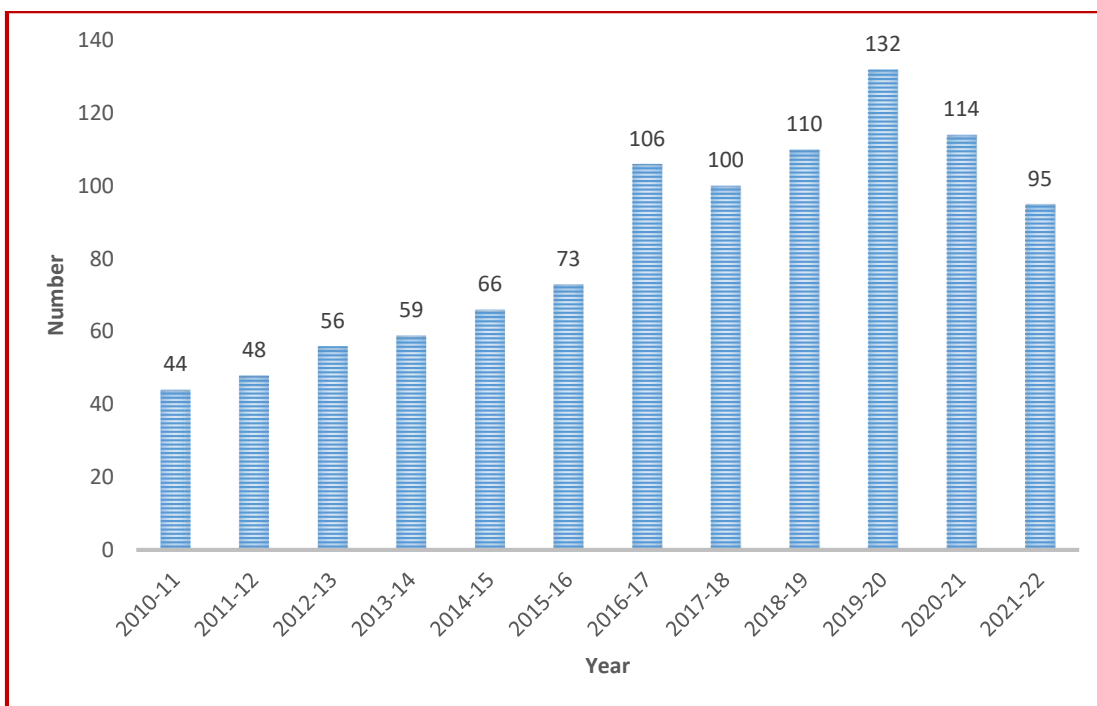


Fig. 3. Number of sponsored projects during the last few years

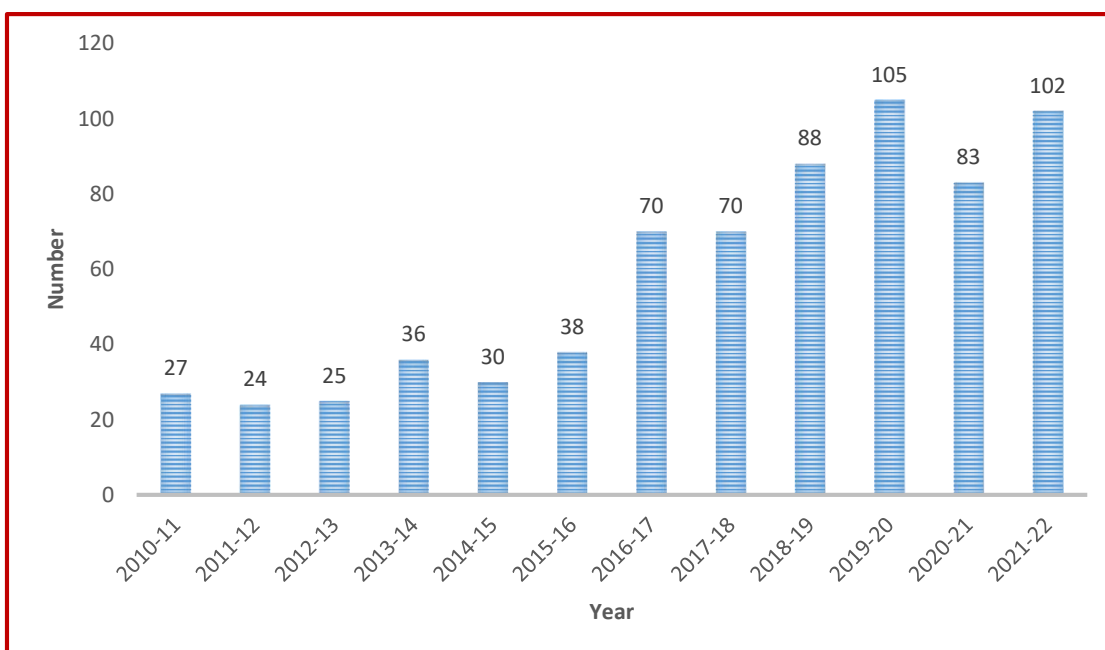


Fig. 4. Number of PhD degrees awarded during the last few years

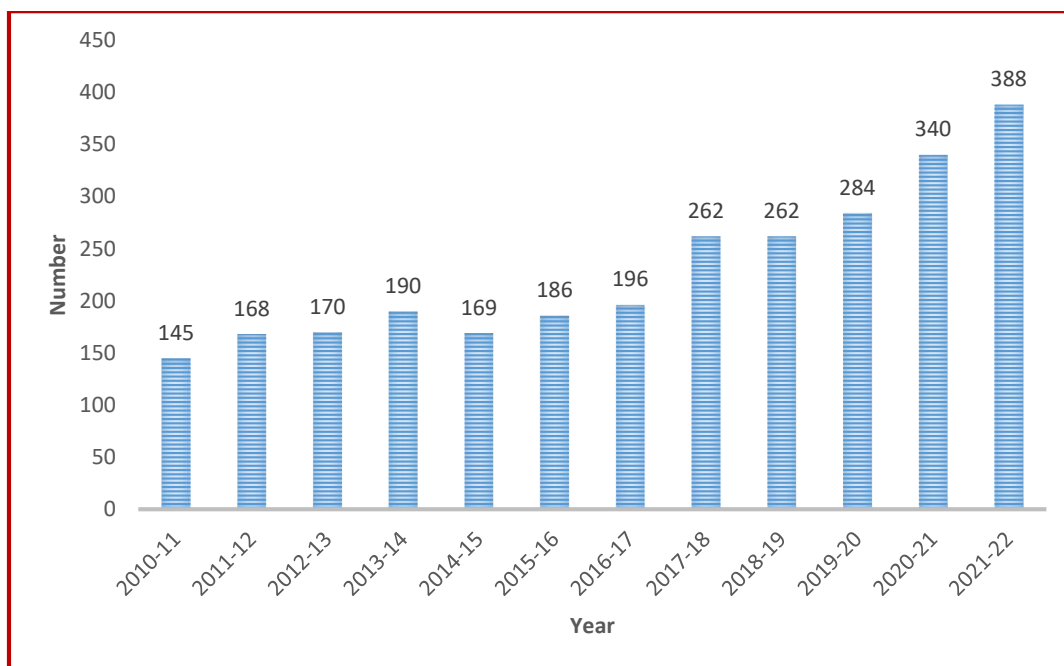


Fig. 5. Reviewers of journals/books during the last few years

1.7 International Activities

1.7.1 Alumni

Centre for Alumni Affairs & International Relations (CAAIR) is the nodal centre in the National Institute of Technology Durgapur for liaison with REC/NIT Durgapur alumni all across the globe, initiating research/academic collaboration with universities and organizations in India and abroad and other outreach activities.

1.7.2 Eminent Alumni Lecture Series

Date	Eminent Alumni Lecture (online)
13.12.2021	Eminent Alumni Lecture by Mr. Manoj Jha (1991, ME), Director, Advancement Strategy LLC, USA

1.7.3 List of International MoUs:

Name of the Institute	Year	MoU signed with Foreign Governments/Foreign Institutions and date of signing	Subject	Action Taken
National Institute of Technology Durgapur, West Bengal, India, PIN-713209	2021-2022	NIL	N.A	N.A



1.7.4 Distinguished Alumnus Award



1.8 List of National MoUs:

Name of the Institute	Year	MoU signed with National Institutions/Organizations/Industries and date of signing	Subject	Action Taken
National Institute of Technology Durgapur, West Bengal, India, PIN-713209	2021-2022	Tata Consultancy Services Ltd. TCS House, Raveline Street, Fort, Mumbai 400 001 Date of signing: 21 September 2021	Joint Academic/ Research Activities	Under progress
		TCG Centres for Research and Education in Science and Technology, 1 st Floor, Tower 1, Bengal Eco Intelligent Park, Block EM, Plot No 3, Sector 5, Slat Lake, Kolkata- 700091 Date of signing: 07 October 2021	Joint Academic/ Research Activities	Under Progress
		Central Board of Irrigation and Power, Plot No. 4, Institutional Area, Malcha Marg, Chanakypuri, New Delhi-110021 Date of signing: 29 November 2021	Joint Academic/ Research Activities	Under progress
		Central Manufacturing Technology Institute, Tumkur Road, Bengaluru- 560 022 Date of signing: 23 December 2021	Joint Academic/ Research Activities	Under progress
		NHPC Limited, Sector-33, Faridabad, Haryana- 121003 Date of signing: 12 January, 2022	NIT Durgapur as Consultant for undertaking the studies in the field of Science, Engineering and Technology and suitable product development within its expertise of ongoing and future projects at various sites of NHPC	Under progress
		Steel Authority of India Ltd. Durgapur Date of signing: 11 February 2022	Industry-Academia Collaboration	Under progress

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1.9 Distinguished Alumnus Award



1.10 Alumni

Centre for Alumni Affairs & International Relations (CAAIR) is the nodal centre in the National Institute of Technology Durgapur for liaison with REC/NIT Durgapur alumni all across the globe, initiating research/academic collaboration with universities and organizations in India and abroad and other outreach activities. NIT Durgapur is proud to have more than 31000 engineers, technocrats, scientists, managers and entrepreneurs as its global brand ambassadors. CAAIR makes all-out efforts to get them involved in the all-round development and growth of the Institute. It supports the Institute's mission by way of continually opening up opportunities that strengthens the mutually beneficial bond between the institute and its alumni. This promotes and encourage the alumni to disseminate professional knowledge through seminars and interaction with the students and faculty. NIT Durgapur is also striving to break the barriers and reach out to the national and international universities and organizations by way of collaborative activities like joint research supervision, publications, projects and student exchange. The Centre initiates all such activities. The Centre also coordinates various outreach activities with the community.

-published Alumni Annual Report “**The NITDIAN CHRONICLE 2021**”

1.11 Eminent Alumni Lecture Series

Date	Eminent Alumni Lecture (online)
04.04.2021	Eminent Alumni Lecture by Mr. Kushal Banerjee (1988, ME), Chief General Manager, HPCL
14.04.2021	Eminent Alumni Lecture by Dr. Chittatosh Bhattacharya (1990, ME), Dy. Director (Technical), NPTI, Durgapur
26.06.2021	Eminent Alumni Lecture by Dr. Tarun Kumar Kundu (1997, MME), Professor, IIT Kharagpur
26.06.2021	Eminent Alumni Lecture by Dr. Chandra Sekhar Tiwary (2008, MME), Asst. Professor, IIT Kharagpur
26.06.2021	Eminent Alumni Lecture by Dr. Manas Paliwal (2006, MME), Asst. Professor, IIT Kharagpur
03.07.2021	Eminent Alumni Lecture by Mr. Niladri Basu (1991, ME), GE Power Durgapur
24.10.2021	Eminent Alumni Lecture by Mr. Abhay Kumar Singh (1983, CE), MD, NHPC Ltd.
03.11.2021	Eminent Alumni Lecture by Dr. Souvik Chakraborty (2020, CE), Asst. Professor, IIT Delhi
04.12.2021	Eminent Alumni Lecture by Dr. Debashis Ghosh (1991, MME), Sr. principal Scientist, CSIR-CMERI, Durgapur
05.12.2021	Eminent Alumni Lecture by Mr. Sandeep Kapoor (1987, ME), Additional Chief Engineer, Delhi Jal Board, Govt. of Delhi

1.12 Seminar on Industry 4.0

Date	Seminar on Industry 4.0 (online)
15.09.2021	Expert Lecture by Prof. Surjya Kanta Pal, Professor, IIT Kharagpur
29.10.2021	Expert Lecture by Prof. Satyandra K Gupta, Professor, University of Southern California, USA

1.13 New Initiatives

1.13.1 Digital Learning

1. Objective:

- NIT Durgapur is planning for Internet-based education in the evening (to be taught by the teachers and students of NITD) for the aforesaid school students through its newly launced Center for Digital Learning.
- NIT Durgapur plans to provide essential components and instrumentation for the Internet-based education facilities to the NGOs described above for education of the tribal students.
- Enable cultural connections with tribal life, art and culture.
- Establish a cell of language and early grades learning resource persons at district and/or tribal project levels to work specifically with tribal children.
- To train the tribal students about out of the classroom experimental science, mathematics and language at Science Museum NIT Durgapur.

2. Outcome:

- If the project runs smoothly the number of School dropouts will be minimized. Students will be more technology friendly. Through this Internet-based education children will be able to learn from very learnt faculties of NIT Durgapur.

3. Mode of online operation:

- Through Google-Meet.

4. Name of Centres:

- Purbachal Ananda Foundation, Bankura.
- Tejganj Children Welfare Organization, Burdwan.

5. No. of Students involved in different classes:

- Class IX- 14 [Centre 1]
- Class X- 8 [centre]

6. Executing Committee from NIT:

- Dr Prasenjit Choudhury, Dr Anita Pal, Dr Hirok Chaudhuri, Dr Jaydeep Hawlader and Dr Kaushik Mondal.

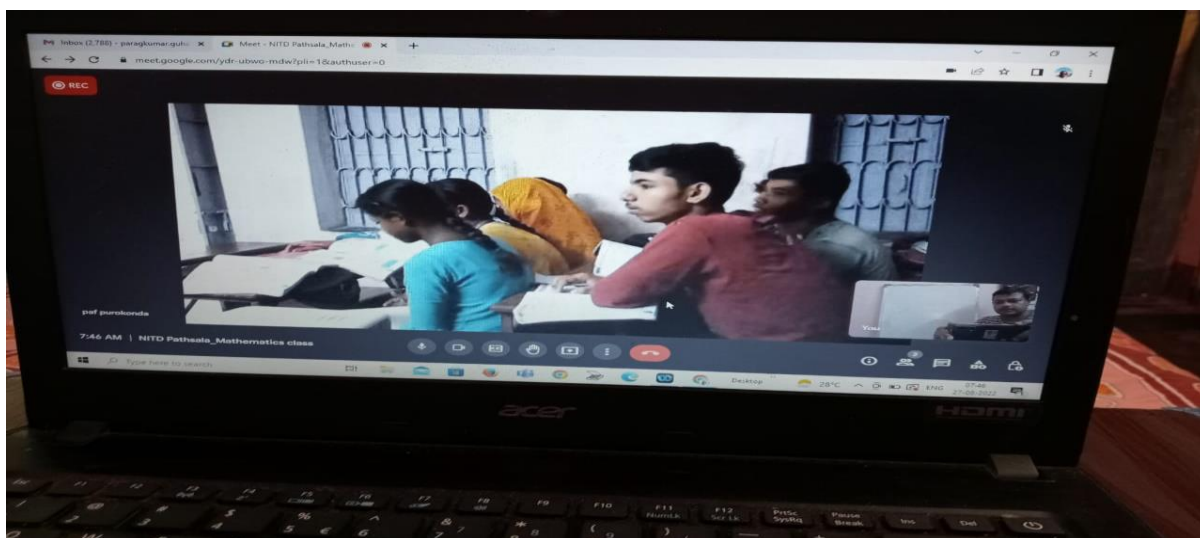
7. Name of Teachers:

- Prof G Bandopadhyay, Prof S Sarkar (Mondal), Dr Parag Guha Thakurata, Dr Oindrila, Dr Arindam Mondal, Dr Sutanuka, Mr Anupam Bagchi etc.

8. Some Photographs:



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1.13.2 SMILE ERP

"National Institute of Technology Durgapur adopted the SMILE ERP system in the year 2019. The acronym SMILE stands for Software for Managing Institutes of Learning and Education that was developed by IIT Kharagpur and NIT Durgapur procured it through TEQIP-III under the direct funding of MoE. The available modules need customization to adopt it for various verticals like Academics, Finance, HR and Administration. At first in priority basis Faculty Annual Report data module has been launched by the Honorable Director on 16th August 2022. Other modules would be customized, contingent to availability of suitable manpower for the ERP Cell."

2. Administration



2.1 NIT Council (As per Statutes)

- The Minister in charge of the Ministry or Department of the Central Government having administrative control of the technical education, ex officio-Chairman
- The Secretary to the Government of India in charge of the Ministry or Department of the Central Government having administrative control of the technical education, ex officio- Vice-Chairman
- The Chairperson of every Board, ex officio
- The Director of every Institute, ex officio
- The Chairman, University Grants Commission, ex officio
- The Director General, Council of Scientific and Industrial Research, ex officio
- four Secretaries to the Government of India, to represent the Ministries or Departments of the Central Government dealing with biotechnology, atomic energy, information technology and space, ex officio
- The Chairman, All India Council for Technical Education, ex officio
- Not less than three, but not more than five persons to be nominated by the Visitor, at least one of whom shall be a woman, having special knowledge or practical experience in respect of education, industry, science or technology
- Three members of Parliament, of whom two shall be chosen by the House of the People and one by the Council of States (Provided that the office of member of the Council shall not disqualify its holder for being chosen as or for being, a member of either House of Parliament)
- Two Secretaries to the State Government, from amongst the Ministries or Departments of that Government dealing with technical education where the Institutes are located, ex officio
- Financial Advisor, dealing with the Human Resource Development Ministry or Department of the Central Government, ex officio
- One officer not below the rank of Joint Secretary to the Government of India in the Ministry or Department of Central Government having administrative control of the Technical Education, ex officio - Member-Secretary

2.2 BOG

Sl. No.	Nomination Under	Name and Designation of nominated Member	Chairperson/Convenor/Secretary/Member
01.	Section 11 Clause (a)	Prof. (Retd.) Sadanand Sadashiv Gokhale Chairperson, Board of Governors, National Institute of Technology Durgapur Durgapur-713209	Chairperson
02.	(b)	Prof. Anupam Basu Director, National Institute of Technology Durgapur Durgapur-713209	Member
03.	(c)	Ms. Saumya Gupta Joint Secretary Higher Education, Department of Higher Education, Ministry of Education, (Shiksha Mantralaya), Shastri Bhawan, New Delhi-110 001	Member
04.	(c)	Mrs. Darshana M Dabral JS & FA (IFD) Department of Higher Education, Ministry of Education, (Shiksha Mantralaya), Shastri Bhawan, New Delhi-110 001	Member
05.	(d)	Mr. Sanjay Jhunjunwala Chief Executive Officer, Mani Group Kolkata	Member

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Sl. No.	Nomination Under	Name and Designation of nominated Member	Chairperson/Convenor/Secretary/Member
06	(d)	Dr. D.K. Majumdar Former Professor (DIPSAR) University of Delhi, C-8, IDPL Apartments Plot No.-GH10 Sector 10A Gurgaon-122001	Member
07.	(e)	Dr. Mitali Mukerji, Professor and Head, Department of Bioscience & Bioengineering, Faculty, School of Artificial Intelligence and Data Science (AIDE), Indian Institute of Technology Jodhpur, NH – 62, Karwar, Rajasthan – 342037	Member
08.	(e)	Dr. Jyotsna Dhawan, Chief Scientist, CCMB, Hyderabad	Member
09.	(f)	Prof. Apurba Kumar Patra Professor, Department of Chemistry, National Institute of Technology Durgapur Durgapur-713209	Member
10.	(f)	Dr. Jayati Dey Associate Professor, Department of Electrical Engineering National Institute of Technology Durgapur Durgapur-713209	Member
11.	(g)	Prof. V.K. Tewari Director Indian Institute of Technology, Kharagpur Pin-721302, India	Member
12	Section 18 Clause (2)	Shri Soumya Sen Sharma Registrar, NIT Durgapur Durgapur-713209	Secretary

2.3 Finance Committee

Sl. No.	Name and Designation	Chairperson/Convenor/Secretary/Member
1.	Prof. (Retd.) Sadanand Sadashiv Gokhale Chairperson, Board of Governors, National Institute of Technology Durgapur Durgapur-713209	Chairperson
2.	Prof. Anupam Basu Director, National Institute of Technology, Durgapur Durgapur-713209	Member
3.	Ms. Saumya Gupta Joint Secretary Higher Education, Department of Higher Education Ministry of Education, (Shiksha Mantralaya), Shastri Bhawan, New Delhi-110 001	Member
4.	Mrs. Darshana M Dabral JS & FA (IFD) Department of Higher Education, Ministry of Education, (Shiksha Mantralaya), Shastri Bhawan, New Delhi-110 001	Member



5. Prof. Apurba Kumar Patra
Professor,
Department of Chemistry,
National Institute of Technology Durgapur
Durgapur-713209
Member
6. Shri Soumya Sen Sharma
Registrar,
National Institute of Technology Durgapur
Durgapur-713209
Member Secretary

2.4 Building and works Committee

Sl. No.	Name and Designation	Chairperson/Convenor/Secretary/Member
1	Prof. Anupam Basu, Director, National Institute of Technology Durgapur Durgapur – 713 209	Chairman
2.	Shri M.L.Soni Directors (NITs) Department of Higher Education Ministry of Education, (Shiksha Mantralaya) Shastri Bhawan New Delhi-110001.	Member
3.	Shri Anil Kumar Director (Finance) Department of Higher Education Ministry of Education, (Shiksha Mantralaya) Shastri Bhawan New Delhi-110001.	Member
4	Shri Satyaki Sen Ex-Director, M.N. Dastur Nominee of Board of Governors NIT Durgapur CJ 84, Sector – 2, Salt Lake City, Kolkata – 700 091	Member
5	Prof. Kamal Bhattacharya Department of Civil Engineering Chairperson (Maintenance & Campus Facility and Planning) National Institute Technology Durgapur – 713209	Member
6	Prof. Soumya Bhattacharyya Department of Civil Engineering Chairman (Construction) National Institute Technology Durgapur – 713209	Member
7	Prof. Atul Krishna Banik Department of Civil Engineering Chairman (PMQCC) National Institute Technology Durgapur – 713209	Member
8	Shri Durga Prasad (Nominee of CPWD, Electrical Wing) Superintending Engineer (Electrical), Kolkata Central Electrical Circle – 1, Central Public Works Department (CPWD), 234/4, Acharya J. C. Bose Road, Kolkata – 700 020.	Member
9	Shri Manish Kanodia Executive Engineer CPWD, NIT Durgapur Camp Office	Member
10	Shri C. P. Sharma,	Member

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	(Nominee of CPWD, Civil Wing) Superintendent Engineer (Civil), NIT Durgapur	
11	Shri Soumya Sen Sharma Registrar, National Institute of Technology Durgapur, Durgapur – 713209.	Member Secretary

2.5 List of Senate Members

Sl.No	NAME	E-MAIL ADDRESS	TELEPHONE
1	Prof. Anupam Basu Director and Chairman-Senate	director@admin.nitdgp.ac.in	9434788001
External Member			
2	Prof. Siddhartha Sen, Professor, Electrical Engg. Dept., IIT Kharagpur	ssen@ee.iitkgp.ernet.in	+91 - 3222 283084
3.	Prof. (Mrs.) Swagata Dasgupta, Professor, Dept. of Chemistry, IIT Kharagpur	swagata@chem.iitkgp.ernet.in	+91-3222- 283306
4	Prof. Ajitava Raychaudhuri, Professor, Dept. of Economics, Jadavpur University Kolkata	ajitava_rc@economics.jdvu.ac.in ajitava.raychaudhuri@jadavpuruniversity.in	91-33-2414- 6328

INVITEE MEMBER

5	Sri S. Chatterjee Managing Director Innovative Heat Handling Pvt. Ltd. CG-106, Salt Lake City Kolkata 700 091 (Industries)	samiran45@gmail.com	9831016604
6	Mr. B. Bhattacharya, Invitee Member, (Alumni)	gpibhattacharya@yahoo.com	9830042175
7	Ms. Dipa Das 2 nd year MSc Mathematic Roll No. 19MA4510	dipadas089@gmail.com	7477538250
8	Mr. Manish Awasthi 4 th year B.Tech, CE, Roll no. 17CE8030	mawasthi1501@gmail.com	9170350864
9.	Dr. Palash Pal, Principal of Dumka Engineering College Jharkhand	gecd.principal@gmail.com	
10	Dr. B. Shakila, Assistant Professor, Dept. of Electrical and Electronics Engineering, NIT Nagaland, Dimapur	saki.baskaran@gmail.com	9791624896
11	Dr. Neelima Arambam, Associate Dean (Academic) NIT Nagaland, Dimapur	neelima@nitnagaland.ac.in	9862568950

BIOTECHNOLOGY



National Institute of Technology Durgapur

Sl.No	NAME	E-MAIL ADDRESS	TELEPHONE
12	Prof. S. Chattopadhyay,	sudipchatto@gmail.com , sudip.chattopadhyay@bt.nitdgp.ac.in	9434788029
13	Prof. A. Dey	apurba.dey@bt.nitdgp.ac.in , apurbadey1960@gmail.com	9434788098
14	Prof. Dalia Dasgupta Mandal,	dalia.dasgupta@bt.nitdgp.ac.in	9434788141 9474391975
15	Prof. Kaustav Aikat	kaustav.aikat@bt.nitdgp.ac.in aikatk@yahoo.co.in	9434788140
16	Prof. (Ms.) Surabhi Chaudhuri , HOD	surabhi.chaudhuri@bt.nitdgp.ac.in, surabhi_c@yahoo.com	9434788095
17	Prof. Sudit Sekhar Mukhopadhyay	sudit.mukhopadhyay@bt.nitdgp.ac.in, suditmukhopadhy@yahoo.com	9830440945 9434788139
CHEMISTRY			
18	Prof. Dipankar Sukul,	dipankar.sukul@gmail.com	9434788066
19	Prof. Apurba Kr. Patra	apurba.patra.nitdgp@gmail.com ; apurba.patra@ch.nitdgp.ac.in	9434788049
20	Prof. Milan Maji	milan.maji@ch.nitdgp.ac.in milanmaji69@gmail.com	9434788124
21	Prof. Rajnarayan Saha HOD	rajnarayan.saha@ch.nitdgp.ac.in rnsahanitd@gmail.com,	9434788063
22	Prof. Sankar Ch. Moi	sankar.moi@ch.nitdgp.ac.in	9434788062
CHEMICAL ENGINEERING			
23	Prof. P. Gupta	parthapratim.gupta@che.nitdgp.ac.in parthagupta2000@gmail.com	9434788028
24	Prof. P. Pal	parimal.pal@che.nitdgp.ac.in	9434469750 9434788105
25	Prof. K.C. Ghanta	kartik.ghanta@che.nitdgp.ac.in	9434788020
26	Prof. Tamal Mandal	tamal.mandal@che.nitdgp.ac.in	9434788078
27	Prof. A.K. Sadhukhan,	anupkumar.sadhukhan@che.nitdgp.ac.in	9434788048
28	Prof. Susmita Dutta,	susmita.dutta@che.nitdgp.ac.in	9434788120
29	Prof. Gopinath Halder HOD	gopinath.halder@che.nitdgp.ac.in	9434788189
CIVIL ENGINEERING			
30	Prof. D.K. Singha Roy	dilip.singharoy@ce.nitdgp.ac.in	9434788039
31	Prof. P. Ray	pramnitd@yahoo.com purnendu.ray@ce.nitdgp.ac.in	9434788037
32	Prof. K. Bhattacharya	kamal.bhattacharya@ce.nitdgp.ac.in dr.k.bhattacharya@gmail.com	9732264594 9434788040
33			

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Sl.No	NAME	E-MAIL ADDRESS	TELEPHONE
	Prof. A. Das	<i>amlan.das@ce.nitdgp.ac.in</i>	9434788104
34	Prof. S. Saha	<i>showmen.saha@ce.nitdgp.ac.in</i>	9434788008
35	Prof. Soumya Bhattacharya	<i>soumya.bhattacharyya@ce.nitdgp.ac.in</i>	9434788022
36	Prof. Atul Krishna Banik	<i>atul.banik@ce.nitdgp.ac.in</i>	9434788101
37	Prof. Amiya Kr Samanta HoD	<i>amiyak.samanta@ce.nitdgp.ac.in</i>	9434788099
COMPUTER SCIENCE & ENGG.			
38	Prof. (Mrs) Tandra Pal	<i>tandra.pal@cse.nitdgp.ac.in,</i> <i>tandra.pal@gmail.com</i>	9434788121
39	Prof. (Mrs.) Suchismita Roy	<i>suchismita27@yahoo.com</i>	9434788122
40	Prof. Subrata Nandi (HoD)	<i>subrata.nandi@cse.nitdgp.ac.in,</i>	9434788158
41	Prof. Debashis Nandi	<i>debashis@cse.nitdgp.ac.in</i>	9434660515
42	Prof. Subhrabrata Choudhury	<i>subhrabrata@cse.nitdgp.ac.in</i>	9434788133
MANAGEMENT STUDIES			
43	Prof. Mousumi Roy	<i>mousumi.roy@dms.nitdgp.ac.in</i>	9434788138
44	Dr. Neelotpaul Banerjee Associate Professor, HOD	<i>neelotpaul.banerjee@dms.nitdgp.ac.in</i>	9434789004
45.	Prof. Avijan Dutta	<i>avijan.dutta@dms.nitdgp.ac.in</i>	9434788035
ELECTRONICS & COMM. ENGINEERING			
46	Prof. A.K. Bhattacharjee	<i>akbece12@yahoo.com</i>	9434788021
47	Prof. B. Maji	<i>bansibadan.maji@ece.nitdgp.ac.in</i>	9434788024
48	Prof. G.K. Mahanti	<i>gkm@ece.nitdgp.ac.in</i>	9434788107
49	Prof. Sumit Kundu	<i>sumit.kundu@ece.nitdgp.ac.in</i>	9434788127
50	Prof. Rowdra Ghatak,	<i>rowdra.ghatak@ece.nitdgp.ac.in</i>	9434788125
51	Prof. Ashis Kr. Mal,	<i>akmal@ece.nitdgp.ac.in</i>	3432754389
52	Prof. Rajat Mahapatra	<i>rajat.mahapatra@ece.nitdgp.ac.in</i>	9434788126
53	Dr. Durbadal Mandal, HoD	<i>durbadal.mondal@ece.nitdgp.ac.in</i>	9434788059
ELECTRICAL ENGINEERING			
54	Prof. S. S .Thakur Dean FW	<i>sst@ee.nitdgp.ac.in</i>	9434788023
55	Prof. N. K. Roy	<i>nirmalkumar.roy@ee.nitdgp.ac.in</i>	9434788042
56	Prof. Saradindu Ghosh,	<i>sghosh.ee@gmail.com</i>	9434788096
57	Prof. Subrata Banerjee	<i>bansub2004@yahoo.com , bansub2004@gmail.com</i>	9434788129
58			9434788064



National Institute of Technology Durgapur

Sl.No	NAME	E-MAIL ADDRESS	TELEPHONE
	Prof. Parimal Acharjee,	<i>parimal.acharjee@ee.nitdgp.ac.in</i>	
59	Prof. Tapas Kr. Saha	tapassahanit@gmail.com tapas.saha@ee.nitdgp.ac.in	9434788171
60	Prof. Sankar Narayan Mahato	sankar.mahato@ee.nitdgp.ac.in	9434788057
61	Prof. Chiranjib Koley, HoD	chiranjib.koley@ee.nitdgp.ac.in	9434788130
EARTH & ENVIRONMENTAL STUDIES			
62	Prof. K. Adhikari, HOD	<i>kalyan.adhikari@ees.nitdgp.ac.in</i>	9434788091
HUMANITIES AND SOCIAL SCIENCES			
63	Prof. P. P. Sengupta	<i>parthapratim.sengupta@hu.nitdgp.ac.in</i>	9434788045
64	Dr. Joydeep Banerjee Associate Professor, HoD	joydeep.banerjee@hu.nitdgp.ac.in	9434788054
MATHEMATICS			
65	Prof (Mrs.) Kajla Basu,	<i>kajla.basu@maths.nitdgp.ac.in</i>	9434788132
66	Prof. Samarjit Kar,	<i>samarjit.kar@maths.nitdgp.ac.in</i>	9434453186
67	Dr.(Mrs) Seema Sarkar (Mondal)	seema.sarkar@maths.nitdgp.ac.in	9434788131
68	Dr. Pinaki Pal Associate Professor, HoD	<i>pinaki.pal@maths.nitdgp.ac.in</i>	9434788193
MECHANICAL ENGINEERING			
69	Prof. I. Basak	<i>indrajit.basak@me.nitdgp.ac.in</i>	9434788109
70	Prof. B. Halder, Dean (SW)	<i>biswajit.halder@me.nitdgp.ac.in</i>	9434788027
71	Prof. Nilotpal Banerjee Dean (AAO)	<i>nilotpal.banerjee@me.nitdgp.ac.in</i>	9434788009
72	Prof. Amar Nath Mullick	<i>amarnath.mullick@me.nitdgp.ac.in</i>	9434788052
73	Prof. Nirmal Baran Hui	nirmal.hui@me.nitdgp.ac.in, nirmalhui@gmail.com	9434788117
74	Prof. Shibendu Shekhar Roy	shibendu.roy@me.nitdgp.ac.in ssroy99@yahoo.com	9434788150
75	Prof. Asit Baran Puri	asitbaran.puri@me.nitdgp.ac.in, abpuri2000@yahoo.co.in	9434788051
76	Prof. Apurba Layek	apurba.layek@me.nitdgp.ac.in, apurba_layek@yahoo.co.in	9434788058
77	Dr. Sumit Mukhopadhyay (HoD)	sumit.mukhopadhyay@me.nitdgp.ac.in	9434788112
METALURGICAL AND MATERIALS ENGINEERING			
78			

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Sl.No	NAME	E-MAIL ADDRESS	TELEPHONE
	Prof. K.S. Ghosh	ksgghosh2001@mme.nitdgp.ac.in,	9434788135
79	Dr. Supriya Bera (HOD)	supriya.bera@mme.nitdgp.ac.in	9434788184
80	Prof. Joydeep Maity	joydeep.maity@mme.nitdgp.ac.in	9434788136

PHYSICS

81	Prof. A. K. Meikap, Dean (R&C)	ajit.meikap@phy.nitdgp.ac.in	9434788060
82	Prof. Pathik Kumbhakar, Dean (Academic Research)	pathik.kumbhakar@phy.nitdgp.ac.in deanar@admin.nitdgp.ac.in,	9434788090
83	Prof. Amit Kr. Chakraborty	amit.chakraborty@phy.nitdgp.ac.in	+91- 3432754780
84	Dr. Sukadev Sahoo, HOD	sukadev.sahoo@phy.nitdgp.ac.in	9434788061

SECRETARY

85	Mr. Soumya Sen Sharma	registrar@admin.nitdgp.ac.in	9434788002
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2.6 Staff Details

2.6.1 List of Officers

Designation		Name
Registrar		Sri Soumya Sen Sharma
Joint Registrar		Shri Asit Kumar Dr. Uday Chandra Mukherjee Sri Dhrubajyati Ray
Deputy Registrar		Sri Ashutosh Das
Assistant Registrar		Sri Debasish Mondal Sri Amiya Kumar Sardar Sri Sayon Bhattacharjee Sri Ajit Kumar Bhagat
Executive Engineer		Sri Tanmay Halder
Library	Librarian	Vacant
	Deputy Librarian	Vacant
	Assistant Librarian	Mr. Jitendra Kumar (On Lien)
Workshop Superintendent		Vacant
Registrar's Secretariat (Technical Officer)		Shri Santosh Kumar Saha Shri Hirendra Nath Samanta
Medical Unit-cum-Hospital	Senior Medical Officer	Dr. Banhi Kumar Sarkar
	Medical Officers	1. Dr.Sucharita Patra
		2. Dr. G. Prabhavabathi



National Institute of Technology Durgapur

Designation	Name
Estate Section (Security Officer)	No sanctioned post in RR-2019, however this post got restructure as Assistant Registrar through DPC.

2.6.2 Sanctioned posts of officers and number in position

	Sanctioned	In position	Vacant	Remarks
Registrar	01	01	00	
Joint Registrar	Nil	03	00	To be filled through DP
Dy. Registrar	04	01	00	
Asstt. Registrar	07	04	03	
Dy. Librarian	01	Nil	01	
Assistant Librarian	01	01	00	
Principal SAS Officer	00	Nil	00	
Sr. SAS Officer	01	Nil	01	
SAS Officer	01	Nil	01	
Principal Scientific/Technical Officer	02	Nil	02	
Sr. Scientific/Technical Officer	01	Nil	01	
Scientific/Technical Officer	03	02	01	
Superintendent Engineer	01	Nil	01	
Executive Engineer (Elect/Civil)	02	01	01	
Senior Medical Officer	01	01	00	
Medical Officer	02	02	00	
Security Officer	01	Nil	01	(has been restructured as Assistant Registrar)
*Physical Training Inst.	Nil	01	00	

2.6.3 Number of Technical and Administrative staff members

	Name	No.
1.	Sr. Tech. Asstt.	11
2.	Tech. Asstt. (SG-II)	16
3.	Tech. Asstt. (SG-I)	08
4.	Sr. Library Infor. Asstt (SG-II)	01
5.	Sr. Technician	01
6.	Technician (SG-II)	02
7.	Tech. Asstt.	03
8.	Superintendent	02
9.	Sr. Superintendent	03
10.	Superintendent (SG-II)	04
11.	Superintendent (SG-I)	02
12.	Staff Nurse (SG-II)	01
13.	Junior Assistant	01
14.	Sr. Assistant	06
15.	Assistant (SG-II)	10
16.	Assistant (SG-I)	05
17.	Attendant	01
18.	Sr. Attendant	09
19.	Attendant (SG-II)	09
20.	Attendant (SG-I)	04
21.	Physical Training Instructor	01 (PTI post is not a sanctioned post)
22.	Asstt. Engg. (SG-I)	01

2.6.4 New appointment of staff during the year 2021-22

NIL

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2.6.5 Retirement, Resignation, Death and Voluntary Retirement of Staff during the year.

Sl. No	Name	Department/Section	Designation	Date of Retirement
1	Sri Debasis Datta	Estate	Tech. Asstt. (SG-II)	31.07.2021
2	Smt. Mina Bahadur	P&S	Sr. Attendant	31.10.2021
3	Sri Swapan Kr. Mondal	Personnel Sec.	Superintendent (SG-II)	31.12.2021
4	Sri Sibaram Harizon	Medical Unit	Attendant (SG-I)	31.12.2021
5	Sri Subal Bandyopadhyay	Sr. Superintendent	Maintenance Sec	28.02.2022
6	Smt Malina Dhabaldev	DMS	Sr. Attendant	12.01.2022 (Expired)

2.6.6 Number of Faculty in position

Name of Department	Professor In position	Associate Prof In-position	Asstt. Prof. Grade-I In position	Asstt. Prof. Grade-II In position	Trainee Teacher In position
Biotechnology	06	05	03	03	-
Chemical Engg	07	03	03	02	-
Chemistry	05	02	03	01	-
Civil Engineering	09	05	01	01	-
Computer Science & Engineering	05	11	11	04	-
Electrical Engg	07	02	06	05	01
Electronics & Communication Engineering	07	05	01	04	-
Earth & Environmental Science	01	00	01	01	-
Humanities & Social Science	01	03	01	01	-
Management Studies	02	06	00	02	-
Mathematics	03	05	02	01	-
Mechanical Engineering	08	05	07	07	01
Metallurgical & Materials Engg.	02	06	03	02	-
Physics	03	05	00	04	-
Total	66	63	42	38	02

2.6.7 New Appointment of Faculty During The Year 2021-22

NIL

2.6.8 Retirement, Resignation, Death and Voluntary Retirement of Faculty 2021-22.

Sl. No	Name	Department/Section	Designation	Date of Retirement/Resignation
1	Dr. Arup Kumar Biswas, Ph. D.	Mech. Engg.	Associate Professor	30.06.2021
2	Prof. Saradindu Ghosh, Ph. D.	Electrical Engg.	Professor (HAG)	31.01.2022
3.	Washim Akram	Mech. Engg.	Trainee Teacher	16.02.2022 (Resigned)



3. Academics

3.1 Education System:

The National Institute of Technology Durgapur runs four-year Bachelor of Technology programmes in Bio-Technology, Chemical Engineering, Civil Engineering, Computer Science & Engineering, Electronics & Communication Engineering, Electrical Engineering, Mechanical Engineering and Metallurgical & Materials Engineering. The Institute runs five year B.Tech and M.Tech Dual Degree programme in Biotechnology and Chemical Engineering and also runs five year Integrated M.Sc programme in Chemistry. The Institute offers two year M. Tech. programme in sixteen specializations, two-year MBA programme, two-year M. Sc programmes in five Departments and two-year MSW programme. All the Programmes are running in regular and fulltime mode. Medium of instructions for all programs is English. The Institute also offers PhD programme in fourteen Departments and four Centres.

3.2 Programs Offered:

3.2.1 B.Tech / Dual Degree / Integrated M.Sc Programme: Sanctioned intake

Discipline	O P	OP-PWD	EW S	EWS-PWD	S C	SC-PWD	S T	ST-PWD	OB N	0BN-PWD	TOTAL	TOTAL
BT	28	02	07	01	13	0	05	0	18	01	75	909
CH	28	02	08	0	11	0	06	0	18	02	75	
CE	32	0	08	0	11	02	06	0	19	02	80	
CS	73	03	18	01	25	02	13	01	49	02	187	
EE	38	02	10	0	14	02	06	01	26	01	100	
EC	36	02	10	0	14	01	06	01	26	01	97	
ME	72	04	17	01	27	02	13	01	48	02	187	
MM	28	02	07	01	11	0	05	01	19	01	75	
CH-DD	02	0	01	0	01	0	01	0	02	0	07	
BT-DD	02	0	01	0	01	0	01	0	02	0	07	
CY-INT	08	0	02	0	03	0	01	0	05	0	19	

3.2.2 Post-Graduate Programmes - Sanctioned intake

M.Tech

Specialization / Program Name	OC	OC-PWD	EWS	EWS-PWD	SC	SC-PWD	ST	ST-PWD	OBN	OBN-PWD	Sanctioned Intake
Advanced Material Science & Technology	8	0	2	0	3	0	1	1	5	0	20
Biotechnology	7	1	2	0	3	0	2	0	5	0	20
Chemical Engineering	7	0	1	0	2	0	1	0	4	0	15
Energy Resources and Sustainable Environmental Engineering	8	0	1	1	2	1	1	0	6	0	20
Computer Science & Engineering	19	1	5	0	7	0	4	0	13	1	50

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Specialization / Program Name	OC	OC-PWD	EWS	EWS-PWD	SC	SC-PWD	ST	ST-PWD	OBN	OBN-PWD	Sanctioned Intake
Environmental Science & Technology	7	1	2	0	3	0	2	0	5	0	20
Fluid Mechanics and Heat Transfer	8	0	2	0	3	0	2	0	5	0	20
Geotechnical Engineering	7	1	2	0	3	0	1	0	6	0	20
Machine Design	8	0	2	0	3	0	2	0	5	0	20
Metallurgy and Materials Technology	8	0	2	0	3	0	1	0	5	1	20
Microelectronics & VLSI	8	0	1	1	3	0	2	0	5	0	20
Operations Research	7	1	2	0	2	1	2	0	5	0	20
Power Electronics & Machine Drives	8	0	2	0	3	0	2	0	4	1	20
Power Systems	6	0	2	0	2	0	1	0	4	0	20
Instrumentation and Control	7	1	2	0	3	0	1	0	6	0	15
Structural Engineering	7	1	2	0	3	0	2	0	5	0	20
Telecommunication Engineering	8	0	2	0	3	0	1	0	5	1	20
Thermal Engineering	8	0	2	0	3	0	1	0	5	1	20
Total:	146	7	36	2	54	2	29	1	98	5	380

MBA

DEPTT	OP	OP-PwD	EWS	EWS-PwD	SC	SC-PwD	ST	ST-PwD	OBN	OBN-PwD	Total
MS	20	1	5	0	6	1	4	0	12	1	50

MSW

DEPARTMENT	OP	OP-PwD	EWS	EWS-PwD	SC	SC-PwD	ST	ST-PwD	OBN	OBN-PwD	Total
HSS (MSW)	7	1	2	0	3	0	1	0	5	0	19

M.Sc

DEPARTMENT	OP	OP-PwD	EWS	EWS-PwD	SC	SC-PwD	ST	ST-PwD	OBN	OBN-PwD	Total
CY	10	0	2	0	3	1	1	0	7	1	25
MA	9	1	3	0	4	0	2	0	6	0	25
PH	10	0	2	1	4	0	2	0	6	0	25



BT (LIFE SCIENCE)	7	0	1	0	2	0	1	0	4	0	15
EES (APPL GEO & GEOINFO)	7	1	2	0	3	0	2	0	5	0	20
Total	43	2	10	1	16	1	8	0	28	1	110

3.2.3 Eligibility

MTECH

In qualifying degree the candidates should have passed and secured at least 6.5 CGPA (on a 10-point scale) or 60% for OC/OB, whereas 6.0 CGPA (on a 10-point scale) or 55% in case of SC/ST/PwD candidates. The above mentioned CGPA/Percentage should be awarded by a recognized University/Institute.

MSc

Three-year regular B. Sc. (Hons./ Pass) with minimum 55% marks / 6 CGPA in the relevant discipline. A relaxation of 5% marks or 0.5 CGPA is applicable for SC/ST candidates.

MBA

Graduates (minimum 10+2+3 format) in any discipline with minimum 55% marks in graduation are eligible with a relaxation of 5 % marks for SC/ST.

MSW

Graduates (minimum 10+2+3 format) in any discipline with minimum 55% marks in graduation are eligible with a relaxation of 5 % marks for SC/ST.

3.3 Admission Procedure

- UG Programme:
 - The students from Andaman & Nicobar Islands were admitted in Supernumerary Quota as was decided by CSAB 2021.
 - 50% of the seats are reserved for candidates from West Bengal and remaining 50% seats are allotted to the candidates from other States based on the JEE Main results in B.Tech / Dual Degree / Integrated M.Sc Programme where 15%, 7.5%, 27% and 10 % of the total seats are reserved for SC candidates, ST candidates, OBC candidates and EWS candidates respectively with 5% of the seats are reserved for PwD candidates.
- PG Programme:

Sl No	Types of Student	Mode of Admission
1	Full Time GATE (M. Tech.)	CCMT / Institute level test and viva-voce for vacant seats.
2	Full Time Sponsored (M. Tech.)	B. Tech./eqv results, Institute level test and viva-voce
3	M. Sc.	CCMN
4	MBA	CAT score and Institute Level GD/PI
5	MSW	Institute level entrance examination

In addition, some seats in both UG and PG programmes are filled up by foreign students as nominated by the Government of India under various schemes such as ICCR, DASA, SII and MEA.

3.4 Programme-wise enrolment with gender and caste break-up.

3.4.1 Enrolment in B.Tech programmes during 2021-2022 (Gender wise).

A. Enrolment of Indian students in odd semesters of B. Tech. courses during 2021-2022 Genderwise:

Semester	BT	ChE	CE	CSE	ECE	EE	IT	ME	MME	Total
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	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
B.Tech I	53	2	57	1	61	1	15	39	76	2	78	1	0	0	14	39	60	1	687	18
		0		6		9	3				1	9			9		5		8	
B.Tech III	45	1	56	1	54	1	15	36	76	2	79	2	0	0	14	38	47	1	649	17
		6		6		8	1				1	2			1		1		8	
B.Tech V	41	1	54	1	53	1	14	31	67	1	71	1	0	0	13	28	50	1	612	14
		8		2		1	0			9		8			6		2		9	
B.Tech VII	41	1	44	1	52	9	12	24	63	1	67	1	0	0	12	19	48	1	561	12
		5		3			2			6		6			4		3		5	
Total	18	6	21	5	22	5	56	13	28	7	19	7	0	0	55	12	20	5	250	64
	0	9	1	7	0	7	6	0	2	7	5	5			0	4	5	1	9	0

Semester	BT		ChE		CE		CSE		ECE		EE		IT		ME		MME		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
B.Tech II	48	16	55	15	60	19	14	39	73	21	77	18	0	0	14	39	59	14	662	18
							5								5				1	
B.Tech IV	45	16	56	16	54	18	15	36	76	21	79	22	0	0	14	38	47	11	649	17
							1								1				8	
B.Tech VI	41	18	54	12	53	11	14	31	67	19	71	18	0	0	13	28	50	12	611	14
							0								5				9	
B.Tech VIII	41	15	44	13	52	9	12	24	63	16	66	16	0	0	12	19	48	13	560	12
							2								4				5	
Total	17	65	20	56	21	57	55	13	27	77	29	74	0	0	54	12	20	50	248	63
	5		9		9		8	0	9		3				5	4	4		2	3

3.4.2 Enrolment in B. Tech & M. Tech Dual Degree programmes during 2021-2022 (Genderwise):

Semester	BT		ChE		Total	
	M	F	M	F	M	F
Dual Degree I	4	1	4	3	8	4
Dual Degree III	5	0	4	1	9	1
Dual Degree V	4	0	4	1	8	1
Dual Degree VII	4	1	2	1	6	2
Dual Degree IX	4	1	2	1	6	2
Total	21	3	16	7	37	10

Semester	BT		ChE		Total	
	M	F	M	F	M	F
Dual Degree II	3	1	4	3	7	4
Dual Degree IV	5	0	4	1	9	1
Dual Degree VI	4	0	4	1	8	1
Dual Degree VIII	4	1	2	1	6	2
Dual Degree X	4	1	2	1	6	2
Total	20	3	16	7	36	10

3.4.3 Enrolment in Integrated M.Sc. programmes during 2021-2022 (Genderwise)

Semester	Chemistry		Total	
	M	F	M	F
INT M.Sc. I	11	5	11	05
INT M.Sc. III	8	4	8	4
INT M.Sc. V	3	3	3	3
INT M.Sc. VII	7	6	7	6
INT M.Sc. IX	8	0	8	0
Total	37	18	37	18



Semester	Chemistry				Total	
	M		F		M	F
INT M.Sc. II	11		5		11	05
INT M.Sc. IV	8		4		8	4
INT M.Sc. VI	3		3		3	3
INT M.Sc. VIII	7		6		7	6
INT M.Sc. X	8		0		8	0
Total	37		18		37	18

3.4.4 Enrolment of Foreign Students in B. Tech programme during 2020-2021 (Genderwise):

Semester	BT		ChE		CE		CSE		ECE		EE		IT		ME		MME		TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
B.Tech I	1	2	0	1	1	0	7	2	1	0	2	0	0	0	2	0	0	0	14	5
B.Tech III	0	0	0	0	0	0	6	4	0	0	0	0	0	0	0	0	0	0	6	4
B.Tech V	0	0	0	0	0	0	12	1	1	0	1	0	0	0	3	1	0	0	17	2
B.Tech VII	0	1	1	0	0	0	9	4	2	1	0	1	0	0	4	2	0	0	16	9
Total	1	3	1	1	1	0	34	11	4	1	3	1	0	0	9	3	0	0	53	20

Semester	BT		ChE		CE		CSE		ECE		EE		IT		ME		MME		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
B.Tech II	1	2	0	1	1	0	7	2	1	0	2	0	0	0	2	0	0	0	14	5
B.Tech IV	0	0	0	0	0	0	6	4	0	0	0	0	0	0	0	0	0	0	6	4
B.Tech VI	0	0	0	0	0	0	12	1	1	0	1	0	0	0	3	1	0	0	17	2
B.Tech VIII	0	1	1	0	0	0	9	4	2	1	0	1	0	0	4	2	0	0	16	9
Total	1	3	1	1	1	0	34	11	4	1	3	1	0	0	9	3	0	0	53	20

3.4.5 Enrolment in B. Tech. Programme during 2021-2022 (Castewise)

De pt.	B.Tech								B.TECH								B.TECH								B.TECH							
	I Semester								III Semester								V Semester								VII Semester							
	O P	E W S	S C	S T	O B C	T O T	O P	E W S	S C	S T	O B C	T O T	O P	E W S	S C	S T	O B C	T O T	O P	S C	S T	O B C	T O T									
BT	23	12	13	5	20	73	17	10	10	3	21	61	21	3	9	5	21	59	22	9	4	21	56									
Ch E	21	10	11	5	26	73	24	11	10	6	21	72	27	5	9	5	20	66	28	9	3	17	57									
CE	24	11	13	6	26	80	16	12	13	6	25	72	21	5	1	5	22	64	29	8	5	19	61									
CS E	62	34	27	1	55	192	57	33	26	1	57	187	522	27	1	51	17	72	22	2	1	42	146									
EC E	35	12	15	6	29	97	32	16	15	7	27	97	32	10	1	7	23	86	39	1	5	24	79									

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EE	2	17	1	7	27	97	3	14	1	6	30	10	3	10	1	6	25	89	4	1	6	24	83
	9		7				5		6			1	3		5				1	2			
IT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M	6	28	2	1	56	18	5	28	2	1	59	17	5	20	2	1	46	16	6	2	1	45	14
E	1		9	4		8	1		7	4		9	5		7	6		4	6	1	1		3
M	2	11	1	6	21	75	1	10	9	5	17	58	1	7	9	5	23	62	2	8	6	24	61
M	6		1				7						8						3				
E																							
T	2	13	1	6	26	87	2	13	1	6	25	82	2	82	1	6	23	76	3	1	5	21	68
tal	8	5	3	3	0	5	4	4	2	1	7	7	6		2	3	1	1	2	0	0	6	6
	1		6				9		6				4		1				0	0			

3.4.6 Enrolment in B.Tech & M. Tech Dual Degree Programmes during 2021-2022 (Castewise):

D e p t.	Dual Degree					Dual Degree					Dual Degree					Dual Degree					Dual Degree								
	I Semester					III Semester					V Semester					VII Semester					IX Semester								
	O P S	E W C	S C T	S C T	O B C	T O T	O P S	E W C	S C T	S C T	O B C	T O T	O P S	E W C	S C T	S C T	O B C	T O T	O P S	E W C	S C T	S C T	O B C	T O T	O P S	E W C	S C T	S C T	O B C
B T	0	1	1	1	2	0	1	1	1	0	2	5	2	0	1	1	0	4	2	1	1	1	5	3	1	0	1	5	
C h E	1	1	1	1	3	7	0	2	1	0	2	5	2	0	1	0	2	5	1	0	0	2	3	1	1	0	1	3	
T o t a l	1	2	2	2	5	1 2	1	3	2	0	4	1 0	4	0	2	1	2	9	3	1	1	3	8	4	2	0	2	8	

3.4.7 Enrolment in 5 year Integrated M.Sc Programmes during 2021-2022 (Castewise):

D e p t .	INT M.Sc.					INT M.Sc.					INT M.Sc.					INT M.Sc.					INT M.Sc.									
	I Semester					III Semester					V Semester					VII Semester					IX Semester									
	O P S	E W C	S C T	S C T	O B C	T O T	O P S	E W C	S C T	S C T	O B C	T O T	O P S	E W C	S C T	S C T	O B C	T O T	O P S	E W C	S C T	S C T	O B C	T O T	O P S	E W C	S C T	S C T	O B C	T O T
C h e m	0 5	0 3	0 2	0 1	0 5	1 6	3	2	2	0	5	1 2	2	1	1	0	2	6	6	0	2	5	1 3	3	2	1	2	8		
T o t a l	0 5	0 3	0 2	0 1	0 5	1 6	3	2	2	0	5	1 2	2	1	1	0	2	6	6	0	2	5	1 3	3	2	1	2	8		

3.4.8 Enrolment in B. Tech. Programme during 2021-2022 (Castewise)

De pt.	B.Tech					B.TECH					B.TECH					B.TECH							
	II Semester					IV Semester					VI Semester					VIII Semester							
	O P	E W S	S C	S T	O B C	T O T	O P	E W S	S C	S T	O B C	TO T	O P	EW S	S C	S T	O B C	TO T	O P	S C	S T	O B C	T O T
B T	2	11	1	5	18	64	1	10	1	3	21	61	2	3	9	5	21	59	2	9	4	21	56
	0		0				7		0				1						2				



Ch	1	10	1	5	25	70	2	11	1	6	21	72	2	5	9	5	20	66	2	9	3	17	57
E	9		1				4		0				7					8					
C	2	11	1	6	79	80	1	12	1	6	25	72	2	5	1	5	22	64	2	8	5	19	61
E	4		3				6		3				1		1			9					
CS	5	34	2	1	54	18	5	33	2	1	57	187	5	22	2	1	51	171	7	2	1	42	14
E	7		5	4		4	7		6	4			7		7	4			2	2	0		6
E	3	12	1	6	28	94	3	16	1	7	27	97	3	10	1	7	23	86	3	1	5	24	79
C	5		3				2		5				2		4				9	1			
E	2	17	1	6	27	95	3	14	1	6	30	101	3	10	1	6	25	89	4	1	6	24	82
E	8		7				5		6				3		5				0	2			
IT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M	5	28	2	1	56	18	5	28	2	1	59	179	5	20	2	1	45	163	6	2	1	45	14
E	8		9	3		4	1		7	4			5		7	6			6	1	1		3
M	2	11	1	6	21	73	1	10	9	5	17	58	1	7	9	5	23	62	2	8	6	24	61
M	5		0				7						8						3				
E																							
To	2	13	1	6	25	84	2	13	1	6	25	827	2	82	1	6	23	760	3	1	5	21	68
tal	6	4	2	1	4	3	4	4	2	1	7		6		2	3	1		2	0	0	6	5
	6		8				9		6				4		1				0	0			

3.4.9 Enrolment in B.Tech & M. Tech Dual Degree Programmes during 2021-2022 (Castewise):

D e p t.	Dual Degree					Dual Degree					Dual Degree					Dual Degree					Dual Degree							
	II Semester					IV Semester					VI Semester					VIII Semester					X Semester							
	O P	E W	S C	S T	O B	T O	O P	E W	S C	S T	O B	T O	O P	E W	S C	S T	O B	T O	O P	S C	S T	O B	T O	O P	S C	S T	O B	T O
	S				C	T	S				C	T	S				C	T	S			C	T	S			C	T
B T	0	1	1	1	1	4	1	1	1	0	2	5	2	0	1	1	0	4	2	1	1	1	5	3	1	0	1	5
C h	1	1	1	1	3	7	0	2	1	0	2	5	2	0	1	0	2	5	1	0	0	2	3	1	1	0	1	3
E T o t a l	1	2	2	2	4	1 1	1	3	2	0	4	1 0	4	0	2	1	2	9	3	1	1	3	8	4	2	0	2	8

3.4.10 Enrolment in 5 year Integrated M.Sc Programmes during 2021-2022 (Castewise):

D e p t .	INT M.Sc.					INT M.Sc.					INT M.Sc.					INT M.Sc.					INT M.Sc.							
	II Semester					IV Semester					VI Semester					VIII Semester					X Semester							
	O P	E W S	S C	S T	O B C	T O T	O P	E W S	S C	S T	O B C	T O T	O P	E W S	S C	S T	O B C	T O T	O P	S C	S T	O B C	T O T	O P	S C	S T	O B C	T O T
C h e m	5	3	2	1	5	1 6	3	2	2	0	5	1 2	2	1	1	0	2	6	6	0	2	5	1 3	3	2	1	2	8
T o t a l	5	3	2	1	5	1 6	3	2	2	0	5	1 2	2	1	1	0	2	6	6	0	2	5	1 3	3	2	1	2	8

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3.4.11 Enrolment in M.Tech. Programmes during 2020-2021 (Genderwise)

Semester	B.T	C.H	CH (ERS)	C.E (S.E)	C.E (G.E)	C.S	E.E (P.S)	EE (PMD)	EE (INST)	E.C (T.E)	E.C (V.L)	ES (E.ST)	O.R (M.A)	M.E (M.D)	ME (F.M.H.T)	M.E (T.E)	M.M	A.MS (P.HY)	TOTAL
M.Tech I & II	16 (9)	7 (6)	6 (3)	17 (3)	20 (7)	4 (7)	19 (4)	17 (4)	9 (1)	9 (3)	20 (3)	15 (5)	12 (3)	15 (0)	14 (2)	14 (2)	5 (2)	5 (0)	267 (70)
M.Tech III & IV	10 (7)	2 (5)	---	18 (0)	18 (1)	7 (1)	15 (4)	18 (2)	---	15 (8)	18 (5)	18 (3)	13 (5)	20 (0)	12 (0)	15 (0)	9 (2)	5 (0)	287 (59)

(Number of female students indicated in parentheses; the total number is inclusive of the number of female students)

3.4.12 Enrolment in M.Sc. Programmes during 2020-2021 (Genderwise)

Semester	M. Sc (CY)	M. Sc (MA)	M. Sc (PH)	M. Sc (Life Science)	M. Sc (Appl Geo & Geoinformatics)	TOTAL
M.Sc I & II	22 (9)	23 (6)	20 (5)	13 (6)	19 (10)	97 (36)
M.Sc III & IV	23 (13)	21 (5)	16 (4)	11 (6)	17 (5)	88 (33)

(Number of female students indicated in parentheses; the total number is inclusive of the number of female students)

3.4.13 Enrolment in M.Tech Programmes during 2020-2021(Castewise):

Dept. / Year	I & II					III & IV				
	OP	SC	ST	OBC	TOTAL	OP	SC	ST	OBC	TOTAL
BT	10 (7)	2 (0)	0 (0)	4 (2)	16 (9)	8 (6)	0 (0)	0 (0)	2 (1)	10 (7)
CH	6 (5)	0 (0)	0 (0)	1 (1)	7 (6)	9 (4)	0 (0)	0 (0)	3 (1)	12 (5)
CH (ERS)	5 (3)	0 (0)	0 (0)	1 (0)	6 (3)	--	--	--	--	--
CE (SE)	8 (2)	2 (0)	1 (1)	6 (0)	17 (3)	9 (0)	3 (0)	0 (0)	6 (0)	18 (0)
CE (GT)	12 (3)	3 (3)	0 (0)	5 (1)	20 (7)	10 (1)	3 (0)	0 (0)	5 (0)	18 (1)
CS	23 (9)	7 (1)	1 (0)	16 (3)	47 (13)	29 (6)	11 (2)	3 (0)	28 (9)	71 (17)
EE (PS)	12 (2)	3 (0)	0 (0)	4 (2)	19 (4)	8 (2)	2 (0)	1 (0)	4 (2)	15 (4)
EE(PMD)	9 (1)	3 (2)	0 (0)	5 (1)	17 (4)	8 (1)	2 (0)	0 (0)	8 (1)	18 (2)
EE (INST)	6 (1)	2 (0)	0 (0)	1 (0)	9 (1)	--	--	--	--	--
EC (TE)	7 (2)	0 (0)	0 (0)	2 (1)	9 (3)	11 (5)	2 (2)	0 (0)	2 (1)	15 (8)
EC (VL)	7 (2)	3 (0)	1 (1)	9 (0)	20 (3)	9 (3)	3 (1)	0 (0)	6 (1)	18 (5)
ES	6 (2)	4 (2)	2 (1)	3 (0)	15 (5)	9 (2)	3 (0)	0 (0)	6 (1)	18 (3)
MA (OR)	9 (3)	0 (0)	0 (0)	3 (0)	12 (3)	7 (3)	0 (0)	0 (0)	6 (2)	13 (5)



ME (MD)	10 (0)	0 (0)	0 (0)	5 (0)	15 (0)	8 (0)	3 (0)	1 (0)	8 (0)	20 (0)
ME (FMHT)	7 (1)	2 (1)	0 (0)	5 (0)	14 (2)	5 (0)	2 (0)	0 (0)	5 (0)	12 (0)
ME (TE)	12 (2)	0 (0)	1 (0)	1 (0)	14 (2)	7 (0)	4 (0)	0 (0)	4 (0)	15 (0)
MM (MT)	4 (2)	1 (0)	0 (0)	0 (0)	5 (2)	5 (2)	2 (0)	0 (0)	2 (0)	9 (2)
PH (AMS)	3 (0)	2 (0)	0 (0)	0 (0)	5 (0)	3 (0)	1 (0)	0 (0)	1 (0)	5 (0)
Total	156 (47)	34 (9)	6 (3)	71 (11)	267 (70)	145 (35)	41 (5)	5 (0)	96 (19)	287 (59)

(Number of female students indicated in parentheses; the total number is inclusive of the number of female students)

3.4.14 Enrolment in M.Sc Programmes during 2020-2021 (Castewise)

Dept. / Year	I & II					III & IV				
	OP	SC	ST	OBC	TOTAL	OP	SC	ST	OBC	TOTAL
M.Sc (CY)	11 (5)	4 (2)	0 (0)	7 (2)	22 (9)	11 (6)	4 (3)	0 (0)	8 (4)	23 (13)
M.Sc MA)	12 (3)	4 (2)	0 (0)	7 (1)	23 (6)	5 (1)	4 (0)	0 (0)	12 (4)	21 (5)
M.Sc (PH)	9 (3)	4 (1)	0 (0)	5 (1)	18 (5)	9 (1)	4 (1)	0 (0)	3 (2)	16 (4)
M.Sc (BT)	5 (2)	1 (0)	1 (0)	4 (2)	11 (4)	5 (3)	2 (1)	0 (0)	4 (2)	11 (6)
M. Sc (EES)	10 (7)	3 (1)	2 (0)	3 (1)	18 (9)	8 (3)	2 (0)	2 (0)	5 (2)	17 (5)
Total	47 (20)	16 (6)	3 (0)	26 (7)	92 (33)	38 (14)	16 (5)	2 (0)	32 (14)	88 (33)

(Number of female students indicated in parentheses; the total number is inclusive of the number of female students)

3.4.15 Enrolment in MBA programmes during 2020-2021(Gender wise)

Master of Business Administration (MBA)	I & II Semester	III & IV Semester
	20 (12)	28 (12)

(Number of female students indicated in parentheses; the total number is inclusive of the number of female students)

3.4.16 Enrolment in MBA Programme during 2020-2021(Castewise):

MBA	MBA I & II					MBA III & IV				
	OP	SC	ST	OBC	TOTAL	OP	SC	ST	OBC	TOTAL
	16 (8)	2 (2)	0 (0)	2 (2)	20 (12)	21 (10)	2 (0)	0 (0)	5 (2)	28 (12)

(Number of female students indicated in parentheses; the total number is inclusive of the number of female students)

3.4.17 Enrolment in MSW Programme during 2020-2021 (Genderwise)

Master of Social Work (MSW)	I & II Semester	III & IV Semester
	6 (5)	1 (1)

(Number of female students indicated in parentheses ; the total number is inclusive of the number of female students)

3.4.18 Enrolment in MSW Programme during 2020-2021(Castewise)

MSW	MSW I & II					MSW III & IV				
	OP	SC	ST	OBC	TOTAL	OP	SC	ST	OBC	TOTAL
	5 (4)	0 (0)	0 (0)	1 (1)	6 (5)	1 (1)	0 (0)	0 (0)	0 (0)	1 (1)

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(Number of female students indicated in parentheses; the total number is inclusive of the number of female students)

3.5 Exam and Evaluation:

Performance of a student is assessed throughout the semester and assessment in a course is made based on his/her performance. The evaluation system is based on relative grading. For each theory paper of any academic semester there is a mid-term and an end-term examination.

3.6 Admission Statistics

3.6.1 Admission of Research Scholars for Regular PhD programme during 2021-2022

SL. NO.	Branch of Research Study	Gender		Caste				Total
		Male	Female	OP	SC	ST	OBC	
1	Biotechnology	3	2	3	0	0	2	5
2	Chemical Engineering	2	2	2	0	1	1	4
3	Chemistry	0	2	2	0	0	0	2
4	Civil Engineering	5	1	3	0	1	2	6
5	Computer Science & Engineering	7	2	5	1	1	2	9
6	Earth & Environmental Studies	0	0	0	0	0	0	0
7	Electrical Engineering	6	1	4	1	0	2	7
8	Electronics & Communications Engineering	1	4	2	1	0	2	5
9	Humanities & Social Sciences	1	1	1	1	0	0	2
10	Management Studies	1	0	1	0	0	0	1
11	Mathematics	4	0	1	0	1	2	4
12	Mechanical Engineering	7	1	3	2	0	3	8
13	Metallurgical & Materials Engineering	5	0	1	2	0	2	5
14	Physics	3	1	2	1	0	1	4
15	Centre for Research on Environment and Water (CREW)	0	0	0	0	0	0	0
16	Centre for Biomedical Engineering & Assistive Technology (BEAT)	0	0	0	0	0	0	0
17	Centre for Advanced Research on Energy (CARE)	0	0	0	0	0	0	0
18	Centre of Excellence on IoT and Intelligent Systems (IoTIS)	0	0	0	0	0	0	0
Total		45	17	30	9	4	19	62

3.6.2 Admission of Research Scholars for Professional PhD programme (2021-2022)

SL. NO.	Branch of Research Study	Gender		Caste				Total
		Male	Female	OP	SC	ST	OBC	
1	Biotechnology	0	0	0	0	0	0	0
2	Chemical Engineering	2	2	2	0	0	2	4
3	Chemistry	1	0	1	0	0	0	1
4	Civil Engineering	0	0	0	0	0	0	0
5	Computer Science & Engineering	0	1	1	0	0	0	1
6	Earth & Environmental Studies	0	0	0	0	0	0	0
7	Electrical Engineering	3	2	5	0	0	0	5
8	Electronics & Communications Engineering	4	4	7	0	0	1	8
9	Humanities & Social Sciences	1	0	1	0	0	0	1
10	Management Studies	1	1	2	0	0	0	2
11	Mathematics	1	1	2	0	0	0	2
12	Mechanical Engineering	0	0	0	0	0	0	0
13	Metallurgical & Materials Engineering	0	0	0	0	0	0	0
14	Physics	2	1	3	0	0	0	3
15	Centre for Research on Environment and Water (CREW)	0	0	0	0	0	0	0



16	Centre for Biomedical Engineering & Assistive Technology (BEAT)	1	0	1	0	0	0	1
17	Centre for Advanced Research on Energy (CARE)	0	0	0	0	0	0	0
18	Centre of Excellence on IoT and Intelligent Systems (IoTIS)	0	0	0	0	0	0	0
	Total	16	12	25	0	0	3	28

3.6.3 Total strength of Research Scholars for Regular PhD programme in 2021-2022

SL. NO.	Branch of Research Study	Gender		Caste				Total
		Male	Female	OP	SC	ST	OBC	
1	Biotechnology	25	24	33	7	1	8	49
2	Chemical Engineering	17	12	20	4	4	4	29
3	Chemistry	12	8	14	4	0	2	20
4	Civil Engineering	16	4	10	3	1	6	20
5	Computer Science & Engineering	38	18	36	3	3	14	56
6	Earth & Environmental Studies	1	2	2	0	0	1	3
7	Electrical Engineering	31	6	21	6	1	9	37
8	Electronics & Communications Engineering	17	9	13	6	1	6	26
9	Humanities & Social Sciences	6	8	9	2	0	3	14
10	Management Studies	5	3	5	1	0	2	8
11	Mathematics	23	13	20	5	1	10	36
12	Mechanical Engineering	26	1	16	4	0	7	26
13	Metallurgical & Materials Engineering	20	1	11	2	0	8	21
14	Physics	16	9	14	5	0	6	25
15	Centre for Research on Environment and Water (CREW)	0	0	0	0	0	0	0
16	Centre for Biomedical Engineering & Assistive Technology (BEAT)	0	0	0	0	0	0	0
17	Centre for Advanced Research on Energy (CARE)	0	0	0	0	0	0	0
18	Centre of Excellence on IoT and Intelligent Systems (IoTIS)	0	0	0	0	0	0	0
	Total	253	118	224	52	9	86	371

3.6.4 Total strength of Research Scholars for Professional PhD programme (2021-22)

SL. NO.	Branch of Research Study	Gender		Caste				Total
		Male	Female	OP	SC	ST	OBC	
1	Biotechnology	2	3	4	0	0	1	5
2	Chemical Engineering	12	11	18	2	0	3	23
3	Chemistry	5	3	7	1	0	0	8
4	Civil Engineering	16	3	15	3	0	1	19
5	Computer Science & Engineering	27	11	34	2	1	1	38
6	Earth & Environmental Studies	3	1	4	0	0	0	4
7	Electrical Engineering	17	5	21	0	0	1	22
8	Electronics & Communications Engineering	28	9	32	1	0	4	37
9	Humanities & Social Sciences	7	4	10	0	0	1	11
10	Management Studies	13	7	19	1	0	0	20
11	Mathematics	5	2	5	0	0	2	7
12	Mechanical Engineering	20	1	17	3	0	1	21
13	Metallurgical & Materials Engineering	5	0	4	1	0	0	5
14	Physics	12	5	10	5	0	2	17
15	Centre for Research on Environment and Water (CREW)	0	0	0	0	0	0	0
16	Centre for Biomedical Engineering & Assistive Technology (BEAT)	1	0	1	0	0	0	1

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SL. NO.	Branch of Research Study	Gender		Caste				Total
		Male	Female	OP	SC	ST	OBC	
17	Centre for Advanced Research on Energy (CARE)	0	0	0	0	0	0	0
18	Centre of Excellence on IoT and Intelligent Systems (IoTIS)	0	0	0	0	0	0	0
	Total	173	65	201	19	1	17	238

3.6.5 Students admitted to B.Tech programmes from various annual income groups during 2021-2022- 1st Year

SLNO.	STATE	Below Rupees 1lakh	Between Rupees 1lakh To Rupees 5lakhs	Above Rupees 5lakhs	TOTAL
1	Andhra Pradesh	48	6	34	88
2	Assam	0	2	0	2
3	Bihar	47	24	32	103
4	Chattishgarh	0	0	1	1
5	Delhi	1	0	2	3
6	Goa	0	0	1	1
7	Gujarat	0	0	2	2
8	Haryana	0	0	3	3
9	Jammu & Kashmir	0	0	0	0
10	Jharkhand	6	8	8	22
11	Karnataka	2	0	2	4
12	Madhya Pradesh	0	1	5	6
13	Maharashtra	1	2	4	6
14	Meghalaya	0	0	0	0
15	Mizoram	0	0	0	0
16	Odisha	2	1	5	8
17	Sikkim	1	0	0	1
18	Rajasthan	3	7	2	12
19	Tamil Nadu	1	1	1	3
20	Telangana	4	2	9	15
21	Tripura	1	0	0	1
22	Uttar Pradesh	20	12	19	51
23	Uttaranchal	0	1	2	3
24	West Bengal	72	75	163	310
25	Andaman & Nicobar	0	3	8	11
TOTAL		209	145	303	657

3.6.6 The Number Of Candidates Admitted To B.Tech & M.Tech Dual Degree Programme From Various Annual Income Groups During 2021-2022- 1st Year

SLNO.	STATE	Below Rupees 1lakh	Between Rupees 1lakh to Rupees 5lakhs	Above Rupees 5lakhs	TOTAL
1	Andhra Pradesh	1	0	0	1
2	Bihar	1	0	0	1
3	Telangana	0	0	0	0
4	Uttar Pradesh	2	0	0	2
5	West Bengal	2	0	2	4
TOTAL		6	0	2	8



3.6.7 The Number Of Candidates Admitted To Integrated M. Sc. Programme From Various Annual Income Groups During 2021-2022- 1st Year

SLNO	STATE	Below Rupees 1lakh	Between Rupees 1lakh to Rupees 5lakhs	Above Rupees 5lakhs	TOTAL
1	Andhra Pradesh	0	0	1	1
2	Bihar	0	0	2	2
3	Jharkhand	0	0	1	1
4	Maharashtra	0	0	0	0
5	Orissa	0	0	1	1
6	Telangana	0	0	0	0
7	Uttar Pradesh	0	0	1	1
	TOTAL	2	0	11	13

3.6.8 The Details Of Admission To The PG Programmes During 2021-2022 -1st Year

Department	PG Program	OPEN	OBC	SC	ST	TOTAL
Physics	Advanced Material Science & Technology	3	0	2	0	5
Biotechnology	Biotechnology	10	5	2	0	17
Chemical Engineering	Chemical Engineering	6	1	0	0	7
Chemical Engineering	Energy Resources and Sustainable Environmental Engineering	5	1	0	0	6
Computer Science & Engineering	Computer Science & Engineering	26	17	7	1	51
Earth and Environmental Studies (Coordinating)	Environmental Science & Technology	9	4	4	2	19
Mechanical Engineering	Fluid Mechanics and Heat Transfer	7	5	2	0	14
Civil Engineering	Geotechnical Engineering	12	5	3	0	20
Mechanical Engineering	Machine Design	11	5	0	0	16
Metallurgical and Materials Engineering	Metallurgy and Materials Technology	5	1	1	0	7
Electronics and Communication Engineering	Microelectronics & VLSI	7	9	3	1	20
Mathematics	Operations Research	9	3	1	0	13
Electrical Engineering	Power Electronics & Machine Drives	10	6	3	0	19
Electrical Engineering	Power Systems	12	4	3	0	19
Electrical Engineering	Instrumentation and Control	7	1	2	0	10
Civil Engineering	Structural Engineering	9	7	2	1	19
Electronics and Communication Engineering	Telecommunication Engineering	8	2	0	0	10
Mechanical Engineering	Thermal Engineering	12	1	0	1	14
Total M. Tech.		168	77	35	6	286
Chemistry	MSc in Chemistry	12	8	4	0	24
Physics	MSc in Physics	12	7	4	0	23
Mathematics	MSc in Mathematics	13	7	4	0	24
EES	MSc in Applied Geology & Geoinformatics	11	3	3	2	19
Biotechnology	MSc in Life Science	7	4	2	1	14
Management Studies	MBA	21	2	3	0	26
HSS	MSW	6	1	0	0	7
Total Admission		250	109	55	9	423

3.6.9 The Details Of Admission Of Students Under EWS To The Different Programmes During 2021-2022 -1st Year

Department	PG Program / Specialization	EWS		
		Male	Female	TOTAL
Physics	Advanced Material Science & Technology	0	0	0

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Department	PG Program / Specialization	EWS		
		Male	Female	TOTAL
Biotechnology	Biotechnology	0	1	1
Chemical Engineering	Chemical Engineering	0	0	0
Chemical Engineering	Energy Resources and Sustainable Environmental Engineering	0	0	0
Computer Science & Engineering	Computer Science & Engineering	4	1	5
Earth and Environmental Studies (Coordinating)	Environmental Science & Technology	0	0	0
Mechanical Engineering	Fluid Mechanics and Heat Transfer	1	1	2
Civil Engineering	Geotechnical Engineering	3	0	3
Mechanical Engineering	Machine Design	1	0	1
Metallurgical and Materials Engineering	Metallurgy and Materials Technology	0	0	0
Electronics and Communication Engineering	Microelectronics & VLSI	1	1	2
Mathematics	Operations Research	2	0	2
Electrical Engineering	Power Electronics & Machine Drives	1	0	1
Electrical Engineering	Power Systems	0	0	0
Electrical Engineering	Instrumentation and Control	1	0	1
Civil Engineering	Structural Engineering	3	0	3
Electronics and Communication Engineering	Telecommunication Engineering	0	0	0
Mechanical Engineering	Thermal Engineering	1	0	1
	Total M. Tech.	18	4	22
Chemistry	MSc in Chemistry	2	0	2
Physics	MSc in Physics	3	2	5
Mathematics	MSc in Mathematics	2	2	4
EES	MSc in Applied Geology & Geoinformatics	0	2	2
Biotechnology	MSc in Life Science	0	1	1
Management Studies	MBA	1	0	1
HSS	MSW	0	0	0
Total Admission		26	11	37

SL. NO.	Branch of Research Study	EWS		Total
1	Biotechnology	1	0	1
2	Chemical Engineering	0	0	0
3	Chemistry	0	1	1
4	Civil Engineering	1	0	1
5	Computer Science & Engineering	0	0	0
6	Earth & Environmental Studies	0	0	0
7	Electrical Engineering	1	0	1
8	Electronics & Communications Engineering	0	0	0
9	Humanities & Social Sciences	0	0	0
10	Management Studies	0	0	0
11	Mathematics	0	0	0
12	Mechanical Engineering	0	0	0
13	Metallurgical & Materials Engineering	0	0	0
14	Physics	0	0	0
15	Centre for Research on Environment and Water (CREW)	0	0	0
16	Centre for Biomedical Engineering & Assistive Technology (BEAT)	0	0	0
17	Centre for Advanced Research on Energy (CARE)	0	0	0
18	Centre of Excellence on IoT and Intelligent Systems (IoTIS)	0	0	0
	Total	3	1	4



Name of the programme	EWS		Total
	Male	Female	
Bachelor of Technology in Biotechnology	6	2	8
Bachelor of Technology in Chemical Engineering	6	2	8
Bachelor of Technology in Computer Science & Engineering	14	5	19
Bachelor of Technology in Civil Engineering	6	2	8
Bachelor of Technology in Electronics & Communication Engineering	8	2	10
Bachelor of Technology in Electrical Engineering	8	2	10
Bachelor of Technology in Metallurgical & Materials Engineering	6	2	8
Bachelor of Technology in Mechanical Engineering	13	5	18
B.Tech & M.Tech Dual Degree in Biotechnology	1	0	01
B.Tech & M.Tech Dual Degree in Chemical Engineering	0	1	01
5 year integrated M.Sc in Chemistry	2	0	02
Total	70	23	93

4. Departments

4.1 Department of Biotechnology

4.1.1 Department at a Glance:

The Department of Biotechnology started its journey in the year 2005 with 38 students with a B.Tech. program in Biotechnology, to cater to the growing needs for biotechnologists. More than 750 students have successfully graduated from the department. The M.Tech. program started in the year 2009 and more than 150 students have successfully completed the program. In the year 2020, the department launched its M.Sc. Life Science program which received pan India popularity. The doctoral program started in the year 2008. 44 students have received doctoral degrees and more than 50 students are currently pursuing their PhD. The department started with only three faculty members and has now expanded to a seventeen-strong department. The faculty members are pursuing research in diverse areas of Microbial and Environmental Biotechnology, Signal Transduction, Immunology and its application, Genomics and Metagenomics, Bioinformatics, Molecular Medicine and Stem cell Biology, Renewable energy, Biosensors and Nanobiotechnology. The research in the department is funded by major government funding agencies and industry. The department has also received funding from the DST-FIST program to upgrade its research and developmental activities related to its postgraduate and doctoral programs. Our students have been very successful and have made their mark in the recent past. Many of them have obtained prestigious fellowships to pursue higher education and have secured excellent placements in many esteemed organizations and are successfully carrying their entrepreneur endeavors.

4.1.2 Mission & Vision

Mission

- To produce highly qualified, well-rounded and motivated graduates and postgraduates possessing adequate basic and technical knowledge and understanding in Biotechnology, who can provide service and eventually leadership to the nation and to the world.
- To pursue creative research and develop new technologies in the field of Biotechnology, which can contribute to the industry and to academia.

Vision

- To focus on quality teaching and research and foster innovation in the field of Biotechnology to cater to the needs of society and of the country.

4.1.3 Faculty

Name	Designation	Email-id
Apurba Dey	HAG Professor	apurba.dey@bt.nitdgp.ac.in
Sudip Chattopadhyay	HAG Professor, FNA, FNASc, FASc, JC Bose National Fellow.	sudip.chattopadhyay@bt.nitdgp.ac.in
Sudit Sekhar Mukhopadhyay	Professor	sudit.mukhopadhyay@bt.nitdgp.ac.in
Surabhi Chaudhuri	Professor	surabhi.chaudhuri@bt.nitdgp.ac.in
Kaustav Aikat	Professor	kaustav.aikat@bt.nitdgp.ac.in
Dalia Dasgupta Mandal	Professor	dalia.dasgupta@bt.nitdgp.ac.in
Debjani Dutta	Associate Professor	debjani.dutta@bt.nitdgp.ac.in

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Kazy Sufia Khannam	Associate Professor	sufia.kazy@bt.nitdgp.ac.in
Monidipa Ghosh	Associate Professor	monidipa.ghosh@bt.nitdgp.ac.in
Subhankar Roy Barman	Associate Professor	subhankar.roybarman@bt.nitdgp.ac.in
Ashish Bhattacharjee	Associate Professor	ashish.bhattacharjee@bt.nitdgp.ac.in
Nibedita Mahata	Assistant Professor	nibedita.mahata@bt.nitdgp.ac.in
Oindrilla Mukherjee	Assistant Professor	oindrilla.mukherjee@bt.nitdgp.ac.in
Sougata Saha	Assistant Professor	sougata.saha@bt.nitdgp.ac.in
Debojyoti De	Assistant Professor	debojyoti.de@bt.nitdgp.ac.in
Sudipta Mondal	Assistant Professor	sudipta.mondal@bt.nitdgp.ac.in
Amita Barik	Assistant Professor	amita.barik@bt.nitdgp.ac.in

4.1.4 Equipments (Newly Added)

Sl. No.	Name of the Equipment	Date of Purchase	Amount
1	3 Desktop computers	14-03-2022	2 Lakhs
2	Microcentrifuge	02-12-2021	1.5 Lakhs
3	Western blot apparatus	24-02-2022	1 Lakh
4	Dancing shaker	07-03-2022	0.54 lakhs
5	Dual gas incubator	27-08-2021	6 Lakhs

4.1.5 Labs

Sl. No.	Name of Laboratory	Major equipment
1	UG Lab 1	NA
2	UG Lab 2	NA
3	PG Lab	Spectrophotometer
4	CIF I	Spectrophotometer, Gel documentation system.
5	CIF II	Flow cytometer; Fluorimeter, Sonicator, -80°C freezer, PCR, Freeze dryer
6	Bioinformatics Laboratory	Computational facility
7	Microscopy Room	Fluorescence Microscope, Semi-confocal microscope.
8	Cell Culture Laboratory	CO ₂ incubator, Biosafety cabinet
9	Microbial Products, Drug Delivery Systems and Eco-Toxicology Laboratory	UV Vis Spectrophotometer, Incubator shaker
10	Laboratory of Molecular Plant Pathogen Interactions	Spectrophotometer, Refrigerated centrifuge, PCR machine
11	Microbial Biotechnology Laboratory	GC, UV Vis Spectrophotometer
12	Inflammation Biology and Cancer cell Signaling /Genomic instability and Protein Engineering Laboratory	Real time PCR, Cold centrifuge, etc.
13	Immunobiology Laboratory	Biosafety cabinet Level 3, Sonicator, Centrifuge, Free Radical Analyzer, Ph meter, Vortex, Gel rocker.
14	Plant Developmental Biology Laboratory	Incubator shaker, PCR machine, Centrifuge machine, gel electrophoresis apparatus.
15	Bioprocess Engineering Laboratory	UV Vis Spectrophotometer
16	Food and Environmental Biotechnology Laboratory	Incubator shaker, UV-Vis Spectrophotometer, PCR machine, GC, -20°C freezer, gel electrophoresis
17	Cellular and molecular Immunology Laboratory	CO ₂ -Incubator, Biosafety Cabinet-II, ELISA reader
18	Infection Biology Laboratory	Dual gas incubator
19	Laboratory of Cellular Differentiation	2D gel electrophoresis apparatus, Real Time PCR Machine with HRM, -80°C Freezer.
20	Chemical Biology Laboratory	Chemical fume hood; Rotary evaporator

4.1.6 PhD Degree awarded till 2021-22

Forty Four.

4.1.7 Specialization

- Plant Developmental Biology



- Biochemistry, Food Biotechnology
- Molecular Immunology and Biosensor development
- Food Biotechnology
- Environmental Biotechnology
- Chemical Biology and Stem Cell Biology
- AI/ML
- Bioinformatics, Computational Biology
- Environmental Microbiology and Biotechnology, Bioremediation, Microbial genomics and metagenomics, Microbial diversity
- Immunology, Molecular Biology
- Biotechnology
- Cell and Molecular Biology
- Molecular toxicology, Bioremediation, Drug delivery system
- Molecular Plant Pathogen Interactions
- Bionanotechnology
- Microbial Fermentation and Biochemical Engineering
- Biotechnology
- Infection Biology, Cell signaling, Pathophysiology
- Cellular and molecular biology

4.1.8 Proposed Plan for Research

- Light Signal Transduction
- Identification of unique vaccine candidates and Drug development in cancer treatment
- Nanoparticles as antibiofouling agent
- Probiotics in functional foods
- Regulatory role of SNPs on PCOS
- Contribution of gut microbes in obesity and Type 2 Diabetes
- Structural and functional analysis of disordered regions in unbound and bound protein-protein and protein-nucleic acid complexes
- Exploring diversity and metabolic potential of deep biosphere microorganisms, CO₂ capture and conversion to value added products by chemolithoautotrophic bacteria from deep biosphere underneath the Deccan Traps
- 1.DNA damage repair and cancer.2. Making better cellulase enzyme for bioethanol production.
- Obesity, Stress Responses and Inflammation
- Mechanistic insight on bacterial delignification and bioconversion of LCBs into valuables
- Understanding the rice - blast pathosystem
- Development of novel nanomaterials based on the peptide self-assembly for multifaceted applications
- Environmental Biotechnology
- Microbial production of lactic acid, using natural substrates, for production of bioplastic
- Production of biofuel and other value-added products from oleaginous microorganisms in a biorefinery approach
- Microalgal biofuels
- Infection Biology, Cell signaling, Pathophysiology
- Identification and molecular characterization of the genes that are involved in the process of inflammation and cancer
- Gut Microbiome; Helicobacter pylori and pathogenesis

4.1.9 Area of Research Interest

- Metabolic Disorder
- Chemical Biology
- AI/ML approach to multi omics and digital health
- Gene expression
- Food Biochemistry, Metabolomics, Functional Food
- Parasite genomics and Anti-cancer therapeutics; Sensor optimization
- Microbial Biotechnology
- Macromolecular interactions, RNA Bioinformatics, Intrinsically Disordered Proteins
- Petroleum microbiology and bioremediation of crude oil contaminated environments, Microbiology of arsenic contaminated groundwater,
- Microbiome of deep subsurface environments, Microbial genomics and metagenomics, CO₂ capture and conversion to value added products by chemolithoautotrophic microorganisms
- Infection Biology, Microbiome, Host-Pathogen Interaction
- Molecular Biology and Protein engineering
- Protein Arginylation

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- Bioremediation and its mode of action. ecotoxicological risk assessments, Microbial bioactive compounds production and their applications using suitable drug delivery system.
- GPCRs, Fungal Cell Wall, Penicillin biosynthesis etc. with respect to rice blast disease and development of RNAi mediated resistance to rice blast
- Peptide self-assembly, nanobiotechnology, Protein folding and aggregation
- Biodegradation of phenolic compounds
- Biofuels
- Bioplastics
- Environmental Biotechnology
- Infection Biology, Cell signaling, Pathophysiology
- Inflammation biology, Cancer cell signaling

4.1.10 Institute Industry Collaboration

Collaborating Institute Organization	Areas of collaboration	Collaboration Activities
Fortis India Pvt. Ltd., Hyderabad	Expression of Human proteins	Expression of human protein in Pichia expression system. Modification of Pichia cells for high expression of human proteins.
Central Manufacturing Technology Institute (CMTI), Bengaluru	Biosensor development	Optimization of the sensor

4.1.11 Collaboration with Academic and Research Institutions

Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram	Functional food	Dr. Hari Kumar	Research and Joint Publication
Indian Institute of Technology, Guwahati	Biomarkers and Sensors	Prof. Pranab Mandal	Research and Joint Publication
NIPGR	Research	Dr. Alok K. Sinha	Research
University of Hyderabad	Research	Professor RP Sharma	Joint research project
ICGEB New Delhi	Research	Prof. S. K. Sopory	Joint research project
Samsung Biomedical Research Institute, Sungkyunkwan University School of Medicine, South Korea	Diabetes and Stem cell projects	Prof Kyeong Kyu Kim	Sharing Research data and Materials, Animal experiment collaboration
NIT Calicut	Systems Biology, Bioinformatics	Dr. Ravindra Kumar	Joint Research
SRM Institute of Science and Technology	Chemistry	Dr. Priyadip Das	Joint Research, Project application
IIT Guwahati	Research	Prof Tapas Mandal	Joint project submitted
IIT Bombay	Research on rice blast - blast pathosystem	Dr. Rajesh Patkar	Research collaboration
Transdisciplinary University, Bangalore	Research on rice blast - blast pathosystem	Prof. Malali Gowda	Research collaboration
Yenepoya University, Mangalore	Research on rice blast - blast pathosystem	Prof. T. S. K. Prasad	Research collaboration



Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
University of Petroleum and Energy Studies(UPES), Dehradun	Drug development	Dr. Koushik Das	Joint Project submission
Tel Aviv University	Developement of peptide based biomaterials	Prof. Ehud Gazit	Joint reserach and publication
University of Illinois at Chicago	Molecular dynamic simulation of self-assembled peptide	Prof. Petr Král	Joint reserach and publication
Institute of Advanced Study in Science & Technology, Guwahati, 781035, Assam, India	Chemical Biology	Jagat Chandra Borah	Collaborative research and joint Publication
Visva-Bharati University	Studies on seed borne mycoflora associated with oilseed (mustard) and cereal crop (rice) of Indo-Gangetic area and their eco-friendly management	Co-guide at Visva-Bharati was Dr.M.K.Biswas, Plant Pathology dept.	Joint guidance of the Ph.D work of part-time Ph.D scholar
Indian Institute of Technology Kharagpur	Sponsored Project	Dr Sufia Kazy, NIT Durgapur, Prof Pinaki Sar, IIT Kharagpur	Joint Research Project
Borehole Geophysics Research Laboratory, MoES, Karad, MH	Deep subsurface sample collection for research project	Dr Sufia Kazy, NIT Durgapur, Prof Pinaki Sar, IIT Kharagpur, Dr. Sukanta Roy, BGRL	sample collection for research on deep biosphere
Central Mechanical Engineering Research Institute, Durgapur	Research projects on Biopolymer Development and its Applications	Mahata, N., NIT DGP, Chanda, N., CSIR-CMERI DGP.	Research
Bose Institute, Kolkata	Cellular Signaling and Inflammation mediated Cancer	Prof. Kaushik Biswas	Collaborative Research
National Institute of Cholera and Enteric Diseases, Kolkata	Research projects on Infectious Diseases	N. Mahata, NIT DGP; H. Koley, NICED, Kolkata	Research

4.1.12 Workshops/Seminars Organized

Name of Key Speaker(s)	Name of the Programme	Date of the Programme
Dr. Indranil Basu & Soma Kundu MondalRay	Balance Mind And Heart And Stay Fit Under Mind To Health Series	2021-12-22
Prof. Nick Talbot, Prof. Jonathan Jones, Prof. Yulin Jia, Prof. Mark Farman, Prof. Mark Banfield, Prof. Aardraa Kachroo, Dr. Naweed Naqvi etc.	Recent Advances in Molecular Plant-Pathogen Interactions (RAMPPPI - 2021)	2021-09-06
Dr Indranill BasuRay and Mrs Soma Kundu	Balance Mind and Heart and Stay Fit	0012-06-28
Prof. Gagandeep Kang, Prof. Mitali Chatterjee, Dr. Ellora Sen, Dr. Despina Moschou ,Prof. Monica J Carson, Dr. Sharmila Mande, Dr. Debrupa Lahiri, Dr. Hina Mehta, Prof. Nicola Curtin, Dr. Monidipa Ghosh	Women's Leadership in Science and Technology	2021-10-30
Dr. Arun Bandyopadhyay, Dr. Amit Awasthi, , Dr. Prafullakumar B. Tailor, Dr. Dipyaman Ganguly	Philosophy of Immunology in Health Sciences	2021-09-18

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4.1.13 Journal: Published in 2021-2022

Author(s) Name	Paper Name	Journal Name	Others Info
Saha A, Mohapatra B, Kazy SK, Sar P	Variable response of arsenic contaminated groundwater microbial community to electron acceptor regime revealed by microcosm based high-throughput sequencing approach	Journal of Environmental Science and Health, Part A	Volume:56 Issue No:7 Page No:804-817 Year:2021 Month:Jul
Dodda SR, Hossain M, Kapoor BS, Dasgupta S, B VPR, Aikat K, Mukhopadhyay SS	Computational approach for identification, characterization, three-dimensional structure modelling and machine learningbased thermostability prediction of xylanases from the genome of <i>Aspergillus fumigatus</i> .	Comput Biol Chem	Volume:doi: 10.1016/j.compbiolchem.2021 Issue No:91 Page No:107451 Year:2021 Month:Apr
Pagano G, Tiano L, Pallardó FV, Lyakhovich A, Mukhopadhyay SS, Di Bartolomeo P, Zatterale A, Trifuoggi M.	Re-definition and supporting evidence toward Fanconi Anemia as a mitochondrial disease: Prospects for new design in clinical management.	Redox Biol	Volume:doi: 10.1016/j.redox Issue No:40 Page No:101860 Year:2021 Month:Apr
Banishree Sahoo, Surabhi Chaudhuri	Removal of lindane in liquid culture using soil bacteria and toxicity assessment in human skin fibroblast and HCT116 cell lines	Environmental Technology	Volume:https://doi.org/10.1080/09593330.2021.1998229 Issue No: Page No: Year:2021 Month:Nov
Ravi Kumar Arun, Nirupam Sikdar, Debolina Roy, Surabhi Chaudhuri, Nripen Chanda	Bacteria-driven Single-inlet Microfluidic Fuel Cell with Spiral Channel Configuration	ChemistrySelect	Volume:6 Issue No:28 Page No:7242-7246 Year:2021 Month:Jul
Tuli Chatterjee, Moupiya Ghosh, Moumita Maji, Monidipa Ghosh, Swapan Kumar Pradhan, Ajit Kumar Meikap	Study of microstructural and electrical properties of silver substituted hydroxyapatite for drug delivery applications	Materials Today Communications	Volume:31 Issue No: Page No:103360 Year:2022 Month:Jun
Apurba Dey Priyanka Sarkar, Moumita Maji, Monidipa Ghosh	Kinetic modelling of high concentration 4-Nitrophenol biodegradation by an isolated bacterial consortium and posttreatment ecotoxicity analysis	Biocatalysis and Agricultural Biotechnology 41 (2022)	Volume:41 Issue No: Page No:102316 Year:2022 Month:Mar
Monidipa Ghosh ¹ *, Moumita Maji, Praveen Kivale	A novel therapy to combat nonsmall cell lung carcinoma (A549) using platinum (IV) and barium titanate conjugate	Journal of Drug Delivery Science and Technology	Volume: Issue No: Page No: Year:2022 Month:Sep
Subhadip Saha, Shubham Vashishtha, Bishwajit Kundu, Monidipa Ghosh	In-silico design of an immunoinformatics based multi-epitope vaccine against <i>Leishmania donovani</i>	BMC Bioinformatics	Volume:319 Issue No:23 Page No: Year:2022 Month:Aug
Borah AK, Sharma P, Singh A, Kalita KJ, Saha S, Borah JC.	Adipose and non-adipose perspectives of plant derived natural compounds for mitigation of obesity.	Journal of Ethnopharmacology	Volume:15 Issue No:280 Page No:114410 Year:2021 Month:Nov



Author(s) Name	Paper Name	Journal Name	Others Info
Sarkar, and RoyBarman, S.	Spray-induced gene silencing of pathogenicity gene MoDES1 via exogenous gene double-stranded RNA can confer partial resistance against fungal blast in rice	Frontiers in Plant Science	Volume:12 Issue No:# Page No:733129 Year:2021 Month:Nov
Sarkar, S. Srinivasan, I. and Roy-Barman, S.	Optimisation of a rapid and efficient transformation protocol for fungal blast-susceptible indica rice cultivars HR-12 and CO-39	Plant Biotechnology	Volume:38 Issue No:# Page No:433-441 Year:2021 Month:Dec
Naskar J, Chowdhury S, Adhikary A, Pal S, Kazy S K	Strength enhancement of lateritic soil through mechanical mixing with magnetite nanoparticles, starch solution, and calcite precipitating bacteria	Arabian Journal of Geosciences	Volume:14 Issue No:18 Page No:1901, 1-12 Year:2021 Month:Sep
Pal S., Dutta A., Sarkar J, Roy A, Sar P, Kazy S K	Exploring the diversity and hydrocarbon bioremediation potential of microbial community in the waste sludge of Duliajan oil field, Assam, India	Environmental Sc. & Pollution Research	Volume:28 Issue No:36 Page No:50074-50093 Year:2021 Month:May
Mohapatra B, Saha A, Chowdhury AN, Kar A, Kazy SK, Sar P	Geochemical, metagenomic, and physiological characterization of the multifaceted interaction between microbiome of an arsenic contaminated groundwater and aquifer sediment	Journal of Hazardous Materials	Volume:412 Issue No: Page No:125099 Year:2021 Month:Jun
Mondal, S., Reddy, S., & Mukhopadhyay, S. S	Optimized structure of monoubiquitinated FANCD2 (human) at Lys 561: a theoretical approach	Journal of Biomolecular Structure and Dynamics	Volume:DOI: 10.1080/07391102.2021.1929490 Issue No:May 20 Page No:1-15 Year:2021 Month:May
Subba Reddy Dodda, Musaddique Hossain, Bishwajit Singh Kapoor, Shreya Dasgupta, Venkata P. Reddy B, Kaustav Aikat, Sudit S. Mukhopadhyay	Computational approach for identification, characterization, three-dimensional structure modelling and machine learningbased thermostability prediction of xylanases from the genome of <i>Aspergillus fumigatus</i>	Computational Biology and Chemistry	Volume:91 Issue No:https://doi.org/10.1016/j.combiolchem.2021.107451 Page No:Article no. 107451 Year:2021 Month:Apr
Hazra, Moumita, Dalia Dasgupta Mandal, Tamal Mandal, B. Prakash Rao, and Suman Samaddar	Optimization and characterization of hepatoprotective andrographolide microspheres in the necrotic rat model	Journal of Drug Delivery Science and Technology	Volume:65 Issue No:102679 Page No: Year:2021 Month:Oct
Ranjan, Jyoti, Vayam Joshi, Tamale Mandal, and Dalia Dasgupta Mandal	Ecotoxicological risk assessment of pentachlorophenol, an emerging DBP to plants: evaluation of oxidative stress and antioxidant responses	Environmental Science and Pollution Research	Volume:28 Issue No:22 Page No:27954-27965 Year:2021 Month:Jun

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Author(s) Name	Paper Name	Journal Name	Others Info
Majumdar, Subhasree, Tamal Mandal, and Dalia Dasgupta Mandal	Comparative performance evaluation of chitosan based polymeric microspheres and nanoparticles as delivery system for bacterial β -carotene derived from <i>Planococcus</i> sp. TRC1	International Journal of Biological Macromolecules	Volume:195 Issue No: Page No:384-397 Year:2022 Month:Jan
Majee, Subhasish, Gopinath Halder, Dalia Dasgupta Mandal, O. N. Tiwari, and Tamal Mandal	Transforming wet blue leather and potato peel into an ecofriendly bio-organic NPK fertilizer for intensifying crop productivity and retrieving valueadded recyclable chromium salts	Journal of Hazardous Materials	Volume:411 Issue No:125046 Page No: Year:2021 Month:Jun
Ranjan, Jyoti, Vayam Joshi, Tamale Mandal, and Dalia Dasgupta Mandal	Ecotoxicological risk assessment of pentachlorophenol, an emerging DBP to plants: evaluation of oxidative stress and antioxidant responses	Environmental Science and Pollution Research	Volume:28 Issue No:22 Page No:27954-27965 Year:2021 Month:Jun
Ghosh S, Dutta N, Banerjee P, Gajbhiye RL, Sareng HR, Kapse P, Pal S, Burdelya L, Mandal NC, Ravichandiran V, Bhattacharjee A, Kundu GC, Gudkov AV, Pal M.	Induction of monoamine oxidase A-mediated oxidative stress and impairment of NRF2-antioxidant defence response by polyphenolrich fraction of <i>Bergenia ligulata</i> sensitizes prostate cancer cells in vitro and in vivo.	Free Radic Biol Med.	Volume:172 Issue No: Page No:136-151 Year:2021 Month:Jun
Indrani Banerjee, Tithli Sadhu, Rajat Mukherjee, Ashish Bhattacharjee, Jitamanyu Chakrabarty	Nutritional consequences of sundrying, freezing, and frying of <i>Lates calcarifer</i> on human health.	J. Indian Chem. Soc.	Volume:98 Issue No:10 Page No:100158 Year:2021 Month:Oct
Pritam Biswas, Chandreyee Datta, Parul Rathi, Ashish Bhattacharjee	Fatty acids and their lipid mediators in the induction of cellular apoptosis in cancer cells (Review).	Prostaglandins and Other Lipid Mediators	Volume:160 Issue No: Page No:106637 Year:2022 Month:Mar
Ria Majumdar, Umesh Mishra, Nibedita Mahata, Biswanath Bhunia	Process optimisation for improvement of crystallinity index of cellulose nanofibre from <i>Imperata cylindrica</i> by Taguchi methodology	Biomass Conversion and Biorefinery	Volume:https://doi.org/10.1007/s13399-022-02385-5 Issue No: Page No: Year:2022 Month:
Prashant Bhardwaj, G.P.Biswas, Nibedita Mahata, Susanta Ghanta, Biswanath Bhunia	Exploration of binding mechanism of triclosan towards cancer markers using molecular docking and molecular dynamics	Chemosphere	Volume:293 Issue No: Page No:133550 Year:2022 Month:
Namita Jaiswal, Sudeshna Halder, Nibedita Mahata, and Nripen Chanda	Bi-Functional Gold Nanorod-Protein Conjugates with Biomimetic BSA@Folic Acid Corona for Improved Tumor Targeting and Intracellular Delivery of Therapeutic Proteins in Colon Cancer 3D Spheroids	ACS Applied Bio Materials	Volume:5 Issue No:4 Page No:1476-1488 Year:2022 Month:



Author(s) Name	Paper Name	Journal Name	Others Info
Tanmay Ghosh, Mohan Kumar Biswas, Kaustav Aikat	Protein profiling of rice (Khas) and mustard (Jhumi) seeds before and after infected by seed borne mycoflora	Materials Today: Proceedings	Volume:51 Issue No:Part 1 Page No:815-819 Year:2022 Month:Jan
• Sarkar, P., Show, S., Tiwari, H., Dey, A	Strategic utilization of Groundnut Shell (Arachis hypogaea) immobilized bacterial consortium for enhanced 4-Nitrophenol remediation: Statistical optimization, kinetic modelling and reusability. Biomass Conversion and Biorefinery	Biomass Conversion and Biorefinery	Volume: https://doi.org/10.1007/s13399-022-02458-5 Issue No: Page No: Year:2022 Month:
• Sarkar, P., Maji, M., Ghosh, M., Dey, A	Kinetic studies on high concentration 4-Nitrophenol biodegradation by an isolated bacterial consortium and posttreatment ecotoxicity analysis	Biocatalysis and Agricultural Biotechnology	Volume: Issue No: Page No: Year:2022 Month:
Sarkar, P., Dey, A	An emerging technique for dye abatement: An overview.	Phycoremediation-	Volume: Issue No: Page No: Year:2021 Month:

4.1.14 Journal: Accepted for Publication in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
Rohini Samadarsi , Linus Augustin , Chandan Kumar and Debjani Dutta*	In-silico and in-vitro studies on the efficacy of Mangiferin against Colorectal Cancer"	BMC Chemistry	Volume: Issue No: Page No: Year:2022 Month:Feb
S Dutta, T Natoli, D Chanda, Sindhuja R, D De*	A Network based Efficient Drug Repurposing Strategy for Targeting Diabetes	Genes and Diseases	Volume: https://doi.org/10.1016/j.gendis.2022.02.015 Issue No: Page No: Year:2022 Month:Mar

4.1.15 Journal: Published in Others in 2021-2022

Author(s) Name	Paper Name	Journal Name	Others Info
Surbhi Swaroop *, Anandi Batabyal * and Ashish Bhattacharjee	HAT/HDAC: The epigenetic regulators of inflammatory gene expression (Review)	International Journal of Epigenetics	Volume:1 Issue No:5 Page No:1-13 Year:2021 Month:Aug

4.1.16 Conference: Published in 2021-2022 DOI/ISBN

Author(s) Name	Paper Name	Conference Name	Others Info
Subhasis Datta, Debjani Dutta	An in-silico study to investigate the role of beta-cryptoxanthin on obesity	International Chemical Engineering Conference 2021, NIT Jalandhar	DOI/ISBN: https://doi.org/10.1016/j.matpr.2022.01.004 Volume: Issue No: Page No:Pages 18191826 Year:2021 Month:Sep Presenter:CO-AUTHOR
Daiji Brahma, Debjani Dutta	Antioxidant property of betacryptoxanthin produced by Kocuria marina DAGII	International Chemical Engineering Conference 2021, NIT Jalandhar	DOI/ISBN: https://doi.org/10.1016/j.matpr.2022.01.027 Volume: Issue No: Page No:Pages 18331837 Year:2021 Month:Sep Presenter:CO-AUTHOR

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4.1.17 Conference: Published in Others in 2021-2022

Author(s) Name	Paper Name	Conference Name	Others Info
Anamika Nayak and Debjani Dutta.	Application of CRISPR biology in smart packaging technology.	The National Conference on CRISPR/Cas: From Biology to Technology (iCRISPR2021) (Virtual conference)	DOI/ISBN: NA Volume: Issue No: Page No:34 Year:2021 Month:Nov Presenter:CO-AUTHOR
P. K. Saha, P. Sar, R. P. Sahu, A. Dutta, A. Saha, S. Roy and S. K. Kazy	Characterizing the community and CO2 metabolizing potential of chemolithoautotrophic microorganisms from deep subsurface bedrocks underneath the Deccan Traps, India	International Conference on Biotechnology for Resource Efficiency, Energy, Environment, Chemicals and Health (BREEECH 2021)	DOI/ISBN: - Volume: Issue No: Page No:- Year:2021 Month:Dec Presenter:CO-AUTHOR
P. K. Saha, P. Sar, R. P. Sahu, A. Dutta, A. Saha, S. Roy and S. K. Kazy,	Exploring CO2 metabolizing potential of chemolithoautotrophic bacteria enriched from deep subsurface bedrocks under the Deccan Traps of Koyna region, Maharashtra, India,	International Conference on Biotechnology for Sustainable Agriculture, Environment and Health (BSAEH-2021),	DOI/ISBN: - Volume: Issue No: Page No:- Year:2021 Month:Apr Presenter:CO-AUTHOR
A Saha, B Mohapatra, A Gupta, A Kar, AN Chowdhury, SK Kazy, P Sar	Geomicrobiology of Arsenic (As) Contaminated Groundwater of West Bengal Reveals Microbial Role in Sediment Bound Arsenic Mobilization.	GSI Conference: Water Resources of North Eastern and Eastern India: Status, Issues and Strategies	DOI/ISBN: - Volume: Issue No: Page No:107-177 Year:2021 Month:Sep Presenter:CO-AUTHOR

4.1.18 Books Authored

Author Name	Co-Author	Title of the Book	Title of the Chapter	Publication Details
Debjani Dutta	Sahoo, K.K., Datta, S., Nayak, A., Pranaw, K., Goswami, G	Industrial Microbiology and Biotechnology.	Biological Production of Succinic Acid: State of the Art and Future Perspectives.	Publisher: Springer Publication Date: 2022-03-08
Debjani Dutta	Anamika Nayak	Handbook of Microbial Nanotechnology	Nanotechnology based Pathogen identification through surface marker identification	Publisher: Academic press Publication Date: 2022-0318
Neogi, S	Sarkar, P., Chatterjee, P.K., Dutta, S., Dey, A.	The Future of Effluent Treatment Plants- Biological Treatment Systems Elsevier)	Anammox technology for the food industry nitrogenous wastewater treatment. Chapter 23, pp431	Publisher: Elsevier Publication Date: 2021-0518
Sarkar, P.	Tiwari, H., Garkoti, P., Biswas, J., Dey, A	A Synoptic Review. An Innovative Role of Biofiltration in Wastewater Treatment Plants (WWTPs) (Elsevier)	Biofiltration as a Green Technology for Abatement of Volatile Organic Compounds (VOCs):	Publisher: Elsevier Publication Date: 2021-1013
Sufia K Kazy	Rajendra P Sahu, Sourav Mukhopadhyay, Himadri Bose, Sunanda Mandal, Pinaki Sar	Extreme Environment: Unique Ecosystems – Amazing Microbes	Microbial Life in Deep Terrestrial Continental Crust	Publisher: CRC Press Publication Date: 2021-0625



4.1.19 Seminars, Summer/Winter Schools, Short Term Courses Attended

Name of the Programme	Organized By	From Date	To Date	Organizing Country
Online Training on Managing Leadership & High Performing Teams	National Productivity Council	2021-05-20	2021-05-20	India
34th Workshop of the European Helicobacter and Microbiota Study Group	European Helicobacter and Microbiota Study Group	2021-09-18	2022-09-18	Austria
Academy Springer Nature Distinguished Lecture Series 2021: The Microbiome in Health and Disease	Springer Nature, DBT India Alliance	2021-12-01	2021-12-01	India
"Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act 2013 "	National Productivity Council	2021-09-01	2022-09-02	India
Online Elementary FDP on Genome Engineering for Environment	IIT Guwahati	2021-08-23	2021-08-27	India

4.1.20 Ph.D. Supervisor

Topic Name	Scholar	Supervisor	Status	Status Date
Bioprospecting of Dietzia maris NIT-D, a carotenoid producing bacterium from nutraceutical and environmental aspect	Surojit Bera	Debjani Dutta	DEGREE AWARDED	2018-02-15
Exploration of Curcuma amada for Bioactive molecules and its encapsulation for therapeutic applications	Rohini Samadarshi	Debjani Dutta	DEGREE AWARDED	2020-03-02
Optimal Production Strategies for microbial Production	Gargi Goswami	Debjani Dutta & Surabhi Chaudhuri	DEGREE AWARDED	2013-11-13
Bioprospecting of Extracellular enzyme from Xenorhabdus sp	Kumar Pranav	Dr. Debjani Dutta Dr. Lata Nain, ICAR, New Delhi Dr. Surabhi Chaudhuri	DEGREE AWARDED	2014-08-28
Characterization and optimization of pigment production from an isolated bacterial strain	Amit Samanta	Dr. Debjani Dutta Dr. Surabhi Chaudhuri	DEGREE AWARDED	2017-05-02
Investigating the role of beta-cryptoxanthin in oxidative stress and its application in nutraceuticals	Daiji Brahma	Debjani Dutta	ONGOING	2022-03-31
Investigation and Development to stabilize health benefits of fortified β -cryptoxanthin in milk	Debasmita Dutta	Debjani Dutta	ONGOING	2022-03-31
Enhanced β -cryptoxanthin production using Kocuria marina DAGII through medium modulation and comparative metabolome profiling	Sanhita Saha	Debjani Dutta	ONGOING	2022-03-31
Mangiferin as an active packaging ingredient for the preparation of a biodegradable food packaging system.	Anamika Nayak	Debjani Dutta	ONGOING	2022-03-31
Investigation of the concerted role of MYB4 and HY5 in Arabidopsis seedling development	Abhideep Pal	Sudip Chattopadhyay	ONGOING	2022-03-31

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Topic Name	Scholar	Supervisor	Status	Status Date
Investigation of the Functional Interconnection Between ARA4 and HY5 in Arabidopsis Seedling Development	Riya Basu	Sudip Chattopadhyay	ONGOING	2022-03-31
Ultra-short peptides: Alternatives to combat Helicobacter pylori infection and associated gastritis.	Arpita Halder	Oindrilla Mukherjee	ONGOING	2022-03-31
In silico screening and validation of phytocompounds from native Indian medicinal plants to utilize it for the development of therapy against Helicobacter pylori	Arghyadeep Bhattacharjee	Oindrilla Mukherjee	ONGOING	2022-03-31
Riboregulation of Helicobacter pylori oncoprotein cagA	Bivash Sinha	Oindrilla Mukherjee	ONGOING	2022-03-31
Studies on bacterial secondary metabolites: low cost production and application perspectives.	Majumdar, Subhasree	Dalia Dasgupta Mandal	SUBMITTED	2022-09-14
Studies on hazardous impact of pollutants on host and its biological remediation	Ranjan, Jyoti	Dalia Dasgupta Mandal	DEGREE AWARDED	2022-09-14
Studies on role of biosurfactant on bacterial delignification	Paul, Indrani	Dalia Dasgupta Mandal	SUBMITTED	2022-09-14
Bacterial and Enzymatic bioconversion of Lignin from Lignocellulosic biomass into value added products	Singh, Gaurav	Dalia Dasgupta Mandal	ONGOING	2022-03-31
Studies on Biotransformation of waste to wealth and -its ecotoxicological impact	Verma, Abhishek	Dalia Dasgupta Mandal	ONGOING	2022-03-31
Exploration of mechanistic understanding of amyloid aggregation and study of interactions of amyloid fibrils with biological systems.	BODHISATT WA DAS GUPTA	Dr. Sudipta Mondal	ONGOING	2022-03-31
Development of novel functional selfassembling peptide nano structures	Nandita Ghosh	Dr. Sudipta Mondal	ONGOING	2022-03-31
Mitochondrial role of Fanconi anemia (FA) protein/s	JC Bose K	Sudit S. MUKhopadhyay	DEGREE AWARDED	2018-11-24
Engineering of Cellulase isolated from A fumigatus NITDGPKA3 for better activity	SubbaReddy Dodda	Dr. Sudit S. MUKhopadhyay and Dr. K. Aikat	DEGREE AWARDED	2020-09-22
A novel S phase check point and its association with Fanconi anemia proteins	Sneha Khator	Dr. Sudit S. Mukhopadhyay	ONGOING	2022-03-31
Role of Fanconi protein in mitochondrial DNA damage repair	Bishwajit Singh Kapor	Dr. Sudit S. Mukhopadhyay	ONGOING	2022-03-31
LaeA - Its role in molecular pathogenesis of Magnaporthe oryzae	Pallabi Saha	Subhankar Roy-Barman	DEGREE AWARDED	2019-09-10
RNAi-based resistance to rice blast fungus	Atrayee Sarkar	Subhankar Roy-Barman	DEGREE AWARDED	2022-04-21
Functional genomics of GPCRs in Magnaporthe oryzae	Nazmiara Sabnam	Subhankar Roy-Barman	DEGREE AWARDED	2017-11-15
Structure And Function Analysis of Human ATE1 isoforms	Rahul Naga	Sougata Saha	ONGOING	2022-03-31
Bioremediation of lindane by a consortia of bacteria and ecotoxicity assessment	Banishree Sahoo	Surabhi Chaudhuri	DEGREE AWARDED	2021-12-08
PDMS nanoparticles for drug and phytochemicals delivery	Madhu Verma	Surabhi Chaudhuri, Debjnai Dutta, Sri Siva Kumar	ONGOING	2022-03-31



Topic Name	Scholar	Supervisor	Status	Status Date
Production and purification of bacteriocin from probiotic bacteria	Sourav Saha	Surabhi Chaudhuri	ONGOING	2022-03-31
Green synthesis of bimetallic nanoparticles and their application in the development of anti-biofouling coatings	Parna Ganguli	Surabhi Chaudhuri	ONGOING	2022-03-31
Encapsulation of probiotics for functional food development	Maithili Adhikary	Surabhi Chaudhuri	ONGOING	2022-03-31
Application of pumilacidin, a biosurfactant from <i>Bacillus pumilus</i>	Arpan Dasgupta	Surabhi Chaudhuri, Debojyoti De	ONGOING	2022-03-31
Application of pomegranate peel polyphenols in treatment of skin infection	Swamini Saini	Surabhi Chaudhuri, Debnai Dutta, Shamik Ghosh	ONGOING	2022-03-31
Development of computational tools for protein-RNA interactions	Anirban Bhattacharya	Amita Barik	ONGOING	2022-03-31
Prediction and data analysis of bacterial small noncoding RNAs	Debanjan De	Amita Barik	ONGOING	2022-03-31
Meta-omics and systems biology study to decipher obesity associated gut microbial signature pattern and their interaction with host	Deep Chanda	Debojyoti De	ONGOING	2022-03-31
Systems biology study to decipher Type II diabetes associated gut microbial signature pattern and their interaction with host	Jayeeta Chatterjee	Debojyoti De	ONGOING	2022-03-31
An integrated approach to uncover gene regulatory manifestations of genomic variants in polycystic ovary syndrome towards understanding the causal mechanisms expanding cardinal features of PCOS and efficiently repurpose drugs to accelerate the abiding treatment.	Sindhuja Rajavelu	Debojyoti De	ONGOING	2022-03-31
Studies on Biodegradation of 4-Nitrophenol by Bacterial consortium isolated from a pesticide contaminated agricultural soil	Priyanka Sarkar	Apurba Dey	SUBMITTED	2022-05-20
Fermentative production of Xylitol from Water Hyacinth biomass and its process optimization	Rohan Harsh Jadhav	Apurba Dey	ONGOING	2022-03-31
Exploration and Exploitation of Microalgae for Sustainable Biofuel Production	Bobde Kiran Ashok	Prof. Kaustav Aikat & Dr. Ashish Bhattacharjee	DEGREE AWARDED	2021-12-07
Studies on seed borne mycoflora associated with oilseed (mustard) and cereal crop (rice) of Indo-Gangetic area and their eco-friendly management	Tanmay Ghosh	Prof. Kaustav Aikat & Dr.M.K.Biswas (Visva-Bharati University)	DEGREE AWARDED	2022-02-21
Production of biofuel and other value-added products from oleaginous microorganisms in a biorefinery approach	Sudhir Kumar Barik	Prof. Kaustav Aikat	ONGOING	2022-03-31
Bioremediation & Biosorption of Heavy metals from tannery Effluent	Prakash Kumar	Prof. Kaustav Aikat	ONGOING	2022-03-31
Microbial production of lactic acid using whey and rice straw as substrates	Reshmi Verma	Prof. Kaustav Aikat	ONGOING	2022-03-31
Microalgal biofuels	Sandip Mahato	Prof. Kaustav Aikat	ONGOING	2022-03-31

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Topic Name	Scholar	Supervisor	Status	Status Date
Engineering of cellulase enzymes of <i>Aspergillus fumigatus</i> NITDGPKA3 for enhancing their activity	Subba Reddy Dodda	Prof. Sudit Sekhar Mukhopadhyay & Prof. Kaustav Aikat	DEGREE AWARDED	2021-12-02
Molecular cloning, expression, characterization and thermostability enhancement of effector protein, IpaD (Invasion Plasmid Antigen D) from Enteroinvasive <i>Escherichia coli</i> (EIEC)	Sudeshna Halder	N. Mahata	ONGOING	2022-03-31
Study of Ingenious Poly (lactic-co-glycolic acid) Nanoparticle-based Carriers in Cancer Therapeutic Applications	Manosree Chatterjee	N.Mahata, NIT Durgapur; Nripen Chanda, CSIR-CMERI, Durgapur	DEGREE AWARDED	2021-10-07
Nanoscale Delivery Systems for improved Immuno- Therapy in Cancer Management	Namita Jaiswal	N.Mahata, NIT Durgapur; Nripen Chanda, SIR-CMERI, Durgapur	ONGOING	2022-03-31
Pattern recognition receptors' participation in innate immunity dampens the role of macrophages (PRRs)	Pinkan Sadhukhan	N. Mahata	ONGOING	2022-03-31
Biochemical characterization of LPMOs from <i>A. fumigatus</i> NITDGPKA3 and its role in lignocellulosic biomass saccharification enhancement	Musaddique Hossain	Sudit S. Mukhopadhyay	ONGOING	2022-03-31
Regulation of 15-lipoxygenase gene expression and function in monocytes and A549 lung cancer cells.	Ms. Surbhi Swaroop	DR. ASHISH BHATTACHARJEE	ONGOING	2022-03-31
Elucidating the role and deciphering the molecular mechanism of fatty acid-induced monoamine oxidase-a (mao-a) expression in cancer cells	Ms. Suchandra Pal	DR. ASHISH BHATTACHARJEE	ONGOING	2022-03-31
The role of Src kinase and Pyk2 in Monocyte migration	Pradip Das	Ashish Bhattacharjee and Dr. Sudit S. Mukhopadhyay	DEGREE AWARDED	2022-01-12
Improvement of nutritional quality of fish during conventional frying process: a novel approach using artificial intelligence	Tithli Sadhu	Dr. Jitanyu Chakrabarty and Dr. Ashish Bhattacharjee	SUBMITTED	2021-09-06
Exploration and exploitation of Microalgae for Sustainable biofuel production	Bobde Kiran Ashok	Prof. Kaustav Aikat and Dr. Ashish Bhattacharjee	DEGREE AWARDED	2021-12-07
ACTIVATION OF MONOCYTES AND				
CANCER CELLS BY INTERLEUKIN-13 (IL-13) AND ITS EFFECT ON CELLULAR FUNCTION	PRITAM BISWAS	DR. ASHISH BHATTACHARJEE	SUBMITTED	2022-03-10
Repurposing of COPD drug Acumapimod in cancer	Mr. Sourav Paul	DR. ASHISH BHATTACHARJEE	ONGOING	2022-03-31
Cloning and functional characterization of a <i>Leishmania donovani</i> - species-specific Amastin like Surface Protein gene (CBZ37742.1).	Mr. Bapi Biswas	Dr. Monidipa Ghosh	DEGREE AWARDED	2022-01-08
Targeting vaccine and therapeutic targets to combat disease prognosis.	Suvadip Saha	Dr. Monidipa Ghosh	ONGOING	2022-03-31



Topic Name	Scholar	Supervisor	Status	Status Date
Molecular and functional characterization of a tumour specific Platinum (Pt-IV ")-based pro-drug for targeted immunotherapy	Moumita Maji	Dr. Monidipa Ghosh	ONGOING	2022-03-31
Exploring microbial communities and metabolic processes in deep subsurface continental crust underneath the Deccan Traps at Koyna region, Western India	Sunanda Mandal	Kazy Sufia Khannam	ONGOING	2022-03-31
Exploring the diversity and metabolic potential of cultivable chemolithoautotrophic microorganisms from deep continental crust beneath the Deccan Traps, India.	Plaban Kumar Saha	Kazy sufia khannam	ONGOING	2022-03-31
Environmental Microbiology	Mouli Bhattacharyya	Kazy Sufia khannam	ONGOING	2022-03-31
Environmental Microbiology	Abhisek Sahu	Kazy sufia Khannam	ONGOING	2022-03-31

4.1.21 Ongoing Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Amount(in Rs.)	Starting Year
Structural and functional analysis of disordered regions in unbound and bound protein-protein and protein-nucleic acid complexes	Dr. AMITA BARIK	DST SERB-(Govt. of India)	2116440.0	2021
Investigation of CAM7 multi-protein complex and its role in light signaling and thermomorphogenesis during plant growth and development	Sudip Chattopadhyay	SERB	4644992.0	2022
Determining the role of the gastric microbiota in Helicobacter pylori infection to utilize it for the development of a probiotic therapy	Oindrilla Mukherjee	SERB	3105318.0	2019
Deciphering the metabolic and microbial diversity signature in the fecal microbiota of obese patients to find their correlation with fat homeostasis	Oindrilla Mukherjee, Debojyoti De	Indian Council of Medical Research	1421000.0	2021
Role of FANCD2 in mitochondria and its association with the mtDNA repair mechanism	Dr. Sudit S. Mukhopadhyay (PI) Dr. Ashis Bhattacharya (Co-PI)	DBT, Govt. of India	6411000.0	2022
Cloning, Expression, Purification and Characterization of the Auxillary enzymes Lytic Polysaccharide Monooxygenases (LPMOs) and Xylanases from the genome of the thermophilic fungus Aspergillus fumigatus NITDGPKA3	Dr. Sudit S. Mukhopadhyay (PI) Dr. K. Aikat (Co-PI)	DBT, Govt. of India	4911000.0	2022
Introducing protein folding paradigm in misfolding diseases: An attempt to redefine the structural understanding of amyloid aggregation following nucleated conformational conversion pathway	Dr. Sudipta Mondal	SERB-DST	4642000.0	2021

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Title of the Project	Investigator	Sponsor Authority	Amount(in Rs.)	Starting Year
Isolation and identification of novel bacteriocin producing probiotic microbial species from northeast region, exploration of probiotic traits and application of purified bacteriocin in food preservation	Surabhi Chaudhuri, Sucharita Sen Maiti	Department of Biotechnology, Government of India	6267992.0	2019
Design of modular peptide nanotubes platforms by the self-assembly of shortest helical building blocks for application as ion channel mimic	Dr. Sudipta Mondal	SERB-DST	2728000.0	2019
Functional interconnection between WISH and cell wall biosynthesis / remodeling pathway in rice blast fungus	Subhankar Roy-Barman & Utpal Adhikari	DST-SERB	7000000.0	2022
Role of protein arginylation in the regulation of IL-1 β expression and inflammatory response in macrophages and airway epithelial cells	Sougata Saha	SERB	5504165.0	2022
Studies on the effect of anammox group of bacteria for the treatment of waste water containing nitrogenous contaminants	Apurba Dey (PI), Tamal Mandal and Dalia Dasgupta Mandal (C)-PI	DST-SERB	3372978.0	2021
Microbial production of Lactic Acid using wastes (dairy waste & rice straw) as substrates, for the production of bioplastic	Prof. Kaustav Aikat, and Dr. Utpal Adhikari (Dept. of Chemistry)	Department of Science & Technology and Biotechnology, Govt. Of West Bengal	1370000.0	2019
Studies on the effect of anammox group of bacteria for the treatment of wastewater containing nitrogenous contaminants.	Dr. Apurba Dey, Biotechnology PI Prof Tamal Mandal .Dr Dalia dasgupta mandal Co-PI	DSTsanction order No. CRG/2021/002611 dated 24 December, 2021,	3700000.0	2021
Role of adenosine monophosphate activated protein kinase (AMPK) activators in reducing cancer cell aggressiveness	DR. ASHISH BHATTACHARJEE (PI), DR. SURABHI CHAUDHURI, DR. SUPARNA CHATTERJEE (IPGIMER)	Department of higher education, Science & Technology and Biotechnology, Govt. of West Bengal.	2075647.0	2019
Regulation of MCP-1-induced calcium independent phospholipase A2 (iPLA2) dependent monocyte migration	DR. ASHISH BHATTACHARJEE (PI), DR. MONIDIPA GHOSH (CO-PI)	Dept. of Biotechnology, Govt. of India	5707703.0	2019
Carbon and energy metabolism in deep life within the granitic basement of Koyna seismogenic zone	P Sar, IIT Kgp and S K Kazy, NIT Dgp	MoES, GOI	6494841.0	2022



4.1.22 Completed Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Complete Year
Characterization and Optimization of Pigment Production from an Isolated Strain	Debjani Dutta & Surabhi Chaudhuri	UGC	2013
MCM3AP: A novel S phases replication checkpoint protein and its relation to Fanconi anemia protein	Dr. Sudit S. Mukhopadhyay (PI) Dr. S RoyBarman (CoPI)	DST-SERB	2021
MCM3AP: A novel S phases replication checkpoint protein and its relation to Fanconi anemia protein	Dr. Sudit S. Mukhopadhyay (PI) Dr. Ashis Bhattacharya (Co-PI)	Dbt, Govt. of India	2020
Studying Fanconi Anemia; A Rare Disorder :For Understanding The Mitochondrial Roll in Genomic Instability and Cancer	Dr. Sudit S. Mukhopadhyay (PI) Dr. S. RoyBarman (CoPI)	DBT, Govt. of India	2015
Investigation of functional connection between cAMP-dependent signaling pathway and MoWISH, a gene encoding a novel GPCR in rice blast fungus	Subhankar Roy-Barman	DST-SERB	2021
Pathogenesis of rice blast fungus	Subhankar Roy-Barman	DBT	2016
RNAi-based resistance to rice blast fungus	Subhankar Roy-Barman	DBT	2017
Functional genomics of G-protein coupled receptors (GPCRs) in Magnaporthe oryzae	Subhankar Roy-Barman	DST-SERB	2014
Isolation and characterization of Magnaporthe oryzae mutants to study early events of pathogenesis	Bharat Chattoo & Subhankar Roy-Barman	DBT	2014
Molecular characterization of a small-molecule based reprogramming of non-adipocyte cells to brown adipocytes for its potential use as anti-obesity drug.	Debojyoti De	SERB	2022
Studying Fanconi Anemia; A Rare Disorder :For Understanding The Mitochondrial Roll in Genomic Instability and Cancer	Sudit S. Mukhopadhyay	DBT, Govt. of India	2015
Engineering of cellulase enzymes of Aspergillus fumigates NITDGPKA3 for enhancing their activity	Sudit S. Mukhopadhyay (PI), Kaustav Aikat (CO-PI)	DBT, Govt. of India	2020
MCM3AP: A novel S phases replication checkpoint protein and its relation to Fanconi anemia protein	Sudit S. Mukhopadhyay (PI) Subhankar RoyBarman (CO-PI)	DST-SERB	2020
Role of novel.....expression in monocytes	Ashish Bhattacharya (PI), Sudit S. Mukhopadhyay (CO-PI)	DSR-SERB	2017
Investigation Of Functional Connection Between Camp-Dependent Signaling Pathway And Mowish, A Gene Encoding A Novel GPCR In Rice Blast Fungus	Subhankar RoyBarman (PI), Sudit S. Mukhopadhyay (CO-PI)	DST-SERB	2020
Over riding.....Src family Tyrosine Kinase	Ashis Bhattacharya (PI),	DBT. Govt. of India	2014

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Title of the Project	Investigator	Sponsor Authority	Complete Year
	Sudit S. Mukhopadhyay (CO-PI)		
Antibody and RNAi-based resistance to rice blast fungus	Subhankar RoyBarman (PI), Sudit S. Mukhopadhyay (CO-PI)	DBT, Govt. of India	2016
Secondary metabolism and pathogenesis in rice blast fungus	Subhankar RoyBarman (PI), Sudit S. Mukhopadhyay (CO-PI)	DBT, Govt. of India	2016
Role of a novel signaling complex in regulating IL-13- induced 15- lipoxxygenase expression in monocytes	Dr. Ashish Bhattacharjee (Pi), Dr. Sudit S Mukhopadhyay (Co-Pi)	: Scientific and Engineering Research Board (SERB), Department of Science and technology (DST), Govt. of India	2018
Role of 15-Lipoxygenase in the Pathogenesis of several diseases	Dr. Ashish Bhattacharjee	Dept. of Biotechnology, Govt. of India	2018
Fish fat transformation during processing, preservation, braising and its nutritional consequences in terms of food value	Dr. Jitamanyu Chakrabarty (Pi), Dr. Ashish Bhattacharjee (Co-Pi)	Department of Science and Technology, Government of West Bengal	2020
Microbiology of deep granitic subsurface of Koyna-Warna region	P Sar, IIT Kgp and S K Kazy, NIT Dgp	MoES, GOI	2020
Geomicrobiology of arsenic contaminated aquifer of Bengal basin: Deciphering subsurface microbial communities and their functional role in As mobilization	P Sar, A Mukherjee, IIT Kgp and S K Kazy	IIT Kharagpur	2018
Assesment of microbial communities and their biodegradation potentials in petroleum hydrocarbon contaminated environments in Assam	S K Kazy, A Ghoshal, IITG and P Sar, IIT Kgp	DBT, GOI	2015
Microbiology of arsenic contaminated groundwater of Bengal delta plain: deciphering the role of subsurface microorganisms in As release and prospect for in situ remediation	P Sar, IIT Kgp and S K Kazy	DST, GOI	2019
Characterization of microbial communities enriched from deep subsurface granitic Earth crust below the Deccan Traps, India, 13th phase of Census of Deep Life (CoDL) project,	S K Kazy and P Sar, IIT Kgp	Deep Carbon Observatory, Carnegie Institution for Science, USA, The A. P. Sloan Foundation,	2018
Exploring lithautotrophic microbial communities in terrestrial biosphere underneath the Deccan Traps at Koyna region, India, 14th phase of CoDL project	S K Kazy, NIT Dgp and P Sar, IIT Kgp	Deep Carbon Observatory, Carnegie Institution for Science, USA, The A. P. Sloan Foundation,	2019
Assessment of microbial diversity and community structure and their role in arsenic transformation and mobilization in arsenic contaminated groundwater of West Bengal	P Sar, A K Gupta, IIT Kgp and S K Kazy	DBT RGYI grant for young investigators	2011
Exploration and exploitation of microbial catabolic potentials for the bioremediation of selected heavy metals and hydrocarbon contaminants	S K Kazy	DST-SERB Fast Track Young Scientist Project	2012



4.1.23 Testing & Consultancy Services Rendered

Sponsoring Industry / Institute Name	Title of the Project	Total Amount (in Rs.)	Remarks
Fertis India Pvt. Ltd.	Development of nutritionally important human proteins	4200000.0	On going

4.1.24 Reviews of Manuscripts for Publication in Journal

Reviewer	Name of the Journal	Publisher	Date of Final Review
Debjani Dutta	LWT- Food Science and Technology	Elsevier	2021-04-07
Debjani Dutta	LWT- Food Science and Technology	Elsevier	2021-04-15
Debjani Dutta	LWT- Food Science and Technology	Elsevier	2021-05-23
Debjani Dutta	LWT- Food Science and Technology	Elsevier	2021-06-23
Debjani Dutta	LWT- Food Science and Technology	elsevier	2021-09-20
Debjani Dutta	LWT- Food Science and Technology	Elsevier	2022-02-22
Amita Barik	2021 IEEE International Conference on Bioinformatics and Biomedicine	2021 IEEE International Conference on Bioinformatics and Biomedicine	2021-10-15
Oindrilla Mukherjee	Gut Pathogens	BMC	2022-06-13
Oindrilla Mukherjee	Gut Pathogens	BMC	2021-07-06
Oindrilla Mukherjee	Gut Pathogens	BMC	2021-08-12
Oindrilla Mukherjee	Gut Pathogens	BMC	2021-10-23
Oindrilla Mukherjee	Gut Pathogens	BMC	2022-01-19
Oindrilla Mukherjee	Gut Pathogens	BMC	2022-02-24
Oindrilla Mukherjee	Scientific Reports	Nature	2022-03-14
Surabhi Choudhuri	Indian Journal of Microbiology	Springer Nature	2021-12-21
Surabhi Choudhuri	Indian Journal of Microbiology	Springer Nature	2021-06-27
Surabhi Choudhuri	Indian Journal of Microbiology	Springer Nature	2021-05-23
Surabhi Choudhuri	Journal of the Indian Chemical Society	Elsevier	2021-12-31
Kaustav Aikat	Bioenergy Research	Springer	2022-01-01
Reviewer	Name of the Journal	Publisher	Date of Final Review
Kaustav Aikat	Bioresource Technology	Elsevier	2021-07-06
Sudit Sekher Mukhopadhyay	Human Mutation	Wiley	2022-03-29

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Sudit Sekher Mukhopadhyay	Journal of Clinical Microbiology and Biochemical Technology	Peertechz Publications	2022-07-22
Sudit Sekher Mukhopadhyay	3-Biotech	springer	2022-07-22
Dalia Dasgupta (mandal)	Biomass Conversion and Biorefinery	Elseiver	2022-01-19
Ashish Kumar Bhattacharjee	EMBO Molecular Medicine	EMBO Press	2021-06-15

4.1.25 Review of Books

Reviewer	Title of the Book	Name and Affiliation of the Author	Publisher	Date
Dalia Dasgupta (Mandal)	none	NA	NA	2022-09-15

4.1.26 Participation in National Committees/Visits

Name of the Faculty	Name of the Committee	Place of Visit	From Date	To Date
Dalia Dasgupta (Mandal)	11th IconSWM-CE & IPLA GF 2021	Kolkata	2021-12-01	2021-12-04

4.1.27 Invited Examiners/Paper-Setters/Board of Studies

Name of the Faculty	Name of the Examination	University/Institute	From Date	To Date
Debjani Dutta	Ph.D Viva-Voce	Jain Uuniversity	2021-05-04	2021-05-04
Ashish Kumar Bhattacharjee	Examiner for the Ph.D. thesis evaluation	Charusat University, Gujrat	2022-03-11	2022-05-31

4.1.28 Invited Expert in Selection Committees

Name of the Faculty	Discipline	University/Institute	From Date	To Date
Surabhi Choudhuri	Food Science and Technology	Maulana Abul Kalam Azad University of Technology, West Bengal	2021-08-26	2021-08-26
Kaustav Aikat	Biotechnology	NIT Andhra Pradesh	2021-07-30	2021-07-30
Sudit Sekher Mukhopadhyay	Zoology Department	University of Calcutta	2022-08-22	2022-08-22
Ashish Kumar Bhattacharjee	External expert in Project Associate Selection Committee	Bose Institute, Kolkata	2022-02-21	2022-02-21

4.1.29 Invited Lectures

Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Amita Barik	Contribution of Bioinformatics to modern science	Online Faculty Development Programme on Emerging Technologies	Dr. B C Roy Engineering College, Durgapur	2022-03-12	2022-03-12



Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Oindrilla Mukherjee	Host contact and its role in bacterial pathogenesis	Webinar Series	Saveetha School of Engineering	2021-10-23	2021-10-23
Sougata Saha	Protein Arginylation: A new regulator of heat stress response	Advances in Basic and Translational Research in Biology (ABTRiB)	Tezpur University	2022-03-11	2022-03-12
Subhankar Roy Barman	MoLaeA regulates secondary metabolism in <i>Magnaporthe oryzae</i>	Seminar series in the Department of Life Sciences	Presidency University, Kolkata	2022-03-30	2022-03-30
Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Monidipa Ghosh	Immune invasion by antigen presenting cells in host pathogen infection	Faculty Development Training Programme on Immunology sponsored by Centre for faculty development, anna University, c Chennai	Kamaraj College of Engineering and Technology (Online mode)	2022-07-04	2022-07-09
Monidipa Ghosh	Sensors for health monitoring and disease diagnosis	Faculty Development Programme (FDP) On Development and applications of Sensors in Modern life , Sponsored by AICTE and ATAL	Department of Basic & Applied Science National Institute of Technology Arunachal Pradesh (Online Mode)	2021-10-25	2021-10-29

4.1.30 Session Chair/Convenor

Name of the Faculty	Programme	Place	Session	From Date	To Date
Oindrilla Mukherjee	Women's Leadership in Science and Technology	Webinar	Afternoon -Day 1	2021-10-30	2021-10-30
Dalia Dasgupta (mandal)	11th IconSWM-CE & IPLA GF 2021	Online	Technical session 18 waste water 3	2021-12-01	2021-12-04
Monidipa Ghosh	International Conference on "Women's Leadership in Science and Technology"	National Institute of Technology, Durgapur	1st and 2nd	2021-10-08	2021-10-09
Monidipa Ghosh	National Conference on "Philosophy of Immunology in Health Sciences"	National Institute of Technology, Durgapur	1st	2021-09-18	2021-09-18

4.1.31 Patents

Title	Inventors	Application Nos	Date of Filling
DEVELOPMENT OF DISULPHIDE BOND ENGINEERED ENZYME AFCEL7A"	Mukhopadhyay Sudit S.,Dodda Subba Reddy,Hossain Musaddique,Aikat Kaustav	202131050361	2021-05-18

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4.2 Department of Civil Engineering

4.2.1 Dept at a glance

The Department of Civil Engineering is one of the oldest Departments of this institute. Presently, the department offers B.Tech., M.Tech. and PhD. programs. The Department is actively engaged in research activities in all branches of Civil Engineering and other contemporary fields of interdisciplinary research. In addition to handling R&D projects funded by the institute as well as external funding agencies, the department also offers testing and consultancy services to various government departments and organizations from the public and private sectors. Besides, the Department conducts seminars, short term training programmes and conferences etc. from time to time for the benefit of personnel from academia, research institutions and industries

4.2.2 Misson and Vision

Mission:

- To produce outstanding graduate and post graduate Civil Engineers with high technical skills and ethical values to be able to apply smart system in respective areas.
- To innovate new techniques and methods through basic and applied research in real life problems in the field of civil engineering with the help of concerned industry to be able to develop and sustain smart systems for applications in different areas of Civil Engineering to achieve better productivity and prosperity for India.
- To provide effective consultancy services for delivering the output of the research to the society.
- To inculcate innovation and novel thinking in the minds of students to better serve the society.

Vision:

- To impart quality technical education and focus on research and innovation to support the need of the country.

4.2.3 Faculty

Name	Designation	Email-id
Dr. Amiya Kumar Samanta	Professor	amiyak.samanta@ce.nitdgp.ac.in
Dr. Amlan Das	Professor	amlan.das@ce.nitdgp.ac.in
Dr. Atul Krishna Banik	Professor	atulkrishna.banik@ce.nitdgp.ac.in akbanik@gmail.com
Dr. Dilip Kumar Singha Roy	Professor	dilip.singharoy@ce.nitdgp.ac.in dsr_rec_dgp@yahoo.com dilip.sroy@gmail.com
Dr. Kamal Bhattacharya	Professor	kamal.bhattacharyya@ce.nitdgp.ac.in
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Dr. Somnath Karmakar

Assistant Professor

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structure.som07@gmail.com

4.2.4 Equipments

Sl. No.	Name of the equipment	Date of Purchase	Amount (Rs.)
1	DCPT	20.04.2021	56,101.50
2	SCPT	20.04.2021	2,569,45.50
3	Relative Density Test Apparatus	20.04.2021	1,64,965.50
4	Point load test Apparatus	20.04.2021	84,105.00

4.2.5 Labs

Sl. No.	Name of Laboratory	Major equipment
1.	Strength of Materials Laboratory	<ul style="list-style-type: none"> • 20& 100 Ton UTM • Torsion Testing Equipment • Hardness testing Equipment • Charpy Impact Tester Equipment
2.	Soil Mechanics and Foundation Engineering	<ul style="list-style-type: none"> • Soil Tri-axial test apparatus • Rock Tri-axial Test Apparatus • Direct Shear Test Apparatus • Large Scale Direct Shear Test Apparatus • CBR test Apparatus • Automatic Compaction Test Apparatus • Point load test Apparatus • Brazilian Tensile Test Apparatus • Slake Durability Apparatus • DCPT, SCPT, Relative Density Test Apparatus
3	Computer Laboratory	<ul style="list-style-type: none"> • 25 No.(s) of Computers
4	Concrete Structure Laboratory	<ul style="list-style-type: none"> • Digital balance Capacity • Le-ChatelierMould • Vicat Needle apparatus with accessories • 200 Tonne Compression Testing Machine • Flexural Testing Apparatus • Humidity Cabinet • Accelerated Curing tank • Constant Temperature Water Bath • High temperature muffle furnace (temp range 12000 C) • Digital Schmidt Hammer • Ultrasonic Pulse Velocity Concrete Tester • 300 Tonne Compression Testing Machine • Compacting factor apparatus • Hardness test machine for concrete & stones • Workability Test apparatus
5	Survey Engineering Laboratory	<ul style="list-style-type: none"> • Plane table with stand • Total Station • Prismatic Compass • Levelling Instrument (Dumpy) • Theodolite • Linen Tape • Surveyor's compass with stand • Land measuring Chain • Levelling Staff

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Sl. No.	Name of Laboratory	Major equipment
6	Environmental Engineering Laboratory	<ul style="list-style-type: none"> • pH meter • Conductivity meter • Turbidity meter • COD digester • Autoclave • BOD incubator • Muffle furnace • Incubator (ambient) • Hot Air Oven
7	Highway Engineering Laboratory	<ul style="list-style-type: none"> • Flakiness gauge • Elongation gauge • Aggregate Impact Testing Machine • Aggregate Crushing test setup including Compression testing machine • Los Angeles abrasion testing machine. • Bitumen softening point test apparatus (Ring ball Apparatus) • Bitumen Penetration value test apparatus (penetrometer) • Bitumen Ductility value testing apparatus • Centrifuge for Bitumen Extraction Test. • Marshall test apparatus • Mechanical Soil compactor for Proctor and CBR • CBR (Lab and Field) test apparatus. • Benkelman Beam
8	Structural Health Monitoring	<ul style="list-style-type: none"> • Impact Hammer • UPVM • Acoustic Emission System • Rebar Locator

4.2.6 PhD degree awarded till 2021-22

Twenty Two.

4.2.7 Specialization

- Geotechnical & Geo-environmental Engineering
- Structural Engineering
- Earthquake Engineering
- Structural Engineering (Civil Engineering)
- Structural Engineering
- Structural Engineering, Reliability Engineering
- Structural Engineering

4.2.8 Proposed Plan for Research

- Wind Tunnel Based Experiments
- SSHM
- Reduction of the blast effect on bridge
- Machine Learning Based Structural Reliability
- Advanced Concrete Technology
- Electro-kinetic remediation of contaminated soil, nano-composite JGT as geomaterial for its application in rural roads, embankment, mine slopes, Control and management of mine slopes, wastewater treatment using constructed wetland, Stabilization and solidification of contaminated land, Solute transport through porous media and development of liner mechanism for waste containment structures



4.2.9 Area of Research Interest

- Vibration based damage Assessment and Residual Life Assessment, Heat Resistant Concrete, Composite Structures
- SHM
- Blast loading
- Computational Mechanics, SHM, Composites
- Machine Learning Based Structural Reliability, Machine Learning Based Fault Detection Techniques
- Advances in concrete technology and/or its mechanics including related field
- Geotechnical and Geo-environmental Engineering

4.2.10 Institute Industry Collaboration

Collaborating Institute Organization	Areas of collaboration	Collaboration Activities
NHAI	Development of MoU	Review of different Highway Projects & Student Internships
CMERI	Development of AE system for SHM	Research/Project
Different Govt. and private Sector	Bridge and road Engineering	Consultancy
National Highway Authority of India, Essar Oil, Eastern Coalfield Limited, Durgapur Steel Plant, Neo Metalicks Limited, Shyam Sel and Power Limited, National jute board, national Rural and Infrastructure Development Limited, P&RD, WBSRDA, Indian Oil, West Bengal Mineral development corporation Limited, Ludlow Jute and Specialities Ltd., Gloster Ltd.	Research and consultancy work	Proof checking of purulia Bypass of NH 32, Scientific study of control and management of mine slopes, Geotechnical testing and report preparation of sub-surface coal and rock samples, Foundation design of blast furnace , Ground improvement, Soil investigation and foundation design of ash silo, Efficacy evaluation of nano-composite coated JGT for its application in rural roads and mine slopes, Proof check of DPRs for PMGSY roads,

4.2.11 Collaboration with Academic and Research Institutions

Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
HIT, Haldia	PhD Guidance+BoS Member	NK Yadav, Dr. A. Santra, Dr. S. Hota	Currently Joint Supervisor
IIT Kharagpur	Blast load	Dr. Amit Shaw	Research
CSIR-CMERI Durgapur	Research, Project	Dr. A. Mukherjee	Carrying out externally funded project, Writing research papers etc.
Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
Dr. B. C. Roy Engineering College, Durgapur	Research	Dr. S. Sengupta	Publication of joint research papers, PhD guidance etc.
CSIR-CMERI, Durgapur	Vibration of asymmetric structures	Diptesh Das, Pijush Topdar	Collaborative PhD supervision
IIST Shibpur	Vibration Control of Structures under Multi-hazard Scenario	Diptesh Das, Subrata Chakraborty (IIST)	Collaborative PhD supervision

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Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
Concordia University, CANADA	SHM	Prof. Asutosh Bagchi	Research
Tomsk Polytechnic University; Russia, Hohai University, East China University and Technology, China; Federal university of Rio DeJanerio, Brazil; Institute for Water and Wastewater Technology, Durban University of Technology, South Africa (through BRICS NU Programme of Water Recourses and Pollution Treatment), IIT Kharagpur, Jawaharlal Nehru University, Jadavpur University, Central Pollution Control Board,	Research Project on waste water treatment, International Thematic Group on Water resources and Pollution Treatment, research project on development of nano composite JGT for its application in rural roads and mine slopes,	Brazil: Prof. Nilo Nascimento, Federal University of Minas Gerais; Prof. Otto Corrêa Rotunno Filho, Federal University of Rio de Janeiro; Russia: Prof. Evgeniya Soldatova, Tomsk Polytechnic University, Prof. Galina V Pryakhina, Saint Petersburg State University; India: prof. Vinod Tare, Indian Institute of Technology, Kanpur; China: Yiping Li, Hohai University, Prof. Li Shengji, North China University of Water Resources and Electric Power; South Africa: prof. Faizal Bux, Durban University of Technology, Prof. Yali Woyessa, Central University of Technology; India: Prof. Debasis Roy, IIT Kharagpur, Prof. Pankaj Kumar Roy, Jadavpur University	Research Project on waste water treatment, International Thematic Group on Water resources and Pollution Treatment, research project on development of nano composite JGT for its application in rural roads and mine slopes, Organization of conferences in the thematic area of water resources and pollution treatment,

4.2.12 Workshop/ Seminars Organized

NIL

4.2.13 Journal: Published in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
N K Yadav, A Santra, A K Samanta Ah Kumar, Shreyashi Mitra, Debashis Mitra	Understanding the synergistic relation between land surface temperature and different biophysical parameters in Haldia industrial city of Indi	Arabian Journal of Geosciences	Volume:14 Issue No:2412 Page No:1-16 Year:2021 Month: Nov
Sahani A K, and Samanta A K	Bond slip behaviour of deformed bar embedded in sustainable concrete at elevated temperature	Sadhana	Volume:47 Issue No:88 Page No:1-18 Year:2022 Month:Feb



Author(s) Name	Paper Name	Journal Name	Others Info
Roy, P., Kumar, M. and Khan, K.	Plastic Analysis of Initially Deformed Thin-Walled Pressurized 300 to 1800 Pipe Bends Under to In-Plane Opening Bending Moment	International Journal of Pressure Vessels and Piping	Volume:192 Issue No: Page No: Year:2021 Month:Aug
Soumya Mukherjee, Dilip Kr. Singha Roy, and, Amiya Kr. Samanta	Wind induced oscillation on a tall circular storage shell for various terrains	Materials Today: Proceedings (Elsevier)	Volume:Vol. 65 Issue No:Part 2 Page No:1575-1581 Year:2022 Month:May
2. Soumya Mukherjee, Ujjal Mondal, and, Dilip Kr. Singha Roy	Wind-structure interaction analysis of empty cylindrical silos for various slenderness ratio	Materials Today: Proceedings (Elsevier)	Volume:Vol. 65 Issue No:Part 2 Page No:1582-1588 Year:2022 Month:Apr
Das Khan, S., Datta, A. K., Topdar, P., &Sagi, S. R.	A cause-based defect ranking approach for existing concrete bridges using Analytic Hierarchy Process and fuzzy	Structure and Infrastructure Engineering	Volume: https://doi.org/10.1080/15732479.2022.2035407 Issue No: Page No:1-13 Year:2022 Month:Feb
S. Sengupta, P. Roy, P. Topdar and Aloke Kumar Datta	Investigation of layered composite plates under acoustic emission using an appropriate FE model	Canadian Journal of Civil Engineering	Volume:48 Issue No:12 Page No:1639-1651 Year:2021 Month:December
: Sanjay Sengupta, Parikshit Roy, Pijush Topdar, and Aloke Kumar Datta	Investigation of layered composite plates under acoustic emission using an appropriate finite element model	Canadian Journal of Civil Engineering	Volume: 48 Issue No:12 Page No:1639-1651 Year:2021 Month:Dec
Kumar, M., Roy, P. and Khan, K.	Determination of Collapse Moment of Different Angled Pipe Bends with Initial Geometric Imperfection Subjected to In-Plane Bending Moments	Journal of Mechanical Engineering Science	Volume:236 Issue No:1 Page No:525-535 Year:2022 Month:Jan
Kumar, M., Roy, P. and Khan, K.	New Empirical Equations for Determining Plastic Collapse Moment of Initially Imperfect Pipe Bends Under Internal Pressure and In-plane Closing Bending Moment	Journal of the Brazilian Society of Mechanical Sciences and Engineering	Volume:44 Issue No:3 Page No: Year:2022 Month:Mar
Animesh Paral, Amiya K. Samanta, Amarendra N. Shandilya	Corrosion-induced degradation assessment of steel beam using vibration-based scheme	International Journal of Structural Integrity	Volume:12 Issue No:5 Page No:815-825 Year:2021 Month:Sep

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Author(s) Name	Paper Name	Journal Name	Others Info
Abhay Kumar, Md Shahnawaz, Biswajit Sarkar, Sjudpriya Pal, Susmita Dutta	Retention dynamics of multimetal contaminants from pond ash slurry onto fine grained soil	Journal of the Indian Chemical Society	Volume:98 Issue No:12 Page No:100229 Year:2021 Month:Dec
Ray, A., Nanda, R. P. and Roy, P.	Rutting Performance of Road Using Construction and Demolition Waste Materials.	Key Engineering Materials.	Volume:882 Issue No: Page No:221-227 Year:2021 Month:Apr
T. Kundu, P. Roy, A.K. Datta, and P. Topdar	Health Monitoring of Indian Rail Section Using AE Technique Combined with UPVM: an experimental study	Journal of Structural Engineering	Volume:Vol:49, Issue No:1 Page No:1-11. Year:2022 Month:Mar
Bhattacharya, S., Ghosh, S. and Bhattacharyya, S.	Analytical Hierarchy Process Tool in Google Earth Engine platform: A case study of a tropical landfill site suitability.	Environmental Monitoring and Assessment	Volume:194(4) Issue No: Page No:1-16 Year:2022 Month:Mar
Rajbanshi, S. and Das, Diptesh	A passive shape-memory alloy-rubber-bearing seismic isolator for offshore platforms	Proceedings of the Institution of Civil Engineers - Structures and Buildings	Volume: Issue No:https://doi.org/10.1680/jstbu.20.00225 Page No: Year:2022 Month:Jan
Soumya Mukherjee, DK Singha Roy, A K Samanta	Wind induced oscillation on a tall circular storage shell for various terrains.	Materials Today: Proceedings	Volume:65 Issue No: Page No:1575-1581 Year:2021 Month:Dec
Joyprakash Naskar, Subhadeep Chowdhury, Avkishkek Adhikary, Supriya Pal, Sufia Khannam Kazy	Strength enhancement of lateritic soil through mechanical mixing with magnetite nanoparticles, starch solution, and calcite precipitating bacteria	Arabian Journal of Geosciences	Volume:14 Issue No: Page No:1901 Year:2021 Month:Aug

4.2.14 Journal: Accepted for Publication in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
R. Biswas, S. Bhattacharyya, S. Pal	Two dimensional unsteady hydrodynamic modelling of flood of river Mayurakshi at downstream courses of Tilpara barrage section, Suri, Birbhum using open source data and tools.	Journal of Environmental Science and Engineering	Volume: Issue No: Page No: Year:2022 Month:Feb

4.2.15 Journal: Published in Others in 2021-2022

NIL

4.2.16 Journal Accepted in Others in 2021-2022

NIL



4.2.17 Conference: Published in 2021-2022 DOI/ISBN

Author(s) Name	Paper Name	Conference Name	Others Info
Soumyadip Das1, Aloke Kumar Datta1, Pijush Topdar1, and Sanjay Sengupta	Damage Localization in Reinforced Concrete Slab Using Acoustic Emission Technique	ASMA-2021	DOI/ISBN: ISBN 978-3-031-05508-9 ISBN 978-3-031-05509-6 (eBook) https://doi.org/10.1007/978-3-031-05509-6 Volume: Issue No: Page No:162-170 Year:2021 Month:Jun Presenter:CO-AUTHOR
Sarkar, G., Roy, P.	Effect of non-homogeneity of seabed soil on natural frequency of offshore free spanning pipeline	7Th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics (7 ICRAAGEE 2021)	DOI/ISBN: https://doi.org/10.1007/978981-16-5673-6_11 Volume: Issue No: Page No:131-143 Year:2021 Month:Jul Presenter:CO-AUTHOR
Arijit Kumar Banerji, Pijush Topdar and Aloke Kr Datta	Study on the Effect of Wheel Load and Temperature on Rutting Damage of Composite Flexible Pavement Using Finite Element Method	International Conference on Advances in Structural Mechanics and Applications (ASMA)	DOI/ISBN: https://doi.org/10.1007/978-3-031-05509-6 Volume: Issue No: Page No:pp. 202-212 Year:2021 Month:Oct Presenter:CO-AUTHOR
Sheersha KARMAKAR, Parikshit ROY, Pijush TOPDAR, Aloke Kumar DUTTA	Optimal Locations of Sensor for Structural Health Monitoring of a Steel Truss using Acoustic Emission Technique: An Experimental Investigation	International Conference on Advances in Structural Mechanics and Applications (ASMA)	DOI/ISBN: https://doi.org/10.1007/978-3-030-98335-2_24 Volume: Issue No: Page No:NA Year:2021 Month:6-8 October Presenter:
Parikshit Roy, Sanjay Sengupta, Pijush Topdar & Aloke Kumar Datta	On the Applicability of Wavelet Transform in Localising Defect in a Small Plate Using AE Technique: An Experimental Study	International Conference on Advances in Structural Mechanics and Applications (ASMA)	DOI/ISBN: https://doi.org/10.1007/978-3-031-05509-6_19 Volume: Issue No: Page No:NA Year:2021 Month:6-8 October Presenter:
Anupam Kr Biswas, Aloke Kr Datta, Pijush Topdar and Sanjay Sengupta	Source Localization in a Framed Structure for Effective Damage Detection Using Acoustic Emission Technique	Advances in Structural Mechanics and Applications (ASMA) 2021	DOI/ISBN: https://doi.org/10.1007/978-3-031-04793-0_26 Volume: Issue No: Page No:pp 344–352 Year:2021 Month:6-8th October Presenter:
Arijit Kumar Banerji, Pijush Topdar and Aloke Kr Datta	Study on the Effect of Wheel Load and Temperature on Rutting Damage of Composite Flexible Pavement Using Finite Element Method	International Conference on Advances in Structural Mechanics and Applications (ASMA)	DOI/ISBN: https://doi.org/10.1007/978-3-031-05509-6 Volume: Issue No: Page No:pp. 202-212 Year:2021 Month:6-8th October Presenter:
Soumyadip Das, Aloke Kumar Datta, Pijush Topdar, Sanjay Sengupta	Damage Localization in Reinforced Concrete Slab Using Acoustic Emission Technique	International Conference on Advances in Structural Mechanics and Applications (ASMA)	DOI/ISBN: https://doi.org/10.1007/978-3-031-05509-6_13 Volume: Issue No: Page No:pp. 162-170 Year:2021 Month:6-8th October Presenter:

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Author(s) Name	Paper Name	Conference Name	Others Info
Sheersha KARMAKAR, Parikshit ROY, Pijush TOPDAR, Aloke Kumar DUTTA	Optimal Locations of Sensor for Structural Health Monitoring of a Steel Truss using Acoustic Emission Technique: An Experimental Investigation	International Conference on Advances in Structural Mechanics and Applications (ASMA)	DOI/ISBN: https://doi.org/10.1007/978-3-030-98335-2_24 Volume: Issue No: Page No:NA Year:2021 Month:6-8 October Presenter:
Parikshit Roy, Sanjay Sengupta, Pijush Topdar & Aloke Kumar Datta	On the Applicability of Wavelet Transform in Localising Defect in a Small Plate Using AE Technique: An Experimental Study	International Conference on Advances in Structural Mechanics and Applications (ASMA)	DOI/ISBN: https://doi.org/10.1007/978-3-031-05509-6_19 Volume: Issue No: Page No:NA Year:2021 Month:6-8 October Presenter:
Anupam Kr Biswas, Aloke Kr Datta, Pijush Topdar and Sanjay Sengupta	Source Localization in a Framed Structure for Effective Damage Detection Using Acoustic Emission Technique	Advances in Structural Mechanics and Applications (ASMA) 2021	DOI/ISBN: https://doi.org/10.1007/978-3-031-04793-0_26 Volume: Issue No: Page No:pp 344–352 Year:2021 Month:6-8th October Presenter:
Arijit Kumar Banerji, Pijush Topdar and Aloke Kr Datta	Study on the Effect of Wheel Load and Temperature on Rutting Damage of Composite Flexible Pavement Using Finite Element Method	International Conference on Advances in Structural Mechanics and Applications (ASMA)	DOI/ISBN: https://doi.org/10.1007/978-3-031-05509-6 Volume: Issue No: Page No:pp. 202-212 Year:2021 Month:6-8th October Presenter:
Soumyadip Das, Aloke Kumar Datta, Pijush Topdar, Sanjay Sengupta	Damage Localization in Reinforced Concrete Slab Using Acoustic Emission Technique	International Conference on Advances in Structural Mechanics and Applications (ASMA)	DOI/ISBN: https://doi.org/10.1007/978-3-031-05509-6_13 Volume: Issue No: Page No:pp. 162-170 Year:2021 Month:6-8th October Presenter:
Khan, Minaruddin and Das, Diptesh	Semi-active Seismic Vibration Control Offshore Jacket Platforms	International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics (ICRAGEE)	DOI/ISBN: 978-981-16-5672-9 Volume: Issue No: Page No:45-57 Year:2021 Month:Jul Presenter:CO-AUTHOR
Sudipta Ghosh, Ipsita Mohanty, Amiya Kumar Samanta	Performance analysis of sustainable concrete mixes using waste slag	International Conference on Structures, Material and Construction ICSMC 2021 by Jaypee University of Information Technology JUIT, Wanknaghat, Solan, HP on 12th-13th November 2021	DOI/ISBN: 978-981-19-4039-2 Volume: Issue No: Page No: Year:2021 Month:Nov Presenter:CO-AUTHOR
Kunal Ghosh, Atrayee Bandyopadhyay, Amiya K. Samanta	Concrete filled cold formed steel tube column – a case study	International Conference on Structures, Material and Construction ICSMC 2021 by Jaypee University of Information Technology JUIT, Wanknaghat, Solan, HP on 12th-13th November 2021	DOI/ISBN: 978-981-19-4039-2 Volume: Issue No: Page No: Year:2021 Month:Nov Presenter:CO-AUTHOR



Author(s) Name	Paper Name	Conference Name	Others Info
Soumya Mukherjee, Ujjal Mondal, Dilip Kr. Singha Roy	Wind-structure interaction analysis of empty cylindrical silos for various slenderness ratio	International Conference on Advances in Construction Materials & Structures, 15-19 December 2021, Trivandrum, Kerala, India.	DOI/ISBN: https://doi.org/10.1016/j.matpr.2022.04.552 Volume: Issue No: Page No: Paper Id: ICCMS/21/Au/0000321 Year:2021 Month:Dec Presenter:CO-AUTHOR
Soumya Mukherjee, Dilip Kr. Singha Roy, Amiya Kr. Samanta	Wind pressure distribution on a tall circular storage shell for various terrains	International Conference on Advances in Construction Materials & Structures, 15-19 December 2021, Trivandrum, Kerala, India.	DOI/ISBN: https://doi.org/10.1016/j.matpr.2022.04.547 Volume: Issue No: Page No: Paper Id: ICCMS/21/Au/0000322 Year:2021 Month:Dec Presenter:CO-AUTHOR

4.2.18 Conference: Accepted in 2021-2022 DOI/ISBN

Author(s) Name	Paper Name	Conference Name	Others Info
Anupam Kr Biswas, Alope Kr Datta, Pijush Topdar and Sanjay Sengupta	Source Localization in a Framed Structure for Effective Damage Detection Using Acoustic Emission Technique Source Localization in a Framed Structure for Effective Damage Detection Using Acoustic Emission Technique	International Conference on Advances in Structural Mechanics and Applications (ASMA)	DOI/ISBN: https://doi.org/10.1007/9783-031-04793-0_26 Volume: Issue No: Page No: pp 344–352 Year:2021 Month:Oct Presenter:CO-AUTHOR

4.2.19 Conference: Published in Others in 2021-2022

Author(s) Name	Paper Name	Conference Name	Others Info
Arka Mandal, Amiya K. Samanta, Sudipta Ghosh	A deep insight into the design methodology of T-Beam Bridge girders as per the guidelines of IRC: 112-2020 compared to conventional method.	International Conference on Structures, Material and Construction ICSMC 2021 by Jaypee University of Information Technology JUIT, Wagnaghat, Solan, HP on 12th-13th November 2021	DOI/ISBN: 978-981-194039-2 Volume: Issue No: Page No: Year:2021 Month:Nov Presenter:CO-AUTHOR

4.2.20 Conference: Accepted in Others in 2021-2022

Author(s) Name	Paper Name	Conference Name	Others Info
Sudha Das Khan, Pijush Topdar, Alope Kumar Dutta	A fuzzy synthetic evaluation approach for condition rating of RC bridge decks	Advance Engineering Optimization through Intelligent Techniques (AEOTIT) by Department of Mechanical Engineering; NIT Surat	DOI/ISBN: NA Volume: Issue No: Page No: NA Year:2022 Month:28-30th January Presenter:

4.2.21 Books Authored

Author Name	Co-Author	Title of the Book	Title of the Chapter	Publication Details
Pronab Roy	Kumar M., and Khan K.	Recent Advances in Computational and Experimental Solid Mechanics, Vol -II	Numerical Investigations of Collapse Moment of Deformed Pipe Bends Subjected to Internal Pressure and Bending Moment	Publisher: Springer Nature Singapore, Pvt. Ltd Publication Date: 2022-0228

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Pronab Roy	Goutam Sarkar	Earthquake and Structures, Lecture Notes in Civil Engineering	Effect of Non-homogeneity of Seabed Soil on Natural Frequency of Offshore Free Spanning Pipeline	Publisher: Springer Nature Singapore, Pvt. Ltd Publication Date: 2021-1122
Khan, Minaruddin and Das, Diptesh		Earthquakes and Structures - Lecture Notes in Civil Engineering	Semi-active Seismic Vibration Control Offshore Jacket Platforms	Publisher: Springer Publication Date: 2021-0716
Diptesh Das (sole adaptation author)		Structural Analysis by R C Hibbeler	All chapters	Publisher: Pearson Education India Services Private Ltd Publication Date: 2021-12-17
Agami Pramanik	Avishek Adhikary, Supriya Pal	Proceedings of the Indian Geotechnical Conference 2019	Assessment of an Open Cast Coal Mine Slope Stability at Mohanpur Block, Raniganj Coalfield, West Bengal, India	Publisher: Springer Publication Date: 2021-0430
Arindam Karmakar	Md. Nishat Afsar, Supriya Pal	Advances in Water Resources Management for Sustainable Use	Slope Stability Analysis Under Critical Conditions of Geogrid Reinforced Canal Embankment	Publisher: Springer Publication Date: 2021-0425
Avishek Adhikary	Shyamal Kumar Dutta Mazumdar, Supriya Pal	Advances in Water Resources Management for Sustainable Use	Efficacy Assessment of Amended Laterite Soil as a Subsurface Liner to Attenuate Migration of Contaminants in Leachate of Ash Pond Structures	Publisher: Springer Publication Date: 2021-0425
Punit Kumar	Mrinal Kanti Mandal, Supriya Pal, Hirok Chaudhuri, Kashyap Kumar Dubey	Biomass, Biofuels, Biochemicals	Membrane bioreactor for the treatment of emerging pharmaceutical compounds in a circular bioeconomy	Publisher: Elsevier Publication Date: 2022-0101
Manisha Sharma	Ankush Yadav, Mrinal Kanti Mandal, Shailesh Pandey, Supriya Pal, Hirok Chaudhuri, Sandip Chakrabarti, Kashyap Kumar Dubey	Circular Economy and Sustainability	Wastewater treatment and sludge management strategies for environmental sustainability	Publisher: Elsevier Publication Date: 2022-0101

4.2.22 Seminars, Summer/Winter Schools, Short Term Courses Attended

Name of the Programme	Organized By	From Date	To Date	Organizing Country
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International Webinar on Innovations in online teaching learning and evaluation	Karunya University, TN	2021-08-05	2021-08-07	India
7Th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics (7 ICRAGEE 2021)	IISc Bangalore, India	2021-07-12	2021-07-15	India

4.2.23 Ph.D. Supervisor

Topic Name	Scholar	Supervisor	Status	Status Date
Study and Modelling of Highway Pavements under Dynamic Loading	Mr. Arijit Banerjee	Dr. P. Topdar and Dr. A.K. Datta	ONGOING	2022-03-31
Analysis of Structural Components under Simulated Damages	Mr. Parikshit Roy	Dr. P. Topdar and Dr. A.K. Datta	ONGOING	2022-03-31
Characterization of Pavements Using Acoustic Emission Technique	Mr. Soumyodip Das	Dr. A.K. Datta and Dr. P. Topdar	ONGOING	2022-03-31
Performance Study of Asymmetric Structures under Static & Dynamic Loads	Mr. Debiprasad Das	Dr. D. Das and Dr. P. Topdar	ONGOING	2022-03-31
Detection and Monitoring of Damage in Rail Sections using Acoustic Emission Technique	Mr. Tamal Kundu	Dr. A.K. Datta and Dr. P. Topdar	ONGOING	2022-03-31
A Study on Structural Defects in Frame Type Buildings using Acoustic Emission Technique	Mr. Anupam Kumar Biswas	Dr. A.K. Datta and Dr. P. Topdar	ONGOING	2022-03-31
A Study on Bridge Health Monitoring using Soft Computing Technique	Ms. Sudha Das Khan	Dr. P. Topdar and Dr. A.K. Datta	ONGOING	2022-03-31
Proposed Research Area: SHM of Composites using Acoustic Emission Technique	Ms. Neetika Saha	Dr. P. Topdar	ONGOING	2022-03-31
Studies on different aspects of acoustic emission technique for damage localisation in structures	Parikshit Roy	Dr. Pijush Topdar and Dr. Alope Kumar Datta	ONGOING	2022-03-31
Fuzzy Logic based Condition Assessment and Ranking of Reinforced Concrete Bridges: A Study	SUDHA DAS KHAN	Dr. Pijush Topdar and Dr. Alope Kumar Datta	ONGOING	2022-03-31
A Study on Damage Localization in Framed Structure Using Acoustic Emission Technique	ANUPAM KUMAR BISWAS	Dr. Alope Kumar Datta and Dr. Pijush Topdar	ONGOING	2022-03-31
Detection and Monitoring of Damage in Rail Sections Using Acoustic Emission Technique	Tamal Kundu	Dr. Alope Kumar Datta and Dr. Pijush Topdar	ONGOING	2022-03-31
Health Monitoring of Indian Rail Sections Using Deep Learning Technique	Apurba Pal	Dr. Alope Kumar Datta	ONGOING	2022-03-31
Evaluation of plastic collapse moment of initially geometric imperfect pipe bends under internal pressure and bending moments	Manish Kumar	Dr. K. Khan, and Dr. Pronab Roy	DEGREE AWARDED	2022-02-16

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Rutting Analysis by Using Construction and Demolish Waste for Low Volume Roads	Arpan Ray	Dr. R P Nanda, and Dr. Pronab Roy	ONGOING	2022-03- 31
A study of stability designs of the different types of Floating Offshore Wind Turbine (FOWT) system by integrated-coupled analysis under environmental loadings.	Swarnadip Dey	Dr. A K Banik, and Dr. Pronab Roy	ONGOING	2022-03-31
Analytical and Numerical Analysis of Free Spanning Offshore Pipelines Emphasizing Different Geotechnical Aspects	Goutam Sarkar	Dr. Pronab Roy	ONGOING	2022-03- 31
Machine Learning-Based Reliability Analysis of Structures	Pijush Rajak	Dr. Pronab Roy	ONGOING	2022-03- 31
Characterization of Concrete Pavements Using Acoustic Emission Technique	Soumyadip Das	Dr. Aloke Kumar Datta and Dr. Pijush Top	ONGOING	2022-03-31
Study and Modelling of Highway Pavements under Dynamic Loading	Arijit Kumar Bnerji	Dr. Pijush Topdar and Dr. Aloke Kumar Datta	ONGOING	2022-03- 31
Performance Study of Asymmetric Structures under Static & Dynamic Loads	Debiprasad Das	Diptesh Das and P. Topdar,	ONGOING	2022-03- 31
Vibration Control of Structures under Multihazard Scenario	Arunabh Sen	Diptesh Das and S. Chakraborty (IEST Shibpur)	ONGOING	2022-03-31
Vibration Control of Offshore Structures	Ankita Som	Diptesh Das	ONGOING	2022-03- 31
Vibration Control of Bridges	Tathagata Banerjee	Diptesh Das	ONGOING	2022-03- 31
Vibration Control of Base-Isolated Structures	Sukamal Kanta Ghosh	Diptesh Das	ONGOING	2022-03-31
Experimental Investigation on the Strength and Behaviour of Plate Reinforced Concrete Beam.	Prakash Mondal 15/CE/1502	Amiya Kr. Samanta, Dilip Kr. Singha Roy	ONGOING	2022-03- 31
Development of Vibration Based Structural Damage Detection, Localization and Assessment Strategy	Animesh Paral 15/CE/1105	Amiya Kr. Samanta, Dilip Kr. Singha Roy	DEGREE AWARDED	2021-07-26
An Investigation on the Wind-Structure	Soumya Mukherjee 19/CE/1104	Dilip Kr. Singha Roy	ONGOING	2022-03-31
Interaction of Cylindrical Shells for Storage Purpose				
Development of Vibration-based Structural Damage Detection, Localization, and Assessment Strategy	Animesh Paral	DKSinghaRoy, AKSamanta	DEGREE AWARDED	2021-07-26
Design of Water Management System Using Embedded Systems and Soft Computing Techniques.	Mr. Hariom Goel NITD/PhD/CE/2011/00313	V. K. Dwivedi, Dilip Kr. Singha Roy	DEGREE AWARDED	2015-12-07
Thermo-Mechanical Effect on Sustainable Concrete using Industrial waste.	Ashok Kr. Sahani	AKSamanta, DKSinghaRoy	DEGREE AWARDED	2021-04-21
Investigation on Characteristics, Strength &				
Behaviour of Concrete Confined with UPVC Pipe	Atrayee Bandyopadhyay	AKSamanta, DKSinghaRoy	DEGREE AWARDED	2021-04-29
Modeling and Analysis of Flexural Strength				
of Reinforced Concrete Beams with Corrugated Glass Fibre Reinforced Polymer Composites	Mr. Aravind N. NITD/PhD/CE/2013/00386	Amiya Kr. Samanta, Dilip Kr. Singha Roy	DEGREE AWARDED	2016-07-08



Characterization and development of Eco- Friendly concrete using Industrial Waste	Mr. S. Rajesh Kumar NITD/PhD/CE/2013/0043	Amiya Kr. Samanta, Dilip Kr. Singha Roy	DEGREE AWARDED	2018-06-15
Thermo-Mechanical Effect on Sustainable Concrete using Industrial waste	Ashoke k. Sahani & 13/CE/1506	Amiya Kr. Samanta, Dilip Kr. Singha Roy	DEGREE AWARDED	2021-04-21
Investigation on Characteristics, Strength & Behaviour of Concrete Confined with UPVC pipe	Atrayee Bandyopadhyay 14/CE/1101	Amiya Kr. Samanta, Dilip Kr. Singha Roy	DEGREE AWARDED	2021-04-29
Forecasting and Monitoring of Flood of River Mayurakshi at Tilpara Barrage Section, Suri, West Bengal, India	Raktim Biswas	Soumya Bhattacharyya, Supriya Pal	ONGOING	2022-03-31
Optimization of Sustainable integrated municipal solid waste management: Through Case studies	Arpan Chattopadhyay	Kalyan Adhikari, Supriya Pal	ONGOING	2022-03-31
Performance Assessment of Efficacy of Hybrid Constructed Wetland for removal of antibiotics and poly aromatic hydrocarbons in wastewater	Avishek Adhikary	Supriya Pal	ONGOING	2022-03-31
Efficacy Evaluation of Azadirachta indica (Neem) and Moringa Oleifera (Drum stick) seed shell blended clay soil as liner material in Chromium (VI) laden waste containment structures	Chandrima Bhadra	Supriya Pal, Kalyan Adhikari	DEGREE AWARDED	2021-06-24
Role of Additives on Remediation and Improvement of Geotechnical Properties of Heavy Metal Contaminated Soils by Solidification/Stabilization Technique	Ramiz Raja	Supriya Pal	DEGREE AWARDED	2022-01-24

4.2.24 Ongoing Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Amount (in Rs.)	Starting Year
Consultancy for restoration work of damaged SK Setu, a foot-bridge over Ajay river.	AKSamanta DDas	CLW, Chittaranjan	563000.0	2021
Consultancy on piling job for PEB Shed extension	AKSamanta, DKSinghaRoy	MATIX, Panagarh	304000.0	2021
Renovation / Retrofitting work of the damaged structure water storage tank (50000 Gallon).	AKSamanta, DKSinghaRoy, DDas	East India Pharmaceutical Ltd	118000.0	2021
Environmental geochemistry and treatment of organic pollutants in aquatic systems in the selected areas of China, India and Russia	Dr. Supriya Pal (Dept. of CE), Dr. Hirok Chowdhuri (Dept. of Physics, NITD), Dr. Mrinal Kanti Mandal (Dept. of ChE, NITD)	DST, GoI	4408000.0	2019
Nanotechnological intervention on jutegeotextile to adapt long term sustainability and enhanced durability for its cost-effective and wide application in flexible pavement systems	Dr. Supriya Pal (Dept. of CE), Dr. Hirok Chowdhuri (Dept. of Physics, NITD), Dr. Mrinal Kanti Mandal (Dept. of ChE, NITD), Dr. Rajib Ghosh Chowdhuri (Dept. of ChE, NITD), Prof. Debasis Roy (Dept. of CE, IITK)	NJB, Ministry of Textiles, GoI	6952000.0	2021

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Development of guidelines to adopt the process of height increment of overburden dumps at open cast coal mines in India using jute-geotextile as reinforcing material	Dr. Supriya Pal (Dept. of CE), Dr. Hirok Chowdhuri (Dept. of Physics, NITD), Dr. Mrinal Kanti Mandal (Dept. of ChE, NITD), Dr. Rajib Ghosh Chowdhuri (Dept. of ChE, NITD), Prof. Debasis Roy (Dept. of CE, IITK)	NJB, Ministry of Textiles, GoI	7172000.0	2021
Grossly Polluting Industries (GPIs) inspection by National Institute of Technology Durgapur in main stem states of river Ganga	Dr. Supriya Pal (Dept. of CE), Dr. Sandip Mondal (Dept. of EES)	CPCB	663750.0	2021

4.2.25 Completed Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Complete Year
Design and development of crack detection system in steel bridges using acoustic emission technique	Dr. P. Topdar & Dr. A.K. Datta from NIT Dgp and Dr. Arpita Mukherjee from CMERI, Dgp.	DST-TSDP, Govt. of India	2021
Design and development of crack detection system in steel bridges using acoustic emission technique Order No. DST/TSG/STS/2015/62(C) dated 24.07.2017	Dr. P. Topdar, Dr. A.K. Datta	DST-,TSDP	2021

4.2.26 Testing & Consultancy Services Rendered

Sponsoring Industry / Institute Name	Title of the Project	Total Amount (in Rs.)	Remarks
The Divisional Forest Officer Kangsabati South Division West Bengal	Checking of quality of works in connection with construction of check dams/Reservoirs within the jurisdiction of Kangsabati South Division	418310.0	Completed in March 2022
The Divisional Forest Officer Purulia Division West Bengal	Checking of quality of works in connection with construction of check dams/Reservoirs within the jurisdiction of Purulia Division	322600.0	Completed in March 2022
The Divisional Forest Officer Panchet Division, Bishnupur West Bengal	Checking of quality of works in connection with construction of Check Dams within the jurisdiction of Panchet Division	250000.0	In progress
DFO, Kangsaboti (South) Division, Govt. of West Bengal	Checking of quality of works in connection with construction of Check Dams within the jurisdiction of Kangsaboti (South) Division	418310.0	Final Report submitted
DFO, Purulia Division, Govt. of West Bengal	Checking of quality of works in connection with construction of Check Dams within the jurisdiction of Purulia Division	380668.0	Final Report submitted
M/S EIPWL Durgapur	Checking stability of the existing structure in damaged condition & recommendation (Calculations, Analysis & Renovation Scheme /drawing on strengthening measures).	118000.0	Completed
M/S CLW Chittaranjan	Consultancy for restoration of damaged S.K. Setu	563450.0	Ongoing
National Highway Authority of India	Review/ vetting of design and drawing of 4-laning of Purulia Bypass section	2212500.0	Ongoing
M/s Parashmani Medical Center Pvt. Ltd., City-Center,	Proof-checking /vetting of Structural Design & Drawing of B+G+5+1 Diagnostic Center Cum OPD block (Health World Hospital)	88500.0	Amiya Kr. Samanta and



Sponsoring Industry / Institute Name	Title of the Project	Total Amount (in Rs.)	Remarks
Durgapur - 713216			Dilip Kr. Singha Roy
M/s SRIJON Nirman, City Centre, Durgapur- 713 216	NDT Assessment on compressive strength of piling job for PEB Shed extension of M/s MATIX, Panagarh	313732.0	Dilip Kr. Singha Roy and A. K. Samanta
Various agencies (about 15 agencies)	Type-II-Testing of cubes, Concrete materials, paver blocks, bricks, tiles, fly ash brick etc.	136865.0	Dilip Kr. Singha Roy and A. K. Samanta
M/s.Samridh Enterprise, New Upper Chelidanga, Sib Mandir, Asansol-4.	Design Mix of M30 Grade Concrete	46020.0	Dilip Kr. Singha Roy and A. K. Samanta
M/s. Dascon Sourav Commercial Pvt. Ltd., 289, Sawmiji Sarani, Twen Tower, Kolkata- 700048	Design Mix of M30 Grade Heat Resistant Concrete	92000.0	Dilip Kr. Singha Roy and A. K. Samanta
M/s. East India Pharmaceutical works Ltd. 6, Little Russell Street, Kolkata-700071	Non-destructive strength capacity evaluation of overhead water tank.	70564.0	Dilip Kr. Singha Roy and A. K. Samanta
M/s. Maheswari Construction & Co., Shree kung plaza, 4 th floor, Lower Chelindanga, Asansol-4.	Design Mix of M30 Grade of Concrete	46020.0	Dilip Kr. Singha Roy and A. K. Samanta

4.2.27 Reviews of Manuscripts for Publication in Journal

Reviewer	Name of the Journal	Publisher	Date of Final Review
Aloke Kumar Datta	Journal of Vibration Engineering & Technologies	Springer	2021-08- 07
Aloke Kumar Datta	Journal of Vibration Engineering & Technologies	Springer	2021-07- 16
Aloke Kumar Datta	Journal of Vibration Engineering & Technologie	Springer	2021-09- 11
Aloke Kumar Datta	Scientia Iranica	Science Direct	2021-07- 20
Aloke Kumar Datta	Journal of Building and Architectural Engineering	Horizon Publishing Company, USA	2021-11- 05
Aloke Kumar Datta	Journal of Structural Engineering	ASCE	2022-03- 14
Diptesh Das	Journal of The Institution of Engineers (India): Series A (IEIA)	Springer	2021-12- 16
Diptesh Das	Journal of The Institution of Engineers (India): Series A (IEIA)	Springer	2022-04- 02
Amiya Kumar Samanta	Natural Hazards	Springer Nature	2021-10- 09
Amiya Kumar Samanta	Journal of structural engineering (JoSE)	CSIR-SERC	2021-10- 29
Amiya Kumar Samanta	Journal of The Institution of Engineers (India): Series A (IEIA)	Springer	2021-11- 25
Amiya Kumar Samanta	Structures	Elsevier	2022-03- 09
Amiya Kumar Samanta	Structures	Elsevier	2022-03- 28

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4.2.28 Review of Books

Reviewer	Title of the Book	Name and Affiliation of the Author	Publisher	Date
Amiya Kumar Samanta	Performance Specific Blended And Multi-Phase Alkali- Activated Composites	Debabrata Dutta and Somnath Ghosh	CRC Press	2021-05-20

4.2.29 Invited Examiners/Paper-Setters/Board of Studies

Name of the Faculty	Name of the Examination	University/Institute	From Date	To Date
Pronab Roy	External expert in Members of Doctoral Committee	IEST Shibpur	2021-08-27	2021-08-27
Diptesh Das	External expert in the board of examiners for evaluation of MTech thesis of Structural Engineering	IEST Shibpur	2021-08-05	2021-08-05

4.2.30 Session Chair/Convenor

Name of the Faculty	Programme	Place	Session	From Date	To Date
Dilip Kumar Singha Roy	Member of the Selection Committee for G.III Recruitment of Technical Officer	CSIR-CEMRI Durgapur	Continuing	2021-01-04	2022-09-20

4.2.31 Patents

NIL

4.3 Department of Chemistry

4.3.1 Department at a Glance

Since the inception of the institute (1960), the Department of Chemistry is sincerely engaged in teaching both UG and PG students from different engineering courses. The Department began its journey with M. Tech. Program in Corrosion Science & Technology in 1987. Later on, M.Sc. in Chemistry has been introduced in 2009. From 2017, the Department has introduced 5 years integrated M. Sc. course in Chemistry. The faculty members of this department are devoted to the research activities in various fields of chemistry, such as, Electrochemistry, Natural Product Chemistry, Photochemistry, Environmental Chemistry, Coordination Chemistry, Bioinorganic, Biophysical Chemistry, Theoretical Chemistry and other interdisciplinary areas. At present, the department boasts of several ongoing sponsored research projects and a number of research scholars are pursuing their Ph.D. The research findings are regularly published in reputed international and national journals (SCI). Achievement of the department has been acknowledged by DST, Govt. of India by granting fund under DST-FIST Scheme to uplift academic excellence to the highest level.

4.3.2 Mission & Vision

Mission

To produce highly qualified, well- rounded, motivated and technologically sound students possessing fundamental understanding and knowledge in chemical science and technology, who will deliver service and leadership to the nation and the world and can fulfil the technological and socio-economic need of industry, government and society.

Vision

To be a globally recognized department in scientific and technical education through value-added teaching, research and innovation and producing quality human resources who can meet the challenges of the ever-changing, technology-based society.

4.3.3 Faculty

Name	Designation	Email-id
Patra Apurba Kumar, PhD	Professor	apurba.patra@ch.nitdgp.ac.in



Maji Milan, PhD	Professor	apurba.patra.nitdgp@gmail.com milan.maji@ch.nitdgp.ac.in milan_maji@yahoo.co.in
Sukul Dipankar, PhD	Professor	dipankar.sukul@ch.nitdgp.ac.in dipankar.sukul@gmail.com
Saha Rajnarayan, PhD	Professor	rajanarayan.saha@ch.nitdgp.ac.in rajasaharupa@yahoo.com rnsahanitd@gmail.com
Moi Sankar Chandra, PhD	Professor	sankar.moi@ch.nitdgp.ac.in sankarmoi67@yahoo.com
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Banerjee, Deb Ranjan, PhD	Assistant Professor	debranjan.banerjee@ch.nitdgp.ac.in debranjan2@gmail.com

4.3.4 Equipments

NIL

4.3.5 Labs

Sl. No.	Name of Laboratory	Major equipment
01	Electrochemical Laboratory,	Potentiometer
02	PG (M.Sc.) Laboratory	Rotar evaporator, Column chromatography
03	UG (B.Tech.) Laboratory	UV spectrophotometer
04	Synthesis & Analytical Laboratory	Rotar evaporator, Column chromatography
05	Inorganic Synthesis and Environmental Laboratory	
06	Natural Product & Biological Chemistry Laboratory	UV spectrophotometer, GC-MS, Rotary evaporator
07	Bio-molecular Modelling Laboratory	BIOVIA Discovery Studio academic suite
08	Instrumentation Laboratory	
09	Computational chemistry lab	DST-FIST facility

4.3.6 PhD Degree awarded till 2021-22

Sixty.

4.3.7 Specialization

- Organic Chemistry
- Physical chemistry
- Bioorganic Chemistry
- Inorganic chemistry
- Inorganic chemistry and Environmental chemistry
- Organic Chemistry
- Physical Chemistry
- Bio-inorganic Chemistry
- Organic Chemistry

4.3.8 Proposed Plan for Research

- Pt(II) and Pd(II) based anticancer drug design and drug development
- Epigenetics, Drug design, Chemical sensors

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- Synthesizing bio-active heterocyclic compounds using different homogeneous and heterogeneous catalysts. Also to investigate the efficacy of transition metal complexes as anticancer drugs
- Setting up an advanced environmental laboratory for Research in
- Active site modelling of biological active sites
- Synthesis of small organic molecules catalysed by covalent organic framework and metallo organic framework and the application of those molecules as photoactive materials, sensors,; Organic transformations and C-H activation by COF and MOFs

4.3.9 Area of Research Interest

- Pt(II) and Pd(II) based anticancer drug design and drug development: DNA/BSA binding, Molecular docking, theoretical DFT study, IRC, HOMO- LUMO energy related calculation of Reactivity descriptor, Kinetic and Mechanism, Cytotoxic property of metal complexes, Cell death mechanism, ROS generation etc.
- Photochemistry
- Transition metal chemistry; reactions using green methodology; bio-inspired nanocatalysts
- Wastewater Treatment, Nano material synthesis and its environmental application. study on food chain contamination
- Lipid Chemistry, Food Chemistry, Analytical Chemistry, Catalyst, Cryopreservation
- Electrochemistry, Corrosion inhibitor
- Coordination chemistry, electrochemistry, spectroscopy
- (i) Protein modelling and computer-aided drug design (CADD): Protein structure modelling, pharmacophore screening, 3d QSAR, Ligand-based drug design, Structure-based drug design, Molecular dynamics simulation, Lead discovery, DFT analysis; (ii) Chemical sensors of metals and biomolecules: Small ligand-based sensors of metals and post-translationally modified peptides.
- Synthesis of small organic molecules via Covalent Organic Framework and Metallo-organic Framework, Design of corrosion inhibitors, Polysaccharide Chemistry, Isolation, characterization of natural products from plants and their application as corrosion inhibitors

4.3.10 Institute Industry Collaboration

Collaborating Institute Organization	Areas of collaboration	Collaboration Activities
Associated Soapstone Dist. Co. Pvt. Ltd. Jaipur	Conducted Joint project of final sem Int MSc (5yr) student Named Mr Piyush Tiwari	Conducted Joint project of final sem Int MSc (5yr) student Named Mr Piyush Tiwari

4.3.11 Collaboration with Academic and Research Institutions

Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
Vienna University of Technology, Vienna, Austria, Europe	Pd(II) metal based complex Kinetics and mechanism	Prof. Wolfgang Linert	Each year either I generally go to Vienna University and the host University provide me a staying support with 1500 Euro, or my research scholar go there with a same support. We have published more than 10 papers International reputed Journal. Last three years in Covid-19 pandemic period, we were not able to visit Vienna University of Technology.
Department of Zoology, Cancer Research Centre, University of Kolkata, WB, India	Cell culture, cell death mechanism and Cancer Biology	Prof. Urmi Chatterjee	Published paper jointly
Department of Zoology, Visva-Bharati University, Santiniketan, India	Cell Biology and Cell culture	Prof. Sudipta Moitra	Jointly we have published papers since last five years



Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
Molecular Cell Biology Laboratory, Department of Zoology, University of Kalyani, Kalyani, Nadia 741235, West Bengal, India	Study of anticancer activity of Pt(II) and Pd(II) complexes	Dr. Arunima Biswas	Jointly we have published papers since last year
IISC Bangalore	influence of fluorescence property on electromagnetic shielding materials	Suryasarathi Bose	published papers
IIT(ISM)Dhanbad	inorganic chemistry	Dr. Chanchal Halder and Dr. Tanmoy Kumar Saha	Synthesis and characterization
NISER Bhubaneswar	inorganic chemistry	Dr. J.N.Behera and Dr. T. K. Saha	Single crystal Xray diffraction
CSIR-CMERI	inorganic chemistry	Dr. Nripen Chanda and Dr. T. K. Saha	Biological studies of transition metal complexes
Civil Engineering Department North Dakota State University, USA	Water and Wastewater Treatment	Bezbaruah A. N	Research on “Synthesis of Advanced Nano-materials and their Application for the Reduction of Environmental Contaminants”
CSIR-CMERI DURGAPUR	Arsenic removal	Ruj Biswajit Debbarma Swarup Ranjan & Saha R. N.	Joint Supervisor for Ph.D Work, Paper publication
Dept. Of Environmental Science, The University of Burdwan, West Bengal	Water and Wastewater Treatment	Gupta S. and Saha R. N.	Joint Research in the areas on Environmental monitoring and wastewater treatment
CSIR-CMERI	chromofluorogenic and electrochemical chemosensors	Dr. Priyabrata Banerjee	Join supervision of PhD student and publication
CSIR-CMERI	Corrosion inhibitor	Sukul, D. and Banerjee, P.	Joint Research project
University of California Davis	X-ray structure solvation	Prof. Marilyn M. Olmstead	X-ray structure solvation
Delhi University	Spectroscopy	Prof. Rajeev Gupta	UV-Vis-NIR spectroscopic measurement

4.3.12 Workshops/Seminars Organized

Name of Key Speaker(s)	Name of the Programme	Date of the Programme
Prof. Jean-Marie Lehn, father of supra-molecular Chemistry (Nobel Laureate-1987), Dr. Arup Chandra	Recent Development of Chemistry (RDC-21)	2021-03-03
Dr. Arup Chandra	Industry-Institute Interaction	2021-04-02
Dr Debiprasad Duari • Dr Amitabha Ghosh • Prof. Susanta Duttagupta Prof. Anupam Basu Dr Kalyan Rudra	Vigyan Sarvatra Pujyate	2022-02-22

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4.3.13 Journal: Published in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
Soumita Mukherjee, Subrata Dasgupta, Utpal Adhikari, Sujit Sankar Panja	Molecular modeling and molecular dynamics simulation studies on thyroid hormone receptor from <i>Rattus norvegicus</i> : role of conserved water molecules	Journal of Molecular Modelling	Volume:27 Issue No:5 Page No: https://doi.org/10.1007/s00894-021-04740-1 / Published online Year:2021 Month:Apr
R. Bhadui, S. Mukherjee, I. Mitra, S. Ghosh, U. Chatterji, S. Reddy D. and S. C. Moia*	Anticancer activity and cell death mechanism of Pt(II) complexes: Their in vitro bio-transformation to Pt(II)-DNA adduct formation and BSA binding study by spectroscopic method	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	Volume:262 (2021) 120096 Issue No: Page No:120096 Year:2021 Month:Jun
A. Pan, I. Mitra, S. Mukherjee, S. Ghosh, U. Chatterji, and S. C. Moi*	Development of Anticancer Activity of the Pt(II) Complex with N-Heterocyclic Amine: Its In Vitro Pharmacokinetics with Thiol and Thio-Ethers, DNA and BSA Binding, and Cell Cycle Arrest	ACS Applied Bio Materials	Volume:4 Issue No:1 Page No:853-868 Year:2021 Month:Sep
S. Mandal, V. P. Reddy B., I. Mitra, S. Mukherjee; S. Kr. Tarai; R. Bhaduri; A. Pan, J. C. Bose K. and G. Kr. Ghosh; S. C. Moi *	Anticancer activity and biomolecular interaction of Pt(II) complexes: Their synthesis, characterisation and DFT study	Appl Organomet Chem.	Volume:e6506 Issue No:e6506 Page No:e6506 Year:2021 Month:December
R. Bhadui, S. Mukherjee, I. Mitra, S. Ghosh, U. Chatterji, S. Reddy D. and S. C. Moia*	Anticancer activity and cell death mechanism of Pt(II) complexes: Their in vitro bio-transformation to Pt(II)-DNA adduct formation and BSA binding study by spectroscopic method		Volume: Issue No: Page No: Year:2021 Month:June
A. Pan, I. Mitra, S. Mukherjee, S. Ghosh, U. Chatterji, and S. C. Moi*	Development of Anticancer Activity of the Pt(II) Complex with N-Heterocyclic Amine: Its In Vitro Pharmacokinetics with Thiol and Thio-Ethers, DNA and BSA Binding, and Cell Cycle Arrest	ACS Applied Bio Materials	Volume:4 Issue No:1 Page No:853-868 Year:3021 Month:April
Partha Sarathi Bera, Shyam Sundar Mondal, Rima Das, Subhas Ghosal, and Tanmoy Kumar Saha*	Bioinspired AgNPs: Effective and Recyclable Catalysts towards the One-Pot Synthesis of Hexahydroquinoline Derivatives via Three-Component Coupling Reaction	ChemistrySelect	Volume:6 Issue No: Page No:1-8 Year:2021 Month:Apr
Shyam Sundar Mondal, Namita Jaiswal, Rajat Kumar Tripathy, Partha Sarathi Bera, Dr. Nripen Chanda, Dr. J. N. Behera, Subhas Ghosal, Dr. Tanmoy Kumar Saha	Monosaccharide Linked Schiff Base Metal Complexes of Cu(II), Zn(II) and Mn(II): Exploring the Antiproliferative Activity and Cell Death Mechanism	ChemistrySelect	Volume:7 Issue No: Page No:e202200060 Year:2021 Month:Jun



Author(s) Name	Paper Name	Journal Name	Others Info
Soumita Mukherjee, Subrata Dasgupta, Utpal Adhikari, Sujit Sankar Panja	Molecular modeling and molecular dynamics simulation studies on thyroid hormone receptor from <i>Rattus norvegicus</i> : role of conserved water molecules	Journal of Molecular Modeling	Volume:277 Issue No:5 Page No:1- 14 Year:2021 Month:May
Swapnadip Roy, Tapashree Mondal, Dhananjay Dey, Manoj V Mane, Sujit S Panja	A New Thiophene-Appended Fluorescein-Hydrazone-Based Chromo-Fluorogenic Sensor for the Screening of Hg ²⁺ Ions in Real Water Samples	ChemistrySelect	Volume:6 Issue No:38 Page No:10464-79 Year:2021 Month:Oct
Soumita Mukherjee, Subrata Dasgupta, Tapasendra Adhikary, Utpal Adhikari, Sujit Sankar Panja	Structural insight to hydroxychloroquine-3C-like proteinase complexation from SARS-CoV-2: inhibitor modelling study through molecular docking and MDsimulation study	Journal of Biomolecular Structure and Dynamics	Volume:39 Issue No:18 Page No:7322-34 Year:2021 Month:Dec
Koushik Mondal, Ashim Pramanik, Tapashree Mondal,			
Sujit Sankar Panja, Rajat Sarkar, Pathik KumbhakarKoushik Mondal, Ashim Pramanik, Tapashree Mondal, Sujit Sankar Panja, Rajat Sarkar, Pathik Kumbhakar	Self-Assembly of SolventStabilized Au Nanocluster as Efficient Förster Resonance Energy-Transfer Initiator for White Light Generation	The Journal of Physical Chemistry Letters	Volume:13 Issue No:13 Page No:3079 Year:2022 Month:Mar
T kamilya, S Mondal & R Saha	Effect of magnetic field on the removal of copper from aqueous solution using activated carbon derived from rice husk	Environmental Science and pollution Research	Volume:29 Issue No:4 Page No:20017–20034 Year:2022 Month:Mar
N Bhattacharjee, I Som, R Saha* & S Mondal	A critical review on novel ecofriendly green approach to synthesize zinc oxide nanoparticles for photocatalytic degradation of water pollutants	International Journal of Environmental Analytical Chemistry	Volume: https://doi.org/10.1080/03067319.2021.2022130 Issue No: Page No:1-28 Year:2022 Month:Jan
A. Mondal, P. Banerjee, J. Chakrabarty	Rational design of reversible CN – selective multifarious responsive chemosensors: Theoretical substantiation and adaptable real–world applications	Journal of Photochemistry & Photobiology, A: Chemistry	Volume:428 Issue No: Page No:113893 (1-12) Year:2022 Month:Mar
A. Rai, A. Sen, B. Sarkar, J. Chakrabarty, B. K. Mondal, S. Dutta	Phycoremediation of pollutants from secondary treated coke-oven wastewater using poultry litter as nutrient source: a cost-effective polishing technique	Water Science & Technology	Volume:84 Issue No:9 Page No: 2406–2421 Year:2021 Month:Sep
Saikat Mishra, Anirban Bhandari, Devender Singh, Rajeev Gupta, marilyn M. Olmstead, Apurba K. Patra	Bis(mu-thiolato)-dicopper Containing Fully Spin Delocalized Mixed Valence Copper-sulfur Clusters and Their Electronic Structural Properties with Relevance to CuA Site	Inorganic Chemistry	Volume:60 Issue No: Page No:5779- 5790 Year:2021 Month:Apr
Shipra Mukhopadhyay, Subrata Dasgupta, Suprakash Roy, Abhijit Mondal,	Corrosion inhibition of mild steel by Aqueous leaf extract of Purple	Journal of Bio- and TriboCorrosion	Volume:7 Issue No:139 Page No: Year:2021 Month:Sep

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Author(s) Name	Paper Name	Journal Name	Others Info
Dipankar Sukul, Subhas Ghosal & Utpal Adhikari	Hedge plant: Experimental and theoretical investigation		
S. Mandal, V. P. Reddy B., I. Mitra, S. Mukherjee; S. Kr. Tarai; R. Bhaduri; A.	Anticancer activity and biomolecular interaction of Pt(II) complexes: Their synthesis, characterisation and DFT study;	Appl Organomet Chem.	Volume:e6506. (doi.org/10.1002/aoc.6506) 2021 Issue No:e6506. (doi.org/10.1002/aoc.6506 Page No:e6506. (doi.org/10.1002/aoc.6506 Year:2021 Month:May
Pan, J. C. Bose K. and G. Kr. Ghosh; S. C. Moi *,M. Gwala, A. Rai, R. Ghosh Chaudhuri, J. Chakrabarty, B. K. Mondal, S. Dutta	Treatment of Hydrocarbon-Rich Wastewater to Enhance Reusability of Water Using a Novel Indigenous Microalgal-Bacterial Consortium Isolated from Kovalam Beach, India	Journal of Environmental Engineering	Volume:147 Issue No:12 Page No:04021063 (1-12) Year:2021 Month:Dec
I. Banerjee, T. Sadhu, R. Mukherjee, A. Bhattacharjee, J. Chakrabarty	Nutritional consequences of sundrying, freezing, and frying of Lates calcarifer on human health	Journal of the Indian Chemical Society	Volume:98 Issue No:10 Page No:100158 (1-11) Year:2021 Month:Oct
S. Mukhopadhyay, S. Dasgupta, S. Roy, A. Mondal, D. Sukul, S. Ghosal, U. Adhikari	Corrosion inhibition of mild steel by aqueous leaf extract of purple hedge plant: experimental and theoretical investigation	Journal of Bio- and TriboCorrosion	Volume:7 Issue No:4 Page No:139 Year:2021 Month:Sep
Subhabrata Mabhai, Malay Dolai, Surya Kanta Dey, Sujata Maiti Choudhury, Bharguram Das, Satyajit Dey, Atanu Jana, Deb Ranjan Banerjee	A naphthalene-based azo armed molecular framework for selective sensing of Al ³⁺	New Journal of Chemistry	Volume:46 Issue No: Page No:6885-6898 Year:2022 Month:Mar
Abhisek Jana, Tarun Roy, Sarbajit Layek, Subhas Ghosal and Deb Ranjan Banerjee	Computational investigation on natural quinazoline alkaloids as potential inhibitors of the main protease (Mpro) of SARS-CoV-2	Journal of Computational Biophysics and Chemistry	Volume:21 Issue No:01 Page No:65-82 Year:2022 Month:Jan

4.3.14 Ph.D. Supervisor

Topic Name	Scholar	Supervisor	Status	Status Date
Benzimidazole chelated Pt(II) and Pd(II) based anticancer drug design and drug development	Mr. Bijoy Rajak	Prof. Sankar Ch. Moi (Sole)	ONGOING	null
Heteroaromatic bidentate amine chelated Pt(II) and Pd(II) complexes: their DNA, BSA binding, anticancer property and cell death mechanism	Miss. Chadrika Das	Prof. Sankar Chandra Moi (Sole)	ONGOING	null
Synthesis and characterisation of Pt(II) & Pt(IV)/Pd(II) complexes as anticancer agents: their kinetics & mechanism, bioactivity and theoretical aspects.	Miss. Angana Pan	Prof. Sankar Chandra Moi (Sole)	ONGOING	null
Effect of bidentate heteroamine as carrier ligand in Pt(II)/Pd(II) complexes as anticancer agents to reduce the toxicity: their synthesis, characterisation, kinetics, bio-activity and DFT study	Mr. Swarup Tarai	Prof. Sankar Chandra Moi (Sole)	ONGOING	null



Topic Name	Scholar	Supervisor	Status	Status Date
Synthesis and characterisation of Pt(II) & Pd(II) complexes with bidentate carrier (1 o and 3 o amine) : their kinetics & mechanism, bio-activity and theoretical study.	Miss. Rituparna Bhaduri	Prof. Sankar Chandra Moi (Sole)	ONGOING	null
Synthesis, characterization and modification of Pt(II) and Pd(II) complexes as anticancer agent based on cis-platin: their kinetics, bioactivity and DFT investigation.	Mr. saikat Mandal	Prof. Sankar Chandra Moi (Sole)	ONGOING	null
Metal Complexes of Schiff Base Ligand Having Different Functionalities: Synthesis, Characterization and Biological Studies	Mr. Shyam Sundar Mondal	Dr. Tanmoy Kumar Saha	DEGREE AWARDED	2022-01-08
Developement and photophysical study of fluorescein based fluorescent sensors and their different applications	Swapnadip Roy	Sujit Sankar Panja	DEGREE AWARDED	2022-08-03
Synthesis and photophysical investigation of Aggregation Induced Emission (AIE) active molecules and its diverse potential applications	Tapashree Mondaal	Sujit Sankar Panja	ONGOING	null
The molecular dynamics simulation studies on Thyroid hormones receptor	Soomita Mukherjee	Sujit Sankar Panja	ONGOING	null
Improvement of nutritional quality of fish during conventional frying process: A novel approach using Artificial Intelligence	Tithli Sadhu	Dr. Jitamanyu Chakrabarty and Ashish Bhattacharjee (BT)	SUBMITTED	2021-09-06
Protein and other biochemical components of fish and their nutritional effect	Indrani Banerjee	Dr. Jitamanyu Chakrabarty and Ashish Bhattacharjee (BT)	ONGOING	null
Design and synthesis of chromogenic and fluorogenic chemoreceptors for selective sensing of toxic anions	Amita Mondal	Dr. Jitamanyu Chakrabarty and Dr. Priyabrata Banerjee (CSIR-CMERI)	SUBMITTED	2021-12-17
Tertiary treatment of coke-oven wastewater through microbial route as a polishing step	Abhilasha Rai	Prof. Susmita Dutta and Dr. Jitamanyu Chakrabarty	DEGREE AWARDED	2022-03-07
Intermediate identification during photocatalytic oxidation Of organic compound	Ipsita Som	Prof. Rajnarayan Saha	ONGOING	null
Removal of Arsenic by modified Adsorbent	Prasanta Mondal	Prof. Rajnarayan Saha (NITD), Dr. Ruj B.(CMERI Durgapur) and Dr. Debbarma S.R.(CMERI Durgapur)	ONGOING	null
Development of a Remedial Scheme for the Abatement of Ground Water Pollutants especially Pesticides, Nitrate, and Selected Heavy Metals using Fabricated Environmentally Benign Nanomaterials	ANANYA GHOSH	Prof. Rajnarayan Saha	DEGREE AWARDED	2021-07-05
Development of an Advanced Treatment Scheme for the Degradation of the Toxic Organics Associated with Pharmaceutical Wastewater	SUCHARITA CHAKRABORTY	Prof. Rajnarayan Saha	DEGREE AWARDED	2021-08-18
Metal sensing	Subhabrata Mabhui	Dr DEB RANJAN BANERJEE	ONGOING	null

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Topic Name	Scholar	Supervisor	Status	Status Date
Investigation on the extracts of Tradescantia Pallida, Swertia Chirata, Butea monosperma and Amaranthus giganticus as green corrosion inhibitors for mild steel in hydrochloric acid medium	Shipra Mukhopadhyay	Utpal Adhikari	ONGOING	null
Chemistry of various p and d block Metal Complexes of Schiff Bases Having Different N, O Donor Sites: Catalytic and Sensor Application	Sourav Chatterjee	Sukul D., Banerjee P. and Chattopadhyay T.	SUBMITTED	2022-01-18
Anti-corrosive activity of Schiff bases involving biomolecules towards mild steel in hydrochloric acid medium	Sanjoy satpati	Sukul D., and Banerjee P.	SUBMITTED	2022-01-06
Corrosion Inhibition of Mild Steel and Copper in Acid Medium By Benzothiazole Derivatives: Structure reactivity correlation study	Aditya Suhasaria	Sukul D.	ONGOING	null
Corrosion inhibition of metal by biorelevant molecules	Rakhi Senapati	Sukul D.	ONGOING	null
Biological Relevance and Reactivity of Cu(II/I) Complexes Supported by N, S Donor Ligands	Saikat Mishra	Apurba K. Patra	ONGOING	null
Modelling Biological Nickel Sites Supported by N,S Donor Ligands and their Reactivity Studies	Aniruddha Das	Apurba K. Patra	ONGOING	null
Synthesis and Reactivity Studies of Copper Complexes Relevant to Biological Copper Sites	Shibaditya	Apurba K. Patra	ONGOING	null
Computer-aided drug design against protein responsible for epigenetics and pathogenicity	Abhisek Jana	DR. DEB RANJAN BANERJEE	ONGOING	null
Isolation, Purification and Structural Characterization of Polysaccharides from some Indian Fruits	Surajit Hazra	Utpal Adhikari	ONGOING	null
Synthesis of Fe, Co oxide/carbonate using urea as neutralizing agent and evaluation of their electrochemical sensing properties	Priyanka Mukherjee	Utpal Adhikari	ONGOING	null
Synthesis of Nano-composite Membrane for	JOYEETA BOSE	Dr. Jaya Sikder (Chemical Engineering) and Dr. Utpal Adhikari	ONGOING	null
The Removal of Azo Dye Using Micellarenhanced Ultrafiltration Coupled with Membrane Distillation and Photocatalytic Dye Degradation				

4.3.15 Ongoing Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Amount(in Rs.)	Starting Year
"Synthesis and characterization of Cis-platin based Pt/Pd(II) complexes: Their kinetics, mechanism, DNA- binding property and theoretical study" (Project file No: BT/ST/P/S&T/2G-44/2017).	Prof. Sankar Chandra Moi	DST-BT Govt. of West Bengal	2499100.0	2018
"Searching of less toxic and more effective Cis-platin based new Pt(II) anticancer agents: Kinetics, DNA binding, bio-activity and DFT study"	Prof. sankar Chandra Moi (Sole)	CSIR, Government of India	1030000.0	2018



Title of the Project	Investigator	Sponsor Authority	Amount(in Rs.)	Starting Year
Synthesis of Pharmacologically Active Heterocyclic Compounds via One Pot Three Component Coupling Reaction Catalyzed by Bio-Inspired Nanoparticles	Dr. Tanmoy Kumar Saha	SERB	3122000.0	2017
Design and Development of Two Stage Efficient Laboratory Wastewater Treatment (Advanced Oxidation and Activated Sludge Process) Plant for Producing Environmentally Safe and Clean Water for further uses	Prof. Rajnarayan Saha and Dr. Jitamanyu Chakrabarty	Department of Higher Education, Science & Technology And Biotechnology, Govt. of West Bengal	315000.0	2019
Design and Development of Two Stage Efficient Laboratory Wastewater Treatment (Advanced Oxidation and Activated Sludge Process) Plant for Producing Environmentally Safe and Clean Water for further uses	Dr. Rajnarayan Saha and Dr. Jitamanyu Chakrabarty	Science & Technology and Biotechnology Department, Govt. of West Bengal	315000.0	2019
Emerging Contaminants and their accumulation in ecosystem of lower stretch of Hooghly River	Dr. Sandip Mondal and Dr. Rajnarayan Saha	Department of Higher Education, Science & Technology and Biotechnology, Govt. of West Bengal	998000.0	2018
Inhibition of Corrosion Inhibition properties of newly synthesized green corrosion inhibitors against mild steel in acidic medium	Adhikari U. (PI) Sukul D. (Co-PI)	SERB, Govt. of India	6802000.0	2019
Investigation of corrosion inhibition properties of newly synthesized green corrosion inhibitors against mild steel in acidic medium	Utpal Adhikari(PI), Prof. Dipankar Sukul (Co-PI)	DST-SERB	6800000.0	2019
Functional inter- connection between WISH and cell wall biosynthesis / remodeling pathway in rice blast fungus	Dr. Subhankar RoyBarman (PI) and Dr. Utpal Adhikari (Co-PI)	DST-SERB	6949096.0	2021

4.3.16 Completed Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Complete Year
Bio-transformation reactions of Pt(II)/Pd(II) and Pt(IV)-sulfur chelates to metal-DNA adduct with nucleobases: their kinetics, mechanistic pathway, bio-activity and theoretical aspects.	Prof. Sankar Chandra Moi (Sole)	DST-SERB, Govt. of India	2021
Spatial Distribution of Uranium in Three Districts (South 24 Pargana, Purba Medinipur and Pashim Medinipur) of West Bengal	Dr Srimanta Gupta and Dr. Rajnarayan Saha	BRNS, DAE, GOI	2021
Search for effective corrosion inhibitors based on benzothiazole derivatives: combined experimental and theoretical approach to establish structure-reactivity	Sukul D. (PI) ; Banerjee P (Co-PI)	DSTBT, GoWB, India	2022

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relationship			
Synthetic Modeling of Copper-Proteins Active Site	Apurba K. Patra	DST	2011
Nickel Complexes Supported by N,S-Donor Ligands: Relevance to the Active Site of Acetyl CoA Synthase	Apurba K. Patra	DST-SERB	2018

4.3.17 Reviews of Manuscripts for Publication in Journal

Reviewer	Name of the Journal	Publisher	Date of Final Review
Sankar Chandra Moi	Journal of Physical Chemistry B	American Chemical Society	2021-04-14
Sujit Sankar Panja	chemistry select	Wiley-VCH	2021-07-07
Tanmoy Kumar Saha	ChemistrySelect	Wiley-VCH	2021-12-07
Jitamanyu Chakraborty	Environmental Progress & Sustainable Energy	Wiley	2021-05-11
Jitamanyu Chakraborty	Environmental Progress & Sustainable Energy	Wiley	2021-06-20
Jitamanyu Chakraborty	Journal of Environmental Engineering and Landscape Management	Taylor & Francis	2021-07-12
Jitamanyu Chakraborty	Food Chemistry	Elsevier	2021-09-14
Jitamanyu Chakraborty	PLOS ONE	PLOS	2021-10-12
Jitamanyu Chakraborty	Journal of CO2 Utilization	Elsevier	2022-01-07
Dipankar Sukul	ACS Sustainable Chemistry & Engineering	American Chemical Society	2022-01-27
Dipankar Sukul	ACS Omega	American Chemical Society	2021-11-03
Dipankar Sukul	Carbohydrate Polymers	Elsevier	2021-11-30
Dipankar Sukul	Journal of Dispersion Science and Technology	Taylor & Francis	2022-02-12
Dipankar Sukul	Materials Research	SciELO Brasil	2021-11-04
Dipankar Sukul	Journal of Dispersion Science and Technology	Taylor & Francis	2021-05-03
Dipankar Sukul	Journal of Dispersion Science and Technology	Taylor & Francis	2021-04-17
Dipankar Sukul	Materials Research	SciELO Brasil	2021-04-06
Dipankar Sukul	Chemical Physics Letters	Elsevier	2021-05-17
Apurba Kumar Patra	European Journal of Inorganic Chemistry	Wiley-VCH	2021-01-12
Apurba Kumar Patra	Chemistry A European Journal	Wiley-VCH	2021-08-03
Apurba Kumar Patra	Dalton Transaction	Royal Society of Chemistry	2021-12-30
Apurba Kumar Patra	Inorganic Chemistry	American Chemical Society	2022-02-04
Apurba Kumar Patra	Inorganic Chemistry	American Chemical Society	2022-01-16
Apurba Kumar Patra	Inorganic Chemistry	American Chemical Society	2022-02-11
Apurba Kumar Patra	Inorganic Chemistry	American Chemical Society	2021-10-19
Deb Ranjan Banerjee	3Biotech	Elsevier	2021-10-31



4.3.18 Invited Examiners/Paper-Setters/Board of Studies

Name of the Faculty	Name of the Examination	University/Institute	From Date	To Date
Sankar Chandra Moi	Board of Studies	Burdwan University	2022-06-15	2022-08-28
Sankar Chandra Moi	JRF selection board member	TCGCREST-RISE	2022-08-10	2022-08-10
Sankar Chandra Moi	JRF to SRF uo-gradation External board member	Visva-Bharati University	2022-08-08	2022-08-08
Sankar Chandra Moi	M. Sc. Question moderation External committee member	Burdwan University	2022-06-28	2022-06-28
Sujit Sankar Panja	MSc semester 3 practical examinaation	Burdwan	2022-02-08	2022-02-09
Tanmoy Kumar Saha	MSc 1st sem practical examination	Univrsiy of Burdwan	2022-03-10	2022-03-12
Jitamanyu Chakraborty	Master of Science	Kazi Nazrul University	2021-09-09	2022-09-14
Rajnarayan Saha	M.Sc (Paper Setter)	KNU	2021-08-17	2021-08-17
Rajnarayan Saha	UG BOS (Chemistry)	KNU	2020-04-07	2024-04-06
Rajnarayan Saha	PG BOS (Conservation Biology)	KNU	2021-03-03	2025-03-02
Rajnarayan Saha	BRS (Conservation Biology)	KNU	2021-06-04	2025-06-03
Dipankar Sukul	Ph.D. Defence	Manipal University, Jaipur	2021-07-21	2021-07-21
Apurba Kumar Patra	Ph.D Thesis Examination	Visva-Bharati University	2022-07-12	2021-10-22
Apurba Kumar Patra	Ph.D Thesis Examination	Indian Association for the Cultivation of Science	2021-07-01	2021-08-22
Apurba Kumar Patra	PhD Thesis Examination	I. I. T. Guwahati	2021-12-08	2022-01-12

4.3.19 Invited Expert in Selection Committees

Name of the Faculty	Discipline	University/Institute	From Date	To Date
Jitamanyu Chakraborty	Expert Committee on Environment, Ecology & Climate Change (Including Medicinal Plant)	Department of Science and Technology and Biotechnology, Govt. of West Bengal	2021-04-01	2022-09-14

4.3.20 Invited Lectures

Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Rajnarayan Saha	Waste Water Treatment	One week online faculty development programme	Department of chemistry, saranathan college of engineering, Trichy-12, Tamil Nadu	2021-08-25	2021-08-25

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4.3.21 Patents

NIL

4.4 Department Of Computer Science & Engineering

4.4.1 Department at a Glance

The Department started imparting instructions with the most modern curricula and syllabus to the students for undergraduate course since 1991 and post graduate course since July, 2004. The Department maintains an excellent teaching/learning and research environment with dedicated, qualified and dynamic faculties and well-equipped laboratories.

The Department of Computer Science and Engineering (CSE) embodies the Institute's tradition of excellence in engineering education. CSE is in a period of exciting growth and opportunity. CSE Graduates capture leading academic appointments as well as opportunities in renowned computer industries. Apart from UG & PG S/W & H/W Laboratories the Department has designed few specialized research Laboratories which includes highly sophisticated VLSI laboratory & Embedded Systems laboratory, Bio-medical Engineering laboratory, Systems laboratories, Data Science laboratory, Software Engineering Laboratory, etc. It also focuses research in areas like Bioinformatics, algorithms, security, natural language processing which the researchers have made a foray into in recent years. The newly built augmented space in the Department (1st floor of the Chemistry Building) department will host sophisticated Software Laboratories for Undergraduate & Post Graduate Programmes, dedicated server rooms including few specialized Laboratories.

4.4.2 Mission & Vision

Mission:

M1. Imparting quality education through the well-designed curriculum in tune with the challenging needs of the industry and society.

M2. Providing state-of-art research facilities to generate knowledge and develop technologies in the thrust areas of Computer Science and Engineering.

M3. Developing linkages with world-class organizations to strengthen industry-academia relationships for mutual benefit.

M4. To produce quality engineers, researchers, and successful professionals who will become responsible citizens by contributing to the progress of the nation.

Vision:

Attaining global recognition in the area of Computer Science & Engineering through creating, applying, and imparting scientific and technical education, research, and training to meet the growing needs of the industry and society.

4.4.3 Faculty

Name	Designation	Email-id
Debashis Nandi	Professor	debashis@cse.nitdgp.ac.in
Subhrabrata Choudhury	Professor	subhrabrata@cse.nitdgp.ac.in
Subrata Nandi	Professor	subrata.nandi@cse.nitdgp.ac.in
Suchismita Roy	Professor	suchismita.roy@cse.nitdgp.ac.in
Tandra Pal	Professor	tandra.pal@cse.nitdgp.ac.in
Tanmay De	Professor	tanmay.de@cse.nitdgp.ac.in
Animesh Dutta	Associate Professor	animesh@cse.nitdgp.ac.in
Anirban Sarkar	Associate Professor	anirban.sarkar@cse.nitdgp.ac.in
Baisakhi Chakraborty	Associate Professor	baisakhi.chakraborty@cse.nitdgp.ac.in
Bibhash Sen	Associate Professor	bibhash.sen@cse.nitdgp.ac.in
Dakshina Ranjan Kisku	Associate Professor	drkisku@cse.nitdgp.ac.in
Debasis Mitra	Associate Professor	debasis@cse.nitdgp.ac.in
Goutam Sarker	Associate Professor	goutam.sarker@cse.nitdgp.ac.in
Mousumi Saha	Associate Professor	mousumi.saha@cse.nitdgp.ac.in
Prasenjit Choudhury	Associate Professor	prasenjit0007@yahoo.co.in
Sajal Mukhopadhyay	Associate Professor	sajal@cse.nitdgp.ac.in
Saravanan Chandran	Associate Professor	cs@cse.nitdgp.ac.in
Suvamoy Changder	Associate Professor	suvamoy@cse.nitdgp.ac.in
Suvrojit Das	Associate Professor	suvrojit.das@cse.nitdgp.ac.in



Name	Designation	Email-id
Sujan Kumar Saha	Associate Professor	sujankumar.saha@cse.nitdgp.ac.in
Abhijit Sharma	Assistant Professor	abhijit.sharma@cse.nitdgp.ac.in
Deepanwita Das	Assistant Professor	deepanwita@cse.nitdgp.ac.in
Jaydeep Howlader	Assistant Professor	jaydeep@cse.nitdgp.ac.in
Mamata Dalui	Assistant Professor	mamata.dalui@cse.nitdgp.ac.in
Nanda Dulal Jana	Assistant Professor	nandadulal@cse.nitdgp.ac.in
Parag Guha Thakurta	Assistant Professor	paragkumar.guhathakurta@cse.nitdgp.ac.in
Rajib Kumar Chatterjee	Assistant Professor	rajib.chatterjee@cc.nitdgp.ac.in
Sandip Karmakar	Assistant Professor	sandip.karmakar@cse.nitdgp.ac.in
Sanghita Bhattacharya	Assistant Professor	sanghita.bhattacharjee@cse.nitdgp.ac.in
Sanjib Sadhu	Assistant Professor	sanjib.sadhu@cse.nitdgp.ac.in
Subhankar Majhi	Assistant Professor	subhankar@cse.nitdgp.ac.in
Sujoy Saha	Assistant Professor	sujoy.saha@cse.nitdgp.ac.in
Narayan Murmu	Assistant Professor	narayan@cse.nitdgp.ac.in
Shyantani Maiti	Assistant Professor	shyantani.maiti@cse.nitdgp.ac.in
Monalisa Mandal	Assistant Professor	monalisa.mandal@cse.nitdgp.ac.in
Subhas Chandra Sahana	Assistant Professor	subhaschandra.sahana@cse.nitdgp.ac.in
Suvadip Batabyal	Assistant Professor	suvadip.batabyal@cse.nitdgp.ac.in

4.4.4 Equipments

Sl. No.	Name of the equipment	Date of Purchase	Amount
1.	Mobile device	November 2021	50000
2.	Switch (Manged)	November 2021	25000
3.	Switch (Unmanaged)	November 2021	25000
4.	WiFi	November 2021	32000
5.	Esp-32`	November 2021	30000
6.	Laptop	July 2020	66906
7.	Smartphone	September 2019	60000
8.	Printer	April 2021	22780
9.	Scanner	April 2021	4748
10.	Spartan 6	September 2021	4200
11.	ADC Sensor	September 2021	250
12.	Scanner	December, 2021	8678
13.	EEG and fNIRS devices	February, 2021	28,45,512
14.	Printer	September, 2021	15345

4.4.5 Labs

Sl. No.	Name of Laboratory	Major equipment
1.	Advanced DBMS Lab (UG/PG Lab)	Computers: 100 Server: 1 Workstation: 02
2.	System Research Lab (SRL)	Microcontrollers, Microcomputers, Sensors, Smart Phones, Function Generator, CRO, FPGA Board, Edge Computing Nodes, LoRA Module, Computers (Numbers: 4), Switch (Manged), Switch (Unmanaged)
3.	VLSI laboratory	Computers: 35 Server: 1 Xilinx Spartan 3E (24)
4.	Application Lab	Computers: 40
5.	System & Networking Lab	Computers: 30 Server: 01
6.	Research Scholar Lab	Computers: 40 Server: 02 Workstation: 04
7.	Data Science Research Lab	Server (2), PC (5), Workstation (2)
8.	Advanced Software Engineering Lab	Workstation (01), Desktop (04)

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Sl. No.	Name of Laboratory	Major equipment
9.	Biomedical Engineering Lab	Workstation (02), Server (01), Mobile Devices, Printer (01), EEG and fNIRS devices
10.	CoE-IoTIS Lab	Workstation (02), Desktop (02), Tobii-Pro Eyetracker Device (01), GSR-EMG Biofeedback Device (02), Mobile Device (01)
11.	Hardware Security Lab	Xilinx Spartan 6 (01), Xilinx Artix 7 (12), Smiledrive Dosimeter (01)
12.	Advanced Operating System Lab	Desktop (13), Printer (1)

4.4.6 PhD degree awarded till 2021-22

Ninety Five.

4.4.7 Specialization

- Computer Vision
- Biometrics
- Compiler Design
- Data Structures
- Image Processing
- Design and Development of Machine and Deep Learning Algorithms
- Computer Networks, Inter of Things, Data Structure, Introduction to Computing, Mobile Computing, Internet of Things
- Fairness issues in automated decision making
- Computer Vision, Medical Image Processing and Analysis
- Quantum Computing, Information Security, Machine Learning, Computational Aesthetics
- Artificial Intelligence and Machine Learning
- Algorithms and Game Theory
- Wireless Networks & Mobility
- Data science and Mobile Crowd Computing
- VLSI Design and Test
- Social network analysis, Semantic Web, Multi Agent Coalition formation etc.
- Networking, Sensor Networks
- Software Engineering
- DBMS, Knowledge Management, Case Based Reasoning, Natural language Processing
- Discrete Mathematics, Machine Learning, Optimization, Computer Added Drug Design, Voice Conversion
- Theory of computation
- Computer Networks
- Data Structures
- Object Oriented Programming
- Mobile Computing
- Internet of Things
- Cryptography
- Blockchain
- Operating Systems
- Distributed Systems
- VLSI testing using Cellular Automata
- Theoretical CS, Systems (Standalone OS and DS)

4.4.8 Proposed Plan for Research

- To work on medical biometrics
- To work on language processor
- To work on ancient languages
- To work on healthcare informatics
- Planning to work on Biometrics and Computer Vision based research areas.
- Working in Quantum Image Processing and Quantum Machine Learning
- Application of Machine Learning in Astronomy and Astrophysics
- To carry out research on fairness issues in automated decision making
- Behavioural Economics and Game Theory, Crowdsourcing, Kidney Exchange problem, Voting, Multi-Armed Bandit
- To develop public policy formulation framework through artificial society simulation using data-centric approaches



- Enabling online digital learning in mathematics for visually impaired
- To create an integrated framework for the collection, analysis and interpretation of IoT data to realize value from the huge volumes of data generated by connected Internet of Things devices.
- Hardware Security in High Level Synthesis
- Placement and Routing in Physical Design Automation
- Use of GCN (Graph Convolution Network) for Social Network Analysis, Use of Machine Learning Technique for Multi Agent Coalition formation.
- Software Engineering
- Database System
- IoT Integrated Software System
- The Phd scholar and M.tech scholars of me are involved in research of corresponding areas of specialization
- Implementation of PUF based security Protocol for IoT
- Multiparty computation, Consensus mechanism
- Security of OS
- Research on Security of Systems
- IoT and Data Analytics

4.4.9 Area of Research Interest

- Computer Vision
- Biometrics
- Information Security
- Image Processing
- Machine Learning
- Deep Learning
- Healthcare informatics
- Mobile Computing, Internet of THings, Human Computer Interaction
- Hardware Security (PUF) and its applications.
- Hardware Trojan Detection and Prevention
- Secure Architecture for IoT application
- Embedded System & its application in medical science
- Quantum-dot Cellular Automata (QCA), Reversible Logic and Fault-Tolerant Architecture
- Distributed Algorithms, Swarm Robotics
- Computer Vision, Machine Learning, Medical Imaging
- Quantum Image Processing, Computational Aesthetics, Information Security
- Machine Transcription, Biometric Based Person Identification, Speech To Text, Convolution Neural Network and Deep Learning, Machine Learning Applications in Astronomy and Astrophysics
- Application of game theory in fair division
- Algorithms and its application, Algorithmic game theory and its applications, Reinforcement learning
- Communication networks, Wireless Technology, Internet of Things, Edge/Fog Computing, Computational Social Science
- Intelligent Biomedical Devices, Multi-Processor and Multi-core Architecture, Hardware Security, VLSI Design and Test, Theory and Applications of Cellular Automata (CA)
- Assistive Technology
- Deep Learning and Activity Recognition
- Wireless Networks & Mobility
- Application of Data science in Agriculture, Personalised learning, E-commerce and Recommender system.
- VLSI Design and Test
- Hardware Security
- SAT based Modeling
- Computational Geometry
- Use of GCN (Graph Convolution Network) for Social Network Analysis, Use of Machine Learning Technique for Multi Agent Coalition formation.
- Mobile Computing, Wireless Body Area Networks, Sensor Networks, IoT and its applications
- Software Engineering
- IoT Based system
- Database System
- Service Oriented Computing
- DBMS, Knowledge Management, Case Based Reasoning, Natural language Processing
- Error surface analysis of machine learning models and deep learning models, GAN based voice conversion, Evolutionary Molecular Optimization, Evolutionary Neural Architecture Search

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- Network Systems
- Sensor Networks
- Delay Tolerant Network
- Complex Network Theory
- Optical Network, D2D Communication Networks, DTN, Sensor Networks
- Security, Algorithm, Game theory applications
- VLSI
- Machine Learning
- Human-Computer Interaction (HCI)
- VLSI Testing, IOT
- OS Security
- WSN, IoT, Data Analytics

4.4.10 Institute Industry Collaboration

Collaborating Institute Organization	Areas of collaboration	Collaboration Activities
TCS	Human Computer Interaction	Project Name: Assistive Technology on multimodal disabilities
Samsung	Human Computer Interaction	Project Name: Samsung PRISM
Samsung R&D	Machine learning in Mobile Communication	Execution of Projects
Samsung India	Android App Development	Student Guidance
Samsung	Human Computer Interaction	Project under Samsung PRISM
NA	NA	NA
TCS	Universal Interface in any environment for all users	Research
TCS	Research Project on Math Accessibility	Development of a framework for better visualization of STEM from Web

4.4.11 Collaboration with Academic and Research Institutions

Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
IIT Kharagpur	IoT, Mobile Computing	Prof. Niloy Ganguly, Dr. Sandip Chkraborty	Project & Research Activity
George Mason University	Mobile Computing, IoT	Vijay K Shah	Research Collaboration
Pune Institute of Business Management	Natural Language Processing, Machine learning	Prof. Manish Godse, Dr. Prasenjit Mukherjee	Publishing Research papers
Indian Statistical Institute, Kolkata	Optical Character Recognition	Prof. Umapada Pal	PhD. guidance
Department of Computer Science and Engineering, Universitat Politècnica de Catalunya Barcelona, Spain	Game Theory and its Applications to Cloud, Fog, Healthcare, Crowdsourcing, Surplus Food Distribution etc.	Sajal Mukhopadhyay and Fatos Xhafa	Research
NIT Silchar	VLSI Design	Dr. Shyamapada Mukherjee, CSE	Joint PhD Supervision
Claude Bernard University of Lyon 1, France	Agent and Multi Agent System	Prof. Samir Aknine	Joint Research work with PhD student
University of Minho, Guimarães, Portugal	Semantic Web and Linked Data Technology	Prof. Ana Alice Baptista	Joint Research Project
ISCAP-Polytechnic of Porto, Portugal	Semantic Web and Linked Data Technology	Prof. Mariana Curado Malta	Joint Research Project, PhD student



Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
Indian Statistical Institute Bangalore	Semantic Web Technology, Social Network Analysis	Dr. Biswanath Dutta	Joint Research work with PhD student
University of Calcutta	Academic	Prof. Nabendu Chaki (CU); Prof. Sankhayan Choudhury (CU)	Joint Research
Indian Statistical Institute Kolkata	Research and joint Phd supervision	Dr. Swagatam Das	Published research articles
IIT kharagpur	IoT, Mobile Computing	Prof. Niloy Ganguly, Dr. Sandip Chkraborty	Project & Research Activity
George Mason University, USA	Mobile Computing, IoT	Vijay K Shah	Research Collaboration, Joint Publication
IIST Shibpur WB	Cellular Automata	1	Theoretical Research

4.4.12 Innovations and Technology Transfer (Patents filed during)

Title	Inventors	Application Nos	Date of Filing
Intelligent, Portable, Low-Cost Anaemia Detection Kit Based On Observation Of Palm Colour Changes	Mamata Dalui, Dakshina Ranjan Kisku, Bibhas Sen, Suchismita Roy, Anupam Roy, Dipankar Chakraborty	202131000062	2021-01-01
Intelligent, Portable, Low-Cost Anaemia Detection Kit Based On Observation Of Nail Colour Changes	Mamata Dalui, Dakshina Ranjan Kisku, Bibhas Sen, Suchismita Roy, Anupam Roy, Dipankar Chakraborty	202131000046	2021-01-01
A System For Novel Text Steganography Based On Puzzle Generation	Anandaprova Mazumder, Sumana Kundu, Suvamoy Changder	20 2021 106 917	2022-01-13
A Method And System For Prognosis Of Anaemia Based On Observation Of Palm Color	Dr. Mamata Dalui, Dr. Dakshina Ranjan Kisku, Abhishek Kesarwani, Sunanda Das, Dr. Bibhash Sen, Prof. Suchismita Roy, Prof. Anupam Basu	202131000062	2021-01-01
A Method And System For Prognosis Of Anaemia Based On Observation Of Nail Color	Dr. Mamata Dalui, Dr. Dakshina Ranjan Kisku, Sunanda Das, Abhishek Kesarwani, Dr. Bibhash Sen, Prof. Suchismita Roy, Prof. Anupam Basu	202131000046	2021-01-01

4.4.13 Workshops/Seminars Organized

Name of Key Speaker(s)	Name of the Programme	Date of the Programme
Dr. Anirudh Kumar, Dr. Arpan Pal, Dr. Bivas Mitra, Dr. H.P Gupta, Dr. Rajesh P. Burnwal, Dr. Rajlakshmi Guha, Mr. Sudesh Morey, Prof. Debdeep Mukhopadhyay, Prof. Rajat Subhra Chakraborty, Prof. Subrata Nandi, Prof. Suchismita Roy, Prof. Sudip Mishra	Faculty Development Programme on IoT	2021-01-05
Prof. Anupam Basu, Dr. Charudatta Jadhav, Dr. Uttama Lahiri, Prof. Tapan K. Gandhi, Prof. Bapi Raju S, Dr. Nisheeth Srivastava, Aniruddha Sinha, Debatri Chatterjee & Rahul D Gavas, Dr. Apoorva Pauranik, Dr. Suvarna Reka, Manjeera Sinha, Tirthankar Dasgupta, Varun Upadhaya, Dr. Parag Guhathakurta	Faculty Development Programme on Cognitive Load Theory and its application	2021-12-21
Prof. Subrata Nandi, Rajesh P Barnwal, Dr. Sujoy Saha, Dr. Rohit Verma, Dr. Soumyajit Chatterjee	Industry Oriented Training on Internet of Things	2022-02-15
Prof. Subrata Nandi, Rajesh P Barnwal, Dr. Sujoy Saha, Dr. Rohit Verma, Dr. Soumyajit Chatterjee	Industry Oriented Training on Internet of Things	2022-02-15

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4.4.14 Journal: Published in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
Prasenjit Karmakar, Vijay K. Shah, Satyaki Roy, Krishnandu Hazra, Sujoy Saha and Subrata Nandi	Reliable Backhauling in Aerial Communication Networks against UAV Failures: A Deep Reinforcement Learning Approach	IEEE Transactions on Network and Service Management	Volume: Issue No: Page No: Year:2022 Month:Aug
Biswajit Maity, Yashwant Polapragada, Sanghita Bhattacharjee, Subrata Nandi	CoAN: A system framework correlating the air and noise pollution sensor data	Pervasive and Mobile Computing, Elsevier	Volume:81 Issue No: Page No:101546 Year:2022 Month:
R. D. Rakshit, D. R. Kisku, P. Gupta and J. K. Sing	Cross-Resolution Face Identification using Deep Convolutional Neural Network	Multimedia Tools and Applications	Volume:80 Issue No: Page No:20733- 20758 Year:2021 Month:Apr
Mishra, S.R., Mishra, T.K., Sanyal, G., Sarkar, A.	PSO based combined kernel learning framework for recognition of firstperson activity in a video	Evolutionary Intelligence	Volume:14 Issue No:2 Page No:273 – 279 Year:2021 Month:Jun
Ratna Mandal, Debaleen Das Spandan, Shouvit Pradhan, Sujoy Saha, Subrata Nandi	Exploiting Multi-modal Contextual Sensing for City-bus's Stay Location Characterization: Towards Sub-60 Seconds Accurate Arrival Time Prediction	ACM Transactions on Internet of Things	Volume: Issue No: Page No: Year:2022 Month:Jul
D. S. Dev, D. R. Kisku and P. Gupta	Novel Perspective on Pattern Matching with Association based Symmetric Local Features	International Journal of Robotics and Automation	Volume:37 Issue No:3 Page No:1-8 Year:2022 Month:Jan
Dhananjay Kumar Singh, Subrata Nandi, Tanmoy Chakraborty, Prasenjit Choudhury	Disintegrating constant communities in complex networks	Journal of Computational Science	Volume:61 Issue No: Page No: Year:2022 Month:Mar
Biswajit Maity, Yashwant Polapragada, Sanghita Bhattacharjee and Subrata Nandi	CoAN: A System Framework Correlating the Air and Noise Pollution Sensor Data	Pervasive and Mobile Computing (PMC)	Volume:81 Issue No: Page No: Year:2022 Month:Jan
Krishnandu Hazra, Vijay K Shah, S Roy, Swaraj Deep, Sujoy Saha, Subrata Nandi	Exploring Biological Robustness for Reliable Multi-UAV Networks	IEEE Transactions on Network and Service Management	Volume:18 Issue No:3 Page No:2776 - 2788 Year:2021 Month:May
A Biswas and T Pal	A Comparison between Metaheuristics for Solving a Capacitated Fixed Charge Transportation Problem with Multiple Objectives	Expert Systems with Applications	Volume:170 Issue No: Page No: Year:2021 Month:May
S P Tripathy, A Biswas and T Pal	A multi-objective covering salesman problem with 2-coverage	Applied Soft Computing	Volume:113 Issue No:Part A Page No: Year:2021 Month:
Priyanka Das and Tanmay De	A 4-step Blockchain Equipped Approach to Energy Efficiency and Routing in Homing Pigeon Based Delay Tolerant Network	Wireless Personal Communications	Volume:122 Issue No:3 Page No:2081–2112 Year:2022 Month:Feb
Deepa Naik, Anupama Bauri, and Tanmay De	Renewable Energy Aware Traffic Grooming in Hybrid Optical and WiMAX Networks	Wireless Personal Communications	Volume: Issue No: Page No: Year:2021 Month:Oct



Author(s) Name	Paper Name	Journal Name	Others Info
Trushna parida, Suvrojit Das	PageDumper: a mechanism to collect page table manipulation information at run-time	International journal of Information Security, Springer	Volume:20 Issue No: Page No:603 Year:619 Month:Aug
Poulomi Mukherjee and Tanmay De	Content Independent Location Based Clustering for 5G Device to Device Communications	Wireless Personal Communications	Volume:118 Issue No:4 Page No:2573–2599 Year:2021 Month:Jun
Joydeep Dutta, Partha Sarathi Barma, Anupam Mukherjee, Samarjit Kar, Tanmay De, Dragan Pamučar, Šarūnas Šukevičius, and Giedrius Garbinčius	Multi-objective green mixed vehicle routing problem under rough environment	Transport	Volume:37 Issue No:1 Page No:51–63 Year:2022 Month:Mar
A. Mondal, R.K. Biswal, M.H. Mahalat, S. Roy and B. Sen	Hardware Trojan Free Netlist Identification: A Clustering Approach	J Electron Test	Volume:doi:10.1007/s10836-021-05953-1 Issue No: Page No:317–328 Year:2021 Month:Jun
Jaya Mukhopadhyay, Vikash Kumar Singh, Sajal Mukhopadhyay, Meghana M. Dhananjaya and Anita Pal	An egalitarian approach of scheduling time restricted tasks in mobile crowdsourcing for double auction environment	International Journal of Web and Grid Services	Volume:17 Issue No:3 Page No:221-245 Year:2021 Month:May
Surja Sanyal, Vikash Kumar Singh, Fatos Xhafa, Banhi Sanyal and Sajal Mukhopadhyay	A Game Theoretic Framework for Surplus Food Distribution in Smart Cities and Beyond	Applied Sciences	Volume:11 Issue No: Page No: Year:2021 Month:May
AK Pramanik, D Bhowmik, J Pal, P Sen, AK Saha, B Sen	Towards the realization of regular clocking-based QCA circuits using genetic algorithm	Computers & Electrical Engineering	Volume:97 Issue No: Page No:107640 Year:2022 Month:Mar
J Pal, AK Pramanik, M Goswami, AK Saha, B Sen	Regular Clocking based Emerging Technique in QCA Targeting Low Power Nano Circuit	International Journal of Electronics	Volume:10.1080/00207217.2021.1972473 Issue No: Page No:1-23 Year:2021 Month:Sep
Soma Debnath, Ratnakirti Roy, and Suvamoy Changder	Photo classification based on the presence of diagonal line using pre-trained DCNN VGG16	Multimedia Tools and Applications	Volume:81 Issue No:16 Page No:22527–22548 Year:2022 Month:Jan
T. Chakraborty, S. K. Banik, A. K. Bhadra, D. Nandi	Dynamically learned PSO based neighborhood influenced fuzzy cmeans for pre-treatment and posttreatment organ segmentation from CT images	Computer Methods and Programs in Biomedicine	Volume:202 Issue No: Page No:105971 Year:2021 Month:Apr
F. Chakraborty, P. K. Roy, D. Nandi	A novel chaotic symbiotic organisms search optimization in multilevel image segmentation	Soft Computing	Volume:25 Issue No:10 Page No:6973–6998 Year:2021 Month:Apr
J. Karmakar, A. Pathak, D. Nandi, M. K. Mandal	Sparse representation based compressive video encryption using hyper-chaos and DNA coding	Digital Signal Processing	Volume:117 Issue No: Page No:103143 Year:2021 Month:Oct

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Author(s) Name	Paper Name	Journal Name	Others Info
Ramya D. Shetty, Shrutilipi Bhattacharjee, Animesh Dutta, Amrita Namtirtha	GSI: An Influential Node Detection Approach in Heterogeneous Network Using Covid-19 as Use Case	IEEE Transactions on Computational Social Systems	Volume: Issue No: Page No:1-15 Year:2022 Month:Jun
Amrita Namtirtha, Biswanath Dutta, Animesh Dutta	Semi-global triangular centrality measure for identifying the influential spreaders from undirected complex networks	Expert Systems with Applications	Volume:206 Issue No: Page No:117791 Year:2022 Month:Nov
Narayan Changder, Samir Aknine, Animesh Dutta	An Abortion Based Search Method for Optimal Coalition Structure Generation	Group Decision and Negotiation	Volume:31 Issue No: Page No:1-22 Year:2022 Month:Apr
Amit Paul, Animesh Dutta	Community detection using Local Group Assimilation	Expert Systems with Applications	Volume:206 Issue No: Page No:117794 Year:2022 Month:Nov
Samriddhi Sarkar, Mariana Curado Malta, Animesh Dutta	A survey on applications of coalition formation in multi-agent systems	Wiley Online Library	Volume:34 Issue No: Page No:e6876 Year:2022 Month:May
Abhijit Adhikari, Biswanath Dutta, Animesh Dutta	Finding most informative common ancestor in cross-ontological semantic similarity assessment: An intrinsic information content-based approach	Expert Systems with Applications	Volume:192 Issue No: Page No:116281 Year:2022 Month:Apr
Arunita Das, Amrita Namtirtha, Animesh Dutta	Fuzzy clustering of Acute Lymphoblastic Leukemia images assisted by Eagle strategy and morphological reconstruction	Knowledge-Based Systems	Volume:239 Issue No: Page No:108008 Year:2022 Month:Mar
Giridhar Maji, Animesh Dutta, Mariana Curado Malta, Soumya Sen	Identifying and ranking super spreaders in real world complex networks without influence overlap	Expert Systems with Applications	Volume:179 Issue No: Page No:115061 Year:2021 Month:Oct
Sangeeta Sen, Devashish Katoriya, Animesh Dutta, Biswanath Dutta	RDFM: An alternative approach for representing, storing, and maintaining meta-knowledge in web of data	Expert Systems with Applications	Volume:179 Issue No: Page No:115043 Year:2021 Month:Oct
Mamata Dalui, Bidesh Chakraborty, Nilanjana Das and Biplab K. Sikdar	NSRT diagram for identification of SACA and TACA rules in nullboundary	International Journal of Modern Physics C	Volume:33 Issue No:6 Page No: Year:2022 Month:Jan
Abhishek Kesarwani, Sunanda Das, Mamata Dalui, Dakshina Ranjan Kisku, Bibhash Sen, Suchismita Roy, Anupam Basu	Non-invasive Anaemia Detection by Examining Palm Pallor: A Smartphone-based Approach	Biomedical Signal Processing & Control	Volume:79 Issue No: Page No: Year:2022 Month:Aug
PKD Pramanik, N Sinhababu, A Nayyar, M Masud, P Choudhury	Predicting Resource Availability in Local Mobile Crowd Computing Using Convolutional GRU	CMC-COMPUTERS MATERIALS & CONTINUA	Volume:70 Issue No:3 Page No:51995212 Year:2022 Month:
PK Singh, PKD Pramanik, P Choudhury	Mitigating sparsity using Bhattacharyya Coefficient and items' categorical attributes: improving the performance of collaborative filtering based recommendation systems	Applied Intelligence	Volume:52 Issue No:5 Page No:55135536 Year:2022 Month:



Author(s) Name	Paper Name	Journal Name	Others Info
PK Singh, S Sinha, P Choudhury	An improved item-based collaborative filtering using a modified Bhattacharyya coefficient and user–user similarity as weight	Knowledge and Information Systems	Volume:64 Issue No:3 Page No:665-701 Year:2022 Month:
Krishnandu Hazra, Tanmoy Ghosh, Avirup Mukherjee, Sujoy Saha, Subrata Nandi, Saptarshi Ghosh, Sandip Chakraborty	Sustainable text summarization over mobile devices: An energy-aware approach	Sustainable Computing: Informatics and Systems	Volume:Volume 32 Issue No: Page No:10060 Year:2021 Month:Sep
DK Singh, S Nandi, T Chakraborty, P Choudhury	Disintegrating constant communities in complex networks	Journal of Computational Science	Volume:61 Issue No: Page No:101634 Year:2022 Month:
T Banerjee, S Sinha, P Choudhury	Long term and short term forecasting of horticultural produce based on the LSTM network model	Applied Intelligence	Volume:52 Issue No:8 Page No:91179147 Year:2022 Month:
Krishnandu Hazra, Vijay K Shah, Satyaki Roy, Swaraj Deep, Sujoy Saha, Subrata Nandi	Exploring Biological Robustness for Reliable Multi-UAV Networks	IEEE Transactions on Network and Service Management	Volume:18 Issue No:3 Page No:2776-2788 Year:2021 Month:Sep
Joydeep Dutta, Partha Sarathi Barma, Anupam Mukherjee, Samarjit kar, and Tanmay De	A hybrid multi-objective evolutionary algorithm for open vehicle routing problem through cluster primary-route secondary approach	International Journal of Management Science and Engineering Management	Volume:17 Issue No:1 Page No:1-15 Year:2022 Month:Jan
K.P.Manal, P.Mukherke, A. Chattopadhyay, Baisakhi Chakraborty	XBLQPS: An Extended Bengali Language Query Processing System for e-Healthcare Domain	International Journal of Advanced Computer Science and Applications (IJACSA)	Volume:13 Issue No:7 Page No:502-516 Year:2022 Month:Jul
Prafullit Tripathy, Prasenjit Mikherjee, Manik Hendre, Manish Godse, Baisakhi Chakrabortye	Word Sense Disambiguation in Hindi Language Using Score Based Modified Lesk Algorithm	International Journal of Computing and Digital Systems,	Volume:10 Issue No:1 Page No:938-954 Year:2021 Month:Oct
Sanjeet Kumar, Suvrojit Das	An open source and practical approach to X2X Linux workload migration	International Journal of Information Technology	Volume:13 Issue No:7 Page No:1-6 Year:2021 Month:Aug
Banerjee, S., Bhaskar, S., Sarkar, A., Debnath, N.C.	A unified conceptual model for data warehouses	Annals of Emerging Technologies in Computing	Volume:5 Issue No:5 Page No:162 – 169 Year:2021 Month:Apr
Banerjee, S., Bhaskar, S., Sarkar, A., Debnath, N.C.	A formal OLAP algebra for NoSQL based data warehouses	Annals of Emerging Technologies in Computing	Volume:5 Issue No:5 Page No:154 – 161 Year:2021 Month:Apr
D. Das, S. Mukhopadhyaya, D.Nandi	Swarm-based Painting of An Area Cluttered with Obstacles	International Journal of Parallel, Emergent and Distributed Systems	Volume:0 Issue No:0 Page No:1-21 Year:2021 Month:
Banerjee, S., Debnath, N.C. & Sarkar, A.	An Ontology-Based Approach to Automated Test Case Generation.	SN Computer Science	Volume:2 Issue No:1 Page No:35 Year:2021 Month:May
Rabel Guharoy, Nanda Dulal Jana and Suparna Biswas	An Efficient Epileptic Seizure Detection Technique using Discrete Wavelet Transform and Machine Learning Classifiers	Journal of Physics: Conference Series	Volume:2286 Issue No: Page No:012013 Year:2022 Month:Mar

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Author(s) Name	Paper Name	Journal Name	Others Info
Saibal Sarkar, Suvrojit Das	Fuzzy based security risk assessment of e-government data centre in Indian context	Electronic Government, an International Journal	Volume:10.1504/EG.2022.123838 Issue No: Page No:354-380 Year:2022 Month:May
D. S. Dev, A. Panigrahi, B. Bose, J. Sardar, A. Rattani and D. R. Kisku	Fingerprint Matching using Graph Structure based Symmetric Ternary Pattern	International Journal of Computing and Digital Systems	Volume:10 Issue No:1 Page No:927-938 Year:2021 Month:Oct
D. S. Dev, H. Jaiswal and D. R. Kisku	An Efficient Pattern Matching Approach using Double Measures of Correlation and Rank Reduction	International Journal of Advanced Intelligence Paradigms	Volume:19 Issue No:1 Page No:42-60 Year:2021 Month:Apr
S. Agarwala, A. Kumar, A. K. Dhara, S. B. Thakur, A. Sadhu, D. Nandi	Special Convolutional Neural Network for Identification and Positioning of Interstitial Lung Disease Patterns in Computed Tomography Images	Pattern Recognition and Image Analysis	Volume:31 Issue No: Page No:730-738 Year:2021 Month:Dec
Dhaneshwar Mardi, Surbhi Tanwar, Jaydeep Howlader	Multiparty protocol that usually shuffles	Security and Privacy	Volume:4 Issue No:6 Page No: Year:2021 Month:Dec
Pradhan, Prajna Paramita, and Sanghita Bhattacharjee.	Traffic priority based delay aware scheduling for co-located WBANs	Journal of High Speed Networks, IOS Press	Volume:28 Issue No:1 Page No:21-45 Year:2022 Month:

4.4.15 Journal: Accepted for Publication in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
Sugyan Kr. Mishra, Anirban Sarkar	Service-oriented architecture for Internet of Things: A semantic approach	Journal of King Saud University – Computer and Information Sciences	Volume: Issue No: Page No: Year:2021 Month:Oct
Sutapa Sarkar, Biplab Kumar Sikdar	Cellular automata based multi-bit stuck-at fault diagnosis for resistive memory	Front Inform Technol Electron Eng 23, Springer	Volume:23 Issue No: Page No:1110-1126 Year:2021 Month:Oct
Pragna labani Sikdar, Samarjit Kar, Parag Kumar Guha Thakurta	Multiobjective energy efficient street lighting framework: A data analysis approach	Applied Intelligence	Volume: Issue No: Page No: Year:2022 Month:
S. Hazra and M. Dalui	Characterization of Single Length Cycle Two Attractor Cellular Automata using NSRT Diagram	Complex Systems	Volume: Issue No: Page No: Year:2022 Month:Aug

4.4.16 Journal: Published in Others in 2021-2022

Author(s) Name	Paper Name	Journal Name	Others Info
G. Sarker	One LSTM with CTC base Machine Transcription System for Speech Recognition	Journal of Biological Engineering Research and Review,	Volume:8 Issue No:2 Page No:188-194 Year:2021 Month:Jun
Sandipan Dhar, Nanda Dulal Jana and Swagatam Das	An Adaptive Learning based Generative	IEEE Transactions on Artificial Intelligence	Volume: Issue No: Page No: Year:2022 Month:Feb



4.4.17 Conference: Published in 2021-2022 DOI/ISBN

Author(s) Name	Paper Name	Conference Name	Others Info
Sunil Kumar Patel, Saravanan Chandran	Analysis of Spatial Domain Image Steganography Technique for highcapacity	International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI-2022)	DOI/ISBN: 10.1109/ACCAI53970.2022.9752614 Volume: Issue No: Page No: Year:2022 Month:Jan Presenter:CO-AUTHOR
Raj Kumar Paul, Saravanan Chandran	Image Compression Scheme based on Histogram Equalization and Convolution Neural Network	5th International Conference on Intelligent Computing and Communication (ICICC-2021)	DOI/ISBN: 10.1007/978-981-19-15598_335-2 Volume: Issue No: Page No:327-340 Year:2021 Month:Nov Presenter:CO-AUTHOR
Raj Kumar Paul, Saravanan Chandran	Image Compression using Histogram Equalization	The Second International Conference on Innovations in Computational Intelligence and Computer Vision (ICICV-2021)	DOI/ISBN: 10.1007/978-981-19-0475-2_5 Volume: Issue No: Page No:47-61 Year:2021 Month:Aug Presenter:CO-AUTHOR
Sourav Roy, Dipnarayan Das, Anindan Mondal, Mahabub Hasan Mahalat, Suchismita Roy, and Bibhash Sen	PUF based Lightweight Authentication and Key Exchange Protocol for IoT	SECURITY 2021	DOI/ISBN: ISBN: 978-989-758-524-1, DOI: 10.5220/0010550906980703 Volume: Issue No: Page No:698-703 Year:2021 Month:Apr Presenter:SELF
A.K. Pramanik, J. Pal, and B. Sen	Impact of Genetic Algorithm on Low Power QCA Logic Circuit with Regular Clocking	First Asian Symposium on Cellular Automata Technology. ASCAT 2022	DOI/ISBN: DOI: 10.1007/978-981-190542-1_14 Volume: Issue No: Page No: Year:2022 Month:Mar Presenter:SELF
. Das, S. Mukhopadhyaya, M. Ghosh	Synchronizing Asynchronous Mobile Robots with Limited Visibility Using Lights.	International Conference on Mechatronics and Artificial Intelligence (ICMAI 2021)	DOI/ISBN: 10.1088/1742-6596/1950/1/012015 Volume: Issue No: Page No: Year:2021 Month: Presenter:SELF
Soma Debnath, M.S. Hossain, Suvamoy Changder	Deep Photo Classification Based on Geometrical Shape of Principal Object Presents in Photographs via VGG16 DCNN	Seventh International Conference on Mathematics and Computing	DOI/ISBN: 10.1007/978-981-16-68906_25 Volume: Issue No: Page No:335-345 Year:2022 Month:Mar Presenter:
Narayan Changder, Samir Aknine, Sarvapali D. Ramchurn, Animesh Dutta	BOSS: A Bi-directional Search Technique for Optimal Coalition Structure Generation with Minimal Overlapping (Student Abstract)	AAAI Conference on Artificial Intelligence	DOI/ISBN: 10.1609/aaai.v35i18.17879 Volume: Issue No: Page No:15765-15766 Year:2021 Month:May Presenter:CO-AUTHOR
Anjan Bandyopadhyay, Vikash Kumar Singh, Sajal Mukhopadhyay, Ujjwal Rai and Arghya Bandyopadhyay	An efficient framework for resource allocation and dynamic pricing scheme for completion time failure in cloud	International Conference on NetworkBased Information Systems	DOI/ISBN: 10.1007/978-3-030-849139_13 Volume: Issue No: Page No:143-153 Year:2021 Month:Sep Presenter:SELF

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Author(s) Name	Paper Name	Conference Name	Others Info
	computing		
Suvadip Hazra and Mamata Dalui	Synthesis of Single Length Cycle Two Attractor CA Using NSRT Diagram,	Asian Symposium on Cellular Automata Technology 2022	DOI/ISBN: 978-981-19-0542-1 Volume: Issue No: Page No:235-246 Year:2022 Month:Mar Presenter:CO-AUTHOR
Sunanda Das, Abhishek Kesarwani, Dakshina Ranjan Kisku and Mamata Dalui	Non-invasive Haemoglobin Prediction using Nail Color Features: An Approach of Dimensionality Reduction	International Conference on Intelligent Computing (ICIC) 2022	DOI/ISBN: 978-3-031-13870-6 Volume: Issue No: Page No:811-824 Year:2022 Month:Jun Presenter:CO-AUTHOR
Kashi Nath Datta, Aritra Roy, Pratik Chakraborty, Sujoy Saha	Channel modelling of VVLC system	14th International Conference on COMMunication Systems & NETworkS (COMSNETS)	DOI/ISBN: 10.1109/COMSNETS53615.2022.9668398 Volume: Issue No: Page No:304-308 Year:2022 Month:Jan Presenter:CO-AUTHOR
Ratna Mandal, Nitin Agarwal, Saikat Kumar Dey, Sujoy Saha, Subrata Nandi, Sandip Chakraborty	GPS Crowdsensing for Public Stoppage Planning of City Buses: A Perspective of Developing Economies	14th International Conference on COMMunication Systems & NETworkS (COMSNETS)	DOI/ISBN: 10.1109/COMSNETS53615.2022.9668410 Volume: Issue No: Page No:716-724 Year:2022 Month:Jan Presenter:CO-AUTHOR
Praveen Kumar Sharma, Prasenjit Karmakar, Soumyajit Chatterjee, Abhijit Roy, Santanu Mandal, Sandip Chakraborty, Subrata Nandi, Sujoy Saha	Can i go for a roof walk today? know your housing's air quality from a thermo-hygrometer	BuildSys '21: Proceedings of the 8th ACM International Conference on Systems for Energy-Efficient Buildings, Cities, and Transportation	DOI/ISBN: https://doi.org/10.1145/3486611.3486663 Volume: Issue No: Page No:91-100 Year:2021 Month:Nov Presenter:SELF
Krishnandu Hazra, Swaraj Deep, Sujoy Saha, Subrata Nandi	RCPDNPT: A Tool to Deploy a Postdisaster Network Under ResourceConstraint Scenarios	Proceedings of the International Conference on Computing and Communication Systems	DOI/ISBN: DOI: 10.1007/978-981-33-4084-8_43 Volume: Issue No: Page No:453-461 Year:2021 Month:Apr Presenter:CO-AUTHOR
R. K. Gupta and D. R. Kisku	ImpressionNet: A Multi view Approach to Predict Socio Facial Impressions	15th International Conference on Agents and Artificial Intelligence (ICAART'22)	DOI/ISBN: 10.5220/0010762400003116 Volume: Issue No: Page No:33-38 Year:2022 Month: Feb Presenter:CO-AUTHOR
T. Longjam, D. R. Kisku and P. Gupta	Improving Reliability of Manipuri	13th International Conference on Digital Image Processing (ICDIP'21)	DOI/ISBN: 10.1117/12.2599572 Volume:



Author(s) Name	Paper Name	Conference Name	Others Info
	Offline Signature Verification using Writer Independent Paradigms		Issue No: Page No:10 Year:2021 Month: Jun Presenter:CO-AUTHOR
K. Purohit, A. Kesarwani, D. R. Kisku and M. Dalui	COVID-19 Detection on Chest X-Ray and CT Scan Images Using Multi-image Augmented Deep Learning Model	7th International Conference on Mathematics and Computing	DOI/ISBN: 10.1007/978-981-16-68906_30 Volume: Issue No: Page No:395-413 Year:2022 Month:Mar Presenter:CO-AUTHOR
Chakraborty, Priyanka, Sarkar, Anirban.	Conceptualizing Re-configurable Business Process: A Context-Driven Approach	8th International Doctoral Symposium on Applied Computation and Security Systems, ACSS 2021	DOI/ISBN: 2367-3370 Volume: Issue No: Page No:61 - 74 Year:2021 Month:Sep Presenter:CO-AUTHOR
Praveen Kumar Sharma, Prasenjit Karmakar, Soumyajit Chatterjee, Abhijit Roy, Santanu Mandal, Subrata Nandi, Sandip Chakraborty, Sujoy Saha	Can I Go for a Roof Walk Today? Know Your Housing's Air Quality from a Thermo-Hygrometer	ACM BuildSys, Combria, Portugal	DOI/ISBN: 10.1145/3486611.3486663 Volume: Issue No: Page No:91-100 Year:2021 Month:Nov Presenter:CO-AUTHOR
2. Phukan, S., Singh, J., Gogoi, R., Dhar, S., Jana, N.D.	COVID-19 Chest X-ray Image Generation Using ResNet-DCGAN Model	Advances in Intelligent Computing and Communication.	DOI/ISBN: 10.1007/978-981-19-08255_24 Volume: Issue No: Page No: Year:2021 Month:Dec Presenter:CO-AUTHOR
Mazumder, A., Ghosh, S., Roy, S., Dhar, S., Jana, N.D.	Rectified Adam Optimizer-Based CNN Model for Speaker Identification	Advances in Intelligent Computing and Communication.	DOI/ISBN: 10.1007/978-981-19-08255_16 Volume: Issue No: Page No: Year:2021 Month:Dec Presenter:CO-AUTHOR
L. Mandal and N. D. Jana	Automatic Kernel Selection of Support Vector Machine for Drug/Non-Drug Compounds Classification	IEEE 18th India Council International Conference (INDICON-2021)	DOI/ISBN: 10.1109/INDICON52576.2021.9691528 Volume: Issue No: Page No: Year:2021 Month:Dec Presenter:SELF
Trushna Parida, Suvrojit Das	Analyzing PTM attack traces through PageDumper: A case study	IEEE 7th International conference for Convergence in Technology (I2CT)	DOI/ISBN: 10.1109/I2CT54291.2022.9824771 Volume: Issue No: Page No: Year:2022 Month:Apr Presenter:CO-AUTHOR
Sanjeet Kumar, Suvrojit das	Porting Non Cloud-native Applications across Linux Distributions: A Practical Approach	12th International Conference on Cloud Computing and Services Science	DOI/ISBN: 10.5220/0011083700003200 Volume: Issue No: Page No: Year:2022 Month:Jan Presenter:CO-AUTHOR

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4.4.18 Conference: Accepted in 2021-2022 DOI/ISBN

Author(s) Name	Paper Name	Conference Name	Others Info
T. Chakraborty, A.K. Bhadra, D. Nandi	SVM-based pre-and post-treatment cancer segmentation from lung and abdominal CT images via neighborhood-influenced features	International Conference on Information and Communication Technology, 2021	DOI/ISBN: . Volume: Issue No: Page No: Year:2021 Month: Dec Presenter:CO-AUTHOR
P. Ghosal, A. Kumar, A. Datta, H. KD Dharma, D. Nandi	Computer aided detection of brain midline using CT images	International Conference on Information and Communication Technology, 2021	DOI/ISBN: Volume: Issue No: Page No: Year:2021 Month: Dec Presenter:CO-AUTHOR
A. K. Shukla, H. Aditya, K. K. Singh, R. D. Rakshit, D. S. Dev and D. R. Kisku	Iris Recognition Using Symmetric Graph Structure Based Pattern Matching	5th International Conference on Computational Intelligence, Cyber Security and Computational Models (ICC3'21)	DOI/ISBN: 9783031155550 Volume: Issue No: Page No: Year:2021 Month: Dec Presenter:CO-AUTHOR

4.4.19 Conference: Accepted in Others in 2021-2022

Author(s) Name	Paper Name	Conference Name	Others Info
Kshitiza Vasudeva, Soumita Biswas, Saravanan Chandran	Comparative Analysis of Techniques for Recognizing Facial Expressions	IEEE 8th International Conference on Advanced Computing and Communication Systems (ICACCS)	DOI/ISBN: Volume: Issue No: Page No: Year:2022 Month:Mar Presenter:CO-AUTHOR

4.4.20 Books Authored

Author Name	Co-Author	Title of the Book	Title of the Chapter	Publication Details
Anil B. Chowdhury	Vikash K. Singh, Fatos Xhafa, Paul Krause, Sajal Mukhopadhyay and Meghana M. Dhananjaya	IoT-based Intelligent Modelling for Environmental and Ecological Engineering (An IoT-Based Time Constrained Spectrum Trading in Wireless Communication for Tertiary Market)	An IoT-Based Time Constrained Spectrum Trading in Wireless Communication for Tertiary Market	Publisher: Springer Link Publication Date: 2021-0601
Tamal Mondal	Swaraj Pramanik, Prithviraj Pramanik, Kashi Nath Datta, Partha Sarathi Paul, Sujoy Saha, Subrata Nandi	Emerging Technologies for Disaster Resilience	Emergency Communication and Use of ICT in Disaster Management	Publisher: Springer Publication Date: 2021-0507
Mousumi Saha	Sutapa Sarkar	Computational Intelligence and Healthcare Informatics	Wolfram's Cellular Automata Model in Health Informatics.	Publisher: Wiley Publication Date: 2021-10-01

4.4.21 Seminars, Summer/Winter Schools, Short Term Courses Attended

Name of the Programme	Organized By	From Date	To Date	Organizing Country
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COMSNETS 2022 (14th International Conference on COMMunication Systems & NETworkS)	IEEE/ACM	2022-01-03	2022-01-08	India
ACM BuildSys	ACM	2021-11-17	2021-11-18	Portugal

4.4.22 Ph.D. Supervisor

Topic Name	Scholar	Supervisor	Status	Status Date
Novel Techniques and Analysis for Tourism and Spectrum Trading	Anil Bikash Chowdhury	Sajal Mukhopadhyay	Degree Awarded	2021-09-10
Cloud and Fog Computing: A Mechanism Design Perspective	Anjan Bandyopadhyay	Sajal Mukhopadhyay	Degree Awarded	2022-09-15
Investigation and Development of Steganography Schemes	Sunil Kumar Patel	Saravanan Chandran	ONGOING	2022-03-31
Analysis and Design of Image Compression Techniques	Raj Kumar Paul	Saravanan Chandran	ONGOING	2022-03-31
Facial Features Extraction for Various Applications using Neural Network	Kshitiza Vasudeva	Saravanan Chandran	ONGOING	2022-03-31
Software approach to investigate some phenomenon of dyslexia in children	Jaya Banerjee	Dr. Baisakhi Chakraborty and Prof. Anupam Basu	ONGOING	2022-03-31
Knowledge Management Systems for fault detection and diagnosis	Sumana De	Dr. Baisakhi Chakraborty	DEGREE AWARDED	2022-04-04
NLP based Knowledge Management systems in Bengali language	Kailash Pati Mondal	Dr. Baisakhi Chakraborty	ONGOING	2022-03-31
OCR in Bangla script	Amit Mukhopadhyay	Dr. Baisakhi Chakraborty , Prof. D.Nandi and Prof. Umapada Pal	ONGOING	2022-03-31
Distributed Exploration by a Swarm of Mobile Robots in Discrete Domain	Madhumita Sardar	Deepanwita Das	ONGOING	2022-03-31
Distributed Area Coverage in Continuous Domain	Banashree Mandal	Deepanwita Das	ONGOING	2022-03-31
An approach towards Enhanced Information Security based on Perceptive Image Block scrambling	Ram Chandra Barik	Dr. Suvamoy Changder	DEGREE AWARDED	2021-10-20
A Deep Learning Approach to Recognize the Compositional aspect of Different Lines and Shapes in a Photograph	Soma Debnath	Dr. Suvamoy Changder	SUBMITTED	2022-02-25
Different Text Steganography Algorithms for Secured Information Hiding	Anandapova Majumder	Dr. Suvamoy Changder	ONGOING	2022-03-31
Continuous User Authentication	Praveen Kumar Rayani	Dr. Suvamoy Changder	ONGOING	2022-03-31
Design and Analysis of Light Weight Physically Unclonable Function (FUF) Targetting Cost-Effective Hardware Security	Mahabub Hasan Mahalat	Dr. Bibhash Sen	SUBMITTED	2022-05-25
FPGA Interconnect Resources Testing	Shukla Banik	Dr. Bibhash Sen and Prof. Suchismita Roy	DEGREE AWARDED	2022-02-07

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Topic Name	Scholar	Supervisor	Status	Status Date
Hardware Trojan: Analysis of Attacks and Detection in the Context of Hardware Security	Anindan Mondal	Dr. Bibhash Sen	ONGOING	2022-03-31
Quantum Image Processing and Quantum Steganography	Arnab Chatterjee	Suvamoy Changder	ONGOING	2022-03-31
Information Retrieval from Biomedical Images for Early Detection of Neurodiseases	Amish Kumar	Debashis Nandi	DEGREE AWARDED	2021-11-30
Brain MR Image Segmentation and Early Detection of Neurodegenerative Diseases Using Machine Learning Techniques	Palash Ghosal	Debashis Nandi, Jayashree Chakraborty	DEGREE AWARDED	2021-08-16
Novel Evolutionary Algorithms for Multilevel Image Thresholding	Falguni Chakraborty	Debashis Nandi, Provas Kumar Roy	DEGREE AWARDED	2021-08-02
Machine Learning Approach for CT Image Analysis in Cancer Detection	Tiyasa Chakraborty	Debashis Nandi	ONGOING	2022-03-31
Design of Computer-Aided Diagnostic System for Glaucoma Detection	Arindam Chowdhury	Debashis Nandi	ONGOING	2022-03-31
Microwave System Design for Biomedical Applications	Moutusi Mondal	Debashis Nandi	ONGOING	2022-03-31
Machine learning based lung disease detection and segmentation	Sanjib Saha	Debashis Nandi	ONGOING	2022-03-31
Video Text Detection and Recognition	Amit Mukhopadhyay	Dr. Baisakhi Chakraborty, Prof. Debashis Nandi, Prof. Umapada Pal	ONGOING	2022-03-31
A Graph Data Model in Semantic Web Environment	Ms. Sangeeta Sen	Dr. Animesh Dutta	DEGREE AWARDED	2021-08-17
Coalition Formation in Multi-agent Systems	Ms. Samriddhi Sarkar	Dr. Animesh Dutta	ONGOING	2022-03-31
Location Inference in Social Media	Mr. Amit Paul	Dr. Animesh Dutta	ONGOING	2022-03-31
Coalition Formation and Task Allocation in Multi-agent Systems	Mr. Tuhin Kr. Biswas	Dr. Animesh Dutta	ONGOING	2022-03-31
Enhancement of Partitional Clustering Techniques for Pathology Image Segmentation	Ms. Arunita Das	Dr. Animesh Dutta	ONGOING	2022-03-31
Identification of Influential Spreaders in Complex Networks	Mr. Suman Nandi	Dr. Animesh Dutta	ONGOING	2022-03-31
Haze and Rain Detection and Removal for Computer Vision System	Manas Sarkar	Dr. Ujjwal Mondal, Prof. Debashis Nandi	ONGOING	2022-03-31
Computational geometry	Sukanya Maji	Dr. Sanjib Sadhu	ONGOING	2022-03-31
Study of deep learning models for the assessment and rehabilitation of Chronic Low Back Pain	Manvendra Singh	Dr. Abhijit Sharma	ONGOING	2022-03-31
Theory and Applications of Cellular Automata for Detection and Mitigation of Hardware Trojan Attacks Targeting Cache Performance in a Many-core System	Suvadip Hazra	Dr. Mamata Dalui	SUBMITTED	2021-12-27



Topic Name	Scholar	Supervisor	Status	Status Date
A Study of an Efficient Memory-based Collaborative Filtering for Recommender System	Pradeep Kumar Singh	Dr Prasenjit Choudhury	DEGREE AWARDED	2021-09-30
SAT based Detailed Routing Solutions for FPGA Architectures	Shyamapada Mukherjee	Suchismita Roy	DEGREE AWARDED	2015-12-07
Power Aware Design methodologies in High Level Synthesis	Khushbu Chandrakar	Suchismita Roy	DEGREE AWARDED	2020-02-28
FPGA Interconnect Resources Testing	Shukla Banik	Suchismita Roy, Bibhash Sen	DEGREE AWARDED	2021-04-30
Variations of Geometric two centre problem	Sanjib Sadhu	Suchismita Roy, Sasanka Roy, Subhas K. Nandy	DEGREE AWARDED	2020-08-06
SAT based Rectilinear Steiner Tree construction and its application in Global Routing	Sudeshna Kundu (Mondal)	Suchismita Roy, Shyamapada Mukherjee	SUBMITTED	2022-09-15
Floorplanning and Placement in VLSI Circuits	Suchandra Banerjee	Suchismita Roy	SUBMITTED	2022-09-14
Studies on Interference Aware Routing and Scheduling in Wireless Body Area Networks	Pranjha Paramita Pradhan	Sanghita Bhattacharjee	ONGOING	2022-03-31
Exploring Outdoor Context using Multimodal Sensor Logs	Biswajit Maity	Sanghita Bhattacharjee	ONGOING	2022-03-31
“Toward a reliable communication combining WiFi and VLC in a mobile environment	Kashi Nath Datta	Dr. Sujoy Saha	ONGOING	2022-03-12
Some Certain Studies on Facial Complexities for Face Identification with Local Descriptors	Rinku Datta Rakshit	Dakshina Ranjan Kisku	DEGREE AWARDED	2021-07-09
Unconstrained face recognition	Srinibas Rana	Dakshina Ranjan Kisku	ONGOING	2022-03-31
Coverage and Connectivity of Wireless Sensor Network in the Paradigm of Computational Intelligence	Rajib Kumar Mondal	Sanghita Bhattacharjee, Tandra Pal	ONGOING	2022-03-31
Face Recognition using Evolutionary Computing Algorithms	Dipak Kumar	Dakshina Ranjan Kisku	ONGOING	2022-03-12
Intelligent and IoT based Framework for precision Agriculture	Moumita Sen	Sanghita Bhattacharjee	ONGOING	2022-03-31
Some Studies on Pattern Matching Techniques: Novel Interpretations with Local Descriptors and Wavelets	Deep Suman Dev	Dakshina Ranjan Kisku	DEGREE AWARDED	2021-09-23
Multiscripted Offline Signature Verification	Teressa Longjam	Dakshina Ranjan Kisku	ONGOING	2022-03-31
Functional Specification of Software as a Service for Data Centric Cloud Applications	Amit Kr. Mandal	Anirban Sarkar	DEGREE AWARDED	2018-10-01
Design of an Architectural Framework for Dynamic Web Services	Faisal Ahmad	Anirban Sarkar	DEGREE AWARDED	2017-09-19
A Study on Design Specification for Component Based Software System	Prasenjit Banerjee	Anirban Sarkar	DEGREE AWARDED	2019-07-01

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Topic Name	Scholar	Supervisor	Status	Status Date
Ontology Driven Domain Specific Software Design	Shreya Banerjee	Anirban Sarkar	DEGREE AWARDED	2019-08-01
Analysis and Specification of an Inter-Cloud Architecture: An Abstraction Model	Gitosree Khan	Anirban Sarkar and Dr. Sabnam Sengupta,	DEGREE AWARDED	2020-03-14
A Multi-modal Approach for Detection of Anomaly in Human Action Through Imaging	Soumya Ranjan Mishra	Anirban Sarkar and Prof. (Retd) Goutam Sanyal	DEGREE AWARDED	2021-07-12
Functional Specification for User-Centric Service Oriented Enterprise Architecture Framework	Priyanka Chakraborty	Anirban Sarkar	ONGOING	2022-03-31
Software Integrated Framework design for Internet of Things based Applications.	Sugyan Kumar Mishra	Anirban Sarkar	ONGOING	2022-03-31
Functional Specification of Microservice based Framework for IoT Applications.	Chouhan Kumar Rath	Anirban Sarkar and Amit Kr. Mandal	ONGOING	2022-03-31
Deep Image Description Generation	Biswajit Patra	Dakshina Ranjan Kisku	ONGOING	2022-03-31
Mitigating Demography Bias in Biometrics Systems	Shweta Patel	Dakshina Ranjan Kisku	ONGOING	2022-03-31
Non-invasive Anaemia Detection	Abhishek Kesarwani	Dakshina Ranjan Kisku	ONGOING	2022-03-31
Impact of Co-authorship Relations in Citation Network Analysis	Sovan Bhattacharya	Subrata Nandi, Dinesh Kumar Pradhan	ONGOING	2022-03-31
Studies on Evolutionary Deep Neural Architecture Search for Image Analysis	Arjun Ghosh	Nanda Dulal Jana	ONGOING	2022-03-31
Studies on Feature Analysis and Classification Algorithms for EEG based	Rabel Guharoy	Nanda Dulal Jana and Suparna Biswas	ONGOING	2022-03-31
Brain Computer Interface Speech Synthesis using Deep generative Models: Some Advanced Approaches	Sandipan Dhar	Nanda Dulal Jana and Swagatam Das	ONGOING	2022-03-31
A Cost-effective Framework for Indoor and Outdoor Air Quality Monitoring and Prediction	Praveen Kumar Sharma	Dr. Sujoy Saha, Dr. Tanamy De	SUBMITTED	2022-03-12
Optimal Resource Planning for Situational Information Extraction During Post-Disaster Scenarios.	Krishnandu Hazra	Prof. Subrata Nandi, Dr. Sujoy Saha	DEGREE AWARDED	2022-08-09
Multilevel and Cross-time Analysis of Academic Graphs	Joyita Chakraborty	Subrata Nandi, Dinesh Kumar Pradhan	ONGOING	2022-08-09
Non-invasive Multiple Human Activity Recognition using Heterogeneous Sensors	Arindam Ghosh	Dr. Sujoy Saha, Dr. Mousumi Saha, Dr. Sandip Mondal	DEGREE AWARDED	2021-07-23
Optimal Resource Planning for Situational Information Extraction during Post-Disaster Scenarios	Krishnandu Hazra	Subrata Nandi, Sujoy Saha	SUBMITTED	2022-03-31
A Study on Crowdsourcing and Behavioural Economics	NAREN DEBNATH	SAJAL MUKHOPADHYAY	ONGOING	2022-03-31
Development of Lightweight Security Systems for Resource-constrained Devices: A Hardware Security Approach	Sourav Roy	Bibhash Sen	ONGOING	2022-03-31



Topic Name	Scholar	Supervisor	Status	Status Date
Synthesis of Reliable QCA Logic Circuit with Efficient Regular Clocking Scheme	Amit Pramanik	Bibhash Sen	ONGOING	2022-03-31
Theory of Cellular Automata for Pattern Classification	Khitish Kumar Gadnaya	Mousumi Saha	ONGOING	2022-03-31
Study of Urban Outdoor Air Quality using Air Quality using Multi-Modal Data Sources	Prithviraj Pramanik	Mousumi Saha	ONGOING	2022-03-31
Linux memory Forensics: Methods and Techniques	Trushna Parida	Suvrojit Das	SUBMITTED	2022-06-28
Security & Forensics in E-Governance	Saibal Sarkar	Suvrojit Das	DEGREE AWARDED	2022-01-08
Distributed Unmanned Aerial Vehicle (Uav) Control Strategies For Dynamic Oil Spill Area Mapping	Abhijit Banerjee	Suvrojit das, Dipendranath Ghosh	DEGREE AWARDED	2021-03-10
Energy efficiency of Street Lighting	Pragna Labani Sikdar	Parag Kumar Guha Thakurta	ONGOING	2022-03-31
Precision Agriculture	Manas Kumar Mohanty	Parag Kumar Guha Thakurta	ONGOING	2022-03-31
Urban Planning and Management	Kazi Amrin Kabir	Parag Kumar Guha Thakurta	ONGOING	2022-03-31
Salient Aspects of WSN in Diverse Applications	Ranadeep Dey	Parag Kumar Guha Thakurta	ONGOING	2022-03-31

4.4.23 Ongoing Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Amount (in Rs.)	Starting Year
Neurocomputing and Cognitive Intelligence- Developing a model for Analysing the Learning Disabilities of Dyslexic Child	Bibhash Sen, Dr. Suvrojit Das, Prof. Suchismita Roy, Prof. Anupam Basu	MeitY, Govt. of India	4948000.0	2020
Cognitive load assessment methods for the blind, in adaptation to new assistive technologies	Bibhash Sen, Anupam Basu, Dakshina Ranjan Kisku Tandra Pal Tushar Kanti Bera	TCS Mumbai	2992000.0	2021
Approach towards Conservation of Birds of West Bengal through Creating an Intelligent Bird Identification System	Dr. Suvamoy Changder	WBDST and Biotechnology	690000.0	2019
Erasmus + ICM (International Credit Mobility)	Dr. Animesh Dutta	European Union (with Polytechnic of Porto, Portugal)	871178.0	2021
Gender Advancement for Transforming Institutions (GATI) Pilot Project	Dr. Animesh Dutta	Department of Science and Technology	709200.0	2021
STEM accessibility (from web) for the visually impaired	Dr. Abhijit Sharma (PI) Dr. Suvrojit Das (Co-PI)	TCS, Mumbai	2786300.0	2021
ADKit: Smartphone Based Artificial Intelligence Enabled Portable Low-cost Anemia Detection Kit based on Observation of Nail and Palm Pallor	Dr. Mamata Dalui, Professor Anupam Basu, Dr. Suchismita Roy, Dr. Bibhash Sen, Dr. Dakshina Ranjan Kisku	MeitY	2894000.0	2019

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Title of the Project	Investigator	Sponsor Authority	Amount (in Rs.)	Starting Year
Neurocomputing and Cognitive Intelligence	Bibhash Sen, Suchismita Roy	Meity, Govt of India	4950000.0	2020
ADKit: Smartphone Based Artificial Intelligence Enabled Portable Low-cost Anemia Detection Kit based on Observation of Nail and Palm Pallor	Mamata dalui, DRKisku, Bibhash Sen, Suchismita Roy, Anupam Basu	Meity, Govt of India	2894000.0	2020
Neuro Computing and Computational Intelligence : Developing a model for analyzing the reading disability of the Dyslexic child	Dr. Bibhash Sen (PI), Prof Anupam Basu (Co-PI) Dr. S Das (Co-PI), Dr. S Bhattacharjee (Co-PI) Dr. T Pal (Co PI) Dr. S Roy (Co-PI) Dr. P K Guhathakurta (Co-PI) Dr. M Dalui (Co PI)	Meity	4900000.0	2020
Assistive Technology on multimodal disabilities	Dr. Nilanjan Chattaraj, Dr. Sujoy Saha, Dr. Mousumi Saha	TCS	3000000.0	2021
Developing ICT-based kiosks for post disaster situational information management using opportunistic networking framework	Prof. Subrata Nandi, Dr.Sujoy Saha, Dr. Indrajit Bhattacharya, Dr. Atanu Maity	Department of Science & Technology and Biotechnology, Government of West Bengal	1496000.0	2018
CityProbe: City Scale Pervasive Sensing System	Dr. Sujoy Saha, Dr. Mousumi Saha, Dr. Jaydeep Howlader	Department of Science & Technology and Biotechnology, Government of West Bengal	1270000.0	2018
Connected Smart Health Services for Rural India	Prof. Nabendu Chaki (CU); Anirban Sarkar (NITD); Dr. Satadal Saha (JSV Consultant)	ICPS, DST, GOI	6000000.0	2019
Cognitive Load Assessment of Visually Impaired Person during Adaptation of New IT Product as well as Assistive Technology	Bibhas Sen, Dakshina Ranjan Kisku, Tushar Kanti Bera, Tandra Pal	TCS	2992000.0	2021
ADKit: Smartphone-Based Artificial Intelligence Enabled Portable Low-cost Anaemia Detection Kit based on Observation of Nail and Palm Pallor	Mamata Dalui, Anupam Basu, Suchismita Roy, Bibhas Sen, Dakshina Ranjan Kisku	MCIT	2892000.0	2018
Developing ICT-based kiosks for post disaster situational information management using opportunistic networking framework	Prof. Subrata Nandi, Dr.Sujoy Saha, Dr. Indrajit Bhattacharya, Dr. Atanu Maity	Department of Science & Technology and Biotechnology, Government of West Bengal	1496000.0	2018
Artificial Intelligence (AI) in Education Focus: Children with Learning Disability	Tandra Pal (CSE), Anupam Basu (Director), Chiranjib Koley (EE), Suman Halder (EE), Tushar Kanti Bera (EE), Mamata Dalui (CSE), Parag K Guha Thakurta (CSE)	MeitY, GoI	8137000.0	2020



Title of the Project	Investigator	Sponsor Authority	Amount (in Rs.)	Starting Year
STEM Accessibility (from the Web) for the visually impaired	Abhijit Sharma, Suvrojit Das	TCS	2786300.0	2021

4.4.24 Completed Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Complete Year
Secure Architecture for FPGA based IoT Applications with enhanced physical unclonable function	Dr. Bibhash Sen, Prof. Suchismita Roy	DST-SERB (Core Research/ EMR scheme)	2021
Design of lightweight and cost-effective PUF-Enabled secure architecture for authentication	Bibhash Sen, Prof. Suchismita Roy	Department of Science & Technology Government of West Bengal	2021
ADKit: Smartphone Based Artificial Intelligence Enabled Portable Low-cost Anemia Detection Kit based on Observation of Nail and Palm Pallor	Dr. Mamata Dalui, Dr. Bibhash Sen	MeitY, Govt. of India	2021
A Framework for Healthcare Services using Mobile and Sensor-Cloud Technologies	Prof. Nandini Mukherjee(JU); Prof. Nabendu Chaki (CU); Prof. Jaya Sil (IIEST Shibpur), Anirban Sarkar (NIT Durgapur); Dr. Monideepa Roy (KIIT Bhubaneswer)	Information Technology Research Academy (ITRA) Ministry of Communications and Information Technology, Govt. of India.	2018
Design and Development of Electro-hydrodynamic Inkjet Printing System	Shibendu Sekhar Roy, Naresh Chandra Murmu, Dakshina Ranjan Kisku	DST	2019
Heterogeneous Face Recognition for Law-enforcement	Dakshina Ranjan Kisku	RIG, NIT Durgapur	2019

4.4.25 Testing & Consultancy Services Rendered

Sponsoring Industry / Institute Name	Title of the Project	Total Amount (in Rs.)	Remarks
TCS Mumbai	Cognitive load assessment methods for the blind, in adaptation to new assistive technologies	2992000.0	Bibhash Sen, Anupam Basu, Dakshina Ranjan Kisku Tandra Pal Tushar Kanti Bera

4.4.26 Reviews of Manuscripts for Publication in Journal

Reviewer	Name of the Journal	Publisher	Date of Final Review
Saravanan Chandran	Pattern Recognition	Elsevier	2022-01-31
Debasis Mitra	Journal of Electronic Testing: Theory and Applications	Springer	2021-09-27
Sajal Mukhopadhyay	Internet of Things	Elsevier	2021-05-04
Sajal Mukhopadhyay	Int. J. of Grid and Utility Computing (IJGUC)	Inderscience	2021-05-22

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Reviewer	Name of the Journal	Publisher	Date of Final Review
Sajal Mukhopadhyay	Environmental Impact Assessment Review	Elsevier	2021-07-13
Sajal Mukhopadhyay	Sadhana	Springer	2022-01-24
Sajal Mukhopadhyay	Int. J. of Grid and Utility Computing (IJGUC)	Inderscience	2022-03-25
Mamata Dalui	Turkish Journal Of Electrical Engineering & Computer Sciences	Turkiye Klinikleri Journal of Medical Sciences	2022-06-21
Animesh Dutta	Transactions on Network Science and Engineering	IEEE	2022-03-25
Animesh Dutta	Transactions on Network Science and Engineering	IEEE	2022-03-03
Animesh Dutta	Concurrency and Computation: Practice and Experience	Wiley	2021-09-13
Dakshina Ranjan Kisku	MULTIMEDIA TOOLS AND APPLICATIONS	Springer	2021-06-21
Dakshina Ranjan Kisku	Multimedia Tools and Applications	Springer	2021-07-13
Dakshina Ranjan Kisku	Multimedia Tools and Applications	Springer	2021-10-13
Jaydeep Howlader	Journal of Computer Security	IOS Press	2022-02-22

4.4.27 Review of Books

Reviewer	Title of the Book	Name and Affiliation of the Author	Publisher	Date
Suvamoy Changder	Computer Vision: Fundamentals and Applications	Blind Review	Cambridge University Press	2021-12-15

4.4.28 Participation in National Committees/Visits

Name of the Faculty	Name of the Committee	Place of Visit	From Date	To Date
Suchismita Roy	AICTE Committe for developing model curriculum for CSE	Online	2021-07-01	2022-03-31
Dakshina Ranjan Kisku	LITD 32 Biometrics Sectional Committee	Online	2022-01-03	2022-01-03

4.4.29 Invited Examiners/Paper-Setters/Board of Studies

Name of the Faculty	Name of the Examination	University/Institute	From Date	To Date
Saravanan Chandran	Ph.D. Thesis evaluation	Anna University	2021-12-23	2022-01-03
Saravanan Chandran	Ph.D. Thesis evaluation	Anna University	2021-03-01	2022-06-18
Saravanan Chandran	Ph.D. Thesis evaluation	Cochin University Of Science And Technology	2021-12-28	2022-02-02



Name of the Faculty	Name of the Examination	University/Institute	From Date	To Date
Saravanan Chandran	Ph.D. Thesis evaluation	Hindustan Institute of Technology and Science (HITS)	2021-04-08	2021-06-16
Goutam Sarker	-	-	2022-09-11	2022-09-11
Debasis Mitra	M.Tech Thesis Evaluation (Online)	IEST Shibpur	2021-08-09	2022-09-09
Mamata Dalui	Members of Board of Studies in the Department of Computer Science & Engineering (Artificial Intelligence & Machine Learning)	Haldia Institute of Technology, Haldia	2021-10-27	2022-09-14
Nanda Dulal Jana	Member of the Board of Studies	Sadhu Ram Chand Murmu University of Jhargram	2021-06-12	2022-09-15
Dakshina Ranjan Kisku	PhD Thesis Evaluation	Tezpur University	2022-01-06	2022-09-20
Dakshina Ranjan Kisku	Board of Studies (BoS)	Haldia Institute of	2022-01-21	2021-01-21
Name of the Faculty	Name of the Examination	University/Institute	From Date	To Date
		Technology		
Dakshina Ranjan Kisku	Pre-thesis submission Seminar	BPTU, Odisha	2021-08-14	2021-08-14
Tandra Pal	Enhancement of fellowship of 02 PhD Students of CSE Department	IIIT Ranchi	2021-12-09	2021-12-09
Tandra Pal	Post Graduate Board of Studies (PG-BoS) of the Department of Computer Science	Sidho-Kanho-Birsha University	2021-06-06	2025-06-05

4.4.30 Invited Expert in Selection Committees

Name of the Faculty	Discipline	University/Institute	From Date	To Date
Tandra Pal	Computer Science	DAV Model School Durgapur	2022-03-26	2022-03-27

4.4.31 Invited Lectures

Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Saravanan Chandran	Artificial Intelligence in Security Systems	Online Plenary talk in National conference at ECE department of Dr. Mahalingam College of Engineering and Technology	Pollachi	2021-04-23	2021-04-23
Saravanan Chandran	Research Avenues in Machine Learning and AI for societal issues	Online AICTE FDP	NIT Silchar	2022-03-15	2022-03-15
Suvamoy Changder	Classification Analysis(SVM)	5-Days Online ATAL Faculty Development Program on "Data Science"	MCKVIE, Howrah	2021-09-20	2021-09-24
Suvamoy Changder	Linear Regression and Logistic Regression	2nd Online 6 days STTP on Business Analytics	MCKVIE, Howrah	2021-04-19	2021-04-24

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Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Suvamoy Changder	Introduction to Machine Learning- Linear and Logistic Regression	Online Faculty Development Programme on Emerging Technologies	BCREC, Durgapur	2022-03-02	2022-03-02
Sajal Mukhopadhyay	Modern Applications of Game Theory	Online Faculty Development Programme on Emerging Technologies	Dr. B. C. Roy Engineering College	2022-03-08	2022-03-12
Mamata Dalui	Computational Approaches in Biomedical Applications	5 Day Faculty Development Program on 'Computational Biology'	IEM, Kolkata	2021-11-22	2021-11-26
Mamata Dalui	Artificial Intelligence in Health- care Systems	Webinar on Artificial Intelligence in Health Care: The Aspiration, Hype and Jeopardy	IQ CITY INSTITUTE OF NURSING SCIENCES DURGAPUR, WEST BENGAL	2022-07-30	2022-07-30
Nanda Dulal Jana	Metaheuristic ptimization: Principles, Taxonomy and Applications	FDP on "IMPLEMENTATION OF MECHINE INTELLIGENCE TOWARDS DIGITAL INDIA	Guru Nanak Institute of Technology (Autonomous) Kolkata	2021-06-22	2021-06-26
Nanda Dulal Jana	Deep Neural Network: From Foundations to Recent Advances	AICTE sponsored STTPon "Recent Advancement on AI and Machine Learning"	The Assam Kaziranga University, Jorhat, Assam	2021-10-04	2021-10-08
Nanda Dulal Jana	Modern Optimization Techniques: Principles and Applications	RecentAdvances in Mathematical and Computational Optimizations" (RAMCO-2021)	JNU Delhi	2021-10-26	2021-10-28
Nanda Dulal Jana	Neural Architecture Search: An Overview	AICTE Sponsored FDP on Advances in Artificial Intelligence	ITER, Sikha 'O' Anusandhan (Deemed to be University) Bhubaneswar, Odisha.	2022-01-21	2022-01-25
Dakshina Ranjan Kisku	Regression Models, Penalty and Optimization	FDP on Artificial Intelligence and Machine Learning	Dr. B. C. Roy Polytechnic College, Durgapur	2022-02-15	2022-02-19
Dakshina Ranjan Kisku	Restricted Boltzmann Machine for Recommender System	FDP on Machine Learning and Deep Learning Approach towards Computer Vision	Dr. B. C. Roy Engineering College, Durgapur	2022-03-28	2022-04-02
Tandra Pal	Generalization and Robustness of Neural Networks	5 days FDP on ML & DL approach towards Computer Vision	Online (organized by the Department of Computer Applications (PG) of Dr. B. C. Roy Engineering College Durgapur)	2022-03-29	2022-03-29
Tandra Pal	Clustering Techniques in Intelligence	FDP on Data Intelligence and Computation	Online (organized by CCE, NIT Warangal & Department of Master of Computer Application, Regent Education and Research Foundation Group of Institutions, Barrackpore)	2022-03-22	2022-03-22



Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Tandra Pal	Clustering: Hard and Soft	FDP on Emerging Technologies	Online (organized by the Department of Information Technology, Dr. B. C. Roy Engineering College, Durgapur)	2022-03-10	2022-03-10
Tandra Pal	Clustering	FDP on Artificial Intelligence and Machine Learning	Online (organized by the Dept. of Computer Science and Technology, Dr. B. C. Roy Polytechnic, Durgapur)	2022-02-17	2022-02-17
Tandra Pal	Unsupervised Machine Learning Techniques & Probabilistic Theory	5 days ATAL Academy sponsored online Faculty Development Programme on Advance Statistical & Machine Learning Models (ASMLM-2021)	Online (organized by IIIT Ranchi)	2021-12-15	2021-12-15
Tandra Pal	Multi-objective GA for Machine Learning	10 days FDP on "Data Science using AI and Machine Learning"	Online (organized by E & ICT Academy, NIT Warangal in association with SRM Institute of Science and Technology, sponsored by MeitY, GOI)	2021-09-25	2021-09-25
Tandra Pal	SOM and Clustering	10 days FDP on "Data Science using AI and Machine Learning"	Online (organized by E & ICT Academy, NIT Warangal in association with SRM Institute of Science and Technology, sponsored by MeitY, GOI)	2021-09-27	2021-09-27
Tandra Pal	Self-Organizing Map and Clustering	AICTE STTP Programme on Tools and Techniques for Machine Learning and its Applications	Online (organized by Maulana Abul Kalam Azad University of Technology (MAKAUT), West Bengal)	2021-07-05	2021-09-05
Bibhash Sen	Quantum-dot Cellular Automata: Its Fault Tolerance and Reliability	Faculty Development Programme	Tripura University	2021-11-08	2021-11-12

4.4.32 Session Chair/Convenor

Name of the Faculty	Programme	Place	Session	From Date	To Date
Suvamoy Changder	Session Chair, International Conference on Mathematics and Computing (ICMC 2021)	IEST Shibpur	2021	2021-04-02	2021-04-05
Sajal Mukhopadhyay	The 15th International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing	Soonchunhyang (SCH) University, Asan, Korea	IoT and Social Networking (Track Co-chair)	2021-07-01	2021-07-03

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Mamata Dalui	First Asian Symposium on Cellular Automata Technology, 2022	IEST Shibpur	ASCAT 2022, Day 2 : 04 March 2022	2022-03-04	2022-03-04
Dakshina Ranjan Kisku	Publication Chair, International Conference on Computer Graphics, Image and Signal Processing (CGISP' 22)	Guangzhou, China	All sessions	2022-02-25	2022-02-27
Tandra Pal	6th International Conference on Data Management, Analytics and Innovation (ICDMAI 2022)	Online	AI and Deep Learning	2022-01-15	2022-01-15
Tandra Pal	INDICON 2021	Online (organized by IIT Guwahati)	SPM	2022-01-21	2022-01-21

4.4.33 Patents

Title	Inventors	Application Nos	Date of Filing
Intelligent, Portable, Low-Cost Anaemia Detection Kit Based On Observation Of Palm Colour Changes	Mamata Dalui, Dakshina Ranjan Kisku, Bibhas Sen, Suchismita Roy, Anupam Roy, Dipankar Chakraborty	202131000062	2021-01-01
Intelligent, Portable, Low-Cost Anaemia Detection Kit Based On Observation Of Nail Colour Changes	Mamata Dalui, Dakshina Ranjan Kisku, Bibhas Sen, Suchismita Roy, Anupam Roy, Dipankar Chakraborty	202131000046	2021-01-01
A System For Novel Text Steganography Based On Puzzle Generation	Anandaprova Mazumder, Sumana Kundu, Suvamoy Changder	20 2021 106 917	2022-01-13
A Method And System For Prognosis Of Anaemia Based On Observation Of Palm Color	Dr. Mamata Dalui, Dr. Dakshina Ranjan Kisku, Abhishek Kesarwani, Sunanda Das, Dr. Bibhash Sen, Prof. Suchismita Roy, Prof. Anupam Basu	202131000062	2021-01-01
A Method And System For Prognosis Of Anaemia Based On Observation Of Nail Color	Dr. Mamata Dalui, Dr. Dakshina Ranjan Kisku, Sunanda Das, Abhishek Kesarwani, Dr. Bibhash Sen, Prof. Suchismita Roy, Prof. Anupam Basu	202131000046	2021-01-01

4.5 Department of Chemical Engineering

4.5.1 Department at a Glance:

The Department of Chemical Engineering, National Institute of Technology Durgapur, was established with the active support of UNESCO. The department was built up by a team of dedicated faculty members with the help of a host of visiting professors deputed by UNESCO to NIT Durgapur. Some faculty members have trained abroad under the UNESCO program, and UNESCO donated some equipment and instruments to the department. The Bachelor of Engineering course in Chemical Engineering was started in 1964, and the first batch of students was awarded the degree in 1969. The Post-graduate program with the specialization 'Production of Fertilizers' was introduced in 1968, along with the doctoral program in Chemical Engineering. The department has a current sanctioned intake of 75 students for the B.Tech program and 07 students for five years of dual degree B. Tech-MTech Programme per year. For admission to the two M. Tech Courses in Chemical Engineering & Energy Resources and Sustainable Environmental Engineering, 35 seats are available in regular full-time courses with a duration of 2.0 years. The curriculum and



syllabi of the courses offered have been continuously updated to keep pace with rapidly changing technological developments. Since 2018 new curricula and syllabi have been implemented in the college for undergraduate studies.

4.5.2 Mission & Vision

Mission:

- 1) To produce highly qualified, well- rounded and motivated graduates possessing fundamental understanding and knowledge in Chemical Engineering who can provide service and leadership to the nation and the world.
- 2) To pursue creative research and new technologies in Chemical Engineering in order to serve the needs of industry, government & society.
- 3) To achieve visibility by active participation in conferences and technical activities.

Vision:

- 1) To impart quality technical education in Chemical Engineering and focus on research and innovation in thrust areas of Chemical and related areas of engineering.

4.5.3 Faculty

Name	Designation	Email-id
Parimal Pal	HAG-Professor	parimal.pal@che.nitdgp.ac.in
Parthapratim Gupta	Professor	parthapratim.gupta@che.nitdgp.ac.in
Kartik Chandra Ghanta	Professor	kartik.ghanta@che.nitdgp.ac.in
Tamal Mandal	Professor	tamal.mandal@che.nitdgp.ac.in
AnupkumarSadhukhan	Professor	anupkumar.sadhukhan@che.nitdgp.ac.in
GopinathHalder	Professor& Head (1 st April 2021up to July 2021)	gopinath.halder@che.nitdgp.ac.in
Susmita Dutta	Professor	susmita.dutta@che.nitdgp.ac.in
Jaya Sikder	Associate-Professor & Head (August 2021 onwards)	jaya.sikder@che.nitdgp.ac.in
Sandip Kumar Lahiri	Associate-Professor	sandipkumar.lahiri@che.nitdgp.ac.in
MrinalKanti Mandal	Associate-Professor	mrinalkanti.mandal@che.nitdgp.ac.in
SwapanParuya	Associate-Professor	swapan.paruya@che.nitdgp.ac.in
Bimal Das	Assistant Professor	bimal.das@che.nitdgp.ac.in
Abhiram Hens	Assistant Professor	abhiram.hens@che.nitdgp.ac.in
Bikash Kumar Mondal	Assistant Professor	bk.mondal@che.nitdgp.ac.in
Rajib Ghosh Chaudhuri	Assistant Professor	rajib.ghoshchaudhuri@che.nitdgp.ac.in
Ananta Sarkar	DST INSPIRE Faculty	ananta.sarkar@che.nitdgp.ac.in

4.5.4 Equipments

Sl. No.	Name of the equipment	Date of Purchase	Amount (₹)
1.	Photo-copier	21.11.2021	1,23,800.00
2.	Drinking Water Purifier (RO & UV)	26.11.2022	90,200.00
3.	Drinking Water Purifier	27.01.2022	42,400.00
4.	ABBE REFRACTROMETER	24.02.2022	81,494.00
5.	REMI Bench Top Non Refrigerated Centrifuge	06.03.2022	93,800.00

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Sl. No.	Name of the equipment	Date of Purchase	Amount (₹)
6.	Desktop Computer	08.03.2022	99,980.00
7.	Laptop	25.02.2022	84,000.00
8.	Micro weighing Balance	09.03.2022	1,01,846.00
9.	REMI 105 -150 Liters Deep Freezer	07.03.2022	2,20,000.00
10.	Offline UPS	07.03.2022	17,299.00
11.	Offline UPS	25.02.2022	17,480.00
12.	Online UPS	15.03.2022	4,05,997.00
13.	Precision Balance	08.03.2022	15,750.00
14.	Air Compressor	09.03.2022	21,450.00
15.	Refrigerator & Micro Wave	10.03.2022	24,595.00
16.	Aspen plus simulation software for- 05 Yr.	23.02.2022	\$ 10,000.00

4.5.5 Labs

Sl. No.	Name of Laboratory	Major equipment
1.	Environmental and Membrane Technology Lab	Patented membrane-based systems developed indigenously, AAS(down), UV Visible Spectrophotometer, Flame photometer, HPLC(housed in Central Research LAB-1, Ion-meter, Electronic balance, microscope, colony counter, Air Safety Cabinet
2.	UG Computing Lab	Hardware: Desktop Computers (35) Software: Aspen Plus, Matlab, Ansys Fluent, Comsol Multiphysics Programming Languages: C/C++, Fortran
3.	Chemical Reaction Engineering Laboratory	1. Isothermal Batch Reactor 2.Continuous Stirrer Tank Reactor 3.Plug Flow Reactor 4.RTD studies with CSTR 5.Adiabatic Batch Reactor 6.RTD Studies in Packed Bed 7.Continuous Stirred tank reactor in series(Cascade CSTR)
4.	Heat Transfer Lab	1.Shell & Tube Heat Exchanger 2.Parallel and Counter Current heat exchanger 3.Thermal conductivity of Metal Rod 4.Emissivity of Black Body 5.Plate Type Heat Exchanger 6.Dropwise&Filmwise Condensation 7.Boiling Point Elevation 8.Hold up in a Rotary Drier



Sl. No.	Name of Laboratory	Major equipment
5.	Mass Transfer Lab,	1.Molecular Diffusion 2.Bubble Cup Distillation 3.Wetted Wall Column 4.Liquid Liquide Extraction 5.Water Cooling Tower 6.Solid Liquid Extraction Column 7.Atmospheric tray dryer 8.Concentric Pipe Heat Exchanger 9.Open Pan Evaporator
6.	Process Control Lab	1.Interacting and Non-Interacting System 2.Control valve Characteristic 3.Level Control Trainer 4.Temperature Control Trainer 5.2 nd Order System
7.	Process Modelling & Simulation Lab (PG computing labs/Computing lab for Research scholars)	Hardware: Desktop Computers (20), Computing Workstations (4) Software: Aspen Plus, Matlab, Ansys Fluent, Comsol Multiphysics, OpenFoam, LAMMPS, VMD Programming Languages: C/C++, Fortran
8.	Central Research Laboratory-1	1.High Performance Liquid Chromatography 2. UV-Visible Spectrophotometer 3. Gas Chromatography 4. Surface Area Analyzer 5. COD/BOD Analyzer 6. Ion Meter with Fluoride Probe 7. Total Organic Carbon Analyzer 8. Ion Exchange Chromatography 9. Thermo Gravimetric Diff. Thermal Analyzer
9.	Central Research Laboratory -2	1. GC-MS (DST-FIST-II) 2. GC-MS (DST-Inno-Indigo project) 3. GC (DST Project) 4. AAS (DST-FISSt-II) 5. Porosimeter /BET Surface Area Aanalyser 6. Fluorescence Spectrophotometer

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Sl. No.	Name of Laboratory	Major equipment
10.	Fluid Mechanics Laboratory	<ol style="list-style-type: none"> 1.To Study of Venturimeter& Orifice meter 2.To Study of Bernoulli's Theorem 3.weir (V notch and Rectangular notch) 4.Packed bed 5.Helical coil Apparatus 6.Friction Factor 7.The Reynold's Apparatus 8.Reciprocating Pump 9.Pitot Tube 10. Plate and frame filter Press
11.	Energy Engineering Laboratory	<ol style="list-style-type: none"> 1.Proximate Analysis 2.Ultimate Analysis 3.Viscosity 4.Flash Point 5.Pensky Morten's Apparatus 6.Aniline Point Apparatus 7.Dean And Stark Apparatus 8.ASTM Distillation 9.Caking Index & Sweling Index 10.Carbon Residue 11.Shattering Index 12.Reid Vapour Pressure Appratus 13.Bomb Calorimeter 14.Washabilitytest 15.Solar Collector
12.	Mechanical Operation Laboratory	<ol style="list-style-type: none"> 1.Jaw Crusher 2.Ball Mill 3.Cyclone Separator 4.Plate and Frame filter Press 5.Kneader Mixer 6.Agitated Vessel 7.Elutriator Setup 8. Vibrating Screen 9.Roll Crusher 10.Screening 11. Thickener



4.5.6 PhD degree awarded till 2021-22

Eight.

4.5.7 Any other relevant information

- I. Prof.P.Pal recognised as one of the top 0.5% Scientists across all streams as per research citations report of Stanford University, USA, 2020.
- II. Prof.P.Pal became a Fellow of the Royal Society of Chemistry (London), 2021.
- III. Prof. P.Pal, appointed Member of Editorial Board, Ionic Liquids, Elsevier Science, 2021.

4.5.8 Specialization

- Nanotechnology
- Material Science
- Interface Engineering
- Colloids
- Environmental Chemical Engineering, Biochemical Engineering, Membrane Technology, Green Technology, Water Treatment, Petroleum refining, Mass Transfer
- Multiphase flow
- Optimization of Industrial Processes
- Profit Maximization of chemical industries
- AI and Machine learning application in process industries
- Advance Process control
- Modelling and Simulation of Pyrolysis, Combustion and Gasification of Coal and Biomass
- Multiphase flow, Waste Treatment, Nano Particle
- Thin film membrane
- Waste water treatment, Waste Valorizationn
- Environmental Engineering
- Combustion and Gasification

4.5.9 Proposed Plan for Research

- Investigation of multiphase flow at different length and time scale (using both CFD and molecular level simulation). Analysis of different industrial reactors. Design and development of microfluidic devices. Applications of solar energy.
- Developing pilot plants on the patented green technologies
- Developing further novel technologies for Green energy, Advanced separation
- Developing alternate renewable energy resources towards net zero, Low-cost, low-carbon green technology in the chemical engineering field,
- Study of flow dynamics
- Wastewater Treatment
- Building Digital twin of industrial reactors
- Development of online energy optimizer for process industries
- Development of real time cost based performance dashboard for process industries
- Development of online optimizer for process industries
- Experimental study on pyrolysis, gasification and combustion. Reaction kinetics, CFD analysis for mass, heat and momentum transport
- Dimethyl Dipropylentriamine based chemical solvent development.
- Process modelling and Simulation of hexamethylenedimaine based CO₂ capture plant.
- Microalgae based CO₂ capture and sequestration process development.
- Bi-layered membrane, nano-composite, membrane reactor
- Developing value added products from valorization of waste, and bio remediation
- Holistic Technology Development
- Carbon dioxide sequestration through microbial route,
- Polishing treatment of industrial wastewater
- Commercial scale-up of biodiesel production and wastewater treatment

4.5.10 Area of Research Interest

- CFD and Heat Transfer, Molecular Dynamics Simulation, Process modelling and Simulation, Microfluidics and Nanotechnology

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- Nanomaterials Synthesis
- Heterogeneous Catalysis
- Wettability Studies
- Packaging Materials
- Wastewater treatment
- Technology for Waste to wealth for various industries, Sustainable technology development towards net zero target, technology development for alternate energy resources, Membrane-based green technology, Low-cost technology for safe and healthy drinking water
- Study of flow dynamics
- Slurry flow modeling
- Application of Artificial Intelligence in chemical process industries
- Advance Process Control application in Chemical Industries
- Building Digital twin of chemical processes for industry
- Online supervisory optimizer application development for process industries
- Online energy optimizer application building for process industries
- Chemical and Biochemical CO₂ capture and sequestration, Thermodynamic and process modelling
- Reactor modelling
- Energy material, Nano-material, H₂ production, water treatment
- Advanced technologies for wastewater treatment, Biodegradation of industrial wastewater, integrated wastewater treatment system, Kinetics and Reactor design for specific toxic molecules treatment.
- Membrane Synthesis, Water Treatment, Biofuels generation
- Pyrolysis of Waste Plastics
- Biofuel from Waste Feedstock, Heterogeneous carbonaceous nanocatalyst development, Wastewater Treatment: Biosorption and Microbial remediation
- Biochemical Reaction Engineering. Environmental Engineering. Bioremediation and Phycoremediation

4.5.11 Institute Industry Collaboration

Collaborating Institute Organization	Areas of collaboration	Collaboration Activities
Durgapur Steel Plant, SAIL	Failure analysis of BOD plant	Biological water Treatment System : Analysis & further development
Oxide India	Adsorbent development for Arsenic and Fluoride removal	Joint research, material development & publication
Durgapur Steel Plant	Wastewater Treatment	Bioremediation
Scientific Design Company Inc, USA	Building digital twin of ethylene oxide reactor	Industrial Consultancy and AI application building
Scientific Design Company Inc, USA	Online optimizer building for ethylene glycol plant	Industrial Consultancy and AI application building
Scientific Design Company Inc, USA	Development of Energy Dashboard and online energy optimizer for ethylene glycol plant	Industrial Consultancy and AI application building
Durgapur Steel Plant	Industry 4.0	Industrial Consultancy and AI application building
Central Mechanical Engineering Research Institute (CMERI)	Ethanol preparation from Starchy Biomass and its use in transportation fuel	Joint research through experimentation and model development
Central Mechanical Engineering Research Institute (CMERI)	Catalytic pyrolysis of waste plastics and recovery of fuels	Joint research through experimentation and kinetic study
Eureka Forbes Pvt Ltd	Material and membrane	RO membrane purifier
IIT Kharagpur, Jadavpur University, IIT Guwahati, CSIR IICT Hyderabad	Research	Research & Academic upgradation



Collaborating Institute Organization	Areas of collaboration	Collaboration Activities
South Dakota School of Mines	water treatment & waste valorization	Research & academic upgradation
Essar Oil and Gas Exploration and Production Ltd	Coalbed methane produced water treatment	Joint project proposal submission, Technology and trained manpower development

4.5.12 Collaboration with Academic and Research Institutions

Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
Hanyang University, 222Wangsimni-ro, Seongdong-gu, Seoul 04763, Republic of Korea	Alternate biofuel from renewable resources	Prof.P.Pal, Prof. B.-H. Jeon, Dr. R. Kumar	Joint research & publication in the area of advanced separation & biofuel production from low-cost renewable resources
I.I.T. Delhi	Removal of AMR burden from environment	Prof.P.Pal & Prof. Z. Ahammad	Collaborative research & publication in removal of antibiotic residues from Environment
University of Burdwan	Biofuel production	Prof.P.Pal(NIT Durgapur) & Prof.A.K.Ghosh(BU)	Joint research and publication in green energy area
Lappeenranta University of Technology, Finland	Green technology and Green management strategy development	Prof.Parimal Pal, Prof. Lassi Linnanen, Prof.Mousumi Roy(DMS, NITDGP)	Enrichment through knowledge sharing by physical interaction and visits, , in-house training in the advanced laboratories of each other, collaborative research and publication in reputed SCI journals
Kalinga Institute of Technology, Bhubaneswar, Odisha	Developing water treatment materials & methods Water Treatment	Prof.P.Pal, Prof. S.K.Tripathy, Dr. S.Chakraborty	Joint research & publication
Indian Institute of Technology Kanpur	Research and Development	Prof. Gautam Biswas	Joint research publications in reputed journals
CSIR-Central Mechanical Engineering Research Institute Durgapur	Research and Development	Dr. Nripen Chanda (Principal Scientist), Dr. Priyabrata Banerjee (Principal Scientist)	Joint Research and Proposal Submission
Environmental Research Group, TATA Steel R&D, Jamshedpur, Jharkhand, India	Chemical Solvent Development for CO ₂ capture	Ms. Neha Kumari Agarwal	Solute solvent VLE evaluation and modeling
Brainware University	Research	Dr. Deepshikha Datta	Research
Indian Institute of Technology Kharagpur	CO ₂ Capture solvent development	Prof. Amar Nath Samanta	CO ₂ Capture solvent property evaluation and process modelling
JNU, New Delhi	Bioprocess	Dr. K Dubey	Research work, joint project
Amity University Noida	Smart material	Dr. S Chakrabarti	Project, publication
IIT-ISM, Dhanbad	Novel material	Dr. Aditya Kumar	Joint research work
IIT Kharagpur, Jadavpur University, IIT Guwahati, CSIR ICT	Water treatment	Prof Sirshendu De (IIT KGP)	Research upgradation

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Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
Hyderabad, South Dakota School of Mines			
Indian Agricultural Research Institute, New Delhi	Microalgae based cost-effective green manure	Dr. O. N. Tiwari	Technical paper writing, Project proposal submission to funding agent
Vishnu institute of Pharmaceutical Education and Research	Chitosan-loaded nanogel synthesis	Dr. Vanitha Kondi	Interdisciplinary research and paper publication
National Institute of Technology Silchar	Biofuel production and glycerol valorization	Dr. Samuel L Rokhum	Joint PhD supervision, Research paper publication, Book Editing
Thapar Institute of Engg and Technology	Wastewater treatment	Dr. Sanghamitra Barman	Joint Project submission, Research paper publication
CSIR-Central Mechanical Engineering Research Institute, Durgapur	Nanosorbent development	Prof. Priyabrata Banerjee	Interdisciplinary research and paper publication
Indian Institute of Technology Delhi	Biodegradation of micro-pollutants	Prof. Kamal Kishore Pant	Book chapter and research article publication
Vilnius Gediminas Technical University, LITHUANIA	Chemical Engineering, Environmental Engineering	Prof. Dr Edita Baltreinaite-Gedienė	Research , Publication of papers
College of Engineering, National University of Science and Technology, Muscat, Sultanate of Oman	Chemical Engineering	Geetha Devi	Joint PhD supervision, Publication of papers

4.5.13 Innovations and Technology Transfer (Patents filed during)

Title	Inventors	Application Nos	Date of Filing
Low cost portable domestic nanomembrane-based water purifier	Prof.P.Pal & Dr. M.Pal	TEMP/E-1/20286 /2017-KOL 7/6/2017	2017-12-15
A high flux low energy osmotic system for arsenic removal at low cost	Prof.P.Pal & S.Chakraborty	1003/KOL/2014	2013-09-29
A green process for continuous and direct production of l-glutamic acid	Prof.P.Pal & R.Kumar	962/KOL/2014	2013-09-23
Process For The Isolation of Polyhydroxyalkanoate And Use Thereof In Enhancing Microbial Electrocatalysis	Prof.P.Pal, Dr. C.Saravanan, Navanietha R.K.	46/KOL/2014	2014-02-14
System and method of production of acetic acid from waste cheese whey through a continuous	Prof.P.Pal	185/KOL/2013	2013-12-18
System & Method of Direct Lactic acid production	Prof.P.Pal	1364/KOL/2011A	2011-10-14
Membrane-integrated Hybrid Treatment System for Arsenic Removal	Prof.P.Pal	766/KOL/2011A	2011-09-22



4.5.14 Workshops/Seminars Organized

Name of Key Speaker(s)	Name of the Programme	Date of the Programme
Mr saurav jain	My Story - Motivational Session by Successful Entrepreneur/Start-up founder.	2021-12-23
Aniruddha Bhattacharya	Pre-Incubation and Incubation Management Incubation & Pre-incubation Units	2022-01-15
Arpan Mukherjee	Workshop on Prototype/Process Design and Development - Prototyping”	2022-02-18
Dr. Aniruddha Bhattacharya	Session/ Workshop on Business Model Canvas (BMC)	2021-12-10
Mr. Rounak Agarwal	Session on “How to plan for Start-up and legal & Ethical Steps”	2022-03-04
Dr Nilanjan Chattaraj	Workshop on Intellectual Property Rights (IPRs) and IP management for start up	2021-12-16
Mr. Akash Tripathi	Session on Innovation/Prototype Validation - Converting Innovation into a Startup (or) Session on Achieving "Value Proposition Fit" & "Business Fit"	2022-02-19
Mr. Ashutosh Pastor	Session on Accelerators/Incubation - Opportunities for Students & Faculties - Early Stage Entrepreneurs	2022-03-05
Mr. Arpan Mukherjee	“Lean Start-up & Minimum Viable Product/Business”- Boot Camp & Mentoring Session	2022-02-11
Mr. Harsh Rajnikant Patel	Session on Angel Investment/VC Funding Opportunity for Early Stage Entrepreneurs	2022-02-26
Dr Sandip Kumar Lahiri	Workshop on “Entrepreneurship and Innovation as Career Opportunity”	2021-12-17
Dr Parimal Pal	My Story - Motivational Session by Successful Innovators.	2021-12-22
Dr Aryayoti Goswami	Workshop on Design Thinking, Critical thinking and Innovation Design	2021-12-09
Dr Sayantari Ghosh	Workshop on Entrepreneurship Skill, Attitude and Behavior Development	2021-12-13
DrAryajyoti Goswami	Workshop on Innovation Design	0020-06-12
Bimal Das	AICTE Training And Learning (ATAL) Academy Sponsored Online Faculty Development Program (FDP) on Waste Valorization towards a Sustainable Environment	2021-06-14
Prof. S. K. Ghosh, Jadavpur University	AICTE Training And Learning (ATAL) Academy Sponsored Online Faculty Development Program (FDP) on Waste Valorization towards a Sustainable Environment	2021-06-14

4.5.15 Journal: Published in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
Seragadam, P., Rai, A., Ghanta, K.C., Srinivas, B., Lahiri, S.K. and Dutta, S.,	Bioremediation of hexavalent chromium from wastewater using bacteria-a green technology	Biodegradation	Volume:32 Issue No:4 Page No:449-466. Year:2021 Month: May

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Author(s) Name	Paper Name	Journal Name	Others Info
S.Pal, Z.Ahammad, P.Pal	Removal of Antibiotics and Pharmaceutically Active Compounds from Water Environment: Experiments Towards Industrial Scale Up	Separation and Purification Technology, Elsevier	Volume:295 Issue No: Page No:121249 Year:2022 Month:
Ramesh Kumar, Bikram Basak, Parimal Pal, Sankha Chakraborty, Young-Kwon Park, Moonis Ali Khan, WooJin Chung, SoonWoong Chang, Yongtae Ahn, Byong-Hun Jeon	Feasibility assessment of bioethanol production from humic acid-assisted alkaline pretreated Kentucky bluegrass (<i>Poa pratensis</i> L.) followed by downstream enrichment using direct contact membrane distillation	Bio-resource Technology, Elsevier	Volume:360 Issue No: Page No:127521 Year:2022 Month:
S. Chatterjee, K. C. Ghanta*, A. Hens*	Study of multiphase flow inside straight and spiral microchannel and effect of two phase flow on Dean's vortices	Chemical Engineering Research and Design	Volume:165 Issue No: Page No:398 Year:2021 Month:
S. Chatterjee, A. Hens*, K. C. Ghanta, G. Biswas*	Molecular dynamics study of sessile ionic nanodroplet under external electric field	Chemical Engineering Science	Volume:229 Issue No: Page No:116143 Year:2021 Month:
S. Pal, S. Chowdhury, A Hens, S K Lahiri	Artificial intelligence based modelling and multi-objective optimization of vinyl chloride monomer (VCM) plant to strike a balance between profit, energy utilization and environmental degradation	Journal of the Indian Chemical Society	Volume:99 Issue No: Page No:100287 Year:2022 Month:
S.Gun, S. Chatterjee, A. Hens*	CFD based analysis of chlorination contact tank design	Materials Today: Proceedings	Volume:57 Issue No: Page No:1813 Year:2022 Month:
S. Chowdhury, S. K. Lahiri, A. Hens, S. Katiyar,	Performance enhancement of commercial ethylene oxide reactor by artificial intelligence approach	International Journal of Chemical Reactor Engineering	Volume:20 Issue No: Page No:237 Year:2022 Month:
S.K.Lahiri, S. K. Chowdhury, A. Hens, K. C. Ghanta,	Modeling and multi-objective optimization of commercial ethylene oxide reactor to strike a delicate balance between profit and negative environmental impact	Environmental Science and Pollution Research,	Volume:29 Issue No: Page No:20035 Year:2022 Month:
S. Chatterjee, I. Kumar, K. C. Ghanta, A. Hens*, G. Biswas*	Insight into molecular rearrangement of a sessile ionic nanodroplet with applied electric field	Chemical Engineering Science	Volume:247 Issue No: Page No:117083 Year:2022 Month:
M Sain, S Pramanik, E Baltrenaite-Gedienė, KC Ghanta, S Dutta	Abatement of cyanide and ammoniacal-N from coke-oven wastewater using natural adsorbents: A comparative study	Journal of the Indian Chemical Society	Volume: Issue No: Page No:100230 Year:2021 Month:
P Seragadam, A Rai, KC Ghanta, B Srinivas, SK Lahiri, S Dutta	Bioremediation of hexavalent chromium from wastewater using bacteria-a green technology	Biodegradation	Volume: Issue No: Page No:Mon Jan 01 00:00:00 IST 2018 Year:2021 Month:



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S Mishra, R Mishra, KC Ghanta, AN Mullick, SL Sinha	Numerical prediction of pressure drop for pneumatic conveying of air-fly ash mixture through pipeline.	IOP Conference Series: Materials Science and Engineering	Volume:1080 Issue No:1 Page No:12051 Year:2021 Month:
SK Lahiri, S Chowdhury, A Hens, KC Ghanta	Modeling and multi-objective optimization of commercial ethylene oxide reactor to strike a delicate balance between profit and negative environmental impact	Environmental Science and Pollution Research	Volume: Issue No: Page No:Tue Jan 01 00:00:00 IST 2013 Year:2021 Month:
S Chatterjee, A Hens, KC Ghanta, G Biswas	Molecular dynamics study of sessile ionic nanodroplet under external electric field	Chemical Engineering Science	Volume:229 Issue No: Page No:116143 Year:2021 Month:
S Chatterjee, KC Ghanta, A Hens	Study of multiphase flow inside straight and spiral microchannel and effect of two phase flow on Dean's vortices	Chemical Engineering Research and Design	Volume:165 Issue No: Page No:398-408 Year:2021 Month:
Mamta Gwala; Abhilasha Rai; Rajib Ghosh Chaudhuri; Jitamanyu Chakrabarty; Bikash Kumar Mondal; and Susmita Dutta	Avant-Garde Solar-Thermal Nanostructures: Nascent Strategy into Effective Photothermal Desalination	Journal of Environmental Engineering	Volume:147 Issue No:12 Page No: Year:2021 Month:Aug
Tithli Sadhu, Indrani Banerjee, Sandip Kumar Lahiri, Jitamanyu Chakrabarty	Enhancement of nutritional value of fried fish using an artificial intelligence approach	Environmental Science and Pollution Research	Volume:29 Issue No:14 Page No:20048-20063 Year:2022 Month: March
Sandip Kumar Lahiri, Somnath Chowdhury, Abhiram Hens, Kartik Chandra Ghanta	Modeling and multi-objective optimization of commercial ethylene oxide reactor to strike a delicate balance between profit and negative environmental impact	Environmental Science and Pollution Research	Volume:29 Issue No:14 Page No:20035-20047 Year:2022 Month: March
Seema Singh, Boyina Venkata Akhil, Somnath Chowdhury, Sandip Kumar Lahiri	A detailed insight into the optimization of plate and frame heat exchanger design by comparing old and new generation metaheuristics algorithms	Journal of the Indian Chemical Society	Volume:99 Issue No:2 Page No:100313 Year:2022 Month: February
Sucharita Pal, Somnath Chowdhury, Abhiram Hens, Sandip Kumar Lahiri	Artificial intelligence based modelling and multi-objective optimization of vinyl chloride monomer (VCM) plant to strike a balance between profit, energy utilization and environmental degradation	Journal of the Indian Chemical Society	Volume:99 Issue No:1 Page No:100287 Year:2022 Month: January
Rhythm Aich, Annasha Dey, Sandip Kumar Lahiri	Optimization of High Density Polyethylene (HDPE) Reactor Using Artificial Intelligence	Interdisciplinary Research in Technology and Management	Volume: Issue No: Page No:168-173 Year:2021 Month: October
Padma Seragadam, Abhilasha Rai, Kartik Chandra Ghanta, Badri Srinivas,	Bioremediation of hexavalent chromium from wastewater using bacteria-a green technology	Biodegradation	Volume:32 Issue No:4 Page No:449-466 Year:2021 Month: May

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Sandip Kumar Lahiri, Susmita Dutta			
Sunita Singh, Sandip Kumar Lahiri, Jitamanyu Chakrabarty	Assessing the correlation between fatty acid composition of biodiesel with the fuel property using artificial intelligence and optimization	Environmental Progress & Sustainable Energy	Volume:40 Issue No:3 Page No:e13554 Year:2021 Month: May
Ganta Upendar, Sunita Singh, Jitamanyu Chakrabarty, Kartik Chandra Ghanta, Md Shahnawaz, Sandip Kumar Lahiri, Susmita Dutta	Parametric study on CO ₂ sequestration using cyanobacterial consortium and production of macromolecules: experimentation, modelling and optimization	Water and Environment Journal	Volume:35 Issue No:2 Page No:500-513 Year:2021 Month:May
Biswajit Sarkar, Upasha Sharma, Kalyan Adhikari, Sandip Kumar Lahiri, Edita Baltrėnaitė, Pranas Baltrėnas, Susmita Dutta	Application of Artificial Neural Network and Particle Swarm Optimization for modelling and optimization of biosorption of Lead(II) and Nickel(II) from wastewater using dead cyanobacterial biomass	Journal of the Indian Chemical Society	Volume:98 Issue No:3 Page No:100039 Year:2021 Month:April
Bisheswar Karmakar, Adil Hossain, Bipul Jha, Ramanand Sagar, Gopinath Halder	Factorial optimization of biodiesel synthesis from Castor-Karanja oil blend with methanolisopropanol mixture through acid/base doped Delonix regia heterogeneous catalysis	Fuel	Volume:285 Issue No: Page No:119197 Year:2021 Month:
Subhasish Majee, Gopinath Halder, Dalia Dasgupta Mandal, O.N.Tiwari, Tamal Mandal	Transforming wet blue leather and potato peel into an ecofriendly bio-organic NPK fertilizer for intensifying crop productivity and retrieving valueadded recyclable chromium salts	Journal of Hazardous Materials	Volume:411 Issue No: Page No:125046 Year:2021 Month:
Sumit Hanspal Dhawane, E. G. Al Sakkari, Tarkeshwar Kumar, Gopinath Halder	Comprehensive elucidation of the apparent kinetics and mass transfer resistances for biodiesel production via in-house developed carbonaceous catalyst	Chemical Engineering Research and Design	Volume:165 Issue No: Page No:192-206 Year:2021 Month:
Sumona Show, Prasenjit Chakraborty, Bisheswar Karmakar, Gopinath Halder	Sorptive and microbial riddance of micro-pollutant ibuprofen from contaminated water: A state of the art review	Science of the Total Environment	Volume:786 Issue No: Page No:147327 Year:2021 Month:
Sujoy Chattaraj, Rajeev Upadhyay, Debadatta Mohanty, Tarkeshwar Kumar, Gopinath Halder	Evaluating production behaviour of CBM wells from Raniganj Coalfield through reservoir characterization under constrained field data conditions	Journal of Natural Gas Science and Engineering	Volume:27 Issue No: Page No:103969 Year:2021 Month:



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Sumona Show, Bisheswar Karmakar, Saumyajee Mukherjee, Moirangthem Sarda Devi, Gopinath Halder	Linear and non-linear analysis of Ibuprofen riddance efficacy by Terminalia catappa active biochar: Equilibrium, kinetics, safe disposal, reusability and cost estimation	Process Safety and Environmental Protection	Volume:147 Issue No: Page No:942-964 Year:2021 Month:
Shraboni Mukherjee, Biswajit Kamila, Sayanta Paul, Baisakhi Hazra, Somnath Chowdhury, Gopinath Halder	Optimizing fluoride uptake influencing parameters of paper industry waste derived activated carbon	Microchemical Journal	Volume:160 Issue No: Page No:105643 Year:2021 Month:
Zunipa Roy, Avinash V. Palodkar, Gopinath Halder	Biosorptive efficacy of granular activated carbon in pressure swing adsorption based model cooling system: performance assessment, isotherm modeling and cost evaluation	Environmental Science and Pollution Research	Volume:28 Issue No: Page No:30351- 30365 Year:2021 Month:
Wasi Ur Rahman, Syed Mohd Yahya, Zahid A. Khan, Naseem Ahmad Khan, Gopinath Halder, Sumit H Dhawane	Valorization of waste chicken egg shells towards synthesis of heterogeneous catalyst for biodiesel production: Optimization and statistical analysis	Environmental Technology & Innovation	Volume:22 Issue No: Page No:101460 Year:2021 Month:
Subhajit Dutta, Chanchal Loha, Pradip Kumar Chatterjee, Anup Kumar Sadhukhan, Parthapratim Gupta	Study the particle loss from vortex chamber fluidized bed with different conditions	Advanced Powder Technology	Volume:32 Issue No: Page No:3499–3505 Year:2021 Month:Aug
Rai, A., Sen, A., Sarkar, B., Chakrabarty, J., Mondal, B. K. and Dutta, S.	Phycoremediation of pollutants from secondary treated coke-oven wastewater using poultry litter as nutrient source: a cost-effective polishing technique	Water Science & Technology	Volume:84 Issue No:9 Page No:2406– 2421 Year:2021 Month:November
Sain, M., Pramanik, S., Baltreñaite- Gedienė, E., Ghanta, K.C. and Dutta, S.,	Abatement of cyanide and ammoniacal-N from coke-oven wastewater using natural adsorbents: A comparative study.	Journal of the Indian Chemical Society	Volume:98 Issue No:12 Page No:100230 Year:2021 Month:December
Kumar, A., Shahnawaz, M.D., Sarkar, B., Pal, S. and Dutta, S.	Retention dynamics of multimetal contaminants from pond ash slurry onto fine grained soil.	Journal of the Indian Chemical Society	Volume:98 Issue No:12 Page No:100229 Year:2021 Month:December
Joy, V.M., Dutta, S., Feroz, S. and Devi, G.	Nanophotocatalytic treatment of seawater using TiO ₂ immobilized and suspension system under solar irradiation.	Journal of Water Process Engineering,	Volume:43 Issue No: Page No:102263 Year:2021 Month:October
Sangeetha, B.M., Al Balushi, N.A.M., Devi, M.G., Dutta, S., Anjali, K.P., and AlAbri, M.	Fabrication, characterization and application of polymer-based nanomaterials in the removal of pollutants from industrial effluents	Environmental Technology & Innovation	Volume:23 Issue No: Page No:101748 Year:2021 Month:August

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M.Behera, S.Banerjee, S.Chakraborty, P.Pal, M.Pal, S.K.Tripathy	M.Behera, S.Banerjee, S.Chakraborty, P.Pal, M.Pal, S.K.Tripathy	Reviewing for Colloids and Surfaces A: Physicochemical and Engineering Aspects, Elsevier	Volume: 642 Issue No: Page No:128616 Year:2022 Month:
Zunipa Roy, Sanghamitra Barman, Gopinath Halder	Carbon dioxide sorptive cooling in substitute model refrigeration system for replacing halogenated refrigerants	Environmental Technology & Innovation	Volume:23 Issue No: Page No:101636 Year:2021 Month:
Anoar Ali Khan, Gopinath Halder, Shraboni Mukherjee, Madhumanti Mondal, Sumalatha Boddu	Assessment of algal biomass towards removal of Cr(VI) from tannery effluent: a sustainable approach	Environmental Science and Pollution Research	Volume:29 Issue No: Page No:61856–61869 Year:2022 Month:
Bisheswar Karmakar, Jyoti Ranjan Mishra, Ayan Datta, Kantha Reddy Muthangi, Onkar Nath Tiwari, Gopinath Halder	Transesterifying Madhuca indica and waste cooking oil blends with C1–C3 alcohol mixtures: two -step catalysis using Delonix regia and Mesua ferrea linn supports	Biomass Conversion and Biorefinery	Volume: Issue No: Page No: Year:2021 Month:
Bisheswar Karmakar, Gopinath Halder	Accelerated conversion of waste cooking oil into biodiesel by injecting 2-propanol and methanol under superheated conditions - A novel approach	Energy Conversion and Management	Volume:247 Issue No: Page No:114733 Year:2021 Month:
Bisheswar Karmakar, Saumya Jeet Mukherjee, Swagata Laxmi Sengupta, Gopinath Halder	Recirculating used cooking oil and Nagkesar seed shells in dual-stage catalytic biodiesel synthesis with C1-C3 alcohols	Environmental Science and Pollution Research	Volume:28 Issue No: Page No:58154–58169 Year:2021 Month:
Somnath Chowdhury, Gopinath Halder, Sumit H. Dhawane, Bipul Jha, Sucharita Pal, Ramanand Sagar, Adil Hossain	Biodiesel synthesis from transesterified Madhuca indica oil by waste egg shell-derived heterogeneous catalyst: parametric optimization by Taguchi approach	Biomass Conversion and Biorefinery	Volume:11 Issue No: Page No:1171–1181 Year:2021 Month:
Bishwajit Changmai, Andrew E.H. Wheatley, Ruma Rano, Gopinath Halder, Manickam Selvaraj, Umer Rashid, Samuel Lalthazuala Rokhum	A magnetically separable acidfunctionalized nanocatalyst for biodiesel production	Fuel	Volume:305 Issue No: Page No:121576 Year:2021 Month:
Anoar Ali Khan, Madhumanti Mondal, Gopinath Halder, A. K. Saha	Bioconversion of chemically captured carbon dioxide into microalgal lipids, a potential source of biodiesel: An integrated technique	Fuel	Volume:305 Issue No: Page No:122549 Year:2022 Month:
Bisheswar Karmakar, Samuel Lalthazuala Rokhum, Gopinath Halder	Injecting superheated C1 and C3 alcohol supports towards noncatalytic semi-continuous conversion of Hevea brasiliensis oil into biodiesel	Fuel	Volume:314 Issue No: Page No:122777 Year:2022 Month:



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Debashish Das Sharma, Sumona Show, Sucharita Samanta, Vanitha Kondi, Anoar Ali Khan, Gopinath Halder	Sorptive riddance of enrofloxacin from wastewater: linear and non-linear isotherm and kinetics, safe disposal, and cost analysis	Biomass Conversion and Biorefinery	Volume: Issue No: Page No: Year:2022 Month:
Shraboni Mukherjee, Biswajit Kamila, Sayanta Paul, Baisakhi Hazra, Somnath Chowdhury, Raj Kumar Arya, Sanghamitra Barman and Gopinath Halder	Insight into biosorptive uptake of fluoride by chemically activated biochar: Experimental modelling and parametric optimization	Biomass Conversion and Biorefinery	Volume: Issue No: Page No: Year:2022 Month:
Meenakshi Kumawat, Devyani Thapliyal, George D. Verros, Raj Kumar Arya, Sanghamaitra Barman, Gopinath Halder, Pooja Shandilya	PANI based Hydrogen Sulfide Gas Sensors	Coatings	Volume:12 Issue No: Page No:186 Year:2022 Month:
Bisheswar Karmakar, Sucharita Pal, Konga Gopikrishna, Onkar Nath Tiwari, Gopinath Halder	Injection of superheated C1 and C3 alcohols in non-edible Pongamia pinnata oil for semi-continuous uncatalyzed biodiesel synthesis	Renewable Energy	Volume:185 Issue No: Page No:850-861 Year:2022 Month:
R. Uma Maheswari, Krishnaraj Thirugnanasambantha Ayan Mondal, Gopinath Halder, Jaya Sikder	Enzymatic hydrolysis of structurally upgraded m, lignocellulosic biomass with the aid of humic acid: A case study in a membrane integrated bioreactor	Environment, Development and Sustainability	Volume: Issue No: Page No: Year:2022 Month:
Prasanna Kumar Desu, Bisheswar Karmakar, Vanitha Kondi, Onkar Nath Tiwari, Gopinath Halder	Optimizing formulation of green tea extract-loaded chitosan nanogel	Biomass Conversion and Biorefinery	Volume: Issue No: Page No: Year:2022 Month:
Sumona Show, Riddhi Sarkhel, Gopinath Halder	Elucidating sorptive eradication of ibuprofen using calcium chloride caged bentonite clay and acid activated alginate beads in a fixed bed upward flow column reactor	Sustainable Chemistry and Pharmacy	Volume:27 Issue No: Page No:100698 Year:2022 Month:
Shraboni Mukherjee, Satyajit Panda, Sumona Show, Anoar Ali Khan and Gopinath Halder	Fluoride remediation by Staphylococcus lentus (KX941098) and Providencia vermicola (KX926492) beads in upward low packed bed reactor	Biomass Conversion and Biorefinery	Volume: Issue No: Page No: Year:2022 Month:
Sumona Show, Somnath Chowdhury, Moumita Maji, Priyanka Sarkar, Monidipa Ghosh, Mika Sillanpää, Gopinath Halder	Sorptive elimination of ibuprofen using activated biochar: modelling, non-linear isotherm and kinetic, cost assessment and toxicity analysis	Biomass Conversion and Biorefinery	Volume: Issue No: Page No: Year:2022 Month:

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Shiva Prasad Gouda, Kanokwan Ngaosuwan, Suttichai Assabumrungrat, Manickam Selvaraj, Gopinath Halder, Samuel Lalthazuala Rokhum	Microwave assisted biodiesel production using sulfonic acid-functionalized metal-organic frameworks UiO-66 as a heterogeneous catalyst	Renewable Energy	Volume:197 Issue No: Page No:161-169 Year:2022 Month:
Arpita Das, Da Shi, Gopinath Halder, Samuel Lalthazuala Rokhum	Microwave-assisted synthesis of glycerol carbonate by transesterification of glycerol using <i>Mangifera indica</i> peel calcined ash as catalyst	Fuel	Volume:330 Issue No: Page No:125511 Year:2022 Month:
Kankana Saikia, Kalyani Rajkumari, N. Shaemningwar Moyon, Sanjay Basumatary, Gopinath Halder, Umer Rashid, Samuel Lalthazuala Rokhum	Sulphonated biomass-based catalyst for solketal synthesis by acetalization of glycerol – A byproduct of biodiesel production	Fuel Processing Technology	Volume:238 Issue No: Page No:107482 Year:2022 Month:
Abhilasha Rai; Aniket Sen; Biswajit Sarkar; Jitamanyu Chakrabarty; Bikash Kumar Mondal; Susmita Dutta	Phycoremediation of pollutants from secondary treated coke-oven wastewater using poultry litter as nutrient source: a cost-effective polishing technique	Water Science & Technology	Volume:84 Issue No:9 Page No: 2406–2421 Year:2021 Month:Nov
Mamta Gwala, Abhilasha Rai, Rajib	Treatment of Hydrocarbon-Rich Wastewater to Enhance	Journal of Environmental Engineering	Volume:147 Issue No:12 Page No:04021063 Year:2021 Month:Dec
Ghosh Chaudhuri, Jitamanyu Chakrabarty, Bikash Kumar Mondal, Susmita Dutta	Reusability of Water Using a Novel Indigenous Microalgal-Bacterial Consortium Isolated from Kovalam Beach, India		
Subhajit Dutta, Chanchal Loha, Pradip Kumar Chatterjee, Anup Kumar Sadhukhan, Parthapratim Gupta	Study the particle loss from vortex chamber fluidized bed with different conditions	Advanced Powder Technology	Volume:32 Issue No: Page No:3499–3505 Year:2021 Month:Aug
Shyamal Bhunia, Anup Kumar Sadhukhan, Rohit Kumar Singh & Parthapratim Gupta	Reaction kinetics of coal char in oxy-fuel combustion environment and characterization of reacted char	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	Volume:https://doi.org/10.1080/15567036.2021.1927251 Issue No: Page No: Year:2021 Month:May
Tanushree Ghosh, Jyotiprakash Sarkar, Anup Kumar Sadhukhan, Sanghamitra Barman	Hydrodynamic Studies during Gas-Solid Conveying in a Vertically Upward Converging Riser Tube	Chemical engineering & technology	Volume:45 Issue No:3 Page No:441–448 Year:2022 Month:Mar
Deepshikha Datta, Sumit Mahto, Bimal Das	Parametric optimization of yield percent of chitosan extracted from fish scale (<i>Labeo rohita</i>) through central composite design approach	Indian Journal of Engineering & Materials Sciences	Volume:28 Issue No: Page No:358-373 Year:2021 Month:Jul



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Rashmi Dhurandhar, Sumit Dhawane, Jyoti Prakash Sarkar, Bimal Das	Depicting the role of gas-solid interactions on the hydrodynamics of conversing pneumatic riser	Chinese Journal of Chemical Engineering	Volume:42 Issue No: Page No:190-195 Year:2022 Month:Feb
Prithviraj Gupta, Rohit Kumar Singh, Akshay Patil and Anup Kumar Sadhukhan*	Nonisothermal kinetic analysis of decomposition of $\text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$ and $2\text{ZnCO}_3 \cdot 3\text{Zn}(\text{OH})_2$	Journal of Engg. Research	Volume:DOI:10.36909/jer.15863 Issue No: Page No: Year:2022 Month:Mar
Ankush Yadav, Eldon R. Rene, Mrinal Kanti Mandal, Kashyap Kumar Dubey	Threat and sustainable technological solution for antineoplastic drugs pollution: Review on a persisting global issue	Chemosphere	Volume:263 Issue No: Page No:128285 Year:2021 Month:
Ankush Yadav , Eldon R Rene , Mrinal Kanti Mandal , Kashyap Kumar Dubey	Biodegradation of cyclophosphamide and etoposide by white rot fungi and their degradation kinetics	Bioresource Technology	Volume:17 Issue No: Page No:126355 Year:2021 Month:
M. Sharma, A. Yadav, M. K. Mandal, K. K. Dubey	TiO_2 based photocatalysis: a valuable approach for the removal of pharmaceuticals from aquatic environment	International Journal of Environmental Science and Technology	Volume: Issue No: Page No: Year:2021 Month:
31. Kashyap Dubey, Ankush Yadav; Eldon R Rene; Manisha Sharma; Indu Jatain; Mrinal Kanti Mandal	Valorization of wastewater to recover value-added products: A comprehensive insight and perspective on different technologies	Environmental Research	Volume:214 Issue No: Page No:113957 Year:2022 Month:
Majumdar, S., Mandal, T., Mandal, D. D	Comparative performance evaluation of chitosan based polymeric microspheres and nanoparticles as delivery system for bacterial β -carotene derived from <i>Planococcus</i> sp. TRC1	International Journal of Biological Macromolecules	Volume:185 Issue No: Page No:384-397 Year:2022 Month:
Kannaujiya, M. C., Kumar, R., Mandal, T., & Mondal, M. K.	Experimental investigations of hazardous leather industry dye (Acid Yellow 2GL) removal from simulated wastewater using a promising integrated approach	Process Safety and Environmental Protection	Volume:155 Issue No: Page No:444-454 Year:2021 Month:
Hazra, M., Mandal, D. D., Mandal, T., Rao, B. P., & Samaddar, S.	Optimization and characterization of hepatoprotective andrographolide microspheres in the necrotic rat model	Journal of Drug Delivery Science and Technology	Volume:65 Issue No:102679 Page No: Year:2021 Month:
Sharma, A., Mandal, T., & Goswami, S.	Dispersibility and Stability Studies of Cellulose Nanofibers: Implications for Nanocomposite Preparation	Journal of Polymers and the Environment	Volume:29 Issue No:5 Page No:1516-1525 Year:2021 Month:
Pathak, U., Mogalapalli, P., Mandal, D. D., & Mandal, T.	Biodegradation efficacy of coke oven wastewater inherent co-cultured novel sp. <i>Alcaligenes faecalis</i> JF339228 and <i>Klebsiella oxytoca</i> KF303807 on phenol and cyanide—kinetic and toxicity analysis	Biomass conversion and biorefinery	Volume: Issue No: Page No:0001-0016 Year:2021 Month:

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Ranjan, J., Joshi, V., Mandal, T., & Mandal, D. D.	Ecotoxicological risk assessment of pentachlorophenol, an emerging DBP to plants: evaluation of oxidative stress and antioxidant responses.	Environmental Science and Pollution Research	Volume: Issue No: Page No:0001-0012 Year:2021 Month:
Kannaujiya, M. C., Prajapati, A. K., Mandal, T., Das, A. K., & Mondal, M. K.	Extensive analyses of mass transfer, kinetics, and toxicity for hazardous acid yellow 17 dye removal using activated carbon prepared from waste biomass of <i>Solanum melongena</i>	Biomass Conversion and Biorefinery	Volume: Issue No: Page No:0001-0019 Year:2021 Month:
Sharma, A., Mandal, T., & Goswami, S	Fabrication of cellulose acetate nanocomposite films with lignocellulosic nanofiber filler for superior effect on thermal, mechanical and optical properties.	Nano-Structures & Nano-Objects	Volume:25 Issue No:100642 Page No: Year:2021 Month:
Ranjan, J., Mandal, T., & Mandal, D. D	Mechanistic insight for DBP induced growth inhibition in <i>Vigna radiata</i> via oxidative stress and DNA damage.	Chemosphere	Volume: Issue No: Page No: Year:2021 Month:
Jhunjhunwala, A., Pathak, U., Sarkar, K. K., Majee, S., Mandal, D. D., & Mandal, T.	Removal of levosulpiride from pharmaceutical wastewater using an advanced integrated treatment strategy comprising physical, chemical, and biological treatment.	Environmental Progress & Sustainable Energy	Volume:40 Issue No:1 13482 Page No: Year:2021 Month:
Majee, S., Halder, G., Mandal, D. D., Tiware, O. N., & Mandal, T.	Transforming wet blue leather and potato peel into an eco-friendly bioorganic NPK fertilizer for intensifying crop productivity and retrieving value-added recyclable chromium salts.	Journal of Hazardous Materials	Volume:411 Issue No:125046 Page No: Year:2021 Month:
Anoar Ali Khan, Sumalatha Boddu, Gopinath Halder	Sustainable removal of Cr(VI) from wastewater by <i>Peltophorum pterocarpum</i> leaf powder	Materials Today: Proceedings	Volume:57 Issue No:4 Page No:1585-1592 Year:2022 Month:
Rohit Kumar Singh, Biswajit Ruj, Anup Kumar Sadhukhan & Parthapratim Gupta	Conventional pyrolysis of Plastic waste for Product recovery and utilization of pyrolytic gases for carbon nanotubes production	Environmental Science and Pollution Research	Volume:29 Issue No:14 Page No:20007–20016 Year:2022 Month:Mar
Deepshikha Datta, Sumit Mahato, Bimal Das	Biodegradability and Property Assessment of different categorised polymeric films	Materials Today: Proceeding	Volume:43 Issue No:2 Page No:2014-2024 Year:2021 Month:Apr
Deepshikha Datta , Aditya Shetty, Bimal Das	Comparative analysis of the quantity and quality of both synthetic and biodegradable films on kitchen waste	Materials Today: Proceeding	Volume:57 Issue No:4 Page No:1798-1804 Year:2022 Month:Jan
Prabhakar, A., Sadhukhan, A.K., Gupta, P.	Experimental and modelling studies on combined pyrolysis and gasification of large coal particle in steam and CO ₂ ambience	Chemical Papers	Volume:75 Issue No:6 Page No:2907-2927 Year:2021 Month:Jun



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Sayantan Sarkar, Deepshikha Datta and Bimal Das	Advance recovery approach for efficient recovery of waste lubricating oil by different material formulations	Materials Today: Proceeding	Volume:49 Issue No:5 Page No:1891-1898 Year:2021 Month:Sep
Deepshikha Datta, Chitrita Banerjee, Gopinath Halder, Sumit H. Dhawane	Elucidating enhanced biodegradability of starch blended polyolefinic sheet by physico-mechanical and thermal property assessment	Materials Today: Proceedings	Volume:49 Issue No:2 Page No:464-472 Year:2021 Month:

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Author(s) Name	Paper Name	Journal Name	Others Info
Payel Mondal, Anup Kumar Sadhukhan*, Amit Ganguly, Parthapratim Gupta	Production of Blending Quality Bioethanol from Broken Rice: Optimization of Process Parameters and Kinetic Modeling	Applied Biochemistry and Biotechnology	Volume:doi.org/10.1007/s12010-022-03858-z Issue No: Page No: Year:2022 Month:Feb
Shyamal Bhunia, Anup Kumar Sadhukhan, Rohit Kumar Singh & Parthapratim Gupta	Reaction kinetics of coal char in oxy-fuel combustion environment and characterization of reacted char	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	Volume:https://doi.org/10.1080/15567036.2021.1927251 Issue No: Page No: Year:2021 Month:May
Payel Mondal, Anup Kumar Sadhukhan*, Amit Ganguly, Parthapratim Gupta	Production of Blending Quality Bioethanol from Broken Rice: Optimization of Process Parameters and Kinetic Modeling	Applied Biochemistry and Biotechnology	Volume:https://doi.org/10.1007/s12010-022-03858-z Issue No: Page No: Year:2022 Month:Feb
Gao, C., Xin, H., Yang, S., Li, Z., Liu, S., Xu, B., Zhang, T., Dutta, S. and Tang, Y.,	Journal of Environmental Engineering and Landscape Management	Journal of Environmental Engineering and Landscape Management,	Volume:30 Issue No:2 Page No:284–300 Year:2021 Month:July

4.5.17 Journal: Published in Others in 2021-2022

Author(s) Name	Paper Name	Journal Name	Others Info
Wasi Ur Rahman, Abu Mustafa Khan, Abdul Hakeem Anwer, Bisheswar Karmakar, Gopinath Halder	Parametric optimization of calcined and Zn-doped waste egg-shell catalyzed biodiesel synthesis from Hevea brasiliensis oil	Energy Nexus	Volume:6 Issue No: Page No:100073 Year:2022 Month:
Sandip Mondal, Kaustav Aikat, Gopinath Halder	Sorptive uptake of Ranitidine hydrochloride by Parthenium hysterophorus based chemically treated N-biochar in static bed continuous flow system	Results in Surfaces and Interfaces	Volume:8 Issue No: Page No:100071 Year:2022 Month:

4.5.18 Conference: Published in 2021-2022 DOI/ISBN

Author(s) Name	Paper Name	Conference Name	Others Info
Deepshikha Datta, Chitrita Banerjee, Gopinath Halder, Sumit H. Dhawane	Elucidating enhanced biodegradability of starch blended polyolefinic sheet by physico-mechanical and thermal property assessment	International Conference on Advancement in Materials, Manufacturing and Energy Engineering (ICAMME-2021)	DOI/ISBN:https://doi.org/10.1016/j.matpr.2021.02.546 Volume: Issue No: Page No:464-472 Year:2021 Month:Apr Presenter:CO-AUTHOR

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Anoar Ali Khan, Sumalatha Boddu, Gopinath Halder	Sustainable removal of Cr(VI) from wastewater by Peltophorum pterocarpum leaf powder	International Chemical Engineering Conference 2021 (100 Glorious Years of Chemical Engg)	DOI/ISBN:https://doi.org/10.1016/j. matpr.2021.12.174 Volume: Issue No: Page No:1585-1592 Year:2021 Month:Sep Presenter:CO- AUTHOR
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4.5.19 Conference: Published in Others in 2021-2022

Author(s) Name	Paper Name	Conference Name	Others Info
Mrinal Kanti Mandal	Photo-catalytic membrane separator-reactor for cleaning persistent contaminants in waste water	International Conference BRICS NUs: Water Resources and Pollution Treatment [WRPT21]	DOI/ISBN: xx Volume: Issue No: Page No: Year:2021 Month:Jul Presenter:SELF

4.5.20 Books Authored

Author Name	Co-Author	Title of the Book	Title of the Chapter	Publication Details
Parimal Pal		Membrane-based Technologies for Environmental Pollution Control		Publisher: Elsevier Publication Date: 2020-1008
Parimal Pal		Industrial Water Treatment Process Technology		Publisher: Elsevier Publication Date: 2017-0101
Parimal Pal		Groundwater Arsenic Remediation: Treatment Technology & Scale Up		Publisher: Elsevier Publication Date: 2015-0701
S.Chakraborty, J.Nayak, P.Chakraborty, P.Pal, B.Ruj.		Nanomaterials for CO2 Capture Storage, Conversion and Utilization	Chapter-2: Nanomaterials for CO2 Capture	Publisher: Elsevier Publication Date: 2021-0401
Parimal Pal & Ramesh Kumar , Publication: February 2022		Sustainable Separation Engineering: Materials, Techniques and Process Development	Membrane-enabled Sustainable production of Bio-fuels	Publisher: Elsevier Publication Date: 2022-0202
Sandip Kumar Lahiri	Rhythm Aich, Annasha Dey,	Interdisciplinary Research in Technology and Management	Optimization of High Density Polyethylene (HDPE) Reactor Using Artificial Intelligence	Publisher: CRC Press Publication Date: 2021-1031
Sandip Kumar Lahiri	Sucharita pal	Interdisciplinary Research in Technology and Management	Artificial Intelligence based Modelling and MultiObjective Optimization of Commercial Ethylene Oxide Reactor	Publisher: CRC Press Publication Date: 2021-1031



Author Name	Co-Author	Title of the Book	Title of the Chapter	Publication Details
Sandip Kumar Lahiri	Prashanna Sharma, Boyina Venkata Akhil	Interdisciplinary Research in Technology and Management	Design Optimization of Heat Exchanger by Old and New Generations Metaheuristic Optimization Algorithms: Insights and Comparisons	Publisher: CRC Press Publication Date: 2021-1031
Sushovan Sen	Abhilasha Rai, Jitamanyu Chakrabarty, Sandip Kumar Lahiri, Susmita Dutta	Algae	Parametric Modeling and Optimization of Phycoremediation of Cr (VI) Using Artificial Neural Network and Simulated Annealing	Publisher: Springer, Singapore Publication Date: 2021-05-01
Gopinath Halder	Bisheswar Karmakar	Biodiesel Production: Feedstocks, Catalysts, and Technologies	Green Technologies in Valorization of Waste Cooking Oil to Biodiesel	Publisher: Wiley- Blackwell Publication Date: 2022-0315
Gopinath Halder	Sarkar G.S., Rathi A., Basu S., Arya R.K., Barman S	Advanced Industrial Wastewater Treatment and Reclamation of Water: Environmental Science and Engineering	Removal of Endocrine- Disrupting Compounds by Wastewater Treatment	Publisher: Springer Publication Date: 2022-0214
Das, B.	Sarkar, S., Datta, D., Deepak, K.S.,	Advancement in Materials, Manufacturing and Energy Engineering	Revivification of Spent Lubricating Oil by Ecofriendly Extraction Flocculation Method	Publisher: Springer, Singapore Publication Date: 2021-05-24
x	Punit Kumar, Mrinal Kanti Mandal, Supriya Pal, Hirok Chaudhuri, Kashyap Kumar Dubey	x	Membrane bioreactor for the treatment of emerging pharmaceutical compounds in a circular bioeconomy	Publisher: x Publication Date: 2021-07-21
x	ManishaSharma, AnkushYadav, ShaileshPandey, SupriyaPal, HirokChaudhuri, SandipChakrabarti, Kashyap KumarDubey	x	Wastewater treatment and sludge management strategies for environmental sustainability in Circular Economy and Sustainability	Publisher: Elsevier Publication Date: 2021-0505
D.D.Mandal	S.Majumdar, S.Dey, S.Dutta, T.Mandal	Advances in Bioprocess Engineering and Technology	Utilization of Low-Cost Fatty Acid Sources by Bacterial Isolate for Improved Production of Valuable Prodigiosin	Publisher: Springer Publication Date: 2021-0823

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4.5.21 Seminars, Summer/Winter Schools, Short Term Courses Attended

Name of the Programme	Organized By	From Date	To Date	Organizing Country
11th International Conference on 'Sustainable Waste Management and Circular Economy and IPLA Sustainable Global Forum 2021	International Society of Waste Management, Air and Water, J.U. Kolkata	2021-12-01	2021-12-04	India
Nano Era: Nanotechnology for Global Sustainability	Amity University, Noida, India	2021-06-07	2021-06-11	India
Nanotechnology: Present advancements and future prospects	Amity University, Noida, India	2021-01-18	2022-01-22	India
How to Get Published Author Workshop	IOP Publishing	2021-07-28	2021-07-28	India
Advanced Hybrid Materials for Sustainability	NIT Durgapur	2021-11-26	2021-11-28	India
ORIENTATION Session on IIC 4.0 and Features	Innovation Cell, Ministry of Education	2022-01-24	2022-01-24	India
e-Symposium on Building Innovation and Entrepreneurial Ecosystem in Educational Institutions	Innovation Cell, Ministry of Education	2022-01-11	2022-01-12	India
International Chemical Engineering Conference 2021	NIT Jalandhar(India)	2021-09-16	2021-09-20	India
CHEMCON 2021	IIT Delhi	2021-12-27	2021-12-30	India
CUCheAA Symposium 2021	Calcutta University (Chemical Engineering Department)	2021-12-17	2021-12-19	India
International Conference BRICS NUs: Water Resources and Pollution Treatment [WRPT21]	NITD Online	2021-07-06	2021-07-08	India
International Society of Waste Management: Seminar	Jadavpur University	2021-06-30	2021-06-30	India

4.5.22 Ph.D. Supervisor

Topic Name	Scholar	Supervisor	Status	Status Date
Sustainable energy resource utilization strategy	Iman GhoshDastidar	Prof.P.Pal & Prof.M.Roy(DMS)	ONGOING	2021-02-10
Study of Bubble and Droplet Dynamics at Different Length and Time Scale	Shilpi Chatterjee	Prof. K.C.Ghanta & Dr. Abhiram Hens	DEGREE AWARDED	2022-03-22
Hydrodynamics and Erosion Studies for Pneumatic Conveying	Sudhanshu Mishra	Prof. K.C.Ghanta, Prof. A.N.Mullick & Prof. S.L.Sinha	DEGREE AWARDED	2021-11-29
Hydrodynamics and Thermal Study on Two Phase Flow	Prantik Mandal	Prof. K.C.Ghanta & Dr. Sandip Kumar Lahiri	ONGOING	2022-03-31
Treatment of Coke Oven Waste Water Using Hybrid Technology	Sabyasachi Pramanik	Prof. K.C.Ghanta & Prof. Susmita Dutta	ONGOING	2022-03-31



Topic Name	Scholar	Supervisor	Status	Status Date
Bioremoval of Heavy Metals from Industrial Effluent using Algae and Cyanobacteria	Padma Seragadam	Prof. Susmita Dutta, Prof. K.C.Ghanta & Prof. B. Srinivas	ONGOING	2022-03-31
Treatment of Industrial Wastewater	Bulti Kandar	Prof. K.C.Ghanta & Prof. Susmita Dutta	ONGOING	2022-03-31
Development of Nanomaterial based Biodegradable Food Packaging Materials	Paulami Banerjee	Rajib Ghosh chaudhuri	ONGOING	2022-03-31
Photocatalytic water splitting to produce green energy hydrogen	Sayantan Adak	Mrinal Kanti Mandal, Rajib Ghosh Chaudhuri	ONGOING	2022-03-31
Solar driven desalination process to develop alternate source of fresh water	Sinu Sanghramita	Rajib Ghosh Chaudhuri, Abhiram Hens	ONGOING	2022-03-31
Application of Artificial Intelligence in chemical process industry	Somnath Chowdhury,	Dr sandip Kumar Lahiri, Dr Abhiram Hens	ONGOING	2022-03-31
Process modeling and optimization in chemical process industry	Somasish Saha,	Dr sandip Kumar Lahiri, Dr Abhiram Hens	ONGOING	2022-03-31
Study of bubble and droplet dynamics at different length and time scale	Shilpi Chatterjee	Dr. A. Hens and Prof. K. C. Ghanta	DEGREE AWARDED	2022-03-22
Computational Study of boiling heat transfer	Indradev Kumar	Dr. A. Hens and Dr. S. K. Lahiri	ONGOING	2022-03-31
Experimental Study of Pressure Swing Adsorption Refrigeration System based on Activated Carbon-Gas towards replacement of Halogenated Refrigerants	Zunipa Roy	Gopinath Halder	DEGREE AWARDED	2021-09-27
Studies on Formulation and Production of Cost Effective Bio-Organic Fertilizer derived from Industrial and Agricultural waste Materials	Subhasish Majee	Gopinath Halder, Tamal Mandal, N. K. Rathinam	DEGREE AWARDED	2021-10-01
Chemical Absorption Based Post Combustion Carbon Dioxide Capture	Sirshendu Banerjee	Dr Bikash Kumar Mondal and Dr Bimal Das	ONGOING	2022-03-31
Carbon Dioxide Capture and Sequestration Through Micro-Algal Route	Sukhen Das	Dr Bikash Kumar Mondal	ONGOING	2022-03-31
Reclamation of Spent Lubricating Oil Using Environment-Friendly Method	Sayantan Sarkar	Dr Bimal Das and Dr Bikash Kumar Mondal	ONGOING	2022-03-31
Ethanol production from waste starchy biomass and its utilization	Payel Mondal	Prof. Anup kumar Sadhukhan, Dr. Amit Ganguly, Prof. Parthaprtim Gupta	ONGOING	2022-03-31
Upcycling Agricultural Solid waste into heterogenous catalyst for degrading agricultural wastewater	Arunava Chatterjee	Tamal Mandal, Sirshendu Dey	ONGOING	2022-03-31
Experimental investigation on formulation and production of cost-effective bio-organic fertilizer derived from waste material.	Subhasish Majee	Tamal Mandal, N.K. Rathinam	DEGREE AWARDED	2021-07-30

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Topic Name	Scholar	Supervisor	Status	Status Date
Investigations on the polymer degradation using cyanobacteria and its utilization as a biofertilizer	Rwiddhi Sarkhel	Parthapratim Gupta, Tamal Mandal	ONGOING	2022-03-31
Synthesis, characterization and application of graphene based nano-composite membranes in purification of contaminated aqueous solutions	Madhubanti Pal	Dr. Mrinal Kanti Mandal, Prof. Tapan Kanti Paine	DEGREE AWARDED	2018-06-26
An Integrated Membrane System for Destruction of Antineoplastic Drugs in Hospital Waste Water	Shailesh Kumar Pandey	Dr Mrinal Kanti Mandal, Prof. P. Pal, Dr K. K Dubey	ONGOING	2022-03-31
Study of degradation and ecotoxicity of anti-neoplastic (parent and degraded) compounds from urine sample of cancer patients/hospital aqueous waste using Fungi	Ankush Yadav	Dr. Mrinal Kanti Mandal, Dr K. K. Dubey	DEGREE AWARDED	2022-06-21
Modeling and experimental investigation on pyrolysis and gasification of biomass	Biswajit Kamila	Anup kumar Sadhukhan, Parthaprtim Gupta	ONGOING	2022-03-31
Studies on Carbon dioxide Physisorption behaviour of Zeolite granules during Pneumatic Transport in Converging and Uniform Risers	Tanushree Ghosh	Anup Kumar Sadhukhan, Jyoti Prakas Sarkar	ONGOING	2022-03-31
H ₂ Production using Catalytic thin film reactor	Sayantan Adak	Dr Mrinal Kanti Mandal, Dr. Rajib Ghosh Chaudhary	ONGOING	2022-03-31
Synthesis of heterogeneous photocatalyst for degradation of organic contaminants in waste water	Kankana Seal	Dr Mrinal Kanti Mandal, Dr Soumen Basu	ONGOING	2022-03-31
Catalytic Treatment of Polyolefin waste for recovery of fuel oil & its application	Ravindra Kumar	Anup Kumar Sadhukhan and Dr. Biswajit Ruj	ONGOING	2022-03-31
Modeling And Experimental Investigation On Pyrolysis And Gasification Of Biomass Modeling and experimental investigation on pyrolysis and gasification of biomass	Biswajit Kamila	Parthaprtim Gupta, Anup kumar Sadhukhan,	ONGOING	2022-03-31
Ethanol production from waste starchy biomass and its utilization	Payel Mondal	Anup kumar Sadhukhan, Amit Ganguly, Parthaprtim Gupta	ONGOING	2022-03-31
Thermal Treatment of Plastic Wastes and Recovery of Value-Added Products	Ankita Mukherjee	Parthapratim Gupta, Biswajit Ruj, Anup Kumar Sadhukhan	ONGOING	2022-03-31
Studies On The Treatment Of Industrial Wastewater By Adsorption Techniques Using Palm Seed Charcoal As Adsorbent In An Inverse Fluidized Bed	Karunya Sakhile	J. P. Sarkar, Parthapratim Gupta, Sk. Feroz	ONGOING	2022-03-31



Topic Name	Scholar	Supervisor	Status	Status Date
Investigations on the degradation of polymer using cyanobacteria (Anabaena & Nostoc) and its utilization as a biofertilizer	Rwiddhi Sarkhel	Parthapratim Gupta, Tamal Mandal	ONGOING	2022-03-31
REMOVAL OF ORGANIC POLLUTANTS FROM SEAWATER USING SOLAR NANO PHOTOCATALYSTS	M. J. Varghese Roll No. 15/CHE/1507	Prof. Susmita Dutta and Professor S. Feroz	SUBMITTED	2022-07-06
Removal of fluoride from groundwater using naturally available low cost materials	Bhaskar Bishayee Roll No. 15/CHE/1509	Prof. susmita Dutta and Dr. Biswajit Ruj, CMERI, Durgapur	ONGOING	2022-03-31
Bioremoval of heavy metals from Industrial Effluent using algae and cyanobacteria	Padma Seragadam Roll No. 16/CHE/1505	Prof. Susmita Dutta, Prof. K. C. Ghanta, Dept. of Chemical Engineering, NIT Durgapur Prof. (Dr.) B. Srinivas, Gayathri Vidya Parisad College of Engg, Vishakapatnam	ONGOING	2022-03-31
Adsorptive Removal of Phenol and Cyanide from Wastewater	Mr. Sabyasachi Pramanik Roll No.: 13/ChE/1501	Prof. K. C. Ghanta, Dept. of Chemical Engineering, NIT Durgapur and Prof. Susmita Dutta	ONGOING	2022-03-31
Seaweed Mediated Synthesis of Nanoparticles: Its Characterization and Application	K. P. Anjali Roll No. 16/CH/1502	Prof. Susmita Dutta and Dr. M. Geetha Devi, Caledonian College of Engg, Oman	SUBMITTED	2022-07-06
Treatment of industrial wastewater using nanomaterials	B.M. Sangeetha Roll No. 16/CH/1501	Prof. Susmita Dutta and Dr. M. Geetha Devi, Caledonian College of Engg, Oman	ONGOING	2022-03-31
Phycoremediation of heavy metals from simulated ash pond water	Biswajit Sarkar Roll No.: 17CH1102	Prof. Susmita Dutta and Dr. S. K. Lahiri	ONGOING	2022-03-31
Tertiary treatment of coke-oven wastewater through microbial route as a polishing step	Abhilasha Rai Roll No.: 17CH1102	Prof. Susmita Dutta and Dr. Jitamayu Chakrabarty, Department of Chemistry, NIT Durgapur	DEGREE AWARDED	2022-03-07
Treatment of Refinery Wastewater	Bulti Kandar Roll No. 20CH1104	Prof. K. C. Ghanta and Prof. Susmita Dutta	ONGOING	2022-03-31
Treatment of Slaughter house wastewater	Arnab Sau Roll No. 21CH1101	Prof. Susmita Dutta and Prof. K. C. Ghanta	ONGOING	2022-03-31

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4.5.23 Ongoing Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Amount (in Rs.)	Starting Year
Photo-Therm: Solar Converted Thermal Energy Harvesting Mangrove and Composite Layer Mechanistic Photothermal Material in Interfacial Water Evaporator-Collector Desalination System to Potable Water	Rajib ghosh Chaudhuri, Mrinal Kanti Mandal, Abhiram Hens	DST, GoI	4497378.0	2021
Development of guidelines to adopt the process of height increment of overburden	Dr. Supriya Pal, Dr. Rajib Ghosh Chaudhuri, Dr.	National Jute Board A Statutory Body, Ministry of Textiles, GoI.	7172264.0	2021
dumps at open cast coal mines in India using jute-geotextile as reinforcing material	Mrinal K Mandal, Dr. Hirak Chaudhuri			
Nanotechnological intervention on jutegeotextile to adapt long term sustainability and enhanced durability for its cost-effective and wide application in flexible pavement systems	Dr. Supriya Pal, Dr. Rajib Ghosh Chaudhuri, Dr. Mrinal K Mandal, Dr. Hirak Chaudhuri	National Jute Board A Statutory Body, Ministry of Textiles, GoI.	6952264.0	2021
Solar Converted Thermal Energy Harvesting Mangrove and Composite Layer Mechanistic Photo-thermal Material in Interfacial Water Evaporator-Collector Desalination System to Potable Water	Dr. R Ghosh Chaudhuri, Dr. A. Hens, Dr. M. K Mandal	DST (GoI)	4495000.0	2021
Microwave-Irradiated Continuous Biodiesel Production under Subcritical Condition towards Fuel Performance Assessment and Glycerol Valorization	Prof. Gopinath Halder	Department of Science and Technology, Govt. of India	4075764.0	2022
Development of Bio-packaging film by the dispersion of potato peel starch and waste rice husk ash into recycled polymer matrix	Dr. Deepshikha Datta, Bimal Das	SERB-DST	28.74	2022
Centre for Technological Excellence in Water Purification	Tamal Mandal, Sirshendu Dey	DST WTI	58.44	2019
Department of infrastructure development	Tamal Mandal & other faculties of department	DST FIST	65.0	2016
Environmental geochemistry and treatment of organic pollutants in aquatic systems in the selected areas of China, India and Russia.	Dr S Pal, Dr. Mrinal Kanti Mandal , Dr H Chaudhuri	DST- Govt. of India, under BRICS Calls	5000000.0	2019
Nanotechnological intervention on jute-geotextile to adapt long term sustainability and enhanced durability for its cost-effective and wide application in flexible pavement systems	Dr S Pal, Dr. Mrinal Kanti Mandal , Dr H Chaudhuri, Dr Rajib Ghosh Chaudhuri	National Jute Board, Ministry of Textiles, GoI	6952000.0	2021
Development of guidelines to adopt the process of height increment of overburden dumps at open cast coal mines in India using jute-geotextile as reinforcing material	Dr S Pal, Dr. Mrinal Kanti Mandal , Dr H Chaudhuri, Dr Rajib Ghosh Chaudhuri	National Jute Board, Ministry of Textiles, GoI	7172000.0	2021



Title of the Project	Investigator	Sponsor Authority	Amount (in Rs.)	Starting Year
Solar Converted Thermal Energy Harvesting Mangrove and Composite Layer Mechanistic Photo-thermal Material in Interfacial Water Evaporator-Collector Desalination System to Potable Water	Dr Rajib Ghosh Chaudhuri, Dr. Mrinal Kanti Mandal , Dr A Hens	DST- Govt. of India under SERD -2019	4500000.0	2021
Forward-osmosis integrated membrane distillation coupled with solar- photocatalytic reactor for textile wastewater treatment: A sustainable approach for commercial exploitation	Jaya Sikder (PI)	DST-BT, WB	1465800.0	2019
Reclamation of Steel Industry Wastewater through Phycoremediation Technique Using Microalgae and Assessment of Biofuel Production from Algal Biomass	Prof. Susmita Dutta, Dr. J. Chakrabarty and Prof. P. Bhattacharya	IMPRINT 1 (MHRD and NITD)	4511520.0	2017

4.5.24 Completed Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Complete Year
Targeting the elimination of antineoplastic compounds in hospital wastewaters: novel frontiers in sustainable treatment	Prof.P.Pal & Dr..M.K.Mondal	DBT, GOI	2021
Production and purification of L-Glutamic Acid in Membrane-integrated Hybrid Plant (as mentor)	Dr.R.Kumar, A.K.Ghosh & Prof.P.Pal	DST, GOI	2018
Production of Lactic acid in Membrane-Integrated hybrid reactor system-A green technology approach	Prof.P.Pal	DST, GOI	2012
Failure Analysis of BOD Plant of Durgapur Steel Plant, SAIL	Prof.P.Pal (PI)	Durgapur Steel Plant	2010
Dispersion of modified Starch onto Polymer matrix towards Enhancement of its Biodegradability to reduce the Solid Waste Generation	Prof. Gopinath Halder	Department of Science and Technology, Govt. of West Bengal	2021
Process Intensification of Biodiesel Synthesis from Nonedible Oil via Superheated Propanol Injection Technique	Prof. Gopinath Halder	Department of Science and Technology, Govt. of India	2021
Optimization on Defluoridation of Contaminated Groundwater by Bioremediation and Biosorption in Integrated Packed bed Reactor	Prof. Gopinath Halder	Department of Biotechnology, Government of West Bengal	2018
Grafting of the Fire Retardant Polymer on Rice (Oryza Sativa) straw for Enhancing the Durability of Hay-roofed Houses in the Poor people Dominated Backward Rural Areas	Prof. Gopinath Halder	Department of Science and Technology, Govt. of West Bengal	2017
Studies on Upgrading of Water Quality in Coal mining areas of Meghalaya and Eastern Coal mines by Chemisorption and Bioremediation towards Mitigation of Unscientific Coal mining	Prof. Gopinath Halder, Prof. Tamal Mandal, Dr. Jaya Sikder	Department of Biotechnology, Government of India	2017
Isolation and Characterisation of Microorganisms/Microalgae from North eastern region and Eastern coal mines for biosequestration of Carbon dioxide and its utilization towards generation of biofuel	Prof. Gopinath Halder, Dr. M. K. Mandal	Department of Biotechnology, Government of India	2016
Synthesis of Bioethanol from Sugarcane Bagasse in a Membrane-Integrated Hybrid System - A Green Technology Approach	Dr. Jaya Sikder, Prof. Gopinath Halder	Department of Biotechnology, Government of India	2017

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Title of the Project	Investigator	Sponsor Authority	Complete Year
Study on Micro-porous Characteristics of Activated Carbon for the Development of Pressure Swing Adsorption Refrigeration Cycle Employing the Working pair Activated carbon-Nitrogen	Prof. Gopinath Halder	Department of Science and Technology, Govt. of India	2014
Training SC/ST Community in Selected Rural Areas of Durgapur on Organic Agriculture and Biofertilizer production'	Tamal Mandal	DST NRDMS	2017
Studies on upgrading of water quality in coal mining area of Meghalaya and Eastern Coal mines by Chemisorption and Bioremediation towards mitigation of unscientific coal mining	Tamal Mandal	DBT	2014
Development of a green technology for improvement of paper quality and to minimize the generation of genotoxic effluents.	Tamal Mandal	DBT	2012
Need assessment survey for Rice mills at Burdwan, West Bengal	Tamal Mandal	NID Ahmedabad	2012
Developing suitable pedagogical methods for various classes, intellectual calibers and research in e-learning	Tamal Mandal	MHRD	2009
Development of suitable bacterial culture and process optimization for chemical and biochemical oxidation of phenol, ammonia, cyanide at BOD Plant of DSP	Tamal Mandal	DSP, SAIL	2007
Molecular modeling on metallo-Leaching proteins: A Biotechnological thrive for the beneficiation of low and marginal grade Ore and Minerals.	Tamal Mandal	MHRD	2002
Hetero-Structured nanocomposite Photo Catalyst with enhanced capability for the selective conversion of CO ₂ to Methanol under Visible Light	Dr. Mrinal Kanti Mandal, Dr S Chakraborti	UGC-DAE Consortium for Scientific Research (UGC-DAE CSR) Kalpakkam Node	2020
Grafting of Fire Retardant Polymer on Rice (Oryza Sativa) Straw for enhancing the durability of Hay-roofed Houses in the Poor People Dominated backward Rural Areas	Dr. Mrinal Kanti Mandal, Prof G Halder	DST-Govt. West Bengal	2013
Isolation and Characterization of Micro-organisms/Micro-algae from North East region and Eastern Coal mines for Bio-Sequestration of CO ₂ and its Utilization towards Generation of Bio-fuel	Dr. Mrinal Kanti Mandal, Prof G Halder, Dr K Gayen	DBT- Govt. of India	2016
Targeting the elimination of antineoplastic compounds in hospital wastewaters: novel frontiers in sustainable treatment	Dr. Mrinal Kanti Mandal, Prof P Pal, Dr K Dubey	DBT-INNO Indigo International Partnership Programme	2019

4.5.25 Testing & Consultancy Services Rendered

Sponsoring Industry / Institute Name	Title of the Project	Total Amount (in Rs.)	Remarks
Scientific Design Company Inc, USA	Ethylene oxide reactor optimization module	1642500.0	Ongoing
Scientific Design Company Inc, USA	Hybrid Optimization Model – Phase 1	2138640.0	Completed on Dec21



4.5.26 Reviews of Manuscripts for Publication in Journal

Reviewer	Name of the Journal	Publisher	Date of Final Review
Parimal Pal	Biochemical Engineering Journal	Elsevier	2021-05-16
Parimal Pal	Environmental Science and Pollution Research	Springer	2021-06-21
Parimal Pal	Journal of Industrial and Engineering Chemistry, Elsevier	Elsevier Science	2021-07-07
Parimal Pal	Biochemical Engineering Journal	Elsevier	2021-07-10
Parimal Pal	Water Research	Elsevier	2021-08-19
Parimal Pal	Environmental Science and Pollution Research	Springer	2021-08-20
Parimal Pal	Environmental Challenges	Elsevier	2021-09-09
Parimal Pal	Chemical Engineering Science	Elsevier	2021-09-09
Parimal Pal	Biochemical Engineering Journal	Elsevier	2021-09-27
Parimal Pal	Journal of Environmental Chemical Engineering	Elsevier	2021-10-07
Parimal Pal	Journal of Cleaner Production	Elsevier	2021-11-29
Parimal Pal	IONIC Liquids	Elsevier	2021-12-08
Parimal Pal	Chemical Engineering Journal	Elsevier	2021-12-08
Parimal Pal	Environmental Chemical Engineering	Elsevier	2022-01-04
Parimal Pal	Separation and Purification Technology	Elsevier	2022-01-04
Parimal Pal	Biochemical Engineering Journal	Elsevier	2022-01-30
Parimal Pal	Journal of Water Process Engineering	Elsevier	2022-02-24
Abhiram Hens	Physics of Fluid	Americal Institute of Physics (AIP)	2021-06-16
Abhiram Hens	Physics of Fluid	Americal Institute of Physics (AIP)	2021-08-02
Abhiram Hens	Physics of Fluids	Americal Institute of Physics (AIP)	2021-09-07
Abhiram Hens	Materials Today	Elsevier	2021-10-17
Abhiram Hens	Materials Today	Elsevier	2022-02-15
Abhiram Hens	Journal of Colloid and Interface Science	Elsevier	2021-08-25
Abhiram Hens	Chemical Engineering Research and Design	Elsevier	2021-12-29

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Reviewer	Name of the Journal	Publisher	Date of Final Review
Gopinath Halder	Journal of Cleaner Production	Elsevier	2021-09-07
Gopinath Halder	Industrial Crops	Elsevier	2021-10-30
Gopinath Halder	Journal of CO2 Utilization	Elsevier	2021-06-02
Gopinath Halder	Biomass and Bioenergy	Elsevier	2021-08-10
Gopinath Halder	Journal of Chemical Technology and Biotechnology	Wiley-Blackwell	2021-06-09
Gopinath Halder	Journal of Environmental Chemical Engg	Elsevier	2021-07-22
Gopinath Halder	Journal of Environmental Management	Elsevier	2021-09-16
Gopinath Halder	Fuel	Elsevier	2021-10-28
Gopinath Halder	Energy Conversion and Management	Elsevier	2021-11-11
Gopinath Halder	Science of Total Environment	Elsevier	2021-11-17
Gopinath Halder	Journal of Science and Technology	Pertanika	2021-12-08
Jaya Sikder	Groundwater for Sustainable Development	Elsevier	2022-04-22
Gopinath Halder	Journal of Indian Chemical Society	Elsevier	2022-03-15
Gopinath Halder	Journal of Water Process Engineering	Elsevier	2021-12-24
Gopinath Halder	Petroleum Science and Technology	Taylor & Francis	2022-01-10
Gopinath Halder	Process Safety and Environmental Protection	Elsevier	2022-01-13
Gopinath Halder	Biomass Conversion and Biorefinery	Springer Nature	2022-01-26
Gopinath Halder	Results in Chemistry	Elsevier	2021-06-21
Gopinath Halder	Renewable Energy	Elsevier	2021-07-13
Gopinath Halder	Reviews in Environmental Science and Bio/Technology	Springer	2021-09-15
Gopinath Halder	Sustainable Chemistry and Pharmacy	Elsevier	2021-10-10
Gopinath Halder	Biofuels	Taylor & Francis	2021-09-17
Gopinath Halder	Desalination and Water Treatment	Taylor & Francis	2021-09-05
Gopinath Halder	SN Applied Science	Springer Nature	2022-01-28
Gopinath Halder	Environmental Science Advances	Royal Society of Chemistry	2022-02-17
Gopinath Halder	Water Environment Research	Wiley	2022-01-15



Reviewer	Name of the Journal	Publisher	Date of Final Review
Gopinath Halder	Energy Advances	Royal Society of Chemistry	2022-02-24
Gopinath Halder	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	Taylor & Francis	2022-03-09
Anup Kumar Sadhukhan	Journal of Biotechnology	Elsevier	2021-06-29
Anup Kumar Sadhukhan	AIChE Journal	Wiley	2021-10-28
Anup Kumar Sadhukhan	Combustion Science and Technology	Taylor & Francis	2021-04-02
Parthapratim Gupta	Biomass Conversion and Biorefinery	Springer	2021-08-27
Susmita Dutta	Bulletin of Materials Science	Springer	2022-01-12
Susmita Dutta	Environmental Science and Pollution Research	Springer	2022-02-19

4.5.27 Participation in National Committees/Visits

Name of the Faculty	Name of the Committee	Place of Visit	From Date	To Date
Sandip Kumar Lahiri	Innovation Ambassador, Innovation Cell, MoE	online	2021-12-01	2022-03-31
Gopinath Halder	National Advisory Committee, International Chemical Engineering Conference on “100 Glorious Years of Chemical Engineering & Technology”	Dr. B. R. Ambedkar National Institute of Technology, Jalandhar	2021-09-17	2021-09-19
Gopinath Halder	National Advisory Committee, International Conference on Green Energy & Sustainable Environmental Technology (GESET-2022)	KIIT Deemed to be University, Bhubaneswar	2022-09-17	2022-09-20

4.5.28 Invited Examiners/Paper-Setters/Board of Studies

Name of the Faculty	Name of the Examination	University/Institute	From Date	To Date
Susmita Dutta	PhD thesis Examination	NIT Raipur	2021-07-01	2021-09-28
Parimal Pal	PhD thesis & PhD viva-voce and PhD defense seminar	Kalinga Institute of Industrial Technology, Bhubaneswar	2022-04-02	2022-04-20
Susmita Dutta	Examiner of PhD Viva-Voce Exam	NIT Raipur	2021-12-22	2021-12-22
Parthapratim Gupta	PhD	NIT Warangal	2021-12-15	2022-04-29
Gopinath Halder	Paper setting: Chemical Process Calculations, B.Tech in Chemical Engg	Vignan University	2022-02-15	2022-02-17
Gopinath Halder	Post-graduate Board of Studies	Burdwan University	2022-01-18	2022-01-19
Gopinath Halder	PhD thesis evaluation: Dilip Mandal (Scholar)	Jadavpur University: Chemical Engg	2021-08-17	2021-08-17

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Name of the Faculty	Name of the Examination	University/Institute	From Date	To Date
Susmita Dutta	M. Tech thesis examination	Jadavpur University	2021-07-29	2021-07-29
Susmita Dutta	PhD Thesis Examination	Jadavpur University	2021-10-16	2021-10-16
Susmita Dutta	PhD Thesis examination	Jadavpur University	2022-03-10	2022-03-10

4.5.29 Invited Expert in Selection Committees

Name of the Faculty	Discipline	University/Institute	From Date	To Date
Gopinath Halder	JRF selection, INDIA H20 project, funded by European Union and DBT, Govt of India: Mechanical Engineering	Jadavpur University	2021-08-10	2021-08-10
Tamal Mandal	Act as Subject expert Faculty Selection Committee members	Jadavpur University	2019-07-18	2019-07-19
Jaya Sikder	Chemical Engineering	Calcutta University	2022-04-12	2022-04-12

4.5.30 Invited Lectures

Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Parimal Pal	Managing Coke wastewater with a Circular Economy Approach	International Conference on Promoting Environmental Technologies for Waste Management and Sustainable Development (WMSD-2021)	KIITS, Bhubaneswar	2021-12-12	2021-11-13
Sandip Kumar Lahiri	Innovation: the new Engine of the century	organized by: IIC, Shree Ramkrishna Institute of Science and Technology, Kolkata	kolkata (Online)	2021-06-25	2021-06-25
Sandip Kumar Lahiri	Innovation: the new mantra	organized by: IIC, Shree Ramkrishna Institute of Science and Technology, Kolkata	Kolkata (Online)	2021-10-29	2021-10-29
Sandip Kumar Lahiri	Innovation: the new Mantra	Sponsored by UGC-Human Resource Development Centre (Formerly UGC-Academic Staff College) and organized by the University of Calcutta 92, Acharya Prafulla Chandra Road, Kolkata 700009	Kolkata	2022-02-16	2022-02-16
Sandip Kumar Lahiri	“Application of Artificial Intelligence in Chemical Engineering”	Sponsored by UGC-Human Resource Development Centre (Formerly UGC-	Kolkata	2022-02-14	2022-02-14
Gopinath Halder	Conversion of Biomass to Biofuel	Faculty Development Program: CWW-2021	MME Department, NIT Durgapur	2021-01-18	2021-01-22



Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Gopinath Halder	A Sustainable Approach towards Replacement of Conventional Petro-fuels and Mitigation of Energy Crisis	UGC Refresher course	Dept of Environmental Science, Burdwan University	2021-04-12	2021-05-04
Gopinath Halder	Emerging Alternative Energy Source: Coal Bed Methane	Online faculty development program	Maulana Azad National Institute of Technology Bhopal	2021-04-26	2021-04-30
Gopinath Halder	Enzymatic Conversion of Solid Waste Feedstock for Biodiesel Production	ATAL faculty development program	NIT Durgapur	2021-06-14	2021-06-18
Gopinath Halder	Transforming Waste Feedstock to Biofuel: Applying Chemical Processes to Achieve Environmental Sustainability	Online faculty development program	Kalinga Institute of Industrial Technology, Bhubaneswar	2021-06-21	2021-06-26
Gopinath Halder	Transforming Waste Feedstock to Wealth	Refresher Course on Sustainable Development in Science and Technology	Calcutta University	2022-02-10	2022-02-25
Jaya Sikder	Holistic approach for Bioethanol production from lignocellulosic biomass	Green Technology and Sustainability - GTS2022	NIT Durgapur	2022-02-21	2022-02-25
Susmita Dutta	Tertiary Treatment of Cokeoven Wastewater through Microbial Route as a Polishing Step	NATIONAL WEBINAR on Current Biotechnological Opportunities in Environmental Management (CBOEM-21)	SRM University	2021-10-06	2021-10-07
Susmita Dutta	Phycoremediation of Pollutants – A Sustainable Technology	ENVIRO WEBTALK – 2021	Lovely Professional University	2021-05-21	2021-05-21

4.5.31 Session Chair/Convenor

Name of the Faculty	Programme	Place	Session	From Date	To Date
Abhiram Hens	International Chemical Engineering Conference 2021	NIT Jalandhar	Technical Session Chair	2021-09-16	2022-09-19

4.5.32 Patents

Title	Inventors	Application Nos	Date of Filing
Low cost portable domestic nanomembrane-based water purifier	Prof.P.Pal & Dr. M.Pal	TEMP/E-1/20286 /2017-KOL 7/6/2017	2017-12-15

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A high flux low energy osmotic system for arsenic removal at low cost	Prof.P.Pal & S.Chakraborty	1003/KOL/2014	2013-09-29
A green process for continuous and direct production of L-glutamic acid	Prof.P.Pal & R.Kumar	962/KOL/2014	2013-09-23
Process For The Isolation Of Polyhydroxyalkanoate And Use Thereof In Enhancing Microbial Electrocatalysis	Prof.P.Pal, Dr. C.Saravanan, Navanietha R.K.	46/KOL/2014	2014-02-14
System and method of production of acetic acid from waste cheese whey through a continuous	Prof.P.Pal	185/KOL/2013	2013-12-18
System & Method of Direct Lactic acid production	Prof.P.Pal	1364/KOL/2011A	2011-10-14
Membrane-integrated Hybrid Treatment System for Arsenic Removal	Prof.P.Pal	766/KOL/2011A	2011-09-22

4.6 Department of Electronics and Communication Engineering

4.6.1 Department at a Glance:

The embryonic formation of the Department of Electronics and Communication Engineering was in the year 1983 with the introduction of an undergraduate course. Situated amidst lush green campus with teak plantations, the Department, over the time, has grown in several dimensions and provides a magnetic ambience in teaching and learning. Apart from the four years B. Tech course the Department also offers two full time M.Tech courses, one in Telecommunication Engineering and another in Microelectronics and VLSI. The Department also offers PhD in several areas. The faculties are engaged in research in diverse topics focusing in Telecommunication, Antenna and Microwave, Microelectronics and VLSI, Signal and Image processing and Computational Systems Biology. It is well equipped with sophisticated laboratories in the areas of VLSI, Signal Processing, Microwave, Antenna and Wireless Communication. The Department has been supported by, SMDP for VLSI, DST-FIST for Wireless Communications and NPMASS for MEMS Research. Sponsored research from research initiation grant as well as DST and SERB have been initiated over the years. The Department has also received fund from TEQIP for its development. There are a significant number of institute research scholars presently carrying out PhD under the supervision of faculties while several part time research scholars are also registered for the PhD program. A large number of PhD has already been produced by the Department. The research strength has been reflected by quality publications of the Department. Faculties of the Department are involved in outreach activities by organizing several short term courses, workshops. Faculty members also have academic collaborations with Universities in and outside India. The Department is committed to impart quality education at undergraduate as well as postgraduate level and promulgate quality research in diverse fields of application of electronics engineering.

4.6.2 Mission & Vision

Mission:

- To produce highly competent and resourceful young engineers who can perform well in varied professions.
- To develop a strong fundamental base which enable students to explore academic and collaborative interactions with industry, academia and research organizations.
- To develop excellent research facilities.

Vision:

- To advance and cater knowledge in the areas of Communication, Signal Processing and VLSI.
- To teach state of the art technologies to meet the growing challenges.
- To carry out research in frontier areas.

4.6.3 Faculty

Name	Designation	Email-id
Bhattacharjee Anup Kumar, PhD	Professor	anup.bhattacharjee@ece.nitdgp.ac.in akbece12@yahoo.com
Kundu Sumit, PhD	Professor (HAG)	sumit.kundu@ece.nitdgp.ac.in sumitkundu@yahoo.com



Mahanti Gautam Kumar, PhD	Professor (HAG)	gkm@ece.nitdgp.ac.in gautammahanti@yahoo.com
Mahapatra Rajat, PhD	Professor	rajat.mahapatra@ece.nitdgp.ac.in
Maji Bansibadan, PhD	Professor	bansibadan.maji@ece.nitdgp.ac.in
Mal Ashis Kumar, PhD	Professor	akmal@ece.nitdgp.ac.in toakmal@gmail.com
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Mandal Sujit Kumar, PhD	Assistant Professor	sujit.mandal@ece.nitdgp.ac.in skmandal2006@gmail.com
Sadhukhan Tapas	Associate Professor	tapas.sadhukhan@ece.nitdgp.ac.in tapasnitd@gmail.com
Mondal, Hemanta Kumar, PhD	Assistant Professor	hemanta.mondal@ece.nitdgp.ac.in, mondal.ece@gmail.com
Ranwa Sapana, PhD	Assistant Professor	sapana.ranwa@ece.nitdgp.ac.in
Chattaraj Nilanjan	Assistant Professor	nilanjan.chattaraj@ece.nitdgp.ac.in

4.6.4 Equipments

Sl. No.	Name of the equipment	Date of Purchase	Amount (Lakhs)
1	DC Power Supply (GW-Instek)	13-03-2022	10
2	Digital Storage Oscilloscope 100 MHz, Keysight	13-03-2022	10
3	Digital Multimeter, 5.5 digit, Keysight	24-03-2022	10

4.6.5 Labs

Sl. No.	Name of Laboratory	Major equipment
1	Electronics Circuit Lab,	Oscilloscope, Function Generator, Multimeter, DC Power Supply
2	Network Lab,	Oscilloscope, Function Generator, Multimeter, DC Power Supply
3	VLSI Lab,	Cadence EDA Tools
4	Digital Electronics Lab,	Oscilloscope, Function Generator, Multimeter, DC Power Supply
5	Communication Lab,	DSO; PAM/PPM/PWM trainer kit; DSB-AM trainer kit; FM trainer kit
6	Electronics System Design Lab	Oscilloscope, Function Generator, Multimeter, DC Power Supply
7	Microprocessor Lab,	Computer, Microprocessors and Microcontrollers Kits
8	Microwave Lab,	Microwave Test Bench, Microwave Sources - Klystron and Gunn Power Supply, Oscillators, Power Meter, VSWR Meters, Antenna Trainer Kits.
9	Microwave and Antenna Research Laboratory,	Available Microwave Circuit and Antenna Trainer Kit Vector Network Analyzer Rohde and Schwarz ZVA 40 Power Meter with Diode and Thermocouple Sensor Rohde and Schwarz
10	Advanced Communication Lab (for PG),	Anechoic Chamber (Partial) till 20 GHz Double ridged Waveguide horn antenna from 1 GHz till 20 GHz Spectrum Analyzer 3 GHz
11	Nano Device Lab	DC, RF Sputtering, Testbed, Chemical vapor deposition

4.6.6 PhD degree awarded till 2021-22

Twelve.

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4.6.7 Any other relevant information

NIL

4.6.8 Specialization

- Microwave and mm Wave Technology
- Signal Processing, VLSI
- Wireless Communication
- Communication
- Smart materials-based devices and Structronic Systems
- Microelectronics and VLSI
- VLSI Design
- Antenna and Microwave Engineering
- Microprocessors, Microcontrollers and Embedded System
- Microelectronics & VLSI
- Electronics and Communication Engineering
- Optimization
- Telecommunication Engg
- Antenna Optimization, Signal Processing
- Computational Biology

4.6.9 Proposed Plan for Research

- Antenna and Microwave Front end Circuit components
- Vehicular communication, millimeter wave
- D2D Communication
- Handoff Management
- Wireless Communication involving IoT
- Cooperative and Cognitive Radio Network
- Neuromorphic Hardware
- In-Memory Computing Architecture
- 3D Technology
- Antenna Array Synthesis using Evolutionary Algorithms
- Array antenna failure detection and Correction
- Millimeter wave channel modelling On-Chip Antenna
- Development of 2D TMD based Gas sensors
- Implementation of all optical logic gates using 2D Photonic Crystals
- Design and optimization of mm wave devices and circuits
- Biomedical Signal processing
- VLSI circuit Optimization
- Machine Learning for Wireless Communication
- Design of Advanced Antenna Arrays for 5G and Future Generation Wireless Communication Systems
- Cancer detection and prevention

4.6.10 Area of Research Interest

- Signal Processing
- VLSI
- Optimization
- Microwave and mmWave Circuits
- Wireless Communication
- Wireless Communication
- Sensors, Actuators, Electronic System Design
- High-performance computing
- Energy-efficient interconnect architectures for manycore systems
- Resistive Memory Devices, HEMT Devices, LDMOS Devices, Sensors
- VLSI Design
- Heterogeneous System Architecture (HSA)
- 3D Technology



- IoT infrastructure for future healthcare and agriculture applications
- Antenna Array Synthesis using Evolutionary Algorithms
- Fabrication and Characterization of On-Chip Antenna
- 2D Materials
- IoT enabled metal oxide based gas sensor
- All-Optical logic gate implementation using 2D Photonic Crystal
- Fabrication of nanosensor based on metal oxide and 2D materials
- Studies of electrical characterization of Heterojunctions of metal oxides and 2d materials
- Wireless Communication
- Antenna Optimization, Signal Processing, Soft Computing
- Analog and Mixed Signal VLSI
- Biological Signal Processing

4.6.11 Institute Industry Collaboration

Collaborating Institute Organization	Areas of collaboration	Collaboration Activities
TCS Research	mm Wave front end circuits and radiating systems	Consultancy mode
TCS	TCS Research Scholar Program	Joint research; PhD guidance
Company Name: Cyrrup Solutions Pvt. Ltd, T-Hub, Catalyst Building, IIIT Campus, Gachibowli, Hyderabad - 500 032, Telangana, India	Neuromorphic Chip Based Development Board for Prototyping of AI Applications	Research and Project proposal. Submitted proposal under TDP, DST
TCS Research	mm Wave Radio Systems	Research and Development on Circuits and Systems
ARM Ltd.	DSP, and SoC Design	Use of Arm University Teaching Resources

4.6.12 Collaboration with Academic and Research Institutions

Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
Institute of Communications Systems, Military University of Technology, Warsaw, Poland	Geometry based stochastic (GBS) channel modelling	A. Chandra	Joint Research, Joint Guest Editor
National Institute of Standards and Technology (NIST), USA	Millimetre wave channel sounding	A. Chandra	Developing a joint IEEE standard
Vellore Institute of Technology	Joint research	Sanjay Dhar Roy, Sumit Kundu	Publication
University of Liverpool, UK	Resistive Memory Device, GaN HEMT	R. Mahapatra	Joint Research Publications
University of Southern Brittany, Lab-STICC, France	Wireless Network-on-Chip	Prof. Jean Phillippe Diguët	Joint Research, Publication and project proposal
IIIT Delhi	Wireless Network-on-Chip	Prof. Sujay Deb	Joint Research, Publication and project proposal
IIIT Guwahati	AI, ML and NoC	Dr. Soumyajit Poddar	Joint Research, Publication and project proposal
IIT Ropar	DRAM Memory Design	Dr. Shirshendu das	Joint Research, Publication and project proposal
IIT Jodhpur	DRAM Memory Design	Dr. Dip Sankar Banerjee	Joint Research, Publication and project proposal

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Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
University of North Texas in Denton, Texas	ML based Biomedical Applications	Prof. Saraju Mohanty	Joint Research, Publication and project proposal
Indian Institute of Technology Jodhpur	Research collaboration based on gas sensors	Dr. Mahesh Kumar, Associate Professor	Book Chapter, Research collaboration
North Eastern Hill University, Shilong	Microwave Circuits	Rowdra Ghatak	Development of Components for Wireless Systems
CSIR-CMERI	Sensors	Rajat Mahapatra	Joint Publication
NIT Warangal	Design of Advanced Antenna Arrays for 5G application	Dr. Gopi Ram	Collaborative research
TCS	System development on Assistive Technology	Dr. Charudatta Jadhav	Project on "Assistive Technology on multimodal disabilities"
CSIR-CMERI, Durgapur	Wireless Sensor Networks	Sanjay Dhar Roy	PhD guidance

4.6.13 Workshops/Seminars Organized

Name of Key Speaker(s)	Name of the Programme	Date of the Programme
David Michelson, Akbar Sayeed, Wilhelm Keusgen, Mohamed-Slim Alouini	Workshop on Terahertz Channels and Systems, IEEE VTC 2021-Spring	2021-04-27
David G Michelson	Workshop on 5G mmWave Channel Measurement, Models & Systems, IEEE VTC 2021-Fall	2021-09-27
Dr. Maidul Islam, Dr. Shri Krishan Rai	Online Workshop on National Education Policy (NEP-2020)	2022-03-21
Dr. Surendra Pal; Dr Tapas Chakravarty; Sri Suman Sinha; Sri Chanchal Chakraborty	Wireless Trends in Transforming Industries	2021-09-28
Dr. Sudhan Majhi	Signal Processing with MATLAB	2021-12-04
Dr. Pradipta patra, Mr. Chandra Mohan Sharma, Dr. Arpan Chattapadhyay	3rd Research Scholar Day	2021-12-28

4.6.14 Innovations and Technology Transfer (Patents filed during)

Title	Inventors	Application Nos	Date of Filing
A system and a method for monitoring and rating alertness remotely	Bej, Debabrata; Kumar Mal, Ashis	2021103518	2021-09-14

4.6.15 Workshops/Seminars Organized

Name of Key Speaker(s)	Name of the Programme	Date of the Programme
David Michelson, Akbar Sayeed, Wilhelm Keusgen, Mohamed-Slim Alouini	Workshop on Terahertz Channels and Systems, IEEE VTC 2021-Spring	2021-04-27
David G Michelson	Workshop on 5G mmWave Channel Measurement, Models	2021-09-27



Dr. Maidul Islam, Dr. Shri Krishan Rai	Online Workshop on National Education Policy (NEP-2020)	2022-03-21
Dr. Surendra Pal; Dr Tapas Chakravarty; Sri Suman Sinha; Sri Chanchal Chakraborty	Wireless Trends in Transforming Industries	2021-09-28
Dr. Sudhan Majhi	Signal Processing with MATLAB	2021-12-04
Dr. Pradipta patra, Mr. Chandra Mohan Sharma, Dr. Arpan Chattapadhyay	3rd Research Scholar Day	2021-12-28

4.6.16 Journal: Published in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
C. Nayak, S. K. Saha, R. Kar, D. Mandal	Optimal Design of Zero-Phase Digital Riesz FIR Fractional Order Differentiator	Soft Computing	Volume:25 Issue No: Page No:42614282 Year:2021 Month:
C. Ziolkowski, J. M. Kelner, J. Krygier, A. Chandra, A. Prokes	Radio channel capacity with directivity control of antenna beams in multipath propagation environment	Sensors (MDPI)	Volume:21 Issue No:24 Page No:1-20 Year:2021 Month:Dec
A. Das, D. Mandal, R. Kar	An Optimal Compact Time Modulated Circular Antenna Array Synthesis using Krill Herd Optimization	Annals of Telecommunications	Volume:76 Issue No: Page No:467-482 Year:2021 Month:
A. Das, D. Mandal, R. Kar	An Optimal Time Modulated Compact Circular Antenna Array Design Using a Stochastic Optimization Technique	Journal of Electromagnetic Waves and Applications	Volume:35 Issue No:8 Page No:10251045 Year:2021 Month:
A. Das, D. Mandal, R. Kar	An optimal circular antenna array design considering the mutual coupling employing ant lion optimization	International Journal of Microwave and Wireless Technologies	Volume:13 Issue No:2 Page No:164-172 Year:2021 Month:
S. Yadav, S.K. Saha, R. Kar, D. Mandal	Optimized adaptive noise canceller for denoising cardiovascular signal using SOS algorithm	Biomedical Signal Processing and Control	Volume:69 Issue No:102830 Page No:117 Year:2021 Month:
S. Mahata, N. Herencsar, D. Kubanek, R. Kar, D. Mandal, I.C. Goknar	A Fractional-Order Transitional Butterworth-Butterworth Filter and Its Experimental Validation	IEEE Access	Volume:9 Issue No: Page No:129521 – 129527 Year:2021 Month:
Avishek Chakraborty, Gopi Ram, Durbadal Mandal	Pattern Synthesis of Timed Antenna Array with the Exploitation and Suppression of Harmonic Radiation	International Journal of RF and Microwave Computer-Aided Engineering	Volume:34. 10.1002/dac.4727 Issue No: Page No: Year:2021 Month:
Avishek Chakraborty, Gopi Ram, Durbadal Mandal	Multibeam Steered Pattern Synthesis in Time-Modulated Antenna Array with Controlled Harmonic Radiation	International Journal of RF and Microwave Computer-Aided Engineering	Volume:31. 10.1002/mmce.22597 Issue No: Page No: Year:2021 Month:
Avishek Chakraborty, Gopi Ram, Durbadal Mandal	Time-Modulated Multibeam Steered Antenna Array Synthesis with Optimally Designed Switching Sequence	International Journal of Communication Systems	Volume:10.1002/dac.4828, 2021 Issue No: Page No: Year:2021 Month:

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Author(s) Name	Paper Name	Journal Name	Others Info
Avishek Chakraborty,	Time-Modulated Linear Array	International Journal of Microwave and	Volume:14 Issue No:6 Page No:768-780
Gopi Ram, Durbadal Mandal	Synthesis with Optimal Time Schemes for the Simultaneous Suppression of Sidelobe and Sidebands	Wireless Technologies	Year:2021 Month:
A. Das, B. Bag, C. Bose, A. Chandra	Performance analysis of FSO links employing transmit and receive diversity operating system under Malaga turbulence channels with pointing error	Optics Continuum (OSA)	Volume:1 Issue No:2 Page No:366-387 Year:2022 Month:Feb
Alok Kumar Baranwal, Shashibhushan Sharma, Sanjay Dhar Roy & Sumit Kundu	Outage Performance of Uplink (UL) NOMA Network	WPC, Springer	Volume:125 Issue No:2022 Page No:pages1281-1305 Year:2022 Month:Mar
Sayanti Ghosh, Abhijit Bhowmick, Aniruddha Chandra, Sanjay Dhar Roy, Sumit Kundu	Performance of a cognitive device-todevice network in disaster situation under a collision constraint	IJCS, Wiley	Volume:35 Issue No:6 Page No: Year:2022 Month:Apr
S. Reddy Vamshidhar Reddy, S. Dhar Roy	SBT (Sense Before Transmit) Based LTE Licenced Assisted Access for 5 GHz Unlicensed Spectrum	WPC, Springer	Volume:119 Issue No: Page No:1-13 Year:2021 Month:Aug
K. Yadav, S. Dhar Roy, S. Kundu	Performance Analysis of a Cognitive Radio Network Under Energy Harvesting from Primary User Emulation Attacker.	Wireless Personal Communications, Springer	Volume:121 Issue No: Page No:1-18 Year:2021 Month:Dec
S. Mandal, S. Dhar Roy, S. Kundu	Partial Relay Selection in Energy Harvesting Based NOMA Network with Imperfect CSI	Wireless Personal Communications, Springer	Volume:120 Issue No:9 Page No: Year:2021 Month:Oct
S. Reddy Vamshidhar Reddy, S. Dhar Roy	SBT (Sense Before Transmit) Based LTE Licenced Assisted Access for 5 GHz Unlicensed Spectrum	WPC, Springer	Volume:119 Issue No: Page No:2069-2081 (2021) Year:2021 Month:Aug
Nilanjan Chattaraj	Experimental Investigation and Empirical Analysis of a Shape Memory Alloy Actuated Electromechanical Oscillator	Journal of Vibration Engineering & Technologies	Volume:10 Issue No:2 Page No:741-750 Year:2021 Month:
Mandal, S; Singh, H; Mandal, SK; Mal, AK; Mahapatra, R; Naidu, PRT;	A 24 GHz Circularly Polarized On-chip Antenna for Short-Range Communication Application	Scientia Iranica	Volume: Issue No: Page No: Year:2022 Month:February
Paul, AD; Biswas, S; Dalal, A; Mondal, A; Mahapatra, R;	Impact of Stack Engineering on HfO _x /Al: HfO _x -Based Flexible Resistive Memory Devices and Its Synaptic Characteristics	IEEE Transactions on Electron Devices	Volume:69 Issue No:4 Page No:1842-1848 Year:2022 Month:March
Sinha, Madhumita; Neogi, Samya; Mahapatra, Rajat; Krishnamurthy, Satheesh; Ghosh, Ranajit;	Material dependent and temperature driven adsorption switching (p-to n-type) using CNT/ZnO composite-based chemiresistive methanol gas sensor	Sensors and Actuators B: Chemical	Volume:336 Issue No: Page No:129729 Year:2021 Month:June



Author(s) Name	Paper Name	Journal Name	Others Info
Paul, AD; Biswas, S; Das, P; Edwards, HJ; Dalal, A; Maji, S; Dhanak, VR; Mondal, A; Mahapatra, R;	Improved resistive switching characteristics of Ag/Al: HfO _x /ITO/PET ReRAM for flexible electronics application	Semiconductor Science and Technology	Volume:36 Issue No:6 Page No:65006 Year:2021 Month:April
Biswas, S; Paul, AD; Das, P; Tiwary, P; Edwards, HJ; Dhanak, VR; Mitrovic, IZ; Mahapatra, R;	Impact of AlO _y Interfacial Layer on Resistive Switching Performance of Flexible HfO _x /AlO _y ReRAMs	IEEE Transactions on Electron Devices	Volume:68 Issue No:8 Page No:3787-3793 Year:2021 Month:June
Tiwary, Punam; Chakrabarty, Nilanjan;	Hydrothermally grown uniform sized nickel hydroxide/oxyhydroxide	Applied Surface Science	Volume:570 Issue No: Page No:151090 Year:2021 Month:December
Edwards, Holly J; Dhanak, Vinod R; Kar, Abhijit; Mahapatra, Rajat; Chakraborty, Amit K;	hexagonal nanoprisms exhibiting room temperature ethanol sensing properties		
Tiwary, Punam; Chatterjee, SG; Singha, SS; Mahapatra, Rajat; Chakraborty, Amit K;	Room temperature ethanol sensing by chemically reduced graphene oxide film	FlatChem	Volume:30 Issue No: Page No:100317 Year:2021 Month:November
P. Maji, H. K. Mondal, A. P. Roy, S. Poddar and S. P. Mohanty	iKardo: An Intelligent ECG Device for Automatic Critical Beat Identification for Smart Healthcare	IEEE Transactions on Consumer Electronics	Volume:67 Issue No:4 Page No:235-243 Year:2021 Month:Nov
Maurya SK, Sarkar S, H. K. Mondal, Ohshima H, Gopmandal PP.	Electrophoresis of soft particles with hydrophobic inner core grafted with pH-regulated and highly charged polyelectrolyte layer	Electrophoresis	Volume:43 Issue No:5-6 Page No:757-766 Year:2022 Month:Mar
Hemanta Kumar Mondal, SARNAVA KONAR, Poulomi Hore, Ramapati Patra, Pradipta Sarkar, Sujay Deb	Interconnect Support for Energy Efficient and High Bandwidth Memory Access in CMPs	Sustainable Computing: Informatics and Systems, Elsevier	Volume:34 Issue No: Page No: Year:2022 Month:Mar
Somnath Patra, Sujit Kumar Mandal, Gautam Kumar Mahanti , Narendra Nath Pathak	Synthesis of Dual-Beam Patterns by Exploiting Time Modulation in Unequally Spaced Linear Arrays	RADIOENGINEERING	Volume:30 Issue No:4 Page No:646-653 Year:2021 Month:Dec
Somnath Patra, Sujit Kumar Mandal, Gautam Kumar Mahanti , Narendra Nath Pathak	Linear and Non-Linear Synthesis of Unequally Spaced Time-Modulated Linear Arrays Using Evolutionary Algorithms	RADIOENGINEERING	Volume:30 Issue No:3 Page No:488 – 495 Year:2021 Month:Sep
A. Mukherjee, S. K. Mandal and R. Ghatak	Efficient Computational Method for Fast Extraction of Faulty Elements From Multi pattern Time-Modulated Arrays	IEEE Transactions on Antennas and Propagation	Volume:69 Issue No:4 Page No:1982-1991 Year:2021 Month:Apr
Sanjukta Mandal, S. K. Mandal, A. K. Mal, and Rajat Mahapatra	Design of a super-wideband on-chip antenna with improved characteristics using bulk micromachining	Microsystem Technologies	Volume:28 Issue No: Page No:937–946 Year:2021 Month:Nov
J. Acharjee, K. Mandal, S. K. Mandal	Slotted patch and ground for reducing side lobe level of planar antenna operating under higher order mode	Annals of Telecommunications	Volume:https://doi.org/10.1007/s12243022-00911-0 Issue No: Page No:10 Year:2022 Month:Mar

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Author(s) Name	Paper Name	Journal Name	Others Info
S. Mandal, H. Singh, S. K. Mandal, A. K. Mal, R. Mahapatra, P. R. T. Naidu	A 24 GHz Circularly Polarized On-chip Antenna for Short-Range Communication Application	Scientia Iranica	Volume:10.24200/SCI.202 2.57325.5202 Issue No: Page No: Year:2022 Month:Feb
Ananya Mukherjee, Sujit K. Mandal, and Rowdra Ghatak	A Fractal-Based Time Modulated Multiband Linear Array for Inter-band Communication	IEEE Antennas and Wireless Propagation Letters	Volume:21 Issue No:5 Page No:918 - 922 Year:2022 Month:Feb
Harshavardhan Singh, Sameen Azhar, Sanjukta Mandal, Sujit Kumar Mandal, and Pamidiparthi Ravi Teja Naidu	An on-chip circular Sierpinski shaped fractal antenna with defected ground structure for Ku-band applications	Frequenz	Volume:75 Issue No:11-12 Page No:525-532 Year:2021 Month:Jun
Paromita De, S. apana Ranwa, Sourangshu Mukhopadhyay	Implementation of all-optical Toffoli gate by 2D Si-air photonic crystal	IET Optoelectronics	Volume:15 Issue No:3 Page No:139-148 Year:2021 Month:Apr
A. Mukherjee, S. K. Mandal and R. Ghatak	Efficient Computational Method for Fast Extraction of Faulty Elements From Multi pattern Time-Modulated Arrays	IEEE Transactions on Antennas and Propagation	Volume:69 Issue No:4 Page No:1982-1991 Year:2021 Month:Apr
Abhik Gorai and Rowdra Ghatak	Binomial stub loaded compact Vivaldi antenna for superwideband applications	International Journal of Microwave and Wireless Technologies	Volume:13 Issue No:5 Page No:463-468 Year:2021 Month:Jun
A. Bandyopadhyay, P. Sarkar, T. Mondal and R. Ghatak	A Dual Function Reconfigurable Bandpass Filter for Wideband and TriBand Operations	IEEE Transactions on Circuits and Systems II: Express Briefs	Volume:68 Issue No:6 Page No:1892-1896 Year:2021 Month:Jun
Chakraborty, R. Sarkar, P. Ghatak, R	A quint mode fractal architecture based resonator and its efficacy in the design of multiband bandpass filters	Int J RF Microw Comput Aided Eng	Volume:31 Issue No:11 Page No: Year:2021 Month:Aug
N. Singh, R. Kar, D. Mandal	Design of Si _{0.45} Ge _{0.55} Based CoreShell type Dual-Material-Dual-Gate Nanotube TFET with Source Pocket Technique	Applied Physics A	Volume:127 Issue No:4 Page No:1-12 Year:2021 Month:
S. Mahata, R. Kar, D. Mandal	Direct Digital Fractional-Order Butterworth Filter Design using Constrained Optimization	AEU-International Journal of Electronics and Communications	Volume:128 Issue No: Page No: Year:2021 Month:
S. Mahata, R. Kar, D. Mandal	Optimal Design of Lattice Wave Digital Fractional-Order Butterworth Filter	International Journal of Circuit Theory and Applications	Volume:49 Issue No:1 Page No:213-220 Year:2021 Month:
S. Mahata, R. Kar, D. Mandal	Optimal Analog-to-Digital Transformation of Fractional-Order Butterworth Filter using Binomial Series Expansion with Al-Alaoui operator	International Journal of Circuit Theory and Applications	Volume:49 Issue No:1 Page No:44-79 Year:2021 Month:
N. Singh, R. Kar, D. Mandal	ZnO Based Extended-Gate Gate-Stack Junctionless NWFET for Hydrogen Gas Detection	Applied Physics A	Volume:127 Issue No:article no. 290 Page No:1-10 Year:2021 Month:



Author(s) Name	Paper Name	Journal Name	Others Info
N. Singh, R. Kar, D. Mandal	Design of Charge-Plasma based Cylindrical-Gate-Nanowire TFET with Low Power and Enhanced Sensitivity for Bio-Sensing	Applied Physics A	Volume:127 Issue No:article no. 347 Page No:1-9 Year:2021 Month:
C. Nayak, S. K. Saha, R. Kar, D. Mandal	Optimal Design of Zero-Phase Digital Riesz FIR Fractional Order Differentiator	Soft Computing	Volume:25 Issue No: Page No:pp. 42614282 Year:2021 Month:
L. Janjanam, S.K. Saha, R. Kar, D. Mandal	An Efficient Identification Approach for Non-Linear Systems Using Evolutionary Computing Method Based Kalman Filter	AEUE - International Journal of Electronics and Communications	Volume:Vol. 138 Issue No:article no. 153890, August 2021 Page No: Year:2021 Month:
L. Janjanam, S.K. Saha, R. Kar, D. Mandal	Global Gravitational Search algorithm aided Kalman Filter Design for Volterra based Non-linear System Identification	Circuits, Systems & Signal Processing	Volume:Vol. 40 Issue No: Page No:2302-2334 Year:2021 Month:
A. Das, D. Mandal, R. Kar	An Optimal Radiation Pattern Synthesis of Mutually Coupled Antenna Array Using an Efficient Compensation Method	IET Microwaves, Antennas & Propagation	Volume:Volume15 Issue No: Issue 9 Page No:pp. 1054-1062 Year:2021 Month:
A. Das, D. Mandal, R. Kar	An Optimal Compact Time Modulated Circular Antenna Array Synthesis using Krill Herd Optimization	Annals of Telecommunications	Volume:vol 76 Issue No: Page No:pp. 467–482 Year:2021 Month:
A. Das, D. Mandal, R. Kar	An optimal circular antenna array design considering the mutual coupling employing ant lion optimization	International Journal of Microwave and Wireless Technologies, Cambridge University Press.	Volume:vol. 13, Issue No:issue 2 Page No:pp. 164-172 Year:2021 Month:
S. Yadav, S.K. Saha, R. Kar, D. Mandal	Optimized adaptive noise canceller for denoising cardiovascular signal using SOS algorithm	Biomedical Signal Processing and Control, 1. Elsevier	Volume:Vol. 69 Issue No:102830 Page No:pp. 1-17 Year:2021 Month:
S. Mahata, N. Herencsar, D. Kubanek, R. Kar, D. Mandal, I.C. Goknar	A Fractional-Order Transitional Butterworth-Butterworth Filter and Its Experimental Validation	IEEE Access	Volume:vol. 9 Issue No: Page No:pp.129521 – 129527 Year:2021 Month:
C. Mahto, P. R. Sharma, S. K. Nishad, S. Kumar, S. Singh, N. Singh, R. Kar, D. Mandal	Temperature Analysis of Si0.55Ge0.45 Sourced Nanowire Tunnel Field Effect Transistor Based on Charge Plasma and Gate Stack	Applied Physics A, Springer	Volume:vol. 127 Issue No:article no. 941 Page No: Year:2021 Month:
Abhijit Bhowmick, sanjay DharRoy, Sumit Kundu	Throughput Maximization of a NOMA based Energy-Harvesting UAV Assisted CR Network	IEEE Transactions on Vehicular Technology	Volume: Issue No:10.1109/TVT.2021.3123183 IEEE Page No: Year:2021 Month:
Sayanti Ghosh, Abhijit Bhowmick, Aniruddha Chandra, Sanjay Dhar Roy, Sumit Kundu	Performance of a cognitive device-to-device network in disaster situation under a collision constraint	International Journal of Communication System	Volume: Issue No:https://doi.org/10.1002/dac.5083 Wiley Page No: Year:2021 Month:Apr
Soumen Mondal, Sanjay Dhar Roy, Sumit Kundu	Partial relay selection in energy harvesting based NOMA network with imperfect CSI	Wireless Personal Communications	Volume: Issue No:https://doi.org/10.1007/s11277-02108604-y Springer Page No:1-17 Year:2021 Month:

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Author(s) Name	Paper Name	Journal Name	Others Info
S. Mahata, R. Kar, D. Mandal	Direct Digital Fractional-Order Butterworth Filter Design using Constrained Optimization	AEU-International Journal of Electronics and Communications	Volume:128 Issue No: Page No:153511 Year:2021 Month:
S. Mahata, R. Kar, D. Mandal	Optimal Design of Lattice Wave Digital Fractional-Order Butterworth Filter	International Journal of Circuit Theory and Applications	Volume:49 Issue No:1 Page No:213-220 Year:2021 Month:
S. Mahata, R. Kar, D. Mandal	Optimal Analog-to-Digital Transformation of Fractional-Order Butterworth Filter using Binomial Series Expansion with Al-Alaoui operator	International Journal of Circuit Theory and Applications	Volume:49 Issue No:1 Page No:44-79 Year:2021 Month:
N. Singh, R. Kar, D. Mandal	Design of Si0.45Ge0.55 Based CoreShell type Dual-Material-Dual-Gate Nanotube TFET with Source Pocket Technique	Applied Physics A	Volume:127 Issue No:4 Page No:1-12 Year:2021 Month:
N. Singh, R. Kar, D. Mandal	ZnO Based Extended-Gate Gate-Stack Junctionless NWFET for Hydrogen Gas Detection	Applied Physics A	Volume:127 Issue No:290 Page No:1-9 Year:2021 Month:
N. Singh, R. Kar, D. Mandal	Design of Charge-Plasma based Cylindrical-Gate-Nanowire TFET with Low Power and Enhanced Sensitivity for Bio-Sensing	Applied Physics A	Volume:127 Issue No:347 Page No:1-9 Year:2021 Month:
L. Janjanam, S.K. Saha, R. Kar, D. Mandal	Global Gravitational Search algorithm aided Kalman Filter Design for Volterra based Non-linear System Identification	Circuits, Systems & Signal Processing	Volume:40 Issue No: Page No:23022334 Year:2021 Month:
L. Janjanam, S.K. Saha, R. Kar, D. Mandal	An Efficient Identification Approach for Non-Linear Systems Using Evolutionary Computing Method Based Kalman Filter	AEUE - International Journal of Electronics and Communications	Volume:138 Issue No: Page No:153890 Year:2021 Month:
A. Das, D. Mandal, R. Kar	An Optimal Radiation Pattern Synthesis of Mutually Coupled Antenna Array Using an Efficient Compensation Method	IET Microwaves, Antennas & Propagation	Volume:15 Issue No:9 Page No:10541062 Year:2021 Month:
Ghosh, A., Roy, A.P., Patra, R. H. K. Mondal	Designing Efficient NoC-Based Neural Network Architectures for Identification of Epileptic Seizure	SN COMPUT. SCI., Springer	Volume:2 Issue No:5 Page No:363 Year:2021 Month:Jun
A. Chattopadhyay, A. Chandra, M. H. Khondekar, A. K. Bhattacharjee	Analysis of fractality and complexity of the planetary K-index	SN Applied Sciences	Volume:3 Issue No:625 Page No:1-15 Year:2021 Month:May
Arnab De, Bappadittya Roy, Ankan Bhattacharya, A. K. Bhattacharjee	Bandwidth enhanced ultra-wide band wearable textile antenna for various WBAN and Internet of Things applications	Radio Science	Volume:56 Issue No:11 Page No:1-16 Year:2021 Month:Nov
Ankan Bhattacharya, Bappadittya Roy, Santosh K. Chowdhury, A.K. Bhattacharjee	An isolation enhanced, printed, low profile UWB MIMO antenna with unique dual band notching features for WLAN and WiMAX	IETE Journal of Research	Volume:68 Issue No:1 Page No:496-503 Year:2022 Month:May



Author(s) Name	Paper Name	Journal Name	Others Info
Bej Debebrata and Mal Ashis Kumar	A cost-effective alertness-rating tool to enable situational awareness among on-duty static security guards in Covid-19 pandemic	Journal of reliable intelligent environments	Volume:7(4) Issue No: Page No:341-353 Year:2021 Month:Apr
A. Bhattacharjee, B. Roy, A. K. Bhattacharjee	Compact isolation enhanced band notched SWB MIMO antenna	Wireless Personal Communications	Volume:116 Issue No:3 Page No:1575-1592 Year:2021 Month:Feb
A. Dutta, D. Sil, A. Chandra, S. Palit	CNN based musical instrument identification using time-frequency localized features	Internet Technology Letters (Wiley)	Volume:5 Issue No:1 Page No:1-6 Year:2022 Month:Jan
Arnab De,Bappaditya Roy, Anup Kumar Bhattacharjee	Miniaturized dual band consumer transceiver antenna for 5G-enabled IoT-based home applications	International Journal of Communication Systems	Volume:34 Issue No:11 Page No:e4840 Year:2021 Month:May
Arnab De,Bappaditya Roy, Ankan Bhattacharya,A. K. Bhattacharjee	Investigations on a circular UWB antenna with Archimedean spiral slot for WLAN/Wi-Max and satellite X-band filtering feature	International Journal of Microwave and Wireless Technologies	Volume:14 Issue No:6 Page No:781-789 Year:2022 Month:Jul

4.6.17 Journal: Accepted for Publication in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
S. Mandal, S. Dhar Roy & S. Kundu	Performance of a Hybrid Dual-hop and Multi-hop Network based on NOMA	International Journal of Electronics, Taylor & Francis	Volume: Issue No: Page No: Year:2022 Month:Apr
S. Sharma, S. Dhar Roy, S. Kundu	Secrecy Outage of an Energy Harvesting Multi-Relay Network with MultipleAntenna	WPC, Springer	Volume: Issue No: Page No: Year:2021 Month:Sep
S. Goswami, S. K. Mandal and S. Banerjee	A compact quad-band sickle-shaped monopole antenna for gsm 900/wimax/wlan applications	Computers, Materials & Continua	Volume:73 Issue No:1 Page No: 397–410 Year:2022 Month:Mar
Paromita De, Sapana Ranwa, Sourangshu Mukhopadhyay	Intensity and phase encoding for realization of integrated Pauli X, Y and Z gates using 2D photonic crystal	Optics & Laser Technology	Volume:152 Issue No: Page No: Year:2022 Month:Apr
Kuldeep Yadav Sanjay Dhar Roy Sumit Kundu	Publication Preview Source Performance Analysis of a Cognitive Radio Network Under Energy Harvesting from Primary User Emulation Attacker	Wireless Personal Communication	Volume: Issue No:https://doi.org/10.1007/s11277021-08816-2 Page No: Year:2021 Month:

4.6.18 Journal: Published in Others in 2021-2022

Author(s) Name	Paper Name	Journal Name	Others Info
H. Patidar, V. Maheshwari, R. Kar, P. K. Singh and V. K. Sahu	Comparative Study of Evolutionary Algorithms to generate flat-top beam pattern for synthesis of a linear antenna array	ICTACT Journal on Communication Technology	Volume:Vol., 12 Issue No: Issue 03 Page No:2516-2519 Year:2021 Month:

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4.6.19 Journal: Accepted in Others in 2021-2022

Author(s) Name	Paper Name	Journal Name	Others Info
S. Ghosh, S, Dhar Roy, S. Kundu	When UAV and ad-hoc NOMA-BS meets in Disaster: A scheduling and mode selection approach	SKIT Research Journal	Volume:10.47904/IJSKIT.12.1.2022 Issue No: Page No:12-17 Year:2022 Month:Jan

4.6.20 Conference: Published in 2021-2022 DOI/ISBN

Author(s) Name	Paper Name	Conference Name	Others Info
J. M. Kelner, C. Ziolkowski, J. Wotjun, A. Chandra, A. Prokes, T. Mikulasek, J. Blumenstein	Angular power distribution in 60 GHz wireless uplink for vehicle-toinfrastructure scenarios	IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)	DOI/ISBN: 10.1109/PIMRC50174.2021.9569535 Volume: Issue No: Page No:899–904 Year:2021 Month:Sep Presenter:CO-AUTHOR
A. Chattopadhyay, A. Chandra, C. Bose	Impact of RSU height on 60 GHz mmWave V2I LOS communication in multi-lane highways	IEEE Vehicular Technology Conference (VTC2021-Spring), 2nd International Workshop on Intelligent Communication Network Technologies (ICNET)	DOI/ISBN: 10.1109/VTC2021-Spring51267.2021.9448835 Volume: Issue No: Page No:1-5 Year:2021 Month:Apr Presenter:CO-AUTHOR
A. Das, B. Bag, C. Bose, A. Chandra	ABER of a FSO Link in gammagamma turbulence with SSK and SEC	IEEE Vehicular Technology Conference (VTC2021-Spring)	DOI/ISBN: 10.1109/VTC2021-Spring51267.2021.9448836 Volume: Issue No: Page No:1-5 Year:2021 Month:Apr Presenter:CO-AUTHOR
S. Ghosh, S, Dhar Roy, S. Kundu	A T-BS and UAV based IoT enabled D2D network for Disaster Management	Indicon	DOI/ISBN: 10.1109/INDICON52576.2021.9691736 Volume: Issue No: Page No: Year:2021 Month: Presenter:CO-AUTHOR
S. Reddy Vamshidhar Reddy, S. Dhar Roy	Dual Connectivity Handoff Analysis for ENDC C/U-Plane Split NSA NR5G Networks	International Conference on Hybrid Intelligent Systems	DOI/ISBN: 978-3-030-96304-0 Volume: Issue No: Page No:20–26 Year:2022 Month:Mar Presenter:CO-AUTHOR
S. Ghosh, A. Bhowmick, S. Dhar Roy, S. Kundu	A UAV based Multi-hop D2D Network for Disaster Management	IEEE Infocom workshop	DOI/ISBN: 10.1109/INFOCOMWKSHPS51825.2021.9484603 Volume: Issue No: Page No:1-6 Year:2021 Month:May Presenter:CO-AUTHOR
Billah, Md. M., Nilanjan Chattaraj	Road Condition Detection Using Adaptively Chosen Deep Learning Model and Precautionary Special Guidance for Driver-Safety	IEEE International Conference on Electronics, Materials Engineering and Nano-Technology (IEMENTech)	DOI/ISBN: 10.1109/IEMENTech53263.2021.9614823 Volume: Issue No: Page No:1-6 Year:2021 Month: Presenter:



Author(s) Name	Paper Name	Conference Name	Others Info
A. Bandyopadhyay, P. Sarkar and R. Ghatak	Independently Switchable Dualband High Selective Band Pass Filter	2nd International Conference on Range Technology (ICORT)	DOI/ISBN: 10.1109/ICORT52730.2021 Volume: Issue No: Page No: Year:2021 Month:Aug Presenter:CO-AUTHOR
R. Chakraborty, C. Goswami and R. Ghatak	Metamaterial Inspired Filtering Antenna for Dual Band Applications	2nd International Conference on Range Technology (ICORT)	DOI/ISBN: 10.1109/ICORT52730.2021 Volume: Issue No: Page No: Year:2021 Month:Aug Presenter:CO-AUTHOR
M. Goswami, S. Mahato, S. Kundu, R. Ghatak and A. Bose	Potentials and Advantages of NavIC in Indian Missile Programs	2nd International Conference on Range Technology (ICORT)	DOI/ISBN: 10.1109/ICORT52730.2021 Volume: Issue No: Page No: Year:2021 Month:Aug Presenter:CO-AUTHOR
J. Banerjee, A. Gorai and R. Ghatak	Isolation Enhancement in a Microstrip Fed Compact Ultrawideband Diversity Antenna by Exploring Koch Boundary Fractal and Extended Ground Stub	2nd International Conference on Range Technology (ICORT)	DOI/ISBN: 10.1109/ICORT52730.2021 Volume: Issue No: Page No: Year:2021 Month:Aug Presenter:CO-AUTHOR
O. Mukherjee, S. S. Sarkar, A. Gorai and R. Ghatak	Enhancement in Gain of a compact UWB Vivaldi antenna by using zero index metamaterial array	IEEE 2nd International Conference on Applied Electromagnetics, Signal Processing, & Communication (AESPC)	DOI/ISBN: 10.1109/AESPC52704.2021 Volume: Issue No: Page No: Year:2021 Month:Nov Presenter:CO-AUTHOR

4.6.21 Books Authored

Author Name	Co-Author	Title of the Book	Title of the Chapter	Publication Details
Sanjay Dhar Roy	Sayanti Ghosh, Sumit Kundu	Internet of Things and Data Mining for Modern Engineering and Healthcare Applications	Downlink Fronthaul Connectivity for IoT Devices in Rural Areas with Scheduling Approach	Publisher: Chapman and Hall/CRC Publication Date: 2022-07-30
Rowdra Ghatak	Abhik Gorai	Elsevier Reference Module in Materials Science and Materials Engineering	Metamaterials: Engineered Materials and its Applications in High Frequency Electronics	Publisher: Elsevier Publication Date: 2021-11-25
A. De, K. M. Vijayalakshmi, D. Yadav, S. Lakrit, R. M. Shubair, B. Roy, A. K. Bhattacharjee		Internet of Things and Data Mining for Modern Engineering and Healthcare Applications	Body Wearable Antennas and Integration of Internet of Things in Vehicular Wireless Communication Systems	Publisher: Chapman and Hall/ CRC Publication Date: 2022-03-31

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Author Name	Co-Author	Title of the Book	Title of the Chapter	Publication Details
Sheikh, AM., Bej, Debabrata and Mal, Ashis Kumar		Internet of Things and Data Mining for Modern Engineering and Healthcare Applications	IoT-Enabled Customizable System for Traffic Management with Real-Time Vehicle Emission Measurement Functionality	Publisher: Chapman and Hall/CRC Publication Date: 2021-08-18

4.6.22 Seminars, Summer/Winter Schools, Short Term Courses Attended

Name of the Programme	Organized By	From Date	To Date	Organizing Country
Intellectual Property Creation: Why, What and How?	IEEE India Council	2021-06-04	2021-06-04	India
The Whole of Society Approach for Disaster Risk Management	IEEE India Council MOVE Outreach India Program	2022-02-26	2022-02-26	India
Webinar on Next Generation IoT	IEEE ComSoc Technical Committee on Communications Software: Special Interest Group on "NFV and SDN Technologies"	2021-11-15	2021-11-15	India
Cellular Evolution 5G and Beyond, Including THz Technologies	Vaibhav Summit	2021-10-27	2021-10-27	India
Symposium on Emerging Technologies for 5G and beyond	Department of Electrical Engineering, IIT Patna	2021-07-17	2022-07-18	India
Two Days Intel SoC FPGA Workshop	Intel Technologies	2021-09-02	2021-09-03	India
3 Days Faculty workshop Embedded Systems: An Application-Driven Approach	Team Arm Education and STMicroelectronics	2021-08-25	2021-08-27	India
6th International Conference for Convergence in Technology (I2CT)	IEEE Bombay section	2021-04-02	2021-04-04	India

4.6.23 Ph.D. Supervisor

Topic Name	Scholar	Supervisor	Status	Status Date
Analytical characterization of relayed hybrid free space optical communication over turbulent channels	Banibrata Bag	A. Chandra, C. Bose	SUBMITTED	2021-04-13
Statistical signal processing based reconnaissance to explore the kinematics of coronal mass ejection and its impact on Earth	Anirban Chattopadhyay	A. K. Bhattacharjee, M. H. Khondekar, A. Chandra	ONGOING	null
Performance analysis of free space optical communication channel with transmit and receive diversity	Akinchan Das	A. Chandra, C. Bose	ONGOING	null



Topic Name	Scholar	Supervisor	Status	Status Date
Recurrence based nonlinear analysis of heart rate variability	Sudhangshu Sarkar	A. Chandra	ONGOING	null
Millimeter wave channel measurement and modelling for beyond 5G communication	Rajeev Shukla	A. Chandra	ONGOING	null
Millimeter wave based design considerations for high speed vehicle-to-everything (V2X) communication link	Ananya Chattopadhyay	A. Chandra, C. Bose	ONGOING	null
Structural Health Monitoring using WSNs	P. K. Sahu	K. Mistry and S. Dhar Roy	ONGOING	null
D2D Communication for Disaster Management	Sayanti Ghosh	S. Dhar Roy	ONGOING	null
Handoff Issues in NextG Networks	Deepak Nayak	S. Dhar Roy	ONGOING	null
Mobility Management in Integrated Heterogeneous Networks.	S RDDY VAMSHIDHAR REDDY	S. Dhar Roy	ONGOING	null
Cognitive NOMA and SWIPT enabled communication in Cellular IoT Network	Alok Kumar Baranwal	S. Dhar Roy and S. Kundu	ONGOING	null
Air Pollution Monitoring using CyberPhysical Electronic System	Debabrata Bej	Nilanjan Chattaraj	ONGOING	null
Analog circuit testing and Machine Learning	Suman Biswas	Gautam Kumar Mahanti, Nilanjan Chattaraj	ONGOING	null
Audio Signal and Machine Learning	Al mamun Sheikh	Nilanjan Chattaraj, Suman Samui	ONGOING	null
HfOx Based Resistive Switching Devices for Non-Volatile Memory Applications	Shuvanka Maji	Rajat Mahapatra	DEGREE AWARDED	2021-07-14
CMOS Time-Mode Temperature Sensor Circuits using $\Delta\Sigma$ Time-to-Digital Converters	RSSM Ramakrishna	Ashis Kumar Mal and Rajat Mahapatra	DEGREE AWARDED	2021-08-05
Dummy Gate and Buried Oxide Engineering of Power MOSFETs for sub-200V Applications	Jagamohan Sahoo	Rajat Mahapatra	DEGREE AWARDED	2021-08-18
Dielectric Engineering on GaN for high Electron Mobility Transistors	Partha Das	Rajat Mahapatra and Amit K Chakraborty	SUBMITTED	2022-03-23
Development of Chemiresistive Ethanol Sensors Using Nanostructured Metal Oxide/Hydroxide Films	Punam Tiwary	Rajat Mahapatra and Amit K Chakraborty	SUBMITTED	2021-12-31
Intelligent Medical Device for Automatic Beat Identification for Smart Healthcare	Prasenjit Maji	Hemanta Kumar Mondal	ONGOING	null
3D Network-on-Chip architecture for 3D System-on-Chip	Debabrata Kumar Das	Hemanta Kumar Mondal	ONGOING	null
Efficient Network-on-Chip based Hardware Accelerator for Neural networks	Ramapati Patra	Hemanta Kumar Mondal	ONGOING	null
Some Studies on Synthesis of Unequally Spaced Antenna Arrays through Time Modulation	Somnath Patra	S. K. Mandal G. K. Maganti N. N. Pathak	DEGREE AWARDED	2022-03-17
Studies on Designing On-chip Antennas with Improved Radiation Characteristics	Harshavardhan Singh	S. K. Mandal	DEGREE AWARDED	2022-03-17

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Topic Name	Scholar	Supervisor	Status	Status Date
Design of On-Chip Antennas in Silicon ICs for Short Range Communication	Sanjukta Mandal	S. K. Mandal, A. K. Mal, R. Mahapatra	ONGOING	2022-04-26
Studies on 2-D Transition Metal Dichalcogenides Nanostructures Synthesized Using Chemical Vapour Deposition with Controlled Morphology for Sensing Applications	Shreerupa Biswas	Dr. Sapana Ranwa	ONGOING	null
Implementation of some Quantum Optical Logic systems using the switches made of Photonic Band-gap crystal	Paromita De	Dr. Sapana Ranwa, (CoSupervisor) Prof. Sourangshu Mukhopadhyay Department of Physics, The University of Burdwan	ONGOING	null
mm Wave Devices and Circuits	Sayani Bindai	Dr. Sapana Ranwa, Prof. R. Ghatak	ONGOING	null
Natural Cellulosic Graphene: Synthesis, Characterization and Electro Chemistry Application	Himangshu Pal	Rajat Mahapatra and Somenath Chatterjee	SUBMITTED	2022-07-26
Resistive Memory Devices Based on Al Doped HfOx for Flexible Electronics Applications	Argha Deep Paul	Rajat Mahapatra	SUBMITTED	2022-06-27
Studies on Designing on-chip Antennas in Silicon IC for Short Range Communication	Sanjukta Mandal	Sujit Kumar Mandal, Ashis Kumar Mal, Rajat Mahapatra	ONGOING	null
Switching Characteristics of Transition Metal Oxide Based Multilayer Flexible ReRAM Devices	Saikat Biswas	Rajat Mahapatra	ONGOING	null
Studies on Broadband and Multiband Planar Antennas Based on Reactive Impedance Surface and Composite Right/Left- Handed Transmission Line	Shyam Sundar Jash	Rowdra Ghatak	ONGOING	null
Some Studies on Compact UWB MIMO Antenna Systems for Wireless Devices	Jeet Banerjee	Rowdra Ghatak	ONGOING	null
Studies on Multi-GNSS Signal Environment from India Towards Test Range Applications	Mrinal Goswami	Rowdra Ghatak and Anindya Bose	ONGOING	null
Microwave monolithic Integrated Circuits	Md.Sujaiddin Ahmmed	Rowdra Ghatak and A K Ray	ONGOING	null
Studies on Multi Mode Filters and Filter Integrated Antennas for Wireless Transceivers	Riya Chakraborty	Rowdra Ghatak	ONGOING	null
Flexible Resistive Memory Devices	Sameen Azhar	Rajat Mahapatra	ONGOING	null
IRS Enabled Energy Harvesting NOMA with Full Duplex Relay	Priyanka Ghosh	Sumit Kundu	ONGOING	null
NOMA-SWIPT Enabled Communication in Cellular IoT Network	Alok Barnwal	Sumit Kundu and Sanjay Dhar Roy	ONGOING	null
Evolutionary optimization based Filter design for biometric signal processing	Chandan Nayak	S. K. Saha, R. Kar	DEGREE AWARDED	2021-11-17



Topic Name	Scholar	Supervisor	Status	Status Date
Simulation Study of Novel Charge-Plasma Based ArcTFET for Sensing the Breast Cancer Biomarker	Navaneet Singh	R. Kar, D. Mandal	ONGOING	null
Performance Optimization of Double-Gate MOSFETs for Nano-Electronics Circuit Design Using Evolutionary Techniques	Dibyendu Chowdhury	R. Kar, D. Mandal, B.P. De	ONGOING	null
Characteristics improvement of Hetero-junction TFET with reduction in Ambipolar current.	Prabin Kumar Bera	R. Kar	ONGOING	null
Study of mutual coupling and scan blindness in antenna arrays	Susmita Biswas	D. Mandal, Chandan Kumar Ghosh	DEGREE AWARDED	2021-09-18
Optimal Design and Implementation of Time Modulation based Antenna Arrays	Avishek Chakraborty	D. Mandal	DEGREE AWARDED	2021-11-08
Optimal design and implementation of Fractional Order analog and digital filters	Shibendu Mahata	R Kar; D. Mandal; Suman Saha	DEGREE AWARDED	2021-08-24
Design of combinational and sequential circuits for applications of reversible logic circuits	Heranmoy Maity	A K Bhattacharjee, A Biswas, A Pal	DEGREE AWARDED	2021-10-10
Development and Performance Analysis of slotted antennas for various Wireless Applications	Arnab De	A.K Bhattacharjee, Bappaditya Roy	SUBMITTED	2021-11-19
Course Work	Krittika Mukherjee	A. K. Bhattacharjee	ONGOING	null
Course Work	Aparna Panja	A. K. Bhattacharjee	ONGOING	null

4.6.24 Ongoing Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Amount(in Rs.)	Starting Year
28 GHz mmWave for 5G wireless in tropical region: short-range propagation and channel modeling	A. Chandra	SERB	1991000.0	2019
Assistive Technology on multimodal disabilities	Nilanjan Chattaraj, Sujoy Kumar Saha, Moushumi Saha	TCS	29865.0	2022
Mixed Signal Neural Network Integrated Circuit for Enhanced Accuracy of Limb Movement Prediction for Yoga Asanas	Dr. Soumyajit Poddar, Dr. Hemanta Kumar Mondal, Dr. Hafizur Rahaman, Dr. Hemant Bhargav, Mr. Sumant Chandwadkar	DST (Sanction letter is pending)	5314434.0	2022
Design and Implementation of Advanced Antenna Arrays for 5G and Future Generation Wireless Communication Systems	Durbadal Mandal	SERB; GoI	3463417.0	2022

4.6.25 Completed Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Complete Year
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Resistive Random Access Memory using HfO ₂ based Hetero-Structures for Flexible Electronics	Rajat Mahapatra	DST SERB	2021
Development of Flexible Environmental Gas Sensor based on 2D MoS ₂ Nanosheets	Dr. Sapana Ranwa	DST- SCIENCE & ENGINEERING RESEARCH BOARD (SERB)	2021

4.6.26 Testing & Consultancy Services Rendered

Sponsoring Industry / Institute Name	Title of the Project	Total Amount (in Rs.)	Remarks
TCS Research, Kolkata	mm Wave Radio Systems	575250.0	Half yearly honorarium

4.6.27 Reviews of Manuscripts for Publication in Journal

Reviewer	Name of the Journal	Publisher	Date of Final Review
Sanjay Dhar Roy	Computer Communications	Elsevier	2021-12-26
Sanjay Dhar Roy	IEEE Access	IEEE	2021-04-05
Sanjay Dhar Roy	IEEE Access	IEEE	2021-04-28
Sanjay Dhar Roy	IEEE Systems Journal	IEEE	2021-05-04
Sanjay Dhar Roy	IEEE Access	IEEE	2021-06-18
Sanjay Dhar Roy	International Journal of Distributed Sensor Networks	SAGE	2021-07-16
Sanjay Dhar Roy	Computer Networks	Elsevier	2021-07-31
Sanjay Dhar Roy	Connection Science	Taylor & Francis	2021-08-18
Sanjay Dhar Roy	IEEE Access	IEEE	2021-08-24
Sanjay Dhar Roy	International Journal of Distributed Sensor Networks	SAGE	2021-09-05
Sanjay Dhar Roy	IEEE Aerospace and Electronic Systems Magazine	IEEE	2021-09-13
Sanjay Dhar Roy	Physical Communication	Elsevier	2021-09-20
Sanjay Dhar Roy	Electronics Letters	IET	2021-12-11
Sanjay Dhar Roy	Physical Communication	Elsevier	2021-11-23
Sanjay Dhar Roy	Physical Communication	Elsevier	2021-12-31
Sanjay Dhar Roy	IEEE Access	IEEE	2022-01-05
Sanjay Dhar Roy	IEEE Access	IEEE	2022-01-06
Sanjay Dhar Roy	IEEE Access	IEEE	2022-01-17
Sanjay Dhar Roy	IETE Journal of Research	IETE	2022-01-23
Sanjay Dhar Roy	Journal of Sensors	Hindawi	2022-01-26
Sanjay Dhar Roy	Digital Communications and Networks	Elsevier	2022-02-01
Sanjay Dhar Roy	IEEE Access	IEEE	2022-02-08
Sanjay Dhar Roy	Journal of Sensors	Hindawi	2022-02-17
Sanjay Dhar Roy	Simulation Modelling Practice and Theory	Elsevier	2022-02-19
Sanjay Dhar Roy	IEEE Access	IEEE	2022-03-01
Sanjay Dhar Roy	IEEE Access	IEEE	2022-03-01
Sanjay Dhar Roy	IEEE Access	IEEE	2022-03-16
Sanjay Dhar Roy	IEEE Access	IEEE	2022-03-29
Hemanta Kumar Mondal	IEEE Access	IEEE	2022-02-28
Hemanta Kumar Mondal	IET Computers & Digital Techniques	IET	2022-03-07
Hemanta Kumar Mondal	IEEE Access	IEEE	2022-01-31



Reviewer	Name of the Journal	Publisher	Date of Final Review
Hemanta Kumar Mondal	Intelligence-Based Medicine	Elsevier	2022-01-07
Hemanta Kumar Mondal	Biomedical Signal Processing and Control	Elsevier	2021-09-27
Hemanta Kumar Mondal	IET Computer and Digital Techniques	IET	2021-08-28
Sujit Kumar Mandal	AEUE-International Journal of Electronics and Communications	Elsevier	2021-04-10
Sujit Kumar Mandal	Antenna and Wireless Propagation Letters	IEEE	2021-05-01
Sujit Kumar Mandal	Antenna and Wireless Propagation Letters	IEEE	2022-01-21
Sujit Kumar Mandal	Antenna and Wireless Propagation Letters	IEEE	2022-02-05
Sujit Kumar Mandal	Antenna and Wireless Propagation Letters	IEEE	2022-03-27
Sujit Kumar Mandal	Transaction on antennas & propagation	IEEE	2021-05-30
Sujit Kumar Mandal	Digital Signal Processing	Elsevier	2021-08-03
Sujit Kumar Mandal	Digital Signal Processing	Elsevier	2021-08-04
Sujit Kumar Mandal	Digital Signal Processing	Elsevier	2021-10-28
Sujit Kumar Mandal	Digital Signal Processing	Elsevier	2021-12-28
Sujit Kumar Mandal	Engineering Science and Technology, an International Journal	Elsevier	2021-09-12
Sujit Kumar Mandal	Materials Today Proceedings	Elsevier	2021-09-12
Sujit Kumar Mandal	Materials Today Proceedings	Elsevier	2021-12-22
Sujit Kumar Mandal	Microwave and Optical Technology Letters	Wiley	2022-04-07
Sujit Kumar Mandal	Microwave and Optical Technology Letters	Wiley	2022-05-29
Sujit Kumar Mandal	RF & microwave computer aided design	Wiley	2022-03-27
Sujit Kumar Mandal	RF & Microwave computer aided design	Wiley	2021-11-18
Sujit Kumar Mandal	RF & Microwave computer aided design	Wiley	2021-11-02
Sapana Ranwa	Materials Research Express	IOP Sciences	2022-02-18
Sapana Ranwa	Nanotechnology	IOP Sciences	2021-12-09
Rowdra Ghatak	Institution of Electronics and Telecommunication Engineers	Taylor & Francis	2021-04-05
Rowdra Ghatak	Microwave and Wireless Components Letters	IEEE	2021-04-05
Rowdra Ghatak	RF & microwave computer aided design	Wiley	2021-04-08
Rowdra Ghatak	Microwave and Wireless Components Letters	IEEE	2021-04-29
Rowdra Ghatak	RF & microwave computer aided design	Wiley	2021-04-29
Rowdra Ghatak	Microwave and Wireless Components Letters	IEEE	2021-05-08
Rowdra Ghatak	Microwave and Optical Technology Letters	Wiley-Blackwell	2021-05-18
Rowdra Ghatak	RF & microwave computer aided design	Wiley	2021-05-27
Rowdra Ghatak	IEEE Transaction on vehicular technology	IEEE	2021-05-30
Rowdra Ghatak	IEEE Transaction on vehicular technology	IEEE	2021-06-14

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Reviewer	Name of the Journal	Publisher	Date of Final Review
Rowdra Ghatak	RF & microwave computer aided design	Wiley	2021-06-14
Rowdra Ghatak	Microwave and Wireless Components Letters	IEEE	2021-06-21
Rowdra Ghatak	Journal of Electromagnetic Waves and Applications	Taylor & Francis	2021-06-27
Rowdra Ghatak	RF & microwave computer aided design	Wiley	2021-06-28
Rowdra Ghatak	Institution of Electronics and Telecommunication Engineers	Taylor & Francis	2021-06-29
Rowdra Ghatak	IEEE Transaction on vehicular technology	IEEE	2021-07-11
Rowdra Ghatak	Microwave and Wireless Components Letters	IEEE	2021-07-12
Rowdra Ghatak	RF & microwave computer aided design	Wiley	2021-07-13
Rowdra Ghatak	Transaction on antennas & propagation	IEEE	2021-07-28
Rowdra Ghatak	IEEE Transaction on vehicular technology	IEEE	2021-08-09
Rowdra Ghatak	Microwave and Wireless Components Letters	IEEE	2021-08-10
Rowdra Ghatak	Microwave and Wireless Components Letters	IEEE	2021-08-12
Rowdra Ghatak	Microwave and Optical Technology Letters	Wiley-Blackwell	2021-08-24
Rowdra Ghatak	Journal of Electromagnetic Waves and Applications	Taylor & Francis	2021-08-25
Rowdra Ghatak	RF & microwave computer aided design	Wiley	2021-08-28
Rowdra Ghatak	RF & microwave computer aided design	Wiley	2021-08-28
Rowdra Ghatak	Microwave and Optical Technology Letters	Wiley-Blackwell	2021-09-08
Rowdra Ghatak	RF & microwave computer aided design	Wiley	2021-09-08
Rowdra Ghatak	IEEE Transaction on vehicular technology	IEEE	2021-09-09
Rowdra Ghatak	Microwave and Wireless Components Letters	IEEE	2021-09-20
Rowdra Ghatak	IEEE Transaction on vehicular technology	IEEE	2021-09-29
Rowdra Ghatak	Microwave and Wireless Components Letters	IEEE	2021-09-29
Rowdra Ghatak	Microwave and Wireless Components Letters	IEEE	2021-09-29
Rowdra Ghatak	RF & microwave computer aided design	Wiley	2021-10-18
Rowdra Ghatak	IEEE Transaction on vehicular technology	IEEE	2021-10-19
Rowdra Ghatak	IEEE Transaction on vehicular technology	IEEE	2021-10-22
Rowdra Ghatak	Institution of Electronics and Telecommunication Engineers	Taylor & Francis	2021-10-24
Rowdra Ghatak	IEEE Transaction on vehicular technology	IEEE	2021-11-01
Rowdra Ghatak	RF & microwave computer aided design	Wiley	2021-11-11



Reviewer	Name of the Journal	Publisher	Date of Final Review
Rowdra Ghatak	IEEE Transaction on vehicular technology	IEEE	2021-12-30
Rowdra Ghatak	Microwave and Optical Technology Letters	Wiley-Blackwell	2022-01-06
Rowdra Ghatak	Microwave and Wireless Components Letters	IEEE	2022-01-09
Rowdra Ghatak	Transaction on antennas & propagation	IEEE	2022-01-10
Rowdra Ghatak	Transaction on antennas & propagation	IEEE	2022-01-25
Rowdra Ghatak	RF & microwave computer aided design	Wiley	2022-02-11
Rowdra Ghatak	Microwave and Optical Technology Letters	Wiley-Blackwell	2022-02-17
Rowdra Ghatak	Microwave and Wireless Components Letters	IEEE	2022-02-17
Rowdra Ghatak	Journal of Electromagnetic Waves and Applications	Taylor & Francis	2022-02-27
Rowdra Ghatak	IEEE Transaction on vehicular technology	IEEE	2022-03-07
Rowdra Ghatak	Microwave and Optical Technology Letters	Wiley-Blackwell	2022-03-18
Rajat Mahapatra	Silicon	Springer	2021-10-12
Rajat Mahapatra	International Journal of RF and Microwave Computer-Aided Engineering	Wiley	2021-05-14
Rajat Mahapatra	International Journal of RF and Microwave Computer-Aided Engineering	Wiley	2021-09-29
Rajat Mahapatra	Crystals	MDPI	2021-11-22
Rajat Mahapatra	Nature Electronics	Nature	2021-11-05
Rajat Mahapatra	Sensors and Actuators A	Springer	2021-08-11
Rajat Mahapatra	Journal of Computational Electronics	Springer	2021-06-17
Rajat Mahapatra	Thin Solid Films	Science Direct	2021-06-26
Nilanjan Chattaraj	IEEE Transactions on Instrumentation and Measurement	IEEE	2022-01-22

4.6.28 Invited Examiners/Paper-Setters/Board of Studies

Name of the Faculty	Name of the Examination	University/Institute	From Date	To Date
Sanjay Dhar Roy	PhD Thesis Evaluation	Anna University	2022-05-09	2022-06-26
Sanjay Dhar Roy	PhD Thesis Evaluation	Visvesvaraya Technological University Jnana Sangama, Belagavi- 590 018, Karnataka State, India.	2022-06-01	2022-07-15
Sanjay Dhar Roy	PhD Thesis Evaluation	Charotar University of Science and Technology (CHARUSAT), Gujrat	2022-03-30	2022-05-07
Sanjay Dhar Roy	PhD Thesis Evaluation	Anna University, Chennai 600 025. India.	2022-04-19	2022-08-24
Sanjay Dhar Roy	PhD Viva voce Examination	Anna University	2021-10-07	2021-10-07
Sanjay Dhar Roy	B Tech ODD Semester Examination	Integral University, Lucknow	2021-12-03	2021-12-13

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Name of the Faculty	Name of the Examination	University/Institute	From Date	To Date
Hemanta Kumar Mondal	External Examiner of Subject Hardware Description Language V A ETRX	G H Raisoni College of Engineering Nagpur	2021-11-09	2021-11-09
Rowdra Ghatak	Member of Board of Studies in Electronics and Communication Engineering	North Eastern hill University Shilong	2019-07-01	2022-09-15
Rowdra Ghatak	Member of PG board of studies in Electronics and Communication	University of burdwan	2021-01-29	2022-09-15
Rajat Mahapatra	External examiner of Ph D thesis and viva-voce	Jadavpur University	2021-06-29	2021-06-29
Sumit Kundu	PhD Thesis Examination	NIT Calicut	2021-03-17	2021-03-17

4.6.29 Invited Expert in Selection Committees

Name of the Faculty	Discipline	University/Institute	From Date	To Date
Rowdra Ghatak	Electronics and Communication Engineering	Tripura Public Service Commission	2021-12-16	2021-12-18

4.6.30 Invited Lectures

Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Aniruddha Chandra	Cache-aided NOMA networks	AICTE-ISTE Sponsored Induction/Refresher Program on Artificial Intelligence in Cooperative NOMA (5G) Network	Jaipur, Rajasthan	2021-12-21	2021-12-27
Sanjay Dhar Roy	IoT Enabled Wireless Communication Systems	FDP on Emerging Trends in IOT Enabled Wireless Communication	Haldia Institute of Technology, WB, India	2022-08-08	2022-08-12
Nilanjan Chattaraj	"IoT and IIoT associated to Biomedical Applications"	Online Short Term Course on Internet of Things (IoT) Opportunities, issues and challenges for control and Biomedical Applications	National Institute of Technology Jalandhar (Online Mode)	2021-10-06	2021-10-10
Hemanta Kumar Mondal	VLSI Chip Design RTL to GDSII Flow	FDP on Future Advancements in the field of Telecommunication and Embedded System	R K G I T, Ghaziabad	2022-08-27	2022-08-27
Sapana Ranwa	Recent Development of 2-Dimensional Transition Metal Dichalcogenides	Faculty Development Program on Emerging Technologies	Dr. B. C. Roy Engineering College Durgapur, West Bengal, India	2022-03-08	2022-03-08



Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
	Based Flexible Sensors				
Rowdra Ghatak	Circuit Design Challenges in 5G Advanced Systems	e-STC on "Recent Innovation and Development in RF and Microwave Engineering for Wireless Communication", from 12th May to 16th May 2022	Online mode	2022-05-12	2022-05-16
Rowdra Ghatak	Metamaterial Antennas	TCS Research Seminar	Online	2021-06-04	2021-06-04
Rowdra Ghatak	Recent Advancement in Microwave Filters and Antennas: Design, Techniques and Applications	e-STC held at NIT Hamirpur	online mode	2021-07-24	2021-07-24
Rajat Mahapatra	Flexible Resistive memory Devices	IEEE Workshop on Nanotechnology for Microelectronics, VLSI and Sensors	IIT Khargapur	2021-09-25	2021-09-25
Rajat Mahapatra	OxRAM: An Emerging Memory Technology	International Conference on Computational Techniques and Applications – ICCTA 2021	Virtual	2021-10-10	2021-10-10
Durbadal Mandal	Design of Time Modulation based Antenna Arrays using ML	One week FDP on "Artificial Intelligence Enabled Sensors and Networks for 5G Wireless Communications"	Department of ECE, Mahendra Engineering College, Mallasamudram, Nammakal - 637503	2021-12-06	2021-12-12

4.6.31 Session Chair/Convenor

Name of the Faculty	Programme	Place	Session	From Date	To Date
Aniruddha Chandra	IEEE VTC 2021-Spring	Helsinki, Finland	Terahertz Channels and Systems	2021-04-25	2021-04-28
Aniruddha Chandra	IEEE VTC 2021-Fall	Virtual	5G mmWave Channel Measurement, Models & System	2021-09-27	2021-10-28
Sanjay Dhar Roy	IEEE CONNECT 2022	Bangalore	Track E	2022-07-08	2022-07-10
Hemanta Kumar Mondal	7th IEEE International Symposium on Smart Electronic Systems	MNIT Jaipur (Online mode)	Hardware Accelerators for IoT-Edge Computing (HAI)	2021-12-20	2021-12-22

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Sapana Ranwa	2nd International Conference on Microelectronics, Communication Systems, Machine Learning & Internet of Things (MCM2021)	Advanced Regional Telecom Training Centre, BSNL, Hazaribag Road, Ranchi	Microelectronics & Communication Systems	2021-10-23	2021-10-24
Sapana Ranwa	Online Workshop on National Education Policy (NEP-2020)	NIT Durgapur	Half day Online workshop	2022-03-21	2022-03-21

4.6.32 Patents

Title	Inventors	Application Nos	Date of Filling
A system and a method for monitoring and rating alertness remotely	Bej, Debabrata; Kumar Mal, Ashis	2021103518	2021-09-14

4.6.33 Workshops/Seminars Organized

Name of Key Speaker(s)	Name of the Programme	Date of the Programme
David Michelson, Akbar Sayeed, Wilhelm Keusgen, Mohamed-Slim Alouini	Workshop on Terahertz Channels and Systems, IEEE VTC 2021-Spring	2021-04-27
David G Michelson	Workshop on 5G mmWave Channel Measurement, Models & Systems, IEEE VTC 2021-Fall	2021-09-27
Dr. Maidul Islam, Dr. Shri Krishan Rai	Online Workshop on National Education Policy (NEP-2020)	2022-03-21
Dr. Surendra Pal; Dr Tapas Chakravarty; Sri Suman Sinha; Sri Chanchal Chakraborty	Wireless Trends in Transforming Industries	2021-09-28
Dr. Sudhan Majhi	Signal Processing with MATLAB	2021-12-04
Dr. Pradipta patra, Mr. Chandra Mohan Sharma, Dr. Arpan Chattapadhyay	3rd Research Scholar Day	2021-12-28

4.7 Department Of Electrical Engineering

4.7.1 Department at a Glance

The Electrical Engineering department was established in the year 1960. Presently the department offers B. Tech in Electrical Engineering, with intake capacity of 100 students, M. Tech in Power Systems, Power Electronics & Machine Drives and Instrumentation & Control having intake of 20, 20 and 15 students respectively. The Department also has a PhD program. The students from different states of India and also from different countries are presently studying in the department. The department has 25 nos. of qualified and highly motivated faculty members with various specializations; is equipped with 19 different laboratories, and among these, 8 laboratories have modern state of the art facilities for research and consultancy work. The department also has strong regional and foreign collaboration.

4.7.2 Mission & Vision

Mission:

- To impart quality education for producing qualified and motivated Engineers and Researchers who will contribute meaningfully to the growth and development of the country.



National Institute of Technology Durgapur

- To encourage the faculties and the students for research-oriented teaching-learning environment in the department with a focus on excellence and innovation.
- To pursue creative research and consultancy developing new technologies in Electrical Engineering in order to serve the needs of industry and country as a whole.
- To create congenial atmosphere for collaborative research, consultancy and other technical activities.

Vision:

- To impart quality education and focus on research and innovation in Electrical Sciences to cater to the need of the country.

Vision

- To impart quality education and focus on research and innovation in Electrical Sciences to cater to the need of the country.

4.7.3 Faculty

Name	Designation	Email-id
Dr. N. K. Roy	Professor-HAG	nirmalkumar.roy@ee.nitdgp.ac.in
Dr. S. S. Thakur	Professor	sst@ee.nitdgp.ac.in
Dr. S. Banerjee	Professor	subrata.banerjee@ee.nitdgp.ac.in
Dr. P. Acharjee	Professor	parimal.acharjee@ee.nitdgp.ac.in
Dr. Chiranjib Koley	Professor	chiranjib.koley@ee.nitdgp.ac.in
Dr. S. N. Mahato	Professor	sankar.mahato@ee.nitdgp.ac.in
Dr. T. K. Saha	Professor	tapas.saha@ee.nitdgp.ac.in
Dr. P. S. Bhowmik	Associate Professor	psbhowmik@ee.nitdgp.ac.in
Dr. (Smt.) Jayati Dey	Associate Professor	jayati.dey@ee.nitdgp.ac.in
Sri Avinandan Das	Assistant Professor	avinandan.das@ee.nitdgp.ac.in
Dr. Supriya Sarkar	Assistant Professor	supriya.sarkar@ee.nitdgp.ac.in
Sri J. C. Barman	Assistant Professor	jiteshchandra.barman@ee.nitdgp.ac.in
Dr. Suman Halder	Assistant Professor	suman.halder@ee.nitdgp.ac.in
Dr. Tushar Kanti Bera	Assistant Professor	tusharkanti.bera@ee.nitdgp.ac.in
Dr. Biman Kumar Saha Roy	Assistant Professor	bk.saharoy@ee.nitdgp.ac.in
Dr. A. Bhattacharya	Assistant Professor	aniruddha.bhattacharya@ee.nitdgp.ac.in
Dr. Aritro Dey	Assistant Professor	aritra.dey@ee.nitdgp.ac.in
Dr. Ashis Kumar Dhara	Assistant Professor	ashis.dhara@ee.nitdgp.ac.in
Dr. Irfan Ahmed	Assistant Professor	ahmed.irfan@ee.nitdgp.ac.in
Dr. Aashish Kumar Bohre	Assistant Professor	aashishkumar.bohre@ee.nitdgp.ac.in
Dr. Manika Saha	Assistant Professor	manika.saha@ee.nitdgp.ac.in
Dr. Soumya Chatterjee	Assistant Professor	soumya.chatterjee@ee.nitdgp.ac.in
Dr. Santanu Paul	Assistant Professor	santanu.paul@ee.nitdgp.ac.in
Dr. Omkar Yadav	Assistant Professor	omkar.yadav@ee.nitdgp.ac.in

4.7.4 Equipments

Sl. No.	Name of the equipment	Date of Purchase	Amount
1	Heat Sink	04.03.2022	8,800/-
2	Function Generator	04.03.2022	16,198/-
3	Semiconductor Device	04.03.2022	24,957/-
4	Digital Storage Oscilloscope	17.03.2022	199,909/-
5	Microprocessor Circuit Components	31.03.2022	107,625/-
6	Single Phase Inductive Load	13.04.2022	23,925/-

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4.7.5 Labs

Sl. No.	Name of Laboratory	Major equipment
1	Electrical Technology Laboratory	Setup for Open Circuit and Short Circuit Test of Single Phase Transformer, Three Phase Wattmeter for power measurement in three phase circuit Setup, Test Energy Meter and Standard Energy Meter for Energy Meter Calibration Setup, Setup for RL, RC, RLC analysis, Set up for determining characteristics of Fluorescent Lamp, Set up for determining Characteristics of Incandescent Lamp, Setup ups for verification of Superposition Theorem, Thevenin's Theorem, Norton Theorem and Maximum Power Transfer Theorem
2	Electrical Networks Laboratory	Setups of RL, RC and RLC transient set Low Pass, High Pass Filter, Frequency response each comprising of Function Generators and Digital Storage Oscilloscopes, Setup for understanding the basics of Magnetic Coupling, Set up for Two port Network
3	Electrical Measurements Laboratory	Setup for Power measurement by three Voltmeter and three ammeter, Setup for DC Crompton Potentiometer, Setup for Power measurement by Instrument Transformer, Setup for Kelvin Double Bridge, Set up for Linear Variable Differential Transformer, Digital Earth Resistance Meter, Setups for Anderson Bridge, Schering Bridge and Wien Bridge, Set up for calibration of Digital Energy Meter
4	Electrical Machines Laboratory	Single-phase transformer, Three-phase transformer, DC shunt machine, DC series machine, DC compound machine, Three-phase induction motor, Single-phase induction motor, Three-phase alternator, Three-phase synchronous motor, Single-phase variac, Three-phase auto-transformer, Resistive load box.
5	Control Systems Laboratory	DC Servo Position Control System, DC Servo Speed Control System, AC Servomotor Speed Control System, Linear System Simulator, Temperature Control System, Lead-Lag Network, DC Machine Set-up for Identification of Transfer Function for DC Motor, Two Phase AC Servomotor Set-up for Determination of Transfer Function, P-I-D Controller Set-up for Control of LTI Systems
6	Embedded System Laboratory	Microcontroller kit, Computer, Function Generator, Interfaces, PCB Prototyping Machine, Keil C Compiler
7	Power Electronics Laboratory	Single Phase Bridge Inverter (IGBT), Three Phase SCR module, 3-phase 5-level Cascaded H-bridge inverter power module, Speed Control of 3-phase induction motor with IPM and Micro-2407, Four-quadrant operation of DC-DC chopper with IGBT, Speed Control of DC motor with single phase triggering and device module, DC-DC SEPIC Converter, DC-DC FORWARD Converter, DC-DC Flyback Converter Trainer, Single phase step-down cycloconverter.
8	Power Systems Laboratory	IDMT over-current relay experiment setup, Directional over-current relay (inverse) type CDD experiment setup, Numerical Distance Protection Relay MiCOM P442 experiment setup, Parallel Feeder Protection experiment setup, Negative sequence protection of three-phase induction motor experiment setup, Study of over-voltage relay experiment setup, Biased Differential Relay experiment setup, Biased Differential Protection of a single phase Transformer experiment setup, Restricted E/F Protection of 3-phase Transformer experiment setup, Over-current and Earth fault protection scheme for three phase system experiment setup, Cable Fault Locator, Power Quality Analyzer
9	Power Systems Laboratory II	IDMT over-current relay experiment setup, Directional over-current relay (inverse) type CDD experiment setup, Numerical Distance Protection Relay MiCOM P442 experiment setup, Parallel Feeder Protection experiment setup, Negative sequence protection of three-phase induction motor experiment setup, Study of over-voltage relay experiment setup, Biased Differential Relay experiment setup, Biased Differential Protection of a single phase Transformer experiment setup, Restricted E/F Protection of 3-phase Transformer experiment setup, Over-current and Earth fault protection scheme for three phase system experiment setup, Cable Fault Locator, Power Quality Analyzer
10	Advanced Power System Laboratory	Relay Test Set, Directional Overcurrent relay, Cable fault locator, Oscilloscope, Function Generator, Power Quality Analyzer, Parallel Feeder Protection Test Kit, Directional overcurrent relay, Non-directional over current relay, Test Bench for ratio, polarity, magnetizing characteristic of CT and PT, Numerical Distance protection kit, Ferranti Effect and Parameter Measurement Kit, Transmission line simulation kit, Solar Photovoltaic Training and Research Kit
11	Power System Simulation Laboratory	Computers, MATLAB, MiPower software.



Sl. No.	Name of Laboratory	Major equipment
12	Computational Laboratory	Computers, MATLAB, MiPower software, PSIM software, OrCAD PSPICE software, PSCAD
13	High Voltage and Liquid Insulation Laboratory	AC High Voltage Test System, Impulse Voltage Test System, Partial Discharge Test System, 100 kV oil BDV Tester, C and Tan Delta test set up, 100 kV AC Test set up, Kinematic Viscosimeter bath, Digital C, tan Delta and resistivity test set, Pen-sky martens closed cup flash point tester
14	Machine Drives Laboratory	TMS 320F2812 DSP Processor, TMS 320F28335 DSP Processor, Multilevel Inverter, Intelligent Power Module, Three phase induction motor, Brushless DC Motor, Permanent Magnet Synchronous Machine with Spring Balance Loading Arrangement
15	Advanced Control System Laboratory	Digital Pendulum Control System with Personal Computer, Magnetic Levitation System with Personal Computer, Twin Rotor MIMO System with Personal Computer, Precision Modular Servo Workshop with Personal Computer
16	Advanced Power Electronics Laboratory	Single Phase Bridge Inverter (IGBT), Three Phase SCR module, 3-phase 5-level Cascaded H-bridge Inverter power module, Speed Control of 3-phase induction motor with IPM and Micro-2407, Four-quadrant operation of DC-DC chopper with IGBT, Speed Control of DC motor with single phase triggering and device module, DC-DC SEPIC Converter, DC-DC FORWARD Converter, DC-DC Flyback Converter Trainer, Single phase step-down cycloconverter
17	Instrumentation Laboratory	SOLAR PANEL SETUP comprising of crystalline solar cell; LIQUID LEVEL MEASUREMENT SETUP comprising of Ultrasonic level sensor, Sump tank, Solenoid valve, Water pump, Overhead tank, DCS (HC900 hardware) DCS (SCADA Software); FLOW MEASUREMENT SETUP comprising of Electrical actuator, control valve, Differential pressure transmitter, Solenoid valve, DCS (HC900 hardware) DCS (SCADA Software); TEMPERATURE MEASUREMENT SETUP comprising of RTD, Thermocouple & Thermistor; SPEED MEASUREMENT SETUP COMPRISING OF TACHOMETER & STROBOSCOPE ; 3 PHASE POWER MEASUREMENT SETUP
18	Biomedical Instrumentation Laboratory	Two Channel MP45 BIOPAC Signal Acquisition System Comprising of ECG Electrodes, Respiration Sensor, GSR Sensor, SPO2 Sensor, Computers, MATLAB
19	Intelligent System Laboratory	Computers, MATLAB

4.7.6 PhD degree awarded till 2021-22

Thirty Nine.

4.7.7 Any other relevant information:

- Prof. Subrata Banerjee has received Best Paper Award for the Journal 'International Journal of Modelling and Simulation', Taylor & Francis, 15.07.2021
- The paper "Equilibrium optimizer-tuned cascade fractional-order 3DOF-PID controller in load frequency control of power system having renewable energy resource integrated"- authored by Prof. Subrata Banerjee has been recognized as a top cited paper in International Transactions on Electrical Energy Systems for 2020-2021.
- Prof. Subrata Banerjee and Dr. Aniruddha Bhattacharya have been Placed within 2% of scientists in the world by a survey conducted by a team of scientists at Stanford University, 2021-2022

4.7.8 Specialization

- Power Systems
- Power System
- Power electronics application in power system
- High Voltage Measurement and Instrumentation • Power Electronics & Control Systems
- High Voltage Engineering, Power System, ICT and IoT enabled High Voltage Laboratory facilities, Characterisation of Insulating Material
- Electrical Measurement & Instrumentation
- Power Electronics
- Biomedical Engineering
- Machines Drives

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- Control System
- Electrical Machines and Drives, Renewable energy systems

4.7.9 Proposed Plan for Research

- Electric Vehicle Charging
- Application of soft-computing techniques in electrical engineering field
- Condition monitoring of high voltage power apparatus
- Improved Power Converter design for Maglev, EV, battery Charger, PV system
- High Voltage Engineering related Research works and IoT enabled online monitoring facilities
- Synchrophasor assisted event analysis
- Analysis of Heart Rate Variability
- Pulse-width modulation techniques for modular multilevel converters using double-star chopper cell topology with embedded energy sources
- The research plan includes the projects and publication in the area of Power System Stability, Renewable Energy, Power System Optimization, Distribution System Planning, Microgrid Planning, Electric Vehicle, Planning of FACTS Devices, Power System Deregulation & Restructuring, Distributed Generation, Optimization Techniques,
- Machines Drives Operation,
- Control and Protection of Microgrids

4.7.10 Area of Research Interest

- Power System Planning, Power System Operation, Power System Analysis & Optimization
- Power System, Renewable Energy, Electrical Vehicle
- Renewable energy systems, Microgrids, Multifrequency systems
- Measurement and Instrumentation
- High Voltage Engineering, Power System, ICT and IoT enabled High Voltage Laboratory facilities, Characterisation of Insulating Material
- Modeling & Control of Switch-mode converters and Inverters, Multilevel Inverters & Different Modulation techniques, Power Quality, Electromagnetic Levitation, Active Magnetic Bearing, controller design, Intelligent control, Power Electronics & Machine Drives,
- Synchrophasor application in power system
- Biomedical Instrumentation
- Power System Stability, Renewable Energy, Power System Optimization, Distribution System Planning, Microgrid Planning, Electric Vehicle, Planning of FACTS Devices, Power System Deregulation & Restructuring, Distributed Generation, Optimization Techniques, Application of Soft Computing Techniques in power system dynamics and control.
- Multilevel Inverters, Pulsewidth Modulation Techniques for Multilevel Converters, Space Vector Modulation Techniques for Inverters, Electric and Hybrid Electric Vehicles
- Biomedical Engineering and Electric Vehicle
- Machines Drives
- Electric Power Distribution Systems
- State and Parameter Estimation, Target tracking, Robust control for aerospace applications
- Robust Control, Robotics and Mechatronics, Control of Converters, Unmanned Vehicles
- Electrical Drives, Renewable energy systems

4.7.11 Institute Industry Collaboration

Collaborating Institute Organization	Areas of collaboration	Collaboration Activities
M/S Navitas Control, Kolkata	PD Sensors for High Voltage Power Apparatus	Design & Development of PD Sensors for HV Power Apparatus
National Hydroelectric Power Corporation Ltd.	Condition Monitoring	Development of UHF Partial Discharge Monitoring SYstem
Collaborating Institute Organization	Areas of collaboration	Collaboration Activities
Central Power Research Institute,BANGALORE, M/S	High Voltage Engineering, Iot Enabled Online Monitoring Facilities	Technical Collaboration For Device Development



Shruti Electronics, KOLKATA, M/S Navitus
Control, KOLKATA, M/S Sensorzoid,
KOLKATA

4.7.12 Collaboration with Academic and Research Institutions

Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
KIIT University	Power System	one	Research
Jadavpur University	Research	Chiranjib Koley	Partial Discharge Monitoring
Central Power Research Institute, BANGALORE	Research/Development on Liquid Insulating Material	Prof N K Roy	Joint research and publication of papers
M/S Shruti Electronics, KOLKATA	R & D on High Voltage testing equipment & Devices	Prof N K Roy	Development High Voltage testing equipment & Devices
M/S Navitus Control, KOLKATA	R& D on High Voltage testing devices	Prof N K Roy, Prof C Koley, Dr P S Bhowmik & Dr A Bhattarchayya	Development of Online Monitoring Devices
M/S Sensorzoid, KOLKATA	R & D on High Voltage testing equipment & Devices	Prof N K Roy, Prof C Koley, Dr P S Bhowmik & Dr A Bhattarchayya	Development of Online Monitoring Devices
IIT Kharagpur	Power Electronics	Prof. Chandan Chakraborty	Joint Research & Guidance
CSIR-CMERI	Power Electronics	Dr. Santu Kumar Giri	Joint Research & Guidance
Ontario-Institute of Technology	Power Electronics	Prof. Sheldon Williamson	Joint Research & Publications
Institute of Minerals and Materials Technology (IMMMT), Bhubaneswar, Odisha	Electrical Impedance Tomography (EIT)	0	Developing the EIT Instrumentation for slurry pipe line imaging

4.7.13 Workshops/Seminars Organized

Name of Key Speaker(s)	Name of the Programme	Date of the Programme
Dr. Manas Kumar Sanyal; Prof S. N. Ghosh; Dr. Pradip Banerjee; Prof. Samarjit Kar; Dr. Gautam Bandhopadhyay; Prof. Nirmal K. Roy; Dr. Amlan Ghosh; P. Kumbhakar	Youth Development Programme (YDP) on Skill Development Through Education and Technology (SDET-2022)	2022-03-12

4.7.14 Journal: Published in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
1. Surajit Sannigrahi, Sriparna Roy Ghatak, Parimal Acharjee	Coordinated Planning of Distribution System With RES, DSTATCOM, and Protective Devices	IEEE Transactions on Industry Applications	Volume:57 Issue No:4 Page No:4294 - 4305 Year:2021 Month:Aug

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Author(s) Name	Paper Name	Journal Name	Others Info
S. Das, P. Acharjee and A. Bhattacharya	Charging Scheduling of Electric Vehicle incorporating Grid-to-Vehicle (G2V) and Vehicle-to-Grid (V2G) technology considering in Smart-Grid	EEE Transactions on Industry Applications	Volume:57 Issue No:2 Page No:1688-1702 Year:2021 Month:Apr
Arnab Pal, Aniruddha Bhattacharya, and Ajoy Kumar Chakraborty	Placement of Public Fast-Charging Station and Solar Distributed Generation with Battery Energy Storage in Distribution Network Considering Uncertainties and Traffic Congestion	Journal of Energy Storage	Volume:41 Issue No:1 Page No:102939 Year:2021 Month:September
Poluri Sri Mannarayana, Aritro Dey	Adaptive Kalman Filter based on Variational Bayesian Approach for One-step Randomly Delayed Measurements	Scientia Iranica	Volume: Issue No: Page No: Year:2022 Month:Aug
Poluri Sri Mannarayana, Aritro Dey	Adaptive Gaussian filters for nonlinear state estimation with one-step randomly delayed measurements	Asian Journal of Control	Volume: Issue No: Page No: Year:2022 Month:May
Sumit Kumar Pandey, Jayati Dey & Subrata Banerjee	On Internal Model Control (IMC) of MIMO Systems	IETE Journal of Research	Volume: Issue No: Page No: Year:2021 Month:Jul
Sumit Kumar Pandey, Jayati Dey & Subrata Banerjee	Generalized Discrete Decoupling and Control of MIMO Systems	Asian Journal of Control	Volume: Issue No: Page No: Year:2022 Month:Feb
Soham Dey, Subrata Banerjee & Jayati Dey	Practical Application of Fractional-Order PID Controller based on Evolutionary Optimization Approach for a Magnetic Levitation System	IETE Journal of Research	Volume: Issue No: Page No: Year:2022 Month:Mar
S. Ray, H. S. Chatterjee, S. N. Mahato, and N. K. Roy	Analysis of a Novel Three-phase Asynchronous Generator Based on Graph Theory for Supplying Single-Phase Load	IETE Journal of Research	Volume: Issue No: Page No:1 to 18 Year:2021 Month:July
Kuntal Bhattacharjee, Aniruddha Bhattacharya, Kathan Shah, Nitish Patel	Backtracking search optimization applied to solve short-term electrical real power generation of hydrothermal plant	Engineering Optimization	Volume:54 Issue No:9 Page No:1525-1543 Year:2021 Month:August
D. Guha, P.K. Roy, and S. Banerjee	, ‘Performance evolution of different controllers for frequency regulation of a hybrid energy power system employing chaotic crow search algorithm’	ISA Transactions	Volume:120 Issue No:1 Page No:128-146 Year:2021 Month:Apr
D. Guha, P.K. Roy, and S. Banerjee	Observer-aided resilient hybrid fractionalorder controller for frequency regulation of hybrid power system’	International Transactions on Electrical Energy Systems	Volume:31 Issue No:9 Page No:e13014 Year:2021 Month:Jun
N.Rana, S.Banerjee, S K. Giri & S. S. Williamson	"Modeling, Analysis and Implementation of an Improved Interleaved Buck-Boost Converter"	IEEE Transactions on Circuits and Systems II: Express Briefs	Volume:68 Issue No:7 Page No:2588-2592 Year:2021 Month:Jun
S. Anand, A. Dev, M. K. Sarkar and S. Banerjee,	“Non-Fragile Approach for Frequency Regulation in Power System with Eventtriggered Control and Communication Delays”	IEEE Transactions on Industry Applications	Volume:57 Issue No:3 Page No:2187-2201 Year:2021 Month:May



Author(s) Name	Paper Name	Journal Name	Others Info
S. Kundu & S. Banerjee	An Improved SHM-PAM Technique for Three-Phase Five-level CHB Inverter Utilizing both Quarter-Wave and Half-Wave Symmetry Waveforms to Fulfill Some Important Voltage Harmonic Standards” Vol:57, Issue:6, pp.,2021 IEEE Transactions on Industry Applications (SCI).	IEEE Transactions on Industry Applications	Volume:57 Issue No:6 Page No:6246-6260 Year:2021 Month:Aug
Pullabhatla Srikanth, Chiranjib Koley	Deep Learning and Signal Processing Based Algorithm for Autorecognition of Harmonic Loads	Journal of Intelligent & Fuzzy Systems	Volume:26 Issue No:2 Page No:1171-1184 Year:2022 Month:Jan
N.Rana, S. Sonar & S.Banerjee	Performance Investigation of Closed-Loop Dual Phase Interleaved Buck-Boost Converter with Dragonfly Optimized TypeIII Controller	IEEE Transactions on Circuits and Systems II: Express Briefs	Volume:69 Issue No:3 Page No:1472-1476 Year:2022 Month:Jun
Anitha Bhukya, Chiranjib Koley	Bi-Long Short-Term Memory Networks for Radio Frequency based Arrival Time Detection of Partial Discharge Signals	IEEE Transactions on Power Delivery	Volume:37 Issue No:3 Page No:2024 - 2031 Year:2021 Month:Aug
Sourav Dhara, Chiranjib Koley, Sivaji Chakravorti	A UHF Sensor Based Partial Discharge Monitoring System for Air Insulated Electrical Substations	IEEE Transactions on Power Delivery	Volume:36 Issue No:6 Page No:3649 – 3656 Year:2021 Month:May
Pullabhatla Srikanth, Chiranjib Koley	Fuzzified time-frequency method for identification and localization of power system faults	Journal of Intelligent & Fuzzy Systems	Volume:42 Issue No:2 Page No:1027-1039 Year:2022 Month:Jan
Pullabhatla Srikanth, Chiranjib Koley	A novel three-dimensional deep learning algorithm for classification of power system faults	Computers & Electrical Engineering	Volume:91 Issue No:1 Page No:100-107 Year:2021 Month:Aug
Pullabhatla Srikanth, Chiranjib Koley	An intelligent algorithm for autorecognition of power system faults using superlets	Sustainable Energy Grids and Networks	Volume:26 Issue No:2 Page No:104-112 Year:2021 Month:Sep
S. Sonar, S. Mondal , J. Ghommam, & S. Banerjee	An Optimized Space Vector Based Switching Algorithm With Reduced Switching Transitions for Impedance Source Inverter	IEEE Access	Volume:10 Issue No: Page No:28965-28974 Year:2022 Month:
S. Pandey, J. Dey & S. Banerjee	On Internal Model Control (IMC) of MIMO systems	IETE Journal of Research	Volume:online Issue No: Page No: Year:2021 Month:
K. Majumdar, P.K. Roy, and S. Banerjee	Implementation of Multi-Objective Chaotic Mayfly Optimization for Hydro-Thermal-Solar-Wind Scheduling based on Available Transfer Capability problem’	International Transactions on Electrical Energy Systems	Volume:online Issue No: Page No: Year:2021 Month:
K. Majumdar, P.K. Roy, and S. Banerjee,	Available Transfer Capability Calculation of Power Systems using Opposition Selfish Herd Optimizer’	IETE Journal of Research	Volume:online Issue No:August Page No: Year:2021 Month:
S. Pandey, J. Dey & S. Banerjee	Generalized Discrete Decoupling and Control of MIMO Systems	Asian Journal of Control	Volume:online Issue No:july Page No: Year:2021 Month:

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Author(s) Name	Paper Name	Journal Name	Others Info
S. Dey, S. Banerjee, J. Dey	Practical Application of Fractional-Order PID Controller based on Evolutionary Optimization Approach for a Magnetic Levitation System	IETE Journal of Research,	Volume:online Issue No:march Page No: Year:2022 Month:
S. Sonar, S. Mondal , J. Ghommam, & S. Banerjee	An Optimized Space Vector Based Switching Algorithm With Reduced Switching Transitions for Impedance Source Inverter	IEEE Access	Volume:10 Issue No: Page No:28965-28974 Year:2022 Month:
S. Sonar, N. Rana, & S. Banerjee	Improved Space vector based PWM technique for three Phase Z-Source Inverter	IEEE Journal of Emerging and Selected Topics in Industrial Electronics	Volume: Issue No: Page No: Year:2022 Month:
Prof N K Roy	A novel approach of high-voltage lowcurrent electric energy input to synthesise cost-effective ultra-strong ductile material	Philosophical Magazine	Volume:101 Pages 555-575 Publisher Taylor & Francis Issue No:Issue 5 Page No:Pages 555-575 Year:2021 Month:Mar
Sambaran Ray, Himadri Sekhar Chatterjee, Dipanjan Samajpati, Sankar Narayan Mahato, Nirmal Kumar Roy	Two-port network-based modeling and analysis of three-phase self-excited induction generator used in renewable energy systems	Book: Advances in Smart Grid Automation and Industry 4.0	Volume: Issue No: Page No:411-418 Year:2021 Month:
Mousumi Mallick, Swapam Kumar Mitra, Debasish Basak, Nirmal Kumar Roy, Joydeep Maity	Hardening of Steel Through High-Voltage Low-Current Energy Input	Steel research international	Volume:92 Issue No:5 Page No:2000588 Year:2021 Month:May
Shubhrajyoti Kundu ,Mehebab Alam ,Biman K. Saha Roy ,and Siddhartha Sankar Thakur	Allocation of Optimal PMUs for Power System Observability Using PROMETHEE Approach	International Transactions on Electrical Energy Systems	Volume:2022 Issue No:Article ID 1625853 Page No: Year:2022 Month:Mar
Prasenjit Dey, Anulekha Saha, Poluri Srimannarayana, Aniruddha Bhattacharya and Boonruang Marungsri	A Realistic Approach Towards Solution of Load Frequency Control Problem in Interconnected Power Systems	Journal of Electrical Engineering & Technology	Volume:17 Issue No:2 Page No:759-788 Year:2021 Month:October
Bikram Das, Debashis Chatterjee and Aniruddha Bhattacharya	Multilevel converter topology suitable for separate and variable magnitude of DC sources	International Journal of Power Electronics	Volume:15 Issue No:2 Page No:194-215 Year:2022 Month:March
Saikat Ghosh and S N Mahato	Multi-variable Optimization Formulation for Maximum Power Transmission Capability of a Standalone Six-phase Induction Generator	Distributed Generation & Alternative Energy Journal	Volume:37 Issue No:3 Page No:683 to 702 Year:2022 Month:February
H. S. Chatterjee and S. N. Mahato	A New and Simple Mathematical Technique to Study the Steady-state Performance of Isolated Asynchronous Generator	Distributed Generation & Alternative Energy Journal	Volume:37 Issue No:3 Page No:663 to 682 Year:2022 Month:February



Author(s) Name	Paper Name	Journal Name	Others Info
K Majumdar, P.K. Roy, and S. Banerjee	Framework of Hybrid Renewable Energy with Conventional Power Generation Scheduling: using Novel Meta Heuristic Optimization Algorithm	The International Journal of Power and Energy Systems, ACTA Press	Volume: Issue No: Page No: Year:2022 Month:
Prashant Kumar, Ashis Kumar Das, Suman Halder	Statistical Heart rate variability analysis under rest and post exercise	International Journal of Computational Science and Engineering	Volume:25 Issue No:2 Page No:186-197 Year:2022 Month:Apr

4.7.15 Journal: Accepted for Publication in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
Arnab Pal, Aniruddha Bhattacharya, and Ajoy Kumar Chakraborty	Placement of Electric Vehicle Charging Station and Solar DG in Distribution System considering Uncertainties	Scientia Iranica	Volume:- Issue No:- Page No:- Year:2021 Month:July
D. Guha, P.K. Roy, and S. Banerjee	Adaptive fractional-order sliding-mode disturbance observer-based robust theoretical frequency controller applied to hybrid wind-diesel power system	ISA Transactions	Volume: Issue No: Page No: Year:2022 Month:
S. Dey, S. Banerjee, J. Dey	Design of an improved robust fractional order PID controller 4 for magnetic levitation system based on atom search optimization	Sadhana	Volume: Issue No: Page No: Year:2022 Month:
K Majumdar, P.K. Roy, and S. Banerjee	Multi-Objective Chaotic Mayfly Optimization for Solar-Wind-HydroThermal Scheduling Based on ATC Problem	The International Journal of Power and Energy Systems, ACTA Press	Volume: Issue No: Page No: Year:2022 Month:
S. Ray, H. S. Chatterjee, D. Samajapati, S. N. Mahato, and N. K. Roy	BSA Based Analysis of Three-Phase Standalone Asynchronous Generator Using Two-Port Network	International Journal of Power Electronics	Volume: Issue No: Page No: Year:2021 Month:

4.7.16 Journal: Published in Others in 2021-2022

Author(s) Name	Paper Name	Journal Name	Others Info
S. Kundu & S. Banerjee,	Power Quality Improvement Meeting Important Grid Codes Using Three-phase Five-level CHB Inverter with Improved Quarter and Half-Wave Symmetry Based Optimized SHMPAM	IEEE Journal of Emerging and Selected Topics in Industrial Electronics	Volume:Early Access Issue No: Page No: Year:2021 Month:

4.7.17 Journal: Accepted in Others in 2021-2022

Author(s) Name	Paper Name	Journal Name	Others Info
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Aashish Kumar Bohre, Biman Kumar Saha Roy	Over current protection of distribution system with impact of solar and wind generation using DIGSilent power factory	International Journal of Engineering, Science and Technology	Volume:14 Issue No:3 Page No:122-131 Year:2021 Month:Nov
Suchismita Nayak; Aashish Kumar Bohre	Status of electric vehicles charging methods	International Journal of Engineering, Science and Technology	Volume:14 Issue No:3 Page No:132-143 Year:2021 Month:Nov

4.7.18 Conference: Published in 2021-2022 DOI/ISBN

Author(s) Name	Paper Name	Conference Name	Others Info
Sourav Das, Parimal	Coordinated Charging Scheduling for	2021 Annual Meeting - IEEE Industry	DOI/ISBN:
Acharjee, Aniruddha Bhattacharya	Electric Vehicles and Optimal Tuning of the Controller for Frequency Regulation under Uncertain Environment	Applications Society	10.1109/IAS48185.2021.9677300 Volume: Issue No: Page No:6 Year:2021 Month: Presenter:CO- AUTHOR
Sourav Das, Parimal Acharjee, Aniruddha Bhattacharya	A Comprehensive Planning and Analysis of Coordinated Charging Scheduling for On-Road Electric Vehicles	IEEE 4th International Conference on Computing, Power and Communication Technologies (GUCON)	DOI/ISBN: 10.1109/GUCON50781.2021.957 4000 Volume: Issue No: Page No:6 Year:2021 Month:Sep Presenter:CO- AUTHOR
Arnab Pal; Aniruddha Bhattacharya; Ajoy Kumar Chakraborty	Planning of EV Charging Station with Renewable based Generation in an Overlaid Network Considering Uncertainty and Traffic Flow	2021 IEEE 4th International Conference on Computing, Power and Communication Technologies (GUCON)	DOI/ISBN: 10.1109/GUCON50781.2021.957 3944 Volume: Issue No: Page No:1-6 Year:2021 Month:Sep Presenter:CO- AUTHOR
Sourav Das; Parimal Acharjee; Aniruddha Bhattacharya	A Comprehensive Planning and Analysis of Coordinated Charging Scheduling for On-Road Electric Vehicles	2021 IEEE 4th International Conference on Computing, Power and Communication Technologies (GUCON)	DOI/ISBN: 10.1109/GUCON50781.2021.957 4000 Volume: Issue No: Page No:1-6 Year:2021 Month:Sep Presenter:CO- AUTHOR
Sourav Das; Parimal Acharjee; Aniruddha Bhattacharya	Coordinated Charging Scheduling for Electric Vehicles and Optimal Tuning of the Controller for Frequency Regulation under Uncertain Environment	2021 IEEE Industry Applications Society Annual Meeting (IAS)	DOI/ISBN: 10.1109/IAS48185.2021.9677300 Volume: Issue No: Page No:1-6 Year:2021 Month:Oct Presenter:CO- AUTHOR
Rupali Brahmachary; Aniruddha Bhattacharya; Irfan Ahmed	Allocation of Active Power Filter in Distribution Network Considering Nonlinear Loads	2021 IEEE 2nd International Conference on Smart Technologies for Power, Energy and Control (STPEC)	DOI/ISBN: 10.1109/STPEC52385.2021.9718 732 Volume: Issue No: Page No:1-6 Year:2021 Month:Dec Presenter:CO- AUTHOR
Arnab Pal; Sourav Das; Ajoy Kumar Chakraborty; Parimal	Cost Benefit Analysis of EV Charging Scheduling under Stochastic Framework Considering PV and Battery Energy Storage	2021 IEEE 2nd International Conference on Smart Technologies for Power, Energy and Control (STPEC)	DOI/ISBN: 10.1109/STPEC52385.2021.9718 674 Volume: Issue No: Page No:1-6 Year:2021 Month:Dec Presenter:CO-



Acharjee; Aniruddha Bhattacharya		AUTHOR	
Sourav Das; Arnab Pal; Parimal Acharjee; Ajoy Kumar Chakraborty; Aniruddha Bhattacharya	Uncertainty based Electric Vehicle Charging Scheduling with V2G feature considering Photovoltaic and Battery Energy Storage	2022 IEEE International Conference on Power Electronics, Smart Grid, and Renewable Energy (PESGRE)	DOI/ISBN: 10.1109/PESGRE52268.2022.971 5930 Volume: Issue No: Page No:1-6 Year:2022 Month:Jan Presenter:CO- AUTHOR
Dhritiman Adhya; Arnab Pal; Ajoy Kumar Chakraborty; Aniruddha Bhattacharya	Machine Learning Application for Prediction of EV Charging Demand for the Scenario of Agartala, India	2022 4th International Conference on Energy, Power and Environment (ICEPE)	DOI/ISBN: 10.1109/ICEPE55035.2022.9798 369 Volume: Issue No: Page No:1-5 Year:2022 Month:Apr Presenter:CO- AUTHOR
RAJDIP DEY, SHABARI NATH	A new Power Distribution concept for Multifrequency Microgrid	2021 IEEE 12th Energy Conversion Congress & Exposition - Asia (ECCE- Asia)	DOI/ISBN: 10.1109/ECCEAsia49820.2021.9 479014 Volume: Issue No: Page No:1-6 Year:2021 Month:May Presenter:SELF
RAJDIP DEY, SHABARI NATH	A New Active and Reactive Power Control Strategy for Multifrequency Microgrid in Islanded Mode	2021 5th International Conference on Smart Grid and Smart Cities (ICSGSC)	DOI/ISBN: 10.1109/ICSGSC52434.2021.949 0493 Volume: Issue No: Page No: Year:2021 Month:Aug Presenter:SELF
RAJDIP DEY	Grid interactive converter of Multifrequency microgrid	2021 National Power Electronics Conference (NPEC)	DOI/ISBN: 10.1109/NPEC52100.2021.96725 42 Volume: Issue No: Page No: Year:2021 Month:Dec Presenter:SELF
RAJDIP DEY, SHABARI NATH	Orthogonality of different frequency Reactive powers in Multifrequency system	2021 National Power Electronics Conference (NPEC)	DOI/ISBN: 10.1109/NPEC52100.2021.96725 36 Volume: Issue No: Page No: Year:2021 Month:Dec Presenter:SELF
S. Dey, S. Banerjee and J Dey	Design and Performance Analysis of Optimized Fractional Order PID Controller for Magnetic Levitation System	IEEE International Conference on Computing, Power, and Communication Technologies (Gucon 2021),	DOI/ISBN: 10.1109/GUCON50781.2021.957 4026 Volume: Issue No: Page No: Year:2021 Month:Sep Presenter:CO- AUTHOR
D. Guha, P.K. Roy and S. Banerjee	Fractional-order Sliding Mode Controller applied for load frequency control of power system'	International Conference on Computing, Power, and Communication Technologies (Gucon 2021),	DOI/ISBN: 10.1109/GUCON50781.2021.957 3621 Volume: Issue No: Page No: Year:2021 Month:Sep Presenter:CO- AUTHOR
T. Rana, A. Sarkar, M. Abid, S. Banerjee & K. Kumar	Comparative Analysis of Classical and Predictive Control of Bidirectional Quasi Z-Source Converter'	Industrial Electronics Society, IECON- 2021 – 47th Annual Conference of the IEEE	DOI/ISBN: 10.1109/IECON48115.2021.9589 393 Volume: Issue No: Page No: Year:2021 Month:Oct Presenter:CO- AUTHOR

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S. Kundu, and S. Banerjee	Fulfillment of CIGRE WG 36-05, EN 50160 by Applying SHM-PAM Scheme Using 7-level CHB Multilevel Inverter'	2nd IEEE International Conference on Smart Technologies for Power, Energy and Control (STPEC 2021),	DOI/ISBN: 10.1109/STPEC52385.2021.9718745 Volume: Issue No: Page No: Year:2021 Month:Dec Presenter:CO-AUTHOR
K. Majumdar, N. Kumar, P. K. Roy, S. Banerjee	PI Controlled Synchronization Converter using SHO in Grid-Interactive Three-Phase Solar PV System	IEEE International Conference on Power Electronics, Smart Grid, and Renewable Energy (PESGRE),	DOI/ISBN: 10.1109/PESGRE52268.2022.9715932 Volume: Issue No: Page No: Year:2022 Month: Presenter:CO-AUTHOR
Atul Sharma; Syed Muhammad Amrr; M. Nabi; Subrata Banerjee	Extended State Observer based Integral Sliding Mode Control of Maglev Systems with Enhanced Chattering Alleviation	2021 Seventh Indian Control Conference (ICC)	DOI/ISBN: 10.1109/ICC54714.2021.9703181 Volume: Issue No: Page No: Year:2021 Month: Presenter:CO-AUTHOR
S. Dey, S. Banerjee and J Dey	Modelling and Control of Bi-directional Power Converter for EV Charging Application	IEEE International Conference on Communication, Control and Information Sciences (ICCISc-2021)	DOI/ISBN: 10.1109/ICCISc52257.2021.9484878 Volume: Issue No: Page No: Year:2021 Month: Presenter:CO-AUTHOR
S. Pandey, J. Dey & S. Banerjee	Modified Internal Model Control for Cart Inverted Pendulum System'	IEEE International Conference on Computing, Power, and Communication Technologies (Gucon 2021),	DOI/ISBN: 10.1109/GUCON50781.2021.9574027 Volume: Issue No: Page No: Year:2021 Month:Sep Presenter:CO-AUTHOR
Arun Ram Prasath RT, Mubeen Akhtar Ansari, Thomas Paramanandam, Sankar Narayan Mahato, Nirmal Kumar Roy	Performance Studies on Mineral Oil and Natural Ester Oil Based High Dielectric CCTO Nanofluids for High Voltage Application	2021 IEEE 5th International Conference on Condition Assessment Techniques in Electrical Systems (CATCON)	DOI/ISBN: IEEE Volume: Issue No: Page No:123-126 Year:2021 Month:Dec Presenter:CO-AUTHOR
R. Brahmachary, A. Bhattacharya, I. Ahmed	Allocation of Active Power Filter in Distribution Network Considering Nonlinear Loads	2021 IEEE 2nd International Conference on Smart Technologies for Power, Energy and Control (STPEC)	DOI/ISBN: 10.1109/STPEC52385.2021.9718732 Volume: Issue No: Page No:1-6 Year:2021 Month:Dec Presenter:CO-AUTHOR
R. Das and I. Ahmed	Comparison of Different Types of Sinusoidal PWM Techniques for Double-Star Chopper Cell with Embedded Energy Sources	2022 Second International Conference on Power, Control and Computing Technologies (ICPC2T)	DOI/ISBN: 10.1109/ICPC2T53885.2022.9776998 Volume: Issue No: Page No:1-4 Year:2022 Month:Mar Presenter:CO-AUTHOR
Prince Kumar, Aashish Kumar Bohre	Optimal allocation of Hybrid Solar-PV with STATCOM based on Multi-objective Functions using combined OPF-PSO Method	2nd International Conference on IoT Based Control Networks and Intelligent Systems IICINIS 2021	DOI/ISBN: Kumar, Prince and Bohre, Aashish Kumar, Optimal allocation of Hybrid Solar-PV with STATCOM based on Multi-objective Functions using combined OPF-PSO Method (July 8, 2021). Proceedings of the



			International Conference on IoT Based Control Networks & Intelligent Systems - ICICNIS 2021, Available at SSRN: https://ssrn.com/abstract=3882597 or http://dx.doi.org/10.2139/ssrn.3882597 Volume: Issue No: Page No:1-12 Year:2021 Month:Jun Presenter:CO-AUTHOR
Bhattacharjee, I., & Bohre, A. K.	Optimal Sizing and Placement of Multiple DGs in Distribution Network to Reduce Total Loss Using Cuckoo Search Optimization	Second International Conference on Image Processing and Capsule Networks 2021	DOI/ISBN: 10.1109/ICPEE50452.2021.9358603 Volume: Issue No: Page No:167-179 Year:2021 Month:May Presenter:CO-AUTHOR
Shubhrajyoti Kundu, Mehebub Alam, Biman K. Saha Roy, and Siddhartha Sankar Thakur	A non-iterative hybrid Dynamic State Estimation scheme utilizing PMU and SCADA measurements	2021 Devices for Integrated Circuit (DevIC)	DOI/ISBN: 10.1109/DevIC50843.2021.9455940 Volume: Issue No: Page No:185-189 Year:2021 Month:Jun Presenter:CO-AUTHOR
M. Mukherjee and B. K. Saha Roy	Optimal μ PMU Placement in Distribution Network Using Binary Carnivorous Plant Algorithm	IEEE 2nd International Conference on Smart Technologies for Power, Energy and Control (STPEC), 2021	DOI/ISBN: 10.1109/STPEC52385.2021.9718699 Volume: Issue No: Page No:1-6 Year:2021 Month:Dec Presenter:CO-AUTHOR
Reetam Mondal and Jayati Dey	Cascaded Fractional Order (FO) Compensation of Linear Time Invariant (LTI) Plants	IEEE International Conference on Communication, Control and Information Sciences (ICCISc), 2021	DOI/ISBN: 10.1109/ICCISc52257.2021.9484917 Volume: Issue No: Page No: Year:2021 Month:Jun Presenter:CO-AUTHOR
Soham Dey, Subrata Banerjee, Jayati Dey	Design and Performance Analysis of Optimized Fractional Order PID Controller for Magnetic Levitation System	2021 IEEE 4th International Conference on Computing, Power and Communication Technologies (GUCON)	DOI/ISBN: 10.1109/GUCON50781.2021.9574026 Volume: Issue No: Page No: Year:2021 Month:Sep Presenter:CO-AUTHOR
Sumit Kumar Pan Dey, Jayati Dey, and Subrata Banerjee	Modified Internal Model Control for Cart Inverted Pendulum System	2021 IEEE 4th International Conference on Computing, Power and Communication Technologies (GUCON)	DOI/ISBN: 10.1109/GUCON50781.2021.9574027 Volume: Issue No: Page No: Year:2021 Month:Sep Presenter:CO-AUTHOR
Sonali Badpanda, Jayati Dey, Tapas kumar Saha	Power Management and Control for PVBattery Standalone System	2021 IEEE 4th International Conference on Computing, Power and Communication Technologies	DOI/ISBN: 10.1109/GUCON50781.2021.9573565 Volume: Issue No: Page No: Year:2021 Month:Sep Presenter:CO-AUTHOR

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(GUCON)

Sonali Badpanda, Jayati Dey, Tapas kumar Saha	Power Management and Control for PVBattery- UC Standalone System	2021 IEEE 4th International Conference on Computing, Power and Communication Technologies (GUCON)	DOI/ISBN: 10.1109/GUCON50781.2021.9573761 Volume: Issue No: Page No: Year:2021 Month:Sep Presenter:CO-AUTHOR
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4.7.19 Conference: Published in Others in 2021-2022

Author(s) Name	Paper Name	Conference Name	Others Info
S. Maiti, S. Sonar and S. Banerjee	Design and analysis of Z-Source Inverter using Simple Boost Control Method'	IEMRE-2022	DOI/ISBN: 0 Volume: Issue No: Page No: Year:2022 Month:Feb Presenter:CO-

4.7.20 Books Authored

Author Name	Co-Author	Title of the Book	Title of the Chapter	Publication Details
Prof. Subrata Banerjee	I. D. Guha, P.K. Roy and S. Purwar	Application of Intelligent Control Algorithms to Study the Dynamics of Hybrid Power System		Publisher: Springer Publication Date: 2022-0331
Prof. Subrata Banerjee	N.Rana, K. Kumar	DC-DC Converters for Future Renewable Energy Systems	High Gain Buck-Boost Converter for Solar Photovoltaic (PV) System	Publisher: Springer Publication Date: 2021-1026
Tushar Kanti Bera	Aashish Kumar Bohre, Irfan Ahmed, Aniruddha Bhattacharya & Partha Sarathee Bhowmik	Planning of Hybrid Renewable Energy Systems, Electric Vehicles and Microgrid	Magnetohydrodynamic (MHD) Power Generation Systems	Publisher: Springer Publication Date: 2022-0522
Irfan Ahmed	Aashish Kumar Bohre, Tushar Kanti Bera & Aniruddha Bhattacharya	Planning of Hybrid Renewable Energy Systems, Electric Vehicles and Microgrid	Energy Sources for Electric Vehicles	Publisher: Springer Publication Date: 2022-0522
Aashish Kumar Bohre	Partha Sarathee Bhowmik, Baseem Khan, Tushar Kanti Bera, Irfan Ahmad & Aniruddha Bhattacharya	Power Electronics and High Voltage in Smart Grid	Planning and Analysis of EV Charging Station with Solar-PV in Grid-Connected System of Durgapur	Publisher: Springer Publication Date: 2022-0216
Anuj Kumar Pandey	Irfan Ahmed & Pooja Sharma	Intelligent Communication, Control and Devices	MPPT Control of Hydrokinetic Energy Conversion System	Publisher: Springer Publication Date: 2021-0724



Aashish Kumar Bohre,	Pradyumn Chaturvedi, Mohan Lal Kolhe, Sri Niwas Singh	Planning of Hybrid Renewable Energy Systems, Electric Vehicles and Microgrid: Modeling, Control and Optimization	Introduction	Publisher: Springer Publication Date: 2022-0522
Arnab Ari	, Aashish Kumar Bohre, Pradyumn Chaturvedi, Mohan Lal Kolhe, Sri Niwas Singh	Planning of Hybrid Renewable Energy Systems, Electric Vehicles and Microgrid Modeling, Control and Optimization	Techno-Economic Analysis of Hybrid Renewable Energy Systems—A Review with Case Study	Publisher: Springer Publication Date: 2022-0522
Irfan Ahmed	Aashish Kumar Bohre, Tushar Kanti Bera, Aniruddha Bhattacharya	Planning of Hybrid Renewable Energy Systems, Electric Vehicles and Microgrid: Modeling, Control and Optimization	Energy Sources for Electric Vehicles	Publisher: Springer Publication Date: 2022-0522
Dr. Ashish Kumar Bohre	Dr. Partha Sarathee Bhowmik, Dr. Baseem Khan	Smart Charging Solutions for Hybrid and Electric Vehicles	EV Fast Charging Station Planning with Renewable Energy Sources: A Case Study of Durgapur System	Publisher: Springer Publication Date: 2022-0307

4.7.21 Seminars, Summer/Winter Schools, Short Term Courses Attended

Name of the Programme	Organized By	From Date	To Date	Organizing Country
2021 IEEE 12th Energy Conversion Congress & Exposition - Asia (ECCE-Asia)	National University of Singapore, Singapore	2021-05-24	2021-05-27	Singapore
2021 5th International Conference on Smart Grid and Smart Cities (ICSGSC)	Tokyo university	2021-06-18	2021-06-20	Japan
2021 National Power Electronics Conference (NPEC)	IIT Bhubaneswar	2021-12-15	2021-12-17	India
Power Engineering Research and Applications 2021	IIT Kanpur	2021-09-24	2021-09-28	India
5th IETE Innovators-Industry Meet:	The Institution of Electronics & Telecommunication Engineers (IETE) #2, Institutional Area, Lodi Road, New Delhi 110003	2021-08-26	2021-08-27	India
IECON 2021 47th Annual Conference of the IEEE Industrial Electronics Society (IES)	IEEE	2021-10-13	2022-09-16	CANADA (Online)

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4.7.22 Ph.D. Supervisor

Topic Name	Scholar	Supervisor	Status	Status Date
Electric Vehicle Charging Scheduling and Expansion Planning of Distribution Network	Sourav Das	Acharjee Parimal, Bhattacharya Aniruddha	ONGOING	2022-03-31
Detection of Cyber attack in Power System in presence of Electric Vehicle & DG	Sayak Mondal	Acharjee Parimal, Bhattacharya Aniruddha	ONGOING	2022-03-31
Optimal Allocation of EV charging Stations and Power Quality improvement devices in Distribution Network	Brahmachary Rupali	Bhattacharya Aniruddha	ONGOING	2022-03-31
Not Finalized yet	Niti Rani	Bohre Aashis Kumar, Bhattacharya Aniruddha	ONGOING	2022-03-31
Charging Scheduling and Allocation of Suitable Charging Station for On-Road Electric Vehicles In Probabilistic Scenario Considering Renewable Power Source	Sourav Das	Dr. Parimal Acharjee, Dr. Aniruddha Bhattacharya	ONGOING	2022-03-31
Application of soft computing techniques in constrained compensated power systems	Deepro Sen	Parimal Acharjee	ONGOING	2022-03-31
Design, Fabrication & testing of some improved DC-DC switch mode power converters	Niraj Kumar Rana	PROF. SUBRATA BANERJEE	DEGREE AWARDED	2021-11-26
Design & Implementation of Modified Selective Harmonic Elimination (SHE) & Selective Harmonic Minimization (SHM) PWM for CHB inverter	Sourabh Kundu	PROF SUBRATA BANERJEE	DEGREE AWARDED	2022-02-25
Integrated Intelligent System For Recognition And Location Of Power Quality Problems In An Interconnected Power Systems	PULLABHATLA SRIKANTH	Chiranjib Koley	SUBMITTED	2022-06-21
Time Delay Estimation Technique for Localization of Partial Discharge Sources using Radiated UHF Signal	Anitha Bhukya	Chiranjib Koley	ONGOING	2022-03-31
A Partial Discharge Monitoring System for Electrical Power System Utility using UltraHigh Frequency Sensors	Sourav Dhara	Chiranjib Koley	ONGOING	2022-03-31
An Intelligent System for Online Detection of Bearing Fault in Industrial Actuators	Sukanya	Mitra	ONGOING	2022-03-31
Development of Iot enabled HV Laboratory Facilities	Sri D Jasper	Prof N K Roy	ONGOING	2022-03-31
Insulation Management System of EV Batteries	Sri Abhisek Kumar	Prof N K Roy	ONGOING	2022-03-31



Topic Name	Scholar	Supervisor	Status	Status Date
Some studies on battery management system for electric vehicle applications using embedded source modular multilevel converter	Rana Das	Irfan Ahmed	ONGOING	2022-03-31
Investigation if Cardio-Pulmonary data based on Various Body Postures and Physical Conditions	Prashant Kumar	Suman Halder	ONGOING	2022-03-31
Investigation on the modulations of autonomic nervous system based on metabolic syndrome risk factors	Ashis Kumar Das	Suman Halder	ONGOING	2022-03-31
Development of PD Detection System	Sri Kishanlal Adhikari	Prof N K Roy	ONGOING	2022-03-31
Investigation on Liquid Insulating Materials with Nanomaterial	Sri Sujit Khandai	Prof N K Roy	ONGOING	2022-03-31
Space Vector Modulation Techniques for Multilevel Inverters	Anuj Kumar Pandey	Irfan Ahmed	ONGOING	2022-03-31
Distribution system Planning with renewable system	Bikash Kumar Saw	Aashish Kumar Bohre	ONGOING	2022-03-31
EV Planning	Shukla Karmakar	Aashish Kumar Bohre	ONGOING	2022-03-31
Design and Development of a Wireless Power Transfer System for Electric Vehicle	Ankur Yadav	Dr. Tushar Kanti Bera	ONGOING	2022-03-31
Design and Development of An EEG Acquisition and Analyzing System for Epileptic Seizure Detection	Sunil Kumar Choudhary	Dr. Tushar Kanti Bera	ONGOING	2022-03-31
Development of A Machine Learning Based AI Tool for Early Detection of Alzheimer's Disease	Pranab Hazra	Dr. Tushar Kanti Bera and Dr. Ashis Kumar Dhara	ONGOING	2022-03-31
Drone Based Expert System for Smart Pesticide Spraying Systems for Agricultural Applications	Sudipta Mal	Dr.Tushar Kanti Bera and Dr. Ashis Kumar Dhara	ONGOING	2022-03-31
Development of IoT Based ECG Signal Analyzing Systems for Cardiac Disease Detection	Pinaki das	Dr. Tushar Kanti Bera and Prof. Amiya Kumar Samanta	ONGOING	2022-03-31
Designing and development of A Battery Management System (BMS) for Electric Vehicle (EV)	Sukla Karmakar	Dr. Tushar Kanti Bera and dr. Aashish Kumar Bohre	ONGOING	2022-03-31
Development of A Machine Learning Based AI Tool for ECG Signal Analysis to Detect Sinus Tachycardia	Suman Dasgupta	Dr. Tushar Kanti Bera and Dr. Suman Halder	ONGOING	2022-03-31
Optimal PMU placement and State estimation	Shubhrajyoti Kundu	Prof. S.S. Thakur & Dr. B.K. Saha Roy	ONGOING	2022-03-31
Application of Pmu Measurements For Event Analysis In Distribution Networks	Manas Mukherjee	Dr. B.K. Saha Roy	ONGOING	2022-03-31

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Topic Name	Scholar	Supervisor	Status	Status Date
State Estimation of Dynamic Systems using Adaptive Nonlinear Filters for	Poluri Sri Mannarayana	Aritro Dey	ONGOING	2022-03-31
Design, Control And Implementation of Multi-Input Converter For Hybrid Wind-Solar-Battery Based System Generator	Dibyendu Sen	Tapas Kumar Saha, Jayati Dey	ONGOING	2022-03-31
On Some Aspects of Controller Design for Electromagnetic Levitation System	Soham Dey	Prof. Subrata Banerjee, Jayati Dey	ONGOING	2022-03-31
Stability Analysis And Control Of Multi Machine System	Poulomi Chatterjee	Jayati Dey	ONGOING	2022-03-31
Some Studies on Analysis and Control of Three-Phase Self-Excited Induction Generator	Himadri Sekhar Chatterjee	S. N. Mahato	ONGOING	2022-03-31
Analysis and Control of Self Excited Induction Generator	Sambaran Ray	S. N. Mahato and N. K. Roy	ONGOING	2022-03-31
Design Optimization And Analysis of AC Electrical Machines	Pratyush Prasanna Das	S. N. Mahato	ONGOING	2022-03-31

4.7.23 Ongoing Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Amount(in Rs.)	Starting Year
Development of Partial Discharge Monitoring Solutions for High Voltage Electrical Apparatus	Prof. Chiranjib Koley, Prof. N.K. Roy, Dr. P.S. Bhowmik, Dr. A. Bhattacharya	NHPC Limited	21998000	2022
Cost Minimization-Based Multi-Stage PMU Installation Strategy Considering Energy Industries' Perspective.	Dr. Parimal Acharjee, Dr. T. Majhi	CSIR-EMR II	1821000.0	2022
Modelling and Control of Electromagnetic Levitation Devices	Dr. S. Janardhanan (IIT Delhi) & PROF. Subrata Banerjee (Nit Durgapur)	DST, SERB	4163949.0	2019
Multilayer Fractal Ultra High-Frequency Sensor for Partial Discharge Monitoring of High Voltage Power Transformers	Chiranjib Koley, Sivaji Chakravorti	SERB	4566000.0	2022
Development of Partial Discharge Monitoring Solutions for High Voltage Electrical Apparatus	Chiranjib Koley, Nirmal Kumar Roy, Partha Sarathee Bhowmik, Aniruddha Bhattacharya	NHPC Ltd	22200000	2022
Development of Partial Discharge Detection system	Prof N K Roy, Prof C Koley	M/S Navitus Control, Kolkata	150000.0	2019



Title of the Project	Investigator	Sponsor Authority	Amount(in Rs.)	Starting Year
	, Dr P Bhowmik and Dr A Bhattacharyya			
Development of Partial Discharge Detection System	Prof N K Roy, Prof C Koley , Dr P Bhowmik and Dr A Bhattacharyya	National Hydro Power Corporation, Faridabad Haryana	219000000	2022
Design and Development of An AI-Based Portable Electrical Impedance Tomography (EIT) System for Respiratory Function Studies Using Machine Learning Techniques	Dr. Tushar Kanti Bera Prof. Sushmita Mitra Dr. Samir Kumar Biswas Dr. Ashis Kumar Dhara Prof. Chiranjib Koley	DST	9714862.0	2021
Cognitive load assessment of Visually Impaired Person during adaptation of new IT product as well as assistive technology	Dr. Charudutta Jadav (TCS) and PI. Dr. Bibhash Sen (NIT Durgapur). Co-PI: Dr. Tushar K Bera (NIT Durgapur), Co-PI: Professor Tandra Pal (NIT Durgapur)	Tata Consultancy Services (TCS) Mumbai	2992000.0	2021
Artificial Intelligence (AI) in Education Focus: Children with Learning Disability	Professor Tandra Pal Professor Anupam Basu Professor Chiranjib Koley Dr. Suman Halder Dr. Tushar Kanti Bera Dr. Mamata Dalui Dr. Parag Kumar Guha Thakurta	MeiTY	8500000.0	2020
Improved Energy Management and Control of a Hybrid UGV for Combat Use	Jayati Dey, Tapas Kumar Saha	DRDO, GOI	7034000.0	2020

4.7.24 Completed Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Complete Year
“Development of Personalised and Performance based E- Learning tool for existing E-resources	Prof N K Roy, Dr Animesh Dutta	Department of Electronics and Information Technology (DieTY), Govt of India	2019
“Development of Information Communication technology (ICT) enabled High Voltage Laboratory at National Institute of Technology, Durgapur	Prof N K Roy	MHRD, Govt of India	2015
“Developing Suitable Pedagogical Methods for Various Classes, Intellectual Calibres and Research in ELearning” under National ICT Mission	Prof N K Roy	MHRD, Govt of India	2016
Setting up of a new Centrally funded Institute, Gani Khan Choudhuri Institute of Technology (GKCIET), Malda	Prof N K Roy	MHRD Govt of India	2013

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“Development of a portal and kiosk of Gold smith’s skill towards enhancement of entrepreneurship abilities among unemployed youth	Prof N K Roy	Department of Science and Technology, Govt of India	2008
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4.7.25 Testing & Consultancy Services Rendered

Sponsoring Industry / Institute Name	Title of the Project	Total Amount (in Rs.)	Remarks
Nimbus Irrigation Pvt. Ltd.	Approval of Electrical Design & Drawings for the project "Design, Supply, Installation, Testing and Commissioning of grid interactive 100 kWp SPV based Solar Power Plant for bank's main office building, South Gandhi Maidan, Patna.	30000.0	Completed
National Power Training Institute	Hands on Training for Junior/Asst Engineers of West Bengal State Electricity Board , at High Voltage laboratory, NIT Durgapur	180000.0	Training provided to approximately 180 Engineers at High Voltage Laboratory, NIT Durgapur

4.7.26 Reviews of Manuscripts for Publication in Journal

Reviewer	Name of the Journal	Publisher	Date of Final Review
Parimal Acharjee	IEEE System Journal	IEEE USA	2021-07-22
Chiranjib Koley	IEEE Sensor	IEEE	2022-02-08
Chiranjib Koley	IEEE Transaction on Power Delivery	IEEE	2021-09-15
Aashish Kumar Bohre	IET Generation Transmission and Distribution	IET	2021-06-30
Aashish Kumar Bohre	Technology and Economics of Smart Grids and Sustainable Energy	Springer	2020-10-20
Aashish Kumar Bohre	Journal of Energy Storage	Elsevier	2020-02-20
Jayati Dey	ISA TRANSACTION	ELSEVIER	2021-08-15
Biman Kumar Saha Roy	IIEPES	Elsevier	2022-02-21
Subrata Banerjee	IEEE Transactions On Power Electronics	IEEE	2022-02-19
Subrata Banerjee	IEEE Transactions On Industrial Electronics	IEEE	2021-10-02
Subrata Banerjee	IEEE Transactions On Industrial Electronics	IEEE	2021-06-08
Subrata Banerjee	IEEE Transactions On Industrial Electronics	IEEE	2021-12-02
Jayati Dey	ISA Transaction	ELSEVIER	2021-11-11
Jayati Dey	ISA Transaction	ELSEVIER	2022-01-15
Jayati Dey	ISA Transaction	ELSEVIER	2022-01-20

4.7.27 Review of Books

Reviewer	Title of the Book	Name and Affiliation of the Author	Publisher	Date
Aritro Dey	Control Systems Engineering 8edn	Norman S. Nise,	Wiley	2022-09-02

4.7.28 Invited Examiners/Paper-Setters/Board of Studies

Name of the Faculty	Name of the Examination	University/Institute	From Date	To Date
Parimal Acharjee	PhD Defense	Jadavpur University	2021-07-09	2022-09-09
Chiranjib Koley	PhD Defense SEminer	Jadavpur University	2021-07-08	2021-07-08



Subrata Banerjee	PhD Thesis Examiner	MAKUT University	2021-01-21	2021-04-15
Subrata Banerjee	PhD work review	IEST Shibpur	2021-10-18	2021-10-18
Aritro Dey	Ph.D thesis entitled, " Reliable Fault Identification for Real Time Flight Controller Reconfiguration "	Academy of Scientific and Innovative Research (AcSIR)	2021-12-07	2021-11-17
Jayati Dey	External Examiner for evaluating dissertation and conducting viva-voce examination for Master of electrical engineering, Specialization Control System	Indian institute of Technology Kharagpur	2021-05-05	2021-05-05

4.7.29 Invited Expert in Selection Committees

Name of the Faculty	Discipline	University/Institute	From Date	To Date
Parimal Acharjee	Electrical Engineering	Tripura Public Service Commission	2021-12-14	2021-12-15

4.7.30 Invited Lectures

Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Aniruddha Bhattacharya	Future development of the electricity systems with distributed generation	Faculty Development Programme	Gargi Memorial Institute of Technology, Kolkata	2021-05-28	2021-05-28
Aniruddha Bhattacharya	Effect of EV growth on Grid Security	HRD Training programme organized by POSOCO	ERLDC, Kolkata	2021-06-14	2021-06-14
Aniruddha Bhattacharya	Few Important Aspects of Electric Vehicle Charging Infrastructure Installation	Virtual Reunion-2021 of Asansol Polytechnic	Asansol	2021-09-04	2021-09-04
Parimal Acharjee	Recent Trends in Smart Grid	Electric Vehicle and Smart Grid: A Path Towards Sustainable Energy	KIIT, Orisa	2021-12-17	2021-12-23
Subrata Banerjee	On Some Aspects of Electromagnetic levitation and Control (Part-I)	Magnetic Levitation Systems	NIT Mizoram (Online)	2021-09-30	2021-10-01
Subrata Banerjee	On Some Aspects of Electromagnetic levitation and Control (Part-II)	Magnetic Levitation Systems	NIT Mizoram (Online)	2021-09-30	2021-10-01
Subrata Banerjee	Modeling and Control of Switch-mode power converters for EV applications	Emerging Trends and Developments in Electric Vehicles'	NIT Manipur (Online)	2021-10-27	2021-10-28
Subrata Banerjee	Recent Trends of Control Systems in Power Electronics Converter	Recent Trends of Control Systems in Power Electronics Converter	NIT Manipur (Online)	2022-01-05	2022-01-05

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Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Subrata Banerjee	Power Electronics Converter & Control	Intelligent Control and Protection Techniques of Hybrid Microgrid (ICPT 2022)	MNAIT Allahabad (Online)	2022-03-06	2022-03-08
Irfan Ahmed Mohd. Fazlul	Space Vector Pulse Width Modulation for Cascaded H-Bridge Multilevel Inverter	AICTE sponsored twoweeks FDP on 'Trends and Challenges in Power Converters and Control' during 4th-18th May 2021 at Department of Electrical and Electronics Engineering, College of Engineering Guindy, Anna University, Chennai	Anna University, Chennai	2021-05-04	2021-05-18
Sankar Narayan Mahato	Analysis and control of induction generator for micro-hydro applications	On-line faculty development programme	VIT, Chennai	2021-12-06	2021-12-10

4.7.31 Session Chair/Convenor

Name of the Faculty	Programme	Place	Session	From Date	To Date
Subrata Banerjee	IECON 2021 47th Annual Conference of the IEEE Industrial Electronics Society (IES)	Toronto (online)	S731-SS	2021-10-13	2022-09-16
Subrata Banerjee	IECON 2021 47th Annual Conference of the IEEE Industrial Electronics Society (IES)	Toronto (online)	T134	2021-10-13	2022-09-16

4.7.32 Patents

NIL

4.8 Department Of Earth and Environmental Studies

4.8.1 Department at a Glance:

The Department was started in early 1960's as Department of Geology and later renamed as Department of Earth and Environmental Studies in 2012 because of spread of activities of the department on environment issues, mainly in research and teaching.

The Department is the coordinating department for multidisciplinary M.Tech. Programme in "Environmental Science and Technology" from the academic session 2009-2010, presently involving four departments of the Institute.

The Department is supporting the UG courses of the Institute offering a compulsory subject to all First year students on environment. It also caters specifically to Metallurgical and Materials Engineering and Civil Engineering students by offering compulsory theory and laboratory subjects. The Departmental laboratories are well equipped to serve the needs of the students. The Department is equipped with various equipments, required for Earth and Environmental Studies courses, including Research Model Polarizing Microscopes (for both transmitted light and incident light), Student Model Microscopes, Polarizing Micro projector and rich collection of models, charts, rocks and mineral specimens. A well-equipped environmental laboratory has also been set up in the department to serve the post graduate students of Environmental Science and Technology and to augment research and consultancy facilities in this emerging field.

The Department offers facilities for research activities to faculties and research scholars of the Institute. Present fields of research include various problems related to environment, application of RS & GIS in resource management, etc. Presently, ten research scholars are carrying out their research in the department. The Department also undertakes consultancy jobs on environmental and geological issues with particular expertise on groundwater study.



4.8.2 Mission & Vision

Mission:

- To impart quality technical and scientific education and produce engineers, technologists, scientists and citizens who will contribute meaningfully to the growth and development of the country and excel in various disciplines of knowledge
- To create a research-oriented teaching-learning environment in the Institute with a focus on excellence and innovation.
- To embark upon an inclusive growth path committed to the uplift of the community.

Vision:

- To impart quality technical education and focus on research and innovation to cater to the need of the country

4.8.3 Faculty

Name	Designation	Email-id
Prof. Kalyan Adhikari	Professor	kalyan.adhikari@ees.nitdgp.ac.in
Dr. Sandip Mondal	Assistant Professor	sandip.mondal@ees.nitdgp.ac.in
Dr. Manoj Ozha	Assistant Professor	manoj.ozha@ees.nitdgp.ac.in

4.8.4 Equipments:

Sl. No.	Name of the equipment	Date of Purchase	Amount
1	Petrological Microscope (Make-Euromex)	21/12/2021	223650.00
2	Petrological Microscope (Make- Dewinter)	16/12/2021	248850.00
3	Petrological Microscope (Make- Censico)	11/03/2022	18638.00
4	Vacuum Furnace (Make-Lab -X)	11/03/2022	199500.00
5	Vacuum Oven (Make-Lab -X)	11/03/2022	204750.00
6	Petrological Microscope (Make- Dewinter)	11/03/2022	248850.00
7	Table Top Belt Grinder (Make- Bainline)	11/03/2022	41003.00
8	Table Top Grinding Machine (Make- Bainpol)	11/03/2022	89880.00

4.8.5 Labs

Sl. No.	Name of Laboratory	Major equipment
1	Environmental Lab 1	COD Reactor, Fume Hood, Balance, Hot Plate, Water Distillation Unit, Magnetic Stirrer, etc.
2	Environmental Lab 2	Hot Air Oven, Muffle Furnace, Vacuum Oven, Vacuum Furnace, Incubator Shaker, Tube Furnace, Centrifuge, Laminar, kjeldahl nitrogen distillation apparatus, Autoclave, Stack Monitoring Kit, P.M 2.5 Sampler, High Volume Sampler, Ozone Analyser, Rock Cutting, Polishing and Grinding Machine etc.
3	Research Laboratory	Centrifuge, Peristaltic Pump, Ion Meter, pH meter, TDS meter
4	Instrument Laboratory	AAS, GC, Balance, pH meter, UV-Visible Spectrometer
5	Contaminant and transport Lab	Permeability Meter, Mechanical Shaker, Tank, column experimental set up etc.
6	Geology Lab	Petrological Microscope (Monocular, Binocular and Trinocular), Geological Samples and Models
7	Computer Lab	Computers and ERDAS, Nitro Pro, TNT MIPS, GEOMEDIA, HYDRUS, MODFLOW, FLEX software facilities

4.8.6 PhD degree awarded till 2021-22

Fourteen.

4.8.7 Any other relevant information

NIL

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4.8.8 Specialization

- Environmental Engineering
- Groundwater, Subsurface transport of contaminants, Remediation
- Ore Geology; Metamorphic Petrology; Geochemistry

4.8.9 Proposed Plan for Research

- Water and Wastewater Treatment, Groundwater contaminant transport and remediation
- Mechanism of As contamination in groundwater and its removal ; Subsurface transport of Pesticide and groundwater contamination; Optimising artificial recharge in accutely overexploited low transmissivity alluvial aquifers with a bearing to agriculture; River rejuvenation through augmenting baseflow using groundwater modelling
- Apatite Geochemistry to understand REE mineralization in Carbonatite and related ore/mineral deposits

4.8.10 Area of Research Interest

- Water and Wastewater Treatment, Groundwater contaminant transport and remediation
- Groundwater sustainability
- Uranium and Sulfide Geochemistry, Mineral Geochemistry, Crustal Processes, Hydrothermal Processes (fluid-Rock Interaction, fluid-induced dissolution-precipitation, element mobilization), Chemical Dating (Monazite, Xenotime, Uraninite), Radiation-induced damage, Analytical Development (EPMA)

4.8.11 Institute Industry Collaboration

Collaborating Institute Organization	Areas of collaboration	Collaboration Activities
EOGEPL Durgapur	Land subsidence study	Field survey, preparation of report

4.8.12 Collaboration with Academic and Research Institutions

Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
Institute for Sustainable Industries & Liveable Cities, College of Engineering and Science, Victoria University, Melbourne, Australia	Wastewater treatment	Shobha Muthukumaran, Dimuth Navaratna	Publication of research article
IIT Kharagpur	Geochemistry	Prof. Biswajit Mishra	Analysis and Collaborative Papers
IIT Bombay	Ore Mineralization and Prospecting	Dr. Anand Singh	Collaborative Research and Papers
IIRS Dehradun	Application of Remote sensing and GIS in Earth Science	Prof K. Adhikari	Joint guidance of 3 no. of PG Dissertations

4.8.13 Workshops/Seminars Organized

NIL

4.8.14 Journal: Published in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
Nilanjana Bhattacharjee, Ipsita Som, Rajnarayan Saha, Sandip Mondal	A critical review on novel eco-friendly green approach to synthesize zinc oxide nanoparticles for photocatalytic degradation of water pollutants	International Journal of Environmental Analytical Chemistry	Volume: Issue No:2022 Page No:1-28 Year:2022 Month:Jan



Ayan Das, Sandip Mondal	Geomorphic controls on shallow groundwater arsenic contamination in Bengal basin, India	Environmental Science and Pollution Research	Volume:28 Issue No:31 Page No:42177–42195 Year:2021 Month:Aug
Tuhin Kamilya, Sandip Mondal, Rajnarayan Saha	Effect of magnetic field on the removal of copper from aqueous solution using activated carbon derived from rice husk	Environmental Science and Pollution Research	Volume:29 Issue No:14 Page No:20017-20034 Year:2022 Month:Mar
Ujjal Mal, Kalyan Adhikari, Anurag Tripathi	Steel plant slag dumps – a potential source of groundwater contamination	Journal of Earth System Science	Volume:131 Issue No: https://doi.org/10.1007/s12040021-01776-y Page No:1-18 Year:2022 Month:Feb

4.8.15 Conference: Published in 2021-2022 DOI/ISBN

Author(s) Name	Paper Name	Conference Name	Others Info
Ghosh, A., Das, D., Ghosh, R., Mondal, S., Saha, M.	Non-invasive Group Activity Identification Using Neural Networks	Innovations in Sustainable Energy and Technology	DOI/ISBN: 10.1007/978981-16-1119-3_32 Volume: Issue No: Page No:369–376 Year:2020 Month:Dec Presenter:CO-AUTHOR

4.8.16 Ph.D. Supervisor

Topic Name	Scholar	Supervisor	Status	Status Date
Efficacy evaluation of Azadiracta Indica (Neem) and Moringaoliefiera (Drum stick) seed shell blended clay soil as liner material in Cr(6) laden waste containment structure	Chandrima Bhadra	Supriya Pal, Kalyan Adhikari	DEGREE AWARDED	2021-10-15
Development of quantitative tool for assessment of regional sustainability of coal mining area	Vineeta Prasad	Kalyan Adhikari	ONGOING	2022-03-31
Analysis of potential impacts of Open cast coal mines on hydrogeological dynamics in Barjora area, West Bengal, India	Ujjal Mal	Kalyan Adhikari	DEGREE AWARDED	2021-04-04
Hydrgeochemical and mineralogical evaluation of shallow(<80m) arsenic affected aquifers of Murshidabad district of West Bengal, Eastern India	Rhitwik Chatterjee	Kalyan Adhikari	ONGOING	2022-03-31
Optimization of sustainable integrated Municipal Solid Waste Management system through case studies	Arpan Chattopadhyay	Kalyan Adhikari, Supriya Pal	ONGOING	2022-03-31
Assessment of Pesticide transport in soil and groundwater through field study, experiment and modelling	Nilesh Meshram	Kalyan Adhikari	ONGOING	2022-03-31
Development of metallic nanoparticles impregnated biosorbents and its implementation of the removal of heavy metals (As, Cr, Pb, Cd and Cu) from the water and wastewater	Sneha Das	Sandip Mondal	ONGOING	2022-03-31
Emerging contaminants and Their accumulation in Ecosystem of lower stretch of hooghly river	Lokenath Chakraborty	Sandip Mondal, Dr. Subir Kumar Nag	ONGOING	2022-03-31
Geochemical and Temporal evolution of Carbonatite in and around Purulia area, Eastern India: Using Monazite-Apatite Geochemistry as proxy	Reeya Ghosh	Dr. Manoj Kumar Ozha	ONGOING	2022-03-31

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Topic Name	Scholar	Supervisor	Status	Status Date
Impact of Chemical Pesticides and Fertilizers on the Environment as a Whole – A Case Study	Mayukh Adhikary	Prof. Aniruddha Gangopadhyay, Prof. Koushik Brahmachari, Dr. Sandip Mondal	DEGREE AWARDED	2021-02-19
A Comprehensive Study on Environmental Management System (EMS) as Practiced in Selected Industries in West Bengal, India and Its Impact on Society	Bipasha Mridha Ghosh	Dr. Sandip Mondal, Prof. Aniruddha Gangopadhyay	DEGREE AWARDED	2021-03-22

4.8.17 Ongoing Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Amount(in Rs.)	Starting Year
Emerging contaminants and their accumulation in Ecosystem of lower stretch of hooghly river	DR. Sandip Mondal, Prof. Rajnarayan Saha	WBDST	997800.0	2018

4.8.18 Participation in National Committees/Visits

Name of the Faculty	Name of the Committee	Place of Visit	From Date	To Date
Kalyan Adhikari	GWCO, NABET-QCI	ONLINE Meeting attended on multiple dates	2021-06-30	2022-01-20

4.8.19 Patents

NIL

4.9 Department of Humanities and Social Sciences

4.9.1 Department at a Glance:

The Department has been in existence since the inception of the Institute in 1960. Stalwarts like Dr Sujit Mohan Chanda, Dr Hirendranath Roy, Mr Arun Kumar Dutta, Dr Debashish Roychowdhury, Dr Kamala Banerjee, Dr Baidyanath Chakrabarti, Dr Partha Pratim Sengupta graced this Department as illustrious Professors. The Department at present has seven faculty members. They are actively engaged in teaching, research, and administration, specializing in various genres of English, Economics, Sociology, and Social Work. It runs PhD program in different disciplines and one PG program in Social Work, besides functioning as a supporting Department in UG programs, offering two core courses and as many as nine open elective courses. The Department regularly organizes academic activities like conferences, seminars, academic talks by eminent persons, GIAN programs, faculty development programs, short-term courses, and workshops, thereby sustaining and whetting the intellectual appetite of the academic community. The Research Scholars of the Department are also dedicated to the wholesome development of the Department, contributing their best to the formation of the academic and cultural identity of the Department.

4.9.2 Mission & Vision

Mission:

- To achieve excellence in imparting communication skill and to emerge as a centre of excellence in language studies.
- To instil a sense of social awareness and social responsibility by giving exposure to social sciences.
- To enhance decision-making power of budding techno-managers by imparting knowledge of Economics, Management, Social Work, and Literature.

Vision:

- To emerge as a catalyst of synergy between technical education and social sciences so as to produce value-based social technocrats.

4.9.3 Faculty :

Name	Designation	Email-id
Dr Joydeep Banerjee	Associate Professor & Head	joydeep.banerjee@hu.nitdgp.ac.in



Prof. Partha Pratim Sengupta	Professor HAG	parthapratim.sengupta@hu.nitdgp.ac.in
Dr Arindam Modak	Associate Professor	arindam.modak@hu.nitdgp.ac.in
Dr Shri Krishan Rai	Associate Professor	shrikrishanrai@hu.nitdgp.ac.in
Dr Debasis Chakraborty	Assistant Professor, Grade I	debasis.chakraborty@hu.nitdgp.ac.in
Dr Sutanuka Banerjee	Assistant Professor, Grade II	sutanuka.banerjee@hu.nitdgp.ac.in

4.9.4 Equipments

NIL

4.9.5 Labs:

Sl. No.	Name of Laboratory	Major equipment
1	MSW	Computers and Projector
2	Language Laboratory	Computers, Projector, Screen, Online UPS

4.9.6 PhD degree awarded till 2021-22

NIL

4.9.7 Any other relevant information

The Department hopes to introduce subjects like Philosophy and Psychology in near future and contribute more vigorously to the all-round development of the learners.

4.9.8 Specialization

- Indian English Literature
- Literary Theory
- English
- Gender and Women's Studies, South Asian Literature, English Literature, Popular Culture
- Economics

4.9.9 Proposed Plan for Research

- North Eastern Literature
- Shakespeare
- Cinema and Religion
- Publishing papers and applying for projects on transnational feminism and cultural studies, collaborative research

4.9.10 Area of Research Interest

- Indian English Literature
- Literary Theory, Linguistics
- Cinema, Religion, and Contemporary Theory
- Transnational Feminism, Cultural Studies
- Labour Economics, Development Economics, Migration Studies, Agricultural Economics, Urban Economics, Energy Economics

4.9.11 Institute Industry Collaboration

NIL

4.9.12 Collaboration with Academic and Research Institutions

Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
IIT (ISM) Dhanbad	Theatre Studies, PhD joint supervision	Dr. Nirban Manna	PhD supervision

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4.9.13 Workshops/Seminars Organized

Name of Key Speaker(s)	Name of the Programme	Date of the Programme
Prof. Bula Bhadra	Women's Day	2021-03-08

4.9.14 Journal: Published in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
Sourav Paul & Dr Shri Krishan Rai	Decolonizing the Woman Body is Empowerment: Celebration of Womanhood in Fadia Faqir's Willow Trees Don't Weep (2014)	Journal of Xidian University	Volume:16 Issue No:3 Page No:124-133 Year:2022 Month: Mar
Kabita Mondal, Joydeep Banerjee	Silence Satire and Empathy: Reading Appupen's Topoi in his wordless graphic narratives	Rupkatha Journal on Interdisciplinary Studies in Humanities	Volume:13 Issue No:4 Page No:1-11 Year:2021 Month: Dec
Santanu Panda and Shri Krishan Rai	When Draupadi Looks Back: The Reconfiguring Draupadi with Divakaruni's The Palace of Illusions and Mahasweta Devi's Draupadi	Gorteria	Volume:35 Issue No:1 Page No:1-12 Year:2022 Month: Jan
Kabita Mondal, Joydeep Banerjee	Inducing of Readers' Empathy through the Representation of History in Graphic Narratives with Particular Reference to Orijit Sen's The River of Stories	Turkish Online Journal of Qualitative Inquiry	Volume:12 Issue No:8 Page No:2982- 2993 Year:2021 Month: Jul
Asoke Howlader, Arindam Modak, and Subrata Saha	Theater and Health Education: Representation in Select Plays of Mahesh Dattani	Psychology and Education	Volume:58 Issue No:2 Page No:3982-3988 Year:2021 Month:
Pallabi Maji and Arindam Modak	Coping Strategies during COVID-19: Health Humanities Approach	Turkish Online Journal of Qualitative Inquiry	Volume:12 Issue No:9 Page No:596-612 Year:2021 Month: Aug
Avijit Das and Dr. Shri Krishan Rai	Beyond the Mainstream Narrative: Seeing the Other Side of the Story through the Lens of Yasmina Khadra's The Sirens of Baghdad	Turkish Online Journal of Qualitative Inquiry (TOJQI)	Volume:12 Issue No:9 Page No:1588-1601 Year:2021 Month: Aug
Santanu Panda and Shri Krishan Rai	Cartographical Representation of Neglected Forms: Traversing from Repression to Reconciliation with Sashi Deshpande's That Long Silence	Journal of Xidian University	Volume:16 Issue No:4 Page No:297-309 Year:2022 Month: Apr
Mita Bandyopadhyay and Arindam Modak	Media: Shaping the Literature of the Age	Bioscience Biotechnology Research Communications	Volume:14 Issue No:8 Page No:81-85 Year:2021 Month:
Santanu Panda and Shri Krishan Rai	Book Review: THE NUTMEG'S CURSE: PARABLES for A PLANET IN CRISIS	STRAD RESEARCH	Volume:9 Issue No:5 Page No:343-345 Year:2022 Month: May



4.9.15 Journal: Accepted for Publication in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
Dr. Debasis Chakraborty	Comparative Role of Income and Social Inequality in Migration Decision Making: A Household Level Analysis of India	International Journal of Economics and Business Research	Volume: Issue No: Page No: Year: Month:
Dr. Debasis Chakraborty	Exploring Causality between Domestic Savings and Economic Growth: Fresh Panel Evidence from BRICS Countries	Economic Alternatives	Volume: Issue No: Page No: Year: Month:

4.9.16 Books Authored

Author Name	Co-Author	Title of the Book	Title of the Chapter	Publication Details
Zeenat Khan, Pallavi Kapila, Urvi Sharma	Pallabi Maji and Arindam Modak	Simmering Silences and Beneath: An Anthology of Gender Issues	Commodifying the Female Body: A Look into Bollywood Movie	Publisher: Arun Publishing House Publication Date: 2022-03-01

4.9.17 Seminars, Summer/Winter Schools, Short Term Courses Attended

Name of the Programme	Organized By	From Date	To Date	Organizing Country
2nd Pan NIT HSS International Conference on Resilience and Transformation for Global Restructuring (ICRTGR 2022)	Department of Humanities and Social Sciences, Malaviya National Institute of Technology Jaipur	2022-01-07	2022-01-09	India
2nd Pan NIT HSS International Conference on Resilience and Transformation for Global Restructuring	Malaviya National Institute of Technology Jaipur	2022-01-07	2022-01-09	India
The 5th International Conference on the Future of Women	The International Institute of Knowledge Management	2022-02-24	2022-02-25	Srilanka

4.9.18 Ph.D. Supervisor

Topic Name	Scholar	Supervisor	Status	Status Date
Voices of the Margin: A feministic reading of the diasporic demarcation and minority discourse in the works of Chitra Banerjee Divakaruni	Debalina Sengupta	Joydeep Banerjee	DEGREE AWARDED	2021-07-26
Mapping Socio-Cultural Milieu of Parsi Immigrants: A Study of Select Texts of Parsi Litterateurs	Ujjwal Biswas	Joydeep Banerjee	DEGREE AWARDED	2021-11-12
Theatre, Resistance and Activism in Postcolonial India: A critique of emerging Voices of Dissent with special reference to the plays of Utpal Dutt, Vijay Tendulkar and Safdar Hashmi	Oliva Roy	Joydeep Banerjee	ONGOING	2022-03-31
Digital Visual Effect in Movies: Beyond Spectacle and Illusion	Mita Bandyopadhyay	Arindam Modak	DEGREE AWARDED	2021-05-20
The Spectrum of Global Concerns in the Light of Globalization: A Study in the Select Plays of Mahesh Dattani	Asoke Howlader	Arindam Modak	ONGOING	2022-03-31
Healing the Trauma of Sexual Abuse: the Health Humanities Approach	Pallabi Maji	Arindam Modak	ONGOING	2022-03-31

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The Yellow Book and the Alternative Literature at the Turn-of-the-Century by New Women Writers and Poets of the Periodical	Satorupa Ghosh Das	Arindam Modak	ONGOING	2022-03-31
From Sight to Insight: Psychopathological Interpretations of Abnormality of Shakespeare's Characters	Md. Abu Barkat Ali	Arindam Modak	ONGOING	2022-03-31
Abjection of Women in/and Contemporary Indian English Fiction: A Select Study	Santanu Panda	Dr. Shri Krishan Rai	ONGOING	2022-03-31
Cultural Representations and Metaphorical Tropes in Indian Disability Life Writings in English: A Select Study	Shibu Gorai	Dr. Shri Krishan Rai	ONGOING	2022-03-31
Post 9/11 Fictions	Avijit Das	Dr. Shri Krishan Rai	ONGOING	2022-03-31
Fiction in the Quantum Realm: The Changing Notions of Reality in Some Select Quantum Fictions	Sumanta Pramanik	Dr. Shri Krishan Rai	ONGOING	2022-03-31
Gerontology and Bengali Cinema	Ashoke Kumar Mondal	Dr. Shri Krishan Rai	ONGOING	2022-03-31
Secularism and Islam: Friction in the Post 9/11 Fictions by Muslim Writers	Sourav Paul	Dr. Shri Krishan Rai	DEGREE AWARDED	2022-07-27
Impact of Sustainability Issues on Consumer Purchase Decision Making: Special Emphasis on Indian Middle-Class Consumers	Amit Banerjee	Dr. Debasis Chakraborty & Prof. P. P. Sengupta	ONGOING	2022-03-31
Impact of Energy Consumption on Economic Growth, Human Development and Sustainable Development: A Comparative Analysis	Titiksha Das	Dr. Debasis Chakraborty	ONGOING	2022-03-31
Efficiency and Productivity Analysis of India's Iron & Steel Industry: A Comparative Study	Dhiraj Kumar	DR. Debasis Chakraborty	ONGOING	2022-03-31
The Insignia of Modernity: Untangling the Complex Local-Global Intersection in Women's (Re)Presentation in Late Colonial Bengal	Lipika Kankaria	Dr. Sutanuka Banerjee	ONGOING	2022-03-31
Gender, Performance and Problematics of Identity in Select Autobiographies of Indian Female Stars	Raju Rana	Dr. Sutanuka Banerjee	ONGOING	2022-03-31
Queer Be(longing): Reading Transgressive Bodies in Contemporary Indian English Fiction	Ankita Chatterjee	Dr. Sutanuka Banerjee	ONGOING	2022-03-31
Unmasking Masculinities in Urban Spaces: A Study on Select Hindi Web Series	Amrita Mitra	Dr. Sutanuka Banerjee	ONGOING	2022-03-31
A Life of Her Own: Representations of Single Women in Contemporary Indian English Fiction	Subhasnata Mohanta	Dr. Sutanuka Banerjee, Dr. Rumpa Das	ONGOING	2022-03-31
Theatre Studies	Somjit Halder	Dr. Sutanuka Banerjee, Dr. Nirban Manna	ONGOING	2022-03-31
Partition Studies	Tanushree Mitra	Dr. Arindam Modak, Dr. Sutanuka Banerjee	ONGOING	2022-03-31

4.9.19 Reviews of Manuscripts for Publication in Journal

Reviewer	Name of the Journal	Publisher	Date of Final Review
Debasis Chakraborty	Geojournal	Springer	2022-01-09

4.9.20 Invited Examiners/Paper-Setters/Board of Studies

Name of the Faculty	Name of the Examination	University/Institute	From Date	To Date
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4.9.21 Invited Lectures

Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Arindam Modak	How to Use English for Effective Communication	Two-Day Online Workshop on Effective Communication Skills	Durgapur Government College	2021-12-13	2021-12-14

4.9.22 Patents

NIL

4.10 Department Of Mathematics

4.10.1 Department at a Glance

The department is involved in teaching three mathematics courses to all the disciplines of undergraduate students and various elective courses are also offered to them. We offer two years M.Sc. in Mathematics and Ph.D. programs in mathematics. The department also participates as a coordinating department in the multidisciplinary M.Tech in Operations Research programme with the Department of Management Studies and the Department of Computer Science & Engineering. The broad range of mathematical disciplines we cover include algebra, analysis, differential equations, applied mathematics, theoretical physics and computational sciences.

4.10.2 Mission & Vision

Mission:

- To create an ambience in which state-of-the-art undergraduate, postgraduate, and doctoral programmes will flourish.
- To identify different industrial problems through industry- academia interaction and to undertake collaborative projects for long term development.
- To generate human resources with finest capabilities who can emerge as leaders in a range of professions.

Vision:

- To be among the best Mathematics departments in the country and to contribute to the nation through quality and value-based education and research in order to meet the needs of the diverse student community and to improve their intrinsic standards.

4.10.3 Faculty

Name	Designation	Email-id
Kajla Basu	Professor	kajla.basu@maths.nitdgp.ac.in
Samarjit Kar	Professor	samarjit.kar@maths.nitdgp.ac.in
Seema Sarkar (Mondal)	Professor	seema.sarkar@maths.nitdgp.ac.in
Pinaki Pal	Associate Professor	pinaki.pal@maths.nitdgp.ac.in
Lakshmi Kanta Dey	Associate Professor & Head	lakshmikanta.dey@maths.nitdgp.ac.in
Anita Pal	Associate Professor	anita.pal@maths.nitdgp.ac.in
Sarit Maitra	Associate Professor	sarit.maitra@maths.nitdgp.ac.in
Satya Bagchi	Associate Professor	satya.bagchi@maths.nitdgp.ac.in
Goutam Panigrahi	Assistant Professor	goutam.panigrahi@maths.nitdgp.ac.in
Partha Pratim Gopmandal	Assistant Professor	partha.gopmandal@maths.nitdgp.ac.in
Md Firoz Ali	Assistant Professor	firoz.ali@maths.nitdgp.ac.in

4.10.4 Patents

NIL

4.10.5 Equipments:

Sl. No.	Name of the equipment	Date of Purchase	Amount (INR)
1	10 Desktop computers	11/3/22	498850
2	Workstation	25/03/2022	493500

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3	HP Laptop	03/12/2021	99710
4	HP Office Jet Pro 8730 Printer	24/11/2021	34810
5	HP Office Jet Pro 9020 Printer	05/03/2022	33493

4.10.6 Labs

Sl. No.	Name of Laboratory	Major equipment
1	Computational Laboratory	Desktop computers

4.10.7 PhD degree awarded till 2021-22

Ninety Six.

4.10.8 Any other relevant information

NIL

4.10.9 Specialization

- Functional analysis
- Discrete Mathematics, Computational Graph Theory, Fuzzy Mathematics, Operations Research
- Algebra
- Fluid Dynamics and Nonlinear Dynamics
- Algebraic Coding Theory
- Fluid Dynamics, Micro-nanofluidics modelling
- Parallel algorithms, operations Research
- Operations Research
- Major: Geophysics, In addition Bio-mathematics and ORs.
- Complex Analysis
- Optimization

4.10.10 Proposed Plan for Research

- The chemical graph theory is a significant branch of mathematical chemistry that employs graph invariants for mathematical demonstrations of chemical phenomena. Investigation of chemical systems from mathematical standpoint offers efficient rules to make many qualitative predictions about the properties and reactivities of various compounds without using any wet lab. Accordingly, we can maximize the beneficial effect and minimize the unwanted side-effects including toxicity of chemicals in less expensive approach. It is therefore worthwhile to explore the chemical significance and fascinating mathematical features of graph invariants. To reveal the chemical importance of the invariants, I employ different computation techniques such as quantitative structure-property relationship (QSPR) analysis employing machine learning with Python and sensitivity analysis involving degeneracy. A variety of cutting-edge combinatorial methodologies are used to generate the mathematical outcomes. Study of topological indices in mathematical chemistry from the crisp graph stand point has been an area of interest for last several decades. The crisp graphs are deterministic and precise in nature. However, many real-world situations involving uncertainty are hard to model using the crisp concept. The fuzzy graph is a generalized concept of the crisp graph to deal with such vagueness. Therefore, the study of graph invariants in the realm of fuzzy graphs is significant. This concept was put forward in 2019 when Binu, Mathew, and Mordeson presented the connectivity index for fuzzy graphs and applied this idea to human tracking and internet routing. Following that, numerous researchers focused their efforts on this topic, contributing both theoretically and practically. The study of fuzzy graphs itself is a wide field that is rapidly increasing. Consequently, a vast area of topological indices research employing fuzzy notion is yet to be explored. The investigation of graph energy in a fuzzy environment began in the last decade. Only, a handful of works have been reported on this concept. Thus, it will be interesting to investigate the impact of different topological indices and energies in an uncertain environment.
- Functional analysis, Non-linear analysis, Integration theory, Topological fixed point theory
- Double-diffusive convection; Rotating Magnetoconvection; Collective behavior in complex networks with higher order interactions
- Mathematical methods development for the electrokinetically driven flow
- Presently working with 4 research scholars & project students. They are working on different problems. Proposed plan is to develop new models for different application oriented problems & also to develop new techniques under deterministic & uncertain environments
- Network optimization of particular environment means improving the performance of a network. Network may be physical road network or Cable network or any network of a particular environment or an organization. Network can be formed by following different topologies like bus, ring, star. A proper hybridization of different topologies, both for physical or logical networks gives networks a structure which provides different services to the target users. The concept of graph



theory is required, because a network is basically represented by a graph containing of nodes and links among the nodes. The links may be directed or undirected. Sometimes the links which forms a ring or tree topologies are basically undirected graph but the assignment of any node to other node is represented by the directed edge or arcs. My target is to apply different evolutionary algorithms and solve network optimization in a better way on different novel topologies.

- Main focus on Geophysics and at the same time willing to work on Biomathematics and OR
- Univalent functions have been the central object in the study of geometric function theory. Some of its natural geometric families act a prominent role in the theory of univalent functions due to their geometric properties. To study the time evolution of the free boundary of a viscous fluid in the non-zero surface-tension models for planar flows in Hele-Shaw cells under injection the theory of univalent functions is very useful. Applying methods of conformal map one can prove that certain geometric properties, such as starlikeness and directional convexity are preserved in time for planar flows in Hele-Shaw cells. Estimation of some integral means of normalized analytic functions is important in certain problems in fluid dynamics, especially when the functions are non vanishing in the punctured unit disk. The logarithmic coefficients play a central role in the theory of univalent functions in connection with the general coefficient problem. We aim to investigate logarithmic coefficient problem in details for several subclasses (such as close-to-convex functions) of univalent functions. We also aim to study the stable functions, the coefficient estimates problem, Hankel determinant estimate for several important subclasses of univalent functions. Moreover, we want to study the sense preserving harmonic mappings as a generalization of analytic functions. More precisely, we are interested to characterize the class of harmonic close-to-convex functions which may lead to a new direction in the study of harmonic mappings. The theory of planar harmonic mappings is closely related to minimal surfaces in three dimensional Euclidean space.
- Applied Optimization and Applications

4.10.11 Area of Research Interest

- Graph Labeling, Graph Coloring, Chemical Graph Theory, Spectral Graph Theory, Supply Chain, Fuzzy Graph Theory
- Locally repairable codes
- Algebraic coding theory
- Functional analysis, Non linear analysis, Topology, Integration theory
- Convective Instabilities; Complex Networks
- General convection-diffusion-electromigration process
- Operations Research, Statistical Analysis, Fuzzy mathematics
- Network Optimization, Topological Changes in Network, Soft Computing Techniques
- Geophysics, Biomathematics and OR
- Geometric Function Theory
- Univalent functions
- Harmonic Functions
- Optimization in AI and Machine Learning

4.10.12 Institute Industry Collaboration

NIL

4.10.13 Collaboration with Academic and Research Institutions

Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
Yamaguchi University	Geometric Function Theory	M. F. Ali, H. Yanagihara	Joint Research
ISI Bangalore	Geometric Function Theory	M. F. Ali, N. Ghosh	Joint Research
University of Valencia, Spain	Chemical Graph Theory	J. Vicente de Julian-Ortiz	Collaboration on the article "Significance of the fourth atom bond connectivity index in predicting the physicochemical properties of polycyclic aromatic hydrocarbons"
Sungkyunkwan University, South Korea	Spectral Graph Theory, Extremal Graph Theory	Kinkar Chandra Das	Collaboration on Graph Energies

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Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
Indian Institute of Technology Bhubaneswar, India	Spectral Graph Theory	Sasmita Barik	Collaboration on the article "A note on neighborhood first Zagreb energy and its significance as a molecular descriptor"
United Arab Emirates University, UAE	Chemical Graph Theory	Muhammad Imran	Collaboration on the article "Neighborhood M-polynomial of Titanium compounds"
Winona State University, USA	Fuzzy Graph Theory	Narayan C. Debnath	Research Collaboration Fuzzy Graph Theory
Bursa Uludag University, Turkey	Mathematical Chemistry	Ismail naci Cangul	Collaboration on numerical graph invariants
Chongqing College of Electronic Engineering, China	Fuzzy Mathematics	Cen Zuo	Collaboration on Picture Fuzzy Graph
IIT Bhubaneswar	Geometric Function Theory	M. F. Ali, Vasudevarao Allu	Joint Research
State University of New York at Buffalo, USA	Complex Networks	Dr. Prosenjit Kundu	Joint Research Work
The International Institute of Information Technology Hyderabad	Complex Networks	Dr. Chittaranjan Hens	Joint Research work
Department of Mathematics, Karaj Branch, Islamic Azad University, Karaj, Iran	Nonlinear analysis	L K Dey and Ansari	Joint research
VIT Vellore, India	Nonlinear analysis	L K Dey & H K Nashine	Joint research
George Washington University, Washington DC 20052 USA	Functional Analysis	L K Dey & S Basu	Joint research
Ramakrishna Mission Vivekananda Education and Research Institute, Belur Math, West Bengal, India	Functional Analysis	L K Dey & S Basu	Joint research
Jadavpur University, Kolkata, India	Functional analysis	L K Dey & P Das	Joint project
Babes-Bolyai University Cluj- Napoca, Romania	Functional analysis	L K Dey & A Petrusel	Joint research
Dr Spm International Institute Of Information Technology, Nayaraipur, India	LCD codes	Ramakrishna Bandi	Joint research
ISI Kolkata	Electrophoresis, Turbulent flow	Dr. S. Sarkar	Joint research publication
Tokyo University of Science Noda, Chiba, Japan	Electrophoresis, Diffusiophoresis	Prof. H. Ohshima	Joint research publication
Université de Lorraine, CNRS, Laboratoire Interdisciplinaire des	Electrophoresis	Prof. Jérôme F.L.Duval	Joint research publication



Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
Environnements Continents (LIEC), UMR 7360 CNRS- Université de Lorraine, Vandoeuvre-lès-Nancy F- 54501, France			
IIT Kharagpur	Streaming Potential	Prof. S. Bhattacharyya	Joint research publication
SRM IST, CHENNAI	Solution of assignment problems using DNA Computing	Dr Melita Vinolia E & C. Annal Deva Priya Darshini	Joint research
Yonsei University, South Korea	Decision making on different aspects of Inventory model	Prof Biswajit Sarker	Joint research
1. Dept. of Mathematics, Hiralal Bhakat College, Naihati. 2. Vidyasagar University, Midnapore, 3. Mahadevananda Mahavidyalaya, Barrackpore, W.B.	Biomathematics and OR	Dr. Banshidhar Sahoo, Prof. Manoranjan Maiti Research	Research Collaboration
Vilnius Gediminas Technical University	Graphical Systems	01	Research Work, Paper Publication

4.10.14 Workshops/Seminars Organized

Name of Key Speaker(s)	Name of the Programme	Date of the Programme
Dr. Anupam Basu	B. Tech, PG & PhD induction programme	2021-09-17
Professor S.P. Mukherjee, Professor Subhash Sharma	First International Conference on Strategic HR Under Technological Innovation (SHRUTI - 2022)	2022-03-10
Ms. Sukarna Dey Mondal, Mr. Sanjib Biswas	One day national webinar on Multi Criteria Decision Making Models and Applications (MCDMA-2021)	0032-03-13
Dr. Supriya Kar, Dr. Aniruddha Samanta	Two-day national webinar on Optimization problem and its applications (WOOPA-2021)	0023-10-12
Prof. Neena Gupta	"Polynomials: Genesis and some early results (Online)	2022-03-31
Dr. Mallika Ghosh Sarbadhikary, Prof. Madhumita Jajodia	Gender Sensitization (Offline)	2021-12-10
Prof. Maitree Bhattacharyya, Dr. Mou Sen, Prof. Sonajharia Minz, Prof. Kamala Banerjee, Mr. Sambhunath Jajodia.	Gender Equality for a better Tomorrow (hybrid)	2022-03-08

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4.10.15 Journal: Published in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
Paramita Mahapatra, H. Ohshima, and Partha P. Gopmandal	Electrophoresis of Liquid-Layer Coated Particles: Impact of Ion Partitioning and Ion Steric Effects	Langmuir	Volume:37 Issue No:- Page No:11316-11329 Year:2021 Month:Sep
M. F. Ali, V. Allu, H. Yanagihara	An application of Schur's algorithm to variability regions of certain analytic functions II	Bull. Aust. Math. Soc.	Volume:105 Issue No: Page No:468-481 Year:2022 Month:
Sourav Mondal, Muhammad Imran, Nilanjan De and Anita Pal	Neighbourhood M-polynomial of titanium compounds	Arabian Journal of Chemistry	Volume:14 Issue No:8 Page No:103224 Year:2021 Month:June
Sourav Mondal, Nilanjan De and Anita Pal	A Note on Some Novel Graph Energies	MATCH-Communications in Mathematical and in Computer Chemistry	Volume:86 Issue No:3 Page No:663-684 Year:2021 Month:July
Prosanta Sarkar, Nilanjan De, and Anita Pal	On some neighbourhood degreebased multiplicative topological indices and their applications	Polycyclic Aromatic Compounds	Volume: https://doi.org/10.1080/10406638.2021.2007141 Issue No: Page No: Year:2021 Month:December
Tejinder Singh Lakhwani, Kartick Mohanta, Arindam Dey, Sankar Prasad Mondal, and Anita Pal	Some operations on dombi neutrosophic graph	Journal of Ambient Intelligence and Humanized Computing	Volume:13 Issue No:1 Page No:425-443 Year:2022 Month:January
Sourav Mondal, Sasmita Barik, Nilanjan De and Anita Pal	A note on neighborhood first Zagreb energy and its significance as a molecular descriptor	Chemometrics and Intelligent Laboratory Systems	Volume:222 Issue No: Page No:104494 Year:2022 Month:January
Jaya Mukhopadhyay, V.K. Singh, S. Mukhopadhyay, Anita Pal, and A. Kumar	A truthful budget feasible mechanism for IoT-based participatory sensing with incremental arrival of budget	Journal of Ambient Intelligence and Humanized Computing	Volume:13 Issue No:2 Page No:1107-1124 Year:2022 Month:February
Prosanta Sarkar, Nilanjan De, and Anita Pal	On some topological indices and their importance in chemical sciences	European Physical Journal Plus	Volume:137 Issue No:2 Page No:195-206 Year:2022 Month:February
Sourav Mondal, Nilanjan De and Anita Pal	Topological Indices of Some Chemical Structures Applied for the Treatment of COVID-19 Patients	Polycyclic Aromatic Compounds	Volume:42 Issue No:4 Page No:1220-1234 Year:2022 Month:May
M. F. Ali, V. Allu, H. Yanagihara	An application of Schur algorithm to variability regions of certain analytic functions I	Comput. Methods Funct. Theory	Volume:22 Issue No: Page No:35-54 Year:2022 Month:
Bharti, Partha P. Gopmandal, S. Bhattacharyya and H. Ohshima	A simplified model for gel electrophoresis of a hydrophobic rigid colloid	Soft Matter	Volume:17 Issue No:- Page No: 5700-5710 Year:2021 Month:May
Mosedul Sarkar, Saurabh Kumar Maurya, Partha P.	Hydrodynamics of flow through a degraded channel bed	Journal of Turbulance	Volume:22 Issue No:12 Page No:814-842 Year:2021 Month:Nov



Author(s) Name	Paper Name	Journal Name	Others Info
Gopmandal and Sankar Sarkar			
Saurabh Kumar Maurya, Sankar Sarkar, Hemanta Kumar Mondal, Hiroyuki Ohshima, Partha P Gopmandal	Electrophoresis of soft particles with hydrophobic inner core grafted with pH-regulated and highly charged polyelectrolyte layer	Electrophoresis	Volume:43 Issue No:- Page No:757–766 Year:2021 Month:Aug
Palash Sahoo, Dipak Kumar Jana, Sutapa Pramanik, Goutam Panigrahi	Implement an uncertain vector approach to solve entropy-based four-dimensional transportation problems with discounted costs	International Journal of Machine Learning and Cybernetics	Volume: Issue No: Page No:1-29 Year:2022 Month:Mar
Sudeshna Devnath, Pravash Kumar Giri, Seema Sarkar (Mondal), Manoranjan Maiti	Multi-item two-stage fixed-charge 4DTP with hybrid random type-2 fuzzy variable	Soft Computing	Volume:https://doi.org/10.1007/s00500-021-06371-3 Issue No: Page No: Year:2021 Month:October
Sudeshna Devnath, Pravash Kumar Giri, Seema Sarkar (Mondal), Manoranjan Maiti	Fully fuzzy multi-item two-stage fixed charge four-dimensional	Granular Computing	Volume:https://doi.org/10.1007/s41066-021-00295-x Issue No: Page No: Year:2021 Month:November
Karmakar, S, Garai, H., Dey L.K. and Chanda, A.	Solution to second order differential equations via SF_w -contraction	Fixed Point Theory	Volume:22 Issue No:2 Page No:713-726 Year:2021 Month:
Garai, H., Karapinar, E., and Dey, L.K.	Best proximity point results for contractive and cyclic contractive type mappings	Numer. Funct. Anal. Optim.	Volume:42 Issue No:7 Page No:849-864 Year:2021 Month:
Basu, S, Dey, L.K., and Som, S.	Farthest point problem and partial statistical continuity in normed linear spaces	Quaest. Math.	Volume:45 Issue No:4 Page No:595-604 Year:2022 Month:
Mondal, P., Garai H., and Dey, L.K.	On proximal contractions via implicit relations and best proximity points	Miskolc Math. Notes	Volume:22 Issue No:2 Page No:783-798 Year:2021 Month:
Som, S., Petrusel, A., and Dey, L.K.	Some remarks on the metrizable of some metric-like structures	Carpathian J. Math.	Volume:37 Issue No:2 Page No:265-272 Year:2021 Month:
Chanda, A., Dey, L.K., and Ansari, A.H.	Non-linear contractions via auxiliary functions and fixed point results with some consequences	Int. J. Nonlinear Anal. Appl.	Volume:13 Issue No:1 Page No:2025-2042 Year:2022 Month:
Mondal, P., Garai H., and Dey, L.K.	On some enriched contractions in Banach spaces and a application	Filomat	Volume:35 Issue No:15 Page No:5017-5029 Year:2021 Month:

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Author(s) Name	Paper Name	Journal Name	Others Info
Chanda, A., Garai, H., Dey, L.K., Rakocevic, and Senapati, T.	(ψ, ϕ) -Wardowski contraction pairs and some applications	Comput. Appl. Math.	Volume:40 Issue No:294 Page No: Year:2021 Month:
Bera, Ashis, Som, S., Sintunavarat, W. and Dey, L.K.	Boyd-Wong contractions in \mathcal{F} -metric spaces and applications	Appl. Gen. Topol.	Volume:23 Issue No:1 Page No:157-167 Year:2022 Month:
Som, S., Laha, S., Petrusel, A., and Dey, L.K.	Best proximity point results on arbitrary topological spaces and the Banach contraction principle revisited	J. Nonlinear Convex Anal.	Volume:23 Issue No:1 Page No:67-85 Year:2022 Month:
Karmakar, S, Garai, H., Dey L.K. and Chanda, A.	Existence of solutions to nonlinear quadratic integral equations via measure of non-compactness	Filomat	Volume:36 Issue No:1 Page No:73-87 Year:2022 Month:
Som, S., Sintunavarat, W. and Dey, L.K.	Cantor's intersection theorem in the setting of \mathcal{F} -metric spaces	Fixed Point Theory	Volume:23 Issue No:1 Page No:385-390 Year:2022 Month:
Bera, A., Chanda, A., Dey, L.K., and Ali, J.	Iterative approximation of fixed points of a general class of non-expansive mappings in hyperbolic metric spaces	J. Appl. Math. Comput.	Volume:68 Issue No: Page No:1817-1839 Year:2022 Month:
M. Ghosh, A. Banerjee, and P. Pal	Crisis-induced flow reversals in magnetoconvection	Physical Review E	Volume:104 Issue No: Page No:015111 Year:2021 Month:Jul
S. Mandal, M. Ghosh, A. Banerjee, and P. Pal	Dynamics of flow reversals in the presence of a vertical magnetic field	Europhysics Letters	Volume:135 Issue No: Page No:54005 Year:2021 Month:Nov
P. Khanra, S. Ghosh, K. Alfaro-Bittner, P. Kundu, S. Boccaletti, C. Hens, and P. Pal	Identifying symmetries and predicting cluster synchronization in complex networks	Chaos, Solitons and Fractals	Volume:155 Issue No: Page No:11703 Year:2021 Month:Dec
L. Sharma, M. Ghosh, and P. Pal	Effect of horizontal aspect ratio on magnetoconvective instabilities in liquid metals	Physical Review Fluids	Volume:7 Issue No: Page No:023502 Year:2022 Month:Feb
Debmalya Sain, Saikat Roy, Satya Bagchi, Vitor Balestro	A study of symmetric points in Banach spaces	Linear and Multilinear Algebra	Volume:70 Issue No: Page No:888-898 Year:2022 Month:Feb
Patra R R, Kundu S, Maitra S	Effect of delay and control on a predator-prey ecosystem with generalist predator and group defence in the prey species	The European Physical Journal Plus	Volume:137 Issue No:1 Page No:1- Year:2022 Month:January
Dasgupta C, Maitra S, Banerjee G	Shock waves in a strongly coupled inhomogeneous dusty plasma	Waves in Random and Complex Media	Volume: Issue No: Page No:Sun Jan 01 00:00:00 IST 2017 Year:2022 Month:January
Prosanta Sarkar, Nilanjan De, and Anita Pal	On some multiplicative version topological indices of block shift and hierarchical hypercube networks	OPSEARCH	Volume:59 Issue No: Page No:561-572 Year:2022 Month:June



Author(s) Name	Paper Name	Journal Name	Others Info
Piu Kundu, Seema Sarkar (Mondal) and Debabrata Mondal	Creeping effect across a buried, inclined, finite strike-slip fault in an elastic-layer overlying an elastic half-space	GEM - International Journal on Geomathematics	Volume:12 Issue No:1 Page No:DOI: 10.1007/s13137- 020-00170-y (2021). Year: Month:
Ghosh A, Maitra S, Roy Chowdhury A	, Exact Solutions and Symmetry Analysis of a Boussinesq type Equation for Longitudinal Waves through a Magneto-Electro-Elastic Circular Rod	International Journal of Applied and Computational Mathematics	Volume:7 Issue No:4 Page No:Wed Jan 01 00:00:00 IST 2014 Year:2021 Month:August
Piu Kundu, Seema Sarkar (Mondal), Amin Rashidi, Denys Dutykh	Comparison of ground deformation due to movement of a fault for different types of crack surface	GEM - International Journal on Geomathematics	Volume:12 Issue No:3 Page No:DOI: 10.1007/s13137021- 00171-5 (2021). Year: Month:
Piu Kundu, Seema Sarkar (Mondal)	Effect of the movement across a surface-breaking, inclined, locked, finite strike-slip fault in viscoelastic medium of Burger's Rheology	Arabian Journal of Geoscience	Volume:14 Issue No:10 Page No:DOI: 10.1007/s12517-021-07230-z Year:2021 Month:May
Palash Sahoo, Goutam Panigrahi, Sutapa Pramanik, Dipak kumar Jana	A novel reduction method for type-2 uncertain normal critical values and its applications on 4D profit transportation problem involving damageable and substitute items	International Journal of Applied and Computational Mathematics	Volume:7 Issue No:4 Page No:1-30 Year:2021 Month:Aug
Shyambhu Mukherjee, Joydeb Pal, Satya Bagchi	On decoding procedures of intertwining codes	Journal of Discrete Mathematical Sciences and Cryptography	Volume:24 Issue No:4 Page No:955-964 Year:2021 Month:May

4.10.16 Journal: Accepted for Publication in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
Saikat Roy, Satya Bagchi, Debmalaya Sain	Birkhoff-James orthogonality in complex Banach spaces and Bhatia-\{S\}emrl Theorem revisited	Mediterranean Journal of Mathematics	Volume: Issue No: Page No: Year:2022 Month:Feb
Komal Soni, Debi Prosad Dogra, Arif Ahmed Sekh, Samarjit Kar, Heeseung Choi, Ig-Jae Kim	Person re-identification in indoor videos by information fusion using Graph Convolutional Networks	Expert Systems with Applications	Volume:210 Issue No: Page No:118363 Year:2022 Month:December
Raghunathan Krishankumar, Fatih Ecer, Arunodaya Raj Mishra, KS Ravichandran, Amir H Gandomi, Samarjit Kar	A SWOT-Based Framework for Personalized Ranking of IoT Service Providers With Generalized Fuzzy Data for Sustainable Transport in Urban Regions	IEEE Transactions on Engineering Management	Volume: Issue No: Page No: Year:2022 Month:September

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Author(s) Name	Paper Name	Journal Name	Others Info
Hareesh Kumar Sharma, Saibal Majumder, Arindam Biswas, Olegas Prentkovskis, Samarjit Kar, Paulius Skačkauskas	A Study on Decision-Making of the Indian Railways Reservation System during COVID-19	Journal of Advanced Transportation	Volume:2022 Issue No: Page No: Year:2022 Month:July
Sumi Kar,Kajla Basu,Biswajit Sarkar	Advertisement policy for dual channel within emissions-controlled flexible production system	Journal of retailing and consumer services	Volume: Issue No: Page No: Year:2022 Month:Mar
Laha, S., Som, S., Dey, L.K.	Best proximity point results for proximal contraction in topological spaces	Fixed Point Theory	Volume: Issue No: Page No: Year:2022 Month:March
Samanta Aniruddha,Kar Supriya,Kar Dalbinder,Basu Kajla	Solution of airport gate reassignment problem under uncertain environment	International journal of operational research	Volume: Issue No: Page No: Year:2021 Month:Sep
Mitrovic, Z.D., Chanda, A., Dey, L.K., Garai, H. and Parvaneh V.	Some fixed point theorems involving alphaadmissible self-maps and Geraghty functions in \mathbb{B} -metric-like spaces	Appl. Math. E-Notes	Volume: Issue No: Page No: Year:2022 Month:January
Karmakar S., Garai, H., Dey L.K., and Chanda A.	New fixed point results for asymptotic contractions and its application to cantilever beam problems	Mat. Vesnik	Volume: Issue No: Page No: Year:2022 Month:January
S Bera,R. N Giri,B.K Jana,K.Basu,M Maiti	A game theory framework for newly launched greening product in two echelon supply chain	International journal of operations research	Volume: Issue No: Page No: Year:2021 Month:Aug

4.10.17 Conference: Published in 2021-2022 DOI/ISBN

Author(s) Name	Paper Name	Conference Name	Others Info
Prosanta Sarkar, J. Vicente de Julian-Ortiz, Nilanjan De, and Anita Pal	Significance of the fourth atom bond connectivity index in predicting the physicochemical properties of polycyclic aromatic hydrocarbons	MOL2NET' 21	DOI/ISBN: 2624-5078 Volume: Issue No: Page No:1-17 Year:2021 Month:Dec Presenter:CO-AUTHOR
Deep Mukhopadhyay, Kalyan Hansda, Satya Bagchi	ome Properties and Constructions of Weakly Self Dual LRCs	2022 IEEE International Conference on Signal Processing and Communications (SPCOM)	DOI/ISBN: DOI: 10.1109/SPCOM55316.2022 Volume: Issue No: Page No: Year:2022 Month:Jul Presenter:SELF

4.10.18 Conference: Published in Others in 2021-2022

Author(s) Name	Paper Name	Conference Name	Others Info
C.Annal Deva Priya Darshini, Kajla Basu, E.Melita Vinoliah	A DNA approach to solve the assignment problem with involutive factor free strands	International conference on recent trends in applied mathematics (ICRTAM 2022)	DOI/ISBN: Others Volume: Issue No: Page No:555-564 Year:2022 Month:Mar Presenter:CO-AUTHOR



4.10.19 Conference: Accepted in Others in 2021-2022

Author(s) Name	Paper Name	Conference Name	Others Info
Sk Nurul Hasan, Goutam Panigrahi, Arindam Biswas, Dipanjan Guhachowdhury and Anita Barman	On Building of Disaster Management Strategy Following Ring Star Topology with Transportation Path as Physical Road and Air	International Conference on Machine Intelligence and Network data security	DOI/ISBN: 19/2/2022 Volume: Issue No: Page No: Year:2022 Month:Feb Presenter:SELF

4.10.20 Books Authored

Author Name	Co-Author	Title of the Book	Title of the Chapter	Publication Details
Kajla Basu	Aniruddha Samanta, Supriya Kar, Dalbinder Kour	Real life applications of multiple criteria decision making techniques in fuzzy domain	Solution of the airport gate reassignment problem under uncertain environment	Publisher: Springer nature Singapore Pte Ltd Publication Date: 2022-1001

4.10.21 Seminars, Summer/Winter Schools, Short Term Courses Attended

Name of the Programme	Organized By	From Date	To Date	Organizing Country
AICTE sponsored five days online faculty				
development program on Examination Reforms	Department of Mathematics, NIT Agartala	2022-01-24	2022-01-28	India
One-Day webinar on Optimization Problem & Its Application (WOOPA- 2021)	ORSI Durgapur Chapter	2021-04-18	2021-04-18	India
One-Day webinar on Optimization through				
real life application & implementation (WOORA-2021)	ORSI Durgapur Chapter	2021-07-25	2021-07-25	India
One day national webinar on Multi Criteria				
Decision Making Models and Applications (MCDMA-2021)	ORSI Durgapur Chapter	2021-09-26	2021-09-26	India
One Day International Symposium on Mathematical Analysis	Amity University Haryana	2021-12-22	2021-12-22	India
International Conference on Machine Intelligence and Network data security	NSHM Durgapur	2022-02-18	2022-02-19	India
Online National Conference on Recent Trends in Mathematical Modeling and Its Applications	ICFAI University	2021-08-23	2021-08-27	India
Online Training on Advance Course on Disciplinary Proceedings	National Productivity Council	2021-07-22	2021-07-23	India
Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act 2013	National Productivity Council	2021-09-08	2021-09-09	India
International Conference on Recent Developments in Mathematics and Mathematical Sciences (ICRDMMS 2021)	Calcutta Mathematical Society	2021-12-09	2021-12-11	India

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Women in STEMM - Breaking the Glass Ceiling	GATI-DST	2022-02-19	2022-02-19	India
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4.10.22 Ph.D. Supervisor

Topic Name	Scholar	Supervisor	Status	Status Date
Pre-Schwarzian and Schwarzian derivatives for analytic functions	Sanjit Pal	Md Firoz Ali	ONGOING	2022-03-31
Pre-Schwarzian and Schwarzian derivatives for harmonic functions	Sushil Pandit	Md Firoz Ali	ONGOING	2022-03-31
Univalent functions	Md Nurezamman	Md Firoz Ali	ONGOING	2022-03-31
Bounded Functions	Lokenath Thakur	Md Firoz Ali	ONGOING	2022-03-31
Auction Adaptive Participatory Sensing	Jaya Mukhopadhyay	Anita Pal	DEGREE AWARDED	2021-09-15
Study of Some Graph Invariants and Their Applications	Sourav Mondal	Anita Pal and Nilanjan De	SUBMITTED	2022-06-09
A Study of Graph Optimization Problem on Uncertain Environment	Kartick Mohanta	Anita Pal	ONGOING	2022-03-31
Impact of Uncertain Environment on Numerical Graph Invariants	Biswajit Some	Anita Pal	ONGOING	2022-03-31
Spectral Properties of Numerical Graph Invariants and Their Applications	Parikshit Das	Anita Pal	ONGOING	2022-03-31
Study of Some Mathematical Behavior of Topological Indices of Graphs and Their Applications.	Prosanta Sarkar	Anita Pal and Nilanjan De	DEGREE AWARDED	2021-09-21
Coding and design theory	Debashis Ghosh	Lakshmi Kanta Dey	DEGREE AWARDED	2015-04-30
Optimization using functional analytic techniques	Utpalendu Adak	Lakshmi Kanta Dey and Hora Krishna Samanta	DEGREE AWARDED	2015-04-25
Non-linear analysis	Tanusri Senapati	Lakshmi Kanta Dey	DEGREE AWARDED	2018-04-25
Topology and non-linear analysis	Ankush Chanda	Lakshmi Kanta Dey	DEGREE AWARDED	2019-10-21
Proximity point theory	Saranan Mondal	Lakshmi Kanta Dey	DEGREE AWARDED	2016-11-28
Topology and non-linear analysis	Surajit Karmakar	Lakshmi Kanta Dey	DEGREE AWARDED	2022-03-29
Integration theory	Pratikshan Mandal	Lakshmi Kanta Dey and Sk. Jakir Ali	DEGREE AWARDED	2019-11-04
Topological fixed-point theory	Hiranmoy Garai	Lakshmi Kanta Dey	DEGREE AWARDED	2021-06-10
Topological fixed-point theory	Ashis Bera	Lakshmi Kanta Dey	SUBMITTED	2022-03-22
Topology and non-linear analysis	Supriti Laha	Lakshmi Kanta Dey	ONGOING	2022-03-31
Functional analysis	Subhadip Pal	Lakshmi Kanta Dey	ONGOING	2022-03-31
Birkhoff-James Orthogonality In The Geometry Of Banach Spaces and Some	Saikat Roy	Satya Bagchi	SUBMITTED	2022-02-16



Topic Name	Scholar	Supervisor	Status	Status Date
Related Topics				
Synchronization in multilayer networks	Pitambar Khanra	Pinaki Pal	DEGREE AWARDED	2021-07-22
Low Prandtl number magnetoconvection: Instabilities and Bifurcations	Ankan Banerjee	Pinaki Pal	DEGREE AWARDED	2021-11-08
Transitions near the onset of magnetoconvection	Lekha Sharma	Pinaki Pal	ONGOING	2022-03-31
Rotating magnetoconvection with no-slip boundary conditions	Sutapa Mandal	Pinaki Pal	ONGOING	2022-03-31
Synchronization in Complex Networks: Role of structural properties	Sangita Dutta	Pinaki Pal	ONGOING	2022-03-31
Magnetoconvective Instabilities	Snehashish Sarkar	Pinaki Pal	ONGOING	2022-03-31
Spreading in complex networks	Abhijit Mondal	Pinaki Pal	ONGOING	2022-03-31
Double diffusive convection	Anath Bandhu Das	Pinaki Pal	ONGOING	2022-03-31
Linear complementary dual codes over finite commutative Frobenius rings	Sanjit Bhowmick	Satya Bagchi, Ramakrishna Bandi	SUBMITTED	2022-05-27
Radio Frequency Identification Protocols Using Linear Codes	Haradhan Ghosh	Satya Bagchi	ONGOING	2022-03-31
Mathematical properties of nonlinear systems	Arindam Ghosh	Sarit Maitra	ONGOING	2022-03-31
Mathematical Ecology	Rajesh Ranjan Patra	Sarit Maitra	ONGOING	2022-03-31
Nonlinear waves in plasma medium	Chitrita Dasgupta	Sarit Maitra	ONGOING	2022-03-31
Locally Repairable Codes: Constructions and Properties	Deep Mukhopadhyay	Satya Bagchi	ONGOING	2022-03-31
Algebraic Characterization of Some Linear Codes via Group Codes	Ankan Shaw	Satya Bagchi	ONGOING	2022-03-31
Study on codes over various algebraic structures and its consequences	Joydeb Pal	Satya Bagchi	DEGREE AWARDED	2020-03-20
Efficient Authentication Protocols Design for Security and Privacy in RFID Systems	Pramod Kumar Maurya	Satya Bagchi	DEGREE AWARDED	2019-06-10
Electrophoresis of Weakly Charged Colloidal Particles in Continuum Medium	Bharti	Partha P. Gopmandal, Rajesh Kumar Sinha	DEGREE AWARDED	2021-12-21
Electrokinetics of bio-inspired nanoparticles	Paramita Mahapatra	Partha P. Gopmandal	ONGOING	2022-03-31
Electrophoresis of bio-colloids and electroosmotic flow through microdevices	Sourav Chowdhuri	Partha P. Gopmandal	ONGOING	2022-03-31
Electroviscous effects of colloidal suspension and diffusiophoresis of nanoparticles	Susmita Samanta	Partha P. Gopmandal	ONGOING	2022-03-31
Robust optimization in Network Problems	Debopriya Dey Sarkar	Prof Kajla Basu	ONGOING	2022-03-31

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Topic Name	Scholar	Supervisor	Status	Status Date
Some studies on sustainable supply chain management under the effect of renewable energy through different mathematical approaches	Sumi Kar	Prof Kajla Basu, Prof Biswajit Sarkar	ONGOING	2022-03-31
Mathematical models of some decision making problems in uncertain environments	Sukhendu Bera	Prof Kajla Basu, Prof M Maiti, Prof Dipak Jana	DEGREE AWARDED	2022-06-10
Development of effective estimation strategies for population parameters in sample surveys	Partha Parichha	Prof Kajla Basu, Dr Arnab Bandopadhyay	ONGOING	2022-03-31
Multi criteria decision making problems under neutrosophic environment	Mahitosh Maity	Prof Kajla Basu	ONGOING	2022-03-31
A Study on Some Advanced Transportation Problems Under Different Uncertainties	Sarbari Samanta	Dr. Gautam Panigrahi, Prof. Dipak Kumar Jana, Prof. Manoranjan Maiti	DEGREE AWARDED	2021-11-16
Some fuzzy inference techniques and their applications to different fields	Sanghamitra Dey	Dr. Gautam Panigrahi, Prof. Dipak Kumar Jana, Prof. Manoranjan Maiti	DEGREE AWARDED	2022-01-13
Optimization of Profit/cost in various inventory models and in aggregate production planning under fuzzy and stochastic environment	Savita Pathak	Seema Sarkar (Mondal)	DEGREE AWARDED	2012-11-10
Application of Multivariate analysis in environmental science to study the effect of heavy metal toxicity in grazing animals	Partha Karmakar	Seema Sarkar (Mondal), D. Mazumdar	DEGREE AWARDED	2013-04-19
Applications of statistical methods for identifications of key factors for projects success in the Kolkata-Raghunathpur industrial growth axis	Angshuman Chowdhury	Seema Sarkar (Mondal)	DEGREE AWARDED	2016-10-27
Intelligent systems on manifold decision making	Gour Sundar Mitra Thakur	S. Sarkar (Mondal), R. Bhattacharya	DEGREE AWARDED	2017-12-15
Analysis and optimization of Coal Mines production and Operations Management Systems	Satya Mandal	Seema Sarkar (Mondal), Apurna Ghosh.	DEGREE AWARDED	2018-03-26
A Mathematical Study of Ecoepidemiological Model with Special Emphasis on Chaotic Dynamics and its Controllization.	Prodip Roy.	Seema Sarkar (Mondal), Krishna Pada Das, Partha Karmakar	DEGREE AWARDED	2020-12-18
Some new probability distributions: properties and statistical inference	Mithu Dey	S. Sarkar (Mondal), S.S. Maiti	DEGREE AWARDED	2020-01-31
Some theoretical models of earthquake process due to finite and long faults	Debabrata Mondal	Seema Sarkar (Mondal)	DEGREE AWARDED	2021-02-21
Some mathematical models on inventory and supply chain management	Sandipa Bhattacharya	Seema Sarkar (Mondal)	DEGREE AWARDED	2021-09-30



Topic Name	Scholar	Supervisor	Status	Status Date
Theoretical models of earthquake process in elastic and viscoelastic media during aseismic period	Piu Kundu	Seema Sarkar (Mondal)	DEGREE AWARDED	2021-11-01
Broad topic: Operations Research	Sudeshna Debnath	Seema Sarkar (Mondal), M. Maiti.	ONGOING	2022-03-31
Broad topic: Mathematical Biology.	Arghadip Roy	Seema Sarkar (Mondal), B. Sahoo	ONGOING	2022-03-31
Broad topic: Geophysics	Pabita Mahato	Seema Sarkar (Mondal)	ONGOING	2022-03-31
Broad topic: Geophysics	Anirban Sen	Seema Sarkar (Mondal)	ONGOING	2022-03-31
Broad Topic: Geophysics	Soubik Chanda	Seema Sarkar (Mondal)	ONGOING	2022-03-31
Broad topic: Mathematical Biology	Sanjukta Pramanik	Seema Sarkar(Mondal), Krishna Pada Das, Partha Karmakar	ONGOING	2022-03-31
Some Combinatorial Optimization Problems through Nature-Inspired Algorithms	Partha Sarathi Barma	Samarjit Kar	DEGREE AWARDED	2021-08-05
Development of some Fuzzy Based Methodologies for Decision Making Problem	Avijit De	Samarjit Kar & Sujit Das	DEGREE AWARDED	2021-09-11
Newsboy problem under some Uncertain Paradigms	Krishnendu Adhikary	Samarjit Kar	DEGREE AWARDED	2022-08-10

4.10.23 Ongoing Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Amount(in Rs.)	Starting Year
Investigation on Locally Repairable Codes	Satya Bagchi	Science and Engineering Research Board (SERB)	660000.0	2022
Rotating and magnetized double-diffusive convection	Dr. Pinaki Pal	SERB, India	2431264.0	2022
Development of hybrid numerical tools to study the electrokinetic transport of bio-colloids	Partha P. Gopmandal	DST-SERB under MATRICS scheme	660000.0	2019
Streaming potential through nanofluidic channel with effects of ion partitioning and ion size	Partha P. Gopmandal	NIT Durgapur under RIG Scheme	500000.0	2019
On some uncertain combinatorial optimization problems using soft computing techniques	Arindam Roy & Samarjit Kar	Department of Science and Technology	840000.0	2020

4.10.24 Completed Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Complete Year
Study on Metric Fixed Point Results with Possible Applications	Lakshmi Kanta Dey (PI) and Pratulananda Das (Co-PI)	CSIR	2021

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Development of doubly-even self-dual binary codes of length 24	Satya Bagchi	Science and Engineering Research Board (SERB)	2020
Dual Hamming distance of two weighted codes from trace codes over a chain ring	Satya Bagchi, Lakshmi Kanta Dey	National Board for Higher Mathematics (NBHM)	2022
Nonlinear waves and structures in dusty and quantum plasma	Sarit Maitra	CSIR	2022
Extreme events in networks of dynamical systems	Dr. Pinaki Pal, India and Prof. Ulrike Feudel, Germany	DST, India and DAAD, Germany	2021
Overstability in Rotating Magnetoconvection	Dr. Pinaki Pal	SERB, India	2021
Modulation of electroosmotic flow through nanochannel	Partha P. Gopmandal	DST-SERB under YSS scheme	2019
Hybrid Modelling of Uncertainty Analysis in Environmental Risk Assessments	Samarjit Kar	Department of Atomic Energy	2016

4.10.25 Reviews of Manuscripts for Publication in Journal

Reviewer	Name of the Journal	Publisher	Date of Final Review
Lakshmi Kanta Dey	Applied General Topology	Universitat Politècnica de València	2021-06-30
Lakshmi Kanta Dey	Filomat	University of Nis	2021-10-30
Lakshmi Kanta Dey	Fixed Point Theory	Babeş-Bolyai University Cluj-Napoca	2021-10-15
Lakshmi Kanta Dey	Journal of Applied Mathematics and Computing	Springer	2021-09-30
Anita Pal	Panacea Journal of Medical Sciences (PJMS)	Innovative Publication Pvt. Ltd.	2022-02-19
Anita Pal	Journal of Applied Mathematics and Computing	Springer	2021-07-23
Anita Pal	Asian Journal of Mathematics and Computer Research	International Press of Boston, Inc.	2021-04-12
Anita Pal	South East Asian Journal of Mathematics and Mathematical Sciences	Hindawi	2021-07-02
Md Firoz Ali	Turkish Journal of Mathematics	Scientific and Technological Research Council of Turkey	2022-01-18
Md Firoz Ali	Abstract and Applied Analysis	Hindawi	2021-07-15
Md Firoz Ali	Hacettepe Journal of Mathematics and Statistics	Hacettepe University	2021-12-19
Md Firoz Ali	Bulletin of the Malaysian Mathematical Sciences Society	Springer	2022-02-16
Satya Bagchi	Cryptography and Communications	Springer	2022-01-24
Pinaki Pal	Physica A: Statistical Mechanics and its Applications	Elsevier	2021-09-25
Pinaki Pal	Frontiers In Computational Neuroscience	Frontiers	2021-12-05
Pinaki Pal	Physics of the Earth and Planetary Interiors	Elsevier	2021-09-12
Pinaki Pal	Scientific Reports	Nature	2021-09-21
Pinaki Pal	Chaos, Solitons and Fractals	Elsevier	2021-12-20
Pinaki Pal	Pramana - Journal of Physics	Springer	2022-01-03
Partha Pratim Gopmandal	Langmuir	American Chemical Soc	2021-09-09
Partha Pratim Gopmandal	ACS Omega	American Chemical Soc	2021-06-11
Partha Pratim Gopmandal	Journal of Molecular Liquids	Elsevier	2021-06-01



Reviewer	Name of the Journal	Publisher	Date of Final Review
Kajla Basu	Iranian Journal Of Fuzzy Systems	University Of Sistan And Baluchestan	2022-03-07
Sarit Maitra	Physica A: Statistical Mechanics & Its Applications	Elsevier	2021-08-27
Sarit Maitra	Chaos, Soliton And Fractals	Elsevier	2021-10-14
Lakshmi Kanta Dey	Applied General Topology	Universitat Politècnica De València	2021-06-30
Lakshmi Kanta Dey	Filomat	University Of Nis	2021-10-30
Lakshmi Kanta Dey	Fixed Point Theory	Babeş-Bolyai University Cluj-Napoca	2021-10-15
Lakshmi Kanta Dey	Journal Of Applied Mathematics And Computing	Springer	2021-09-30
Anita Pal	Panacea Journal Of Medical Sciences (Pjms)	Innovative Publication Pvt. Ltd.	2022-02-19
Anita Pal	Journal Of Applied Mathematics And Computing	Springer	2021-07-23
Anita Pal	Asian Journal Of Mathematics And Computer Research	International Press Of Boston, Inc.	2021-04-12
Anita Pal	South East Asian Journal Of Mathematics And Mathematical Sciences	Hindawi	2021-07-02
Md Firoz Ali	Turkish Journal Of Mathematics	Scientific And Technological Research Council Of Turkey	2022-01-18
Md Firoz Ali	Abstract And Applied Analysis	Hindawi	2021-07-15
Md Firoz Ali	Hacettepe Journal Of Mathematics And Statistics	Hacettepe University	2021-12-19
Md Firoz Ali	Bulletin Of The Malaysian Mathematical Sciences Society	Springer	2022-02-16
Satya Bagchi	Cryptography And Communications	Springer	2022-01-24
Pinaki Pal	Physica A: Statistical Mechanics And Its Applications	Elsevier	2021-09-25
Pinaki Pal	Frontiers In Computational Neuroscience	Frontiers	2021-12-05
Pinaki Pal	Physics Of The Earth And Planetary Interiors	Elsevier	2021-09-12
Pinaki Pal	Scientific Reports	Nature	2021-09-21
Pinaki Pal	Chaos, Solitons And Fractals	Elsevier	2021-12-20
Pinaki Pal	Pramana - Journal Of Physics	Springer	2022-01-03
Partha Pratim Gopmandal	Langmuir	American Chemical Soc	2021-09-09
Partha Pratim Gopmandal	ACS Omega	American Chemical Soc	2021-06-11
Partha Pratim Gopmandal	Journal of Molecular Liquids	Elsevier	2021-06-01
Kajla Basu	Iranian journal of Fuzzy Systems	University Of Sistan And Baluchestan	2022-03-07
Sarit Maitra	Physica A: Statistical Mechanics & its Applications	Elsevier	2021-08-27
Sarit Maitra	Chaos, Soliton and Fractals	Elsevier	2021-10-14

4.10.26 Participation in National Committees/Visits

Name of the Faculty	Name of the Committee	Place of Visit	From Date	To Date
Satya Bagchi	Doctoral Committee	SRM Institute of Science and Technology, Kattankulathur Chennai, India (online)	2022-02-07	2022-09-03
Kajla Basu	Doctoral committee	SRM, Chennai(online)	2021-08-25	2021-08-25

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4.10.27 Invited Examiners/Paper-Setters/Board of Studies

Name of the Faculty	Name of the Examination	University/Institute	From Date	To Date
Anita Pal	PhD viva-voce	Rajshahi University, Bangladesh	2021-09-08	2021-09-08
Anita Pal	PhD viva-voce	SRM Institute of Science and Technology	2021-08-26	2021-08-26
Anita Pal	PhD viva-voce	JIS University	2021-08-12	2021-08-12
Anita Pal	PhD viva-voce	Hindustan Institute of Technology & Science	2021-09-27	2021-09-27
Kajla Basu	Ph.d thesis examiner & external expert for viva	Jadavpur	2022-01-20	2022-03-21
Kajla Basu	Ph dThesis examiner & external for viva voce	SRM IST, Chennai	2021-04-03	2021-05-26

4.10.28 Invited Expert in Selection Committees

Name of the Faculty	Discipline	University/Institute	From Date	To Date
Satya Bagchi	Assessment Committee Meeting	Visva-Bharati	2022-02-17	2022-02-17

4.10.29 Invited Lectures

Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Anita Pal	An application of fuzzy and neutrosophic logic on an economic order quantity model	Recent Advances in Mathematical and Computational Optimizations (RAMCO2021)	Jawaharlal Nehru University, New Delhi	2021-10-26	2021-10-28
Anita Pal	A study of fuzzy and neutrosophic economic order quantity model allowing delay in payment	27th International Conference of International Academy of Physical Sciences on Fuzzy and Computational Mathematics (CONIAPS 2021)	NIT Agartala	2021-10-26	2021-10-28
Anita Pal	Delivered an invited talk for showcasing the talents of school students	Kula Asman	NSHM Knowledge Campus, Durgapur	2022-01-13	2022-01-14
Anita Pal	Optimization Using Graph Theory	International Conference on Recent Trends in Applied Mathematics (ICRTAM'22)	Loyola College, Chennai	2022-02-10	2022-02-11
Anita Pal	Optimization Using Graph Theory	5-Day Online Faculty Development Program on Emerging Technologies	Dr. B. C. Roy Engineering College, Durgapur	2022-03-08	2022-03-12
Anita Pal	Inspiring Women in Technology	International Women's Day2022	Asansol Institute of Engineering and Management- Polytechnic, Asansol	2022-03-09	2022-03-09



Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Anita Pal	Modeling of Real Life Problems Using Graph Theoretic Approach	International Conference on Emerging Trends in Applied Mathematics	Mount Carmel College, Bengaluru	2022-03-25	2022-03-26
Lakshmi Kanta Dey	Discontinuity at fixed points of contractive type mappings	International Conference on Nonlinear Applied Analysis and Optimization (ICNAAO-2021)	Department of Mathematical Sciences, Indian Institute of Technology (BHU), Varanasi	2021-12-21	2021-12-23
Lakshmi Kanta Dey	Basics of fixed point theory and its applications in different fields	Meet The Leaders	Adamas University	2021-11-27	2021-11-27
Md Firoz Ali	Variability regions of certain analytic functions	One Day International Symposium on Mathematical Analysis	Amity University Haryana	2021-12-22	2021-12-22
Md Firoz Ali	Geometry of Complex Functions	Instructional School for Teachers	Indira Gandhi National Tribal University	2021-07-14	2021-08-08
Satya Bagchi	Introduction to Algebraic Coding Theory	National Mathematics Day	Department of Mathematics, Visva-Bharati University, India	2021-12-22	2021-12-22
Satya Bagchi	Introduction to Algebraic Coding Theory	e- Short Term Training Program on Algebra and Analysis (e-STTP - 2021)	SRM Institute of Science and Technology, Kattankulathur Chennai, India	2021-12-13	2021-12-18
Satya Bagchi	Ultralightweight RFID Authentication Protocol Based on Coding Theory	International Workshop on Advanced Topics in Mathematics (IWATM 21)	Center for Applied Mathematics IIIT Naya Raipur, Chhattisgarh, India	2021-10-08	2021-10-12
Kajla Basu	Solving Multi Criteria Decision Making Problems Under Uncertain Environment	International Conference On Recent Advances In Mathematics & Computational Optimization (Ramco 2021)	JNU, Delhi	2021-10-26	2021-10-28
Kajla Basu	Data Reduction In Multivariate Analysis	Fdp On Emerging Technologies	B.C.Roy Engineering College, Durgapur	2022-03-08	2022-03-12
Goutam Panigrahi	Network optimization	Invited Special Lecture	Kolkata	2022-03-10	2022-03-10
Goutam Panigrahi	Ramanujan Memorial Lecture Series-4 on "Machine Learning and its application"	Ramanujan Memorial Lecture Under DBT Scheme	Mugberia, West bengal	2022-03-21	2022-03-21
Goutam Panigrahi	Ring Star Optimization	International Conference on Machine Intelligence and Network data security	Durgapur	2022-03-18	2022-03-19

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Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Seema Sarkar (mondal)	Some Areas of Advanced Mathematics in Undergraduate Level	One Day State Level Webinar	Sitananda College, Nandigram, Purba Medinipur, West Bengal (Online)	2021-04-30	2021-04-30
Seema Sarkar (mondal)	LINEAR PROGRAMMING PROBLEM- Its Formulation and Graphical Solution	Mathematics session during the JBNSTS-WBDSTBT Science Teachers' Training Program	Online	2021-09-14	2021-09-16
Seema Sarkar (mondal)	'Inventory Management'	International Symposium on Mathematical Modeling and Technical Writing: A Research Perspective	AMRITA Vishwa Vidyapeetham, Mysuru Campus (Online)	2021-12-18	2021-12-18

4.10.30 Session Chair/Convenor

Name of the Faculty	Programme	Place	Session	From Date	To Date
Anita Pal	Recent Advances in Mathematical and Computational Optimizations (RAMCO2021)	Jawaharlal Nehru University, New Delhi	Technica 1	2021-10-26	2021-10-28
Anita Pal	27th International Conference of International Academy of Physical Sciences on Fuzzy and Computational Mathematics (CONIAPS 2021)	NIT Agartala	Technica 1	2021-10-26	2021-10-28
Anita Pal	One-Day National Webinar on Optimization Problem & Its Application (WOOPA-2021)	ORSI Durgapur Chapter	Technica 1	2021-04-18	2021-04-18
Anita Pal	One-Day National Webinar On Optimization Through Real Life Application & Implementations (WOORA2021)	ORSI Durgapur Chapter	Technica 1	2021-07-25	2021-07-25
Lakshmi Kanta Dey	International Conference on Nonlinear Applied Analysis and Optimization (ICNAAO-2021)	Department of Mathematical Sciences, Indian Institute of Technology (BHU), Varanasi	Post Lunch Invited Talk	2021-12-23	2021-12-23
Satya Bagchi	International Workshop on Advanced Topics in Mathematics (IWATM 21)	Center for Applied Mathematics IIIT Naya Raipur, Chhattisgarh, India	Keynote session	2021-10-08	2021-10-08
Goutam Panigrahi	MINDS-2022	Durgapur	Track-4	2022-02-18	2022-02-19
Seema Sarkar (mondal)	International Conference on Recent Developments in Mathematics and Mathematical Sciences (ICRDMMS 2021)', (Annual Conference of Calcutta Mathematical Society, online)	Calcutta Mathematical Society (Online)	Session on 11.12.2021	2021-12-09	2021-12-11



4.10.31 Patents

NIL

4.11 Department of Mechanical Engineering

4.11.1 Department at a Glance:

The Department of Mechanical Engineering being the oldest and biggest Department has a number of experienced and dedicated faculties. It caters to both B.tech and M.tech courses. There are three specialization in M.tech in the area of fluid mechanics and heat transfer, Machine Design and Thermal Engineering. The Department is also engaged in research work both sponsored and collaborative research in the frontier area mainly with the help of sincere research scholars. The departmental labs are also equipped with sophisticated instruments. The placement record of the students are also highly encouraging with placement history ranging in different multinational companies.

4.11.2 Mission & Vision

Mission:

- Imparting quality education to the students and enhancing their skills to make them globally competitive mechanical engineers.
- Maintaining state-of-the art research facilities for providing our students and faculties with opportunities to innovate, interpret, apply and disseminate their knowledge.
- To develop linkages with reputed R&D organization, Institutes and Industries world-wide through education and research.

Vision:

- Advancement of the society through excellence in teaching, research and innovation and services that exploits the rapidly changing technical diversity of Mechanical Engineering.

4.11.3 Faculty

Name	Designation	Email id (Institute & other id)
Banerjee Nilotpal, PhD	Professor	nilotpal.banerjee@me.nitdgp.ac.in nil_rec@yahoo.com
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Goswami Arjyjayoti, Ph.D.	Assistant Professor	arjyjayoti.goswami@me.nitdgp.ac.in

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Mitra	Assistant Professor	ranjankumar.mitra@me.nitdgp.ac.in, ranjan_kr_mitra@yahoo.com
Ranjan Kumar, Ph.D.		
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Pramanick Achintya Kumar, PhD	Associate Professor	akpramanick@yahoo.com, achintyakumar.pramanick@me.nitdgp. ac.in
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Sengupta Sayantan , Ph.D.	Assistant Professor	sayantanjgec@gmail.com, sayantan.sengupta@me.nitdgp.ac.in

4.11.4 Patents

NIL

4.11.5 Equipments

Sl. No.	Name of the equipment	Date of Purchase	Amount
01	Surface roughness measuring instrument.	30/1/2021	Rs. 1050000/-
02	XY precision table (1000 mm X 1000 mm)	5/01/2022	Rs. 337456.35/-

4.11.6 Labs

Sl. No.	Name of Laboratory	Major equipment
1.	Heat power	Heat conduction unit, Heat exchanger, Natural convection, Forced convection, Vacuum gauge, Stefan-Boltzmann apparatus, Automobile Laboratory, Boiler, Separating & Throttling Calorimeter, Variable CR multi-fuel IC Engine test rig, Variable CR Diesel Engine test rig, Morse test, Rope brake dynamometer, Air compressor test rig, Convective heat transfer over Artificial roughness, Liquid crystal thermography system
2.	Hydraulics and Fluid Mechanics Laboratory	Impact of Jet, Determination of Pipe friction, Determination of Minor Losses, Determination of Coefficient of Discharge in orifice & venture meter, Determination of coefficient of discharge in open channel flow, Performance test of Pelton Turbine, Performance test of Francis Turbine, Performance test of Kaplan Turbine, Performance test of Centrifugal Pump, Performance test of Reciprocating Pump.
3.	Thermal Engineering Laboratory	Fluidization and fluid bed heat transfer unit, Computer linked Refrigeration Laboratory unit, Air conditioned Laboratory unit Cross flow heat exchanger unit
4.	Production Laboratory	Lathe Machine, drilling Machine, welding equipment etc.
5.	CAD CAM Laboratory	CATIA, MSCNASTRAN, ANSYS, MSC.PATRAN, MSCEASY MSCADAMS, MATLAB CNC Vertical Machining Center, XY Positioning Table
6.	Machine dynamics Laboratory	Twin rotor MIMO system, Digital pendulum system, Precision modular servd workshop, Dynamic balancing machine, 3-axis gyroscope, Mechanical power transmission system, FFT analyser, Soccer robot set-up
7.	Metrology Laboratory	Tool Maker's Microscope, Floating Carriage Micrometer, Strain Measuring Device, Surface roughness measuring instrument.



4.11.7 PhD degree awarded till 2021-22

Ten.

4.11.8 Any other relevant information

NIL

4.11.9 Specialization

- Fluid Mechanics
- Mobile Robotics, Dynamics and control, Soft Computing
- Robotics, Additive Manufacturing
- Advanced Manufacturing
- Mechanical Engineering
- Thermoacoustic Instability
- Mechanical Engineering (thermofluids)
- Fluid and Thermal Engineering
- Production Engineering/ Manufacturing Engineering
- Machine Dynamics
- Control System
- Machine Design
- Production Engineering, Non-conventional Machining
- Fluid Mechanics
- Fluid Mechanics and Heat Transfer
- Thermal Engineering
- Fluid Mechanics

4.11.10 Proposed Plan for Research

- Multi-robot coordination and cooperation modeling, Buyer-Vendor relationship
- Robotic Additive Manufacturing
- To develop set ups for large area micro and nano scale manufacturing
- Explore fundamentals and applications of condensation, rotational flow and radiation heat transfer
- The research plan is to investigate the cause and origin of the various vortex-shedding phenomena appearing in the wake of flow past elliptic cylinders of different aspect ratios. We aim to achieve this by performing a linear stability analysis of steady base flow and time-average flow. Further, the passive control method (slip plate) is used to suppress the vortex shedding phenomena behind a cylinder body that helps to control the flow and lowers the drag force in the wake behind a cylinder body.
- Friction Stir Welding
- Industry related problem
- Flow through diffuser in wind tunnel
- Computational Multiphase Thermal Fluid Dynamics
- Heat Transfer Enhancement in Solar Air Heater
- Design of micro-heat sink using Nano-Enhanced Phase change material
- Law of Motive Force, Constructal Law

4.11.11 Area of Research Interest

- Fluid Mechanics, Heat Transfer, Computational Fluid Dynamics (CFD)
- Mobile Robot Navigation, Supply Chain Management, Manufacturing Analytics, Design Optimization
- Robotics, Additive Manufacturing, AI/ML
- Surface structuring, Micro Hot Embossing, Polymer processing, Laser assisted manufacturing
- Mechanics Of Composite, FEM, Bio-Composite, FGM
- Computational Fluid Dynamics and Heat Transfer
- Water harvesting, Tesla turbine, Rheology
- Hydrodynamic Instability, Bluff body flows, Low Reynolds number flow, Laminar flow, Control of flow, Passive control approach
- Dynamics and Control, Nonlinear Vibrations
- Nonconventional Machining, Micromachining, Metal cutting, Process Optimisation
- Control System
- Non-conventional machining, Production Engineering related problem.
- Flow study through diffuser of different geometry
- Computational Fluid Dynamics

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- Pulse combustion
- Lean Blowout
- Aeroelastic flutter
- Dynamical systems theory
- Thermoacoustic Instability
- Heat Transfer
- Fluid Dynamics, Turbulent Flow and Heat Transfer, Fluid Power and Control
- Thermodynamics

4.11.12 Institute Industry Collaboration

Collaborating Institute Organization	Areas of collaboration	Collaboration Activities
Advanced System Laboratory, DRDO Hyderabad	Control System Design	Research and Development

4.11.13 Collaboration with Academic and Research Institutions

Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
Advanced Systems Laboratory, DRDO, Hyderabad	Control System Design	Nirmal Baran Hui and Ranjan Kumar Mitra	Joint Research and PhD Supervision
CSIR-Central Mechanical Engineering Research Institute Durgapur	Soft Robotics, Assistive Robotics, Additive Manufacturing	Shibendu Shekhar Roy	Joint projects
Indian Institute of Technology Kharagpur	Heat transfer and fluid mechanics	Prof. Abhijit Guha	Research
National Institute Of Technology Silchar	Heat Transfer	Dr. Dipankar Bhanja	Research
IIT Guwahati	Hydrodynamic instability, Bluffbody flows	Dr. Bhaskar Kumar	Investigated the dynamics of flow past elliptic cylinders of varying aspect ratio using Linear stability analysis
IIT Bombay	Computational Multiphase Thermal Fluid Dynamics	Prof. Atul Sharma	Joint guidance of Ph.D. Research Scholar
Jadavpur University	Combustion Dynamics	Prof. Achintya Mukhopadhyay, Prof. Swarnendu Sen, Prof. Koushik Ghosh	Predicting (rich and lean) blowout in gas turbine combustor, Synchronization analysis of a forced natural circulation loop, Synchronization of flame-flame interactions with candle flame oscillators.
IIT Madras	Thermoacoustic Instability, Amplitude Death	Prof. R. I. Sujith	Enhancing amplitude death region in nonlinear oscillators and a thermoacoustic system, Modelling of a thermoacoustic systems to capture spatiotemporal transition.



Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
Shiv Nadar University (IoE)	Aeroelastic flutter, Synchronization	Prof. J. Venkatramani	Synchronization between pitch and plunge modes during classical and stall flutter, Studying amplitude death in a coupled aeroelastic systems
Amrita Vishwa Vidyapeetham	Deep learning, Dynamical transitions, Engineering systems	Prof. E. A. Gopalakrishnan	Deep learning to predict dynamical transitions in engineering systems
University of Stuttgart, Germany	Thermodynamics	Achintya Kumar Pramanick	Student and Faculty Exchange
Duke University, USA	Thermodynamics	Achintya Kumar Pramanick	Pedagogy
University of Lorraine, France	Thermodynamics	Achintya Kumar Pramanick	Pedagogy
Universidade Do Vale Do Rio Dos Sinos, Brazil	Thermodynamics	Achintya Kumar Pramanick	Pedagogy
Central Mechanical Engineering Research Institute Durgapur, India	Heat Transfer	Achintya Kumar Pramanick	Student Exchange and Joint Research

4.11.14 Innovations and Technology Transfer (Patents filed during)

Title	Inventors	Application Nos	Date of Filing
NIL	NIL	NIL	2022-11-06

4.11.15 Workshops/Seminars Organized

NIL

4.11.16 Journal: Published in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
Milan K Mondal, Nirmalendu Biswas, Aparesh Datta, Bikash K Sarkar, Nirmal K Manna	Positional impacts of partial wall translations on hybrid nanofluid flow in porous media: Real Coded	International Journal of Mechanical Sciences	Volume:217 Issue No: Page No:107030 Year:2022 Month:Mar
Arnab Roy Chowdhury, Soumyadeep Mondal, Aryan Kanu, Sanniva Bhattacharjee, Nilanjan Chattaraj & Nirmal Baran Hui	Piezoelectric Energy Harvesting by Utilizing Angular Speed Variation in High-Speed Rotating Beams	Journal of Vibration Engineering & Technologies	Volume: Issue No: Page No: Year:2022 Month:Apr
Swarup S Deshmukh, Arjya Jyoti Goswami	Current innovations in roller embossing—A comprehensive review	Microsystem Technologies	Volume:28 Issue No: Page No:1077–1114 Year:2022 Month:Mar

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Swarup S. Deshmukh & Arjyajyoti Goswami	Micro lens array through induction-aided hot embossing: fabrication, optimization, and characterization	Materials and Manufacturing Processes	Volume:37 Issue No:13 Page No:1540-1554 Year:2022 Month:Jan
Mandal P K , Sengupta S, Rana S C, Bhanja D	Experimental and numerical investigation of square heat sink having staggered and inline pin fin arrays placed at different orientation	Journal of Mechanical Science and Technology	Volume:35 Issue No:11 Page No:5187- 5195 Year:2021 Month:Sep
Shambhu Kumar Mahato, Subhas Chandra Rana, Rabindra Nath Barman	Effect of Al ₂ O ₃ /Water and CuO/Water Nanofluids on Heat Transfer Enhancement Flows Through Twisted Clockwise-- Counter-Clockwise Square Duct	Arabian Journal for Science and Engineering	Volume:46 Issue No:9 Page No:1-19 Year:2021 Month:May
P K Mandal, Sayantan Sengupta, S C Rana, DBhanja	Experimental and numerical investigation of square heat sink having staggered and inline pin fin arrays placed at different orientation	Journal of Mechanical Science and Technology	Volume:35 Issue No:11 Page No:5187-5195 Year:2021 Month:Oct
Sayantan Sengupta, A Ganguly, A Banerjee	Characteristics of complex interaction between two oppositely-moving laminar buoyant-plumes within slender vertical-channels	International Journal of Heat and Mass Transfer	Volume:173 Issue No: Page No:121230 Year:2021 Month:Jul
A Ganguly, S Pramanik, O Mookherjee, Sayantan Sengupta	Numerical Investigation of Laminar Impinging Jet Cooling of a Protruded Heat Source	Journal of Heat Transfer, ASME	Volume:143 Issue No:12 Page No:122301 Year:2021 Month:Dec
Bishwajit Sharma*, Md. Feroz Alam*, Mayur Krishna Bora*, Rabindra Nath Barman*	Numerical Study of Free Convection inside the Differentially Heated Cavity incorporating Variable Property Al ₂ O ₃ -H ₂ O Nanofluid	Journal of Engineering Research (JER)	Volume:Online issue Issue No:Online First Articles Page No: Year:2021 Month:Nov
Gupta, D., Dhar, A.R., Roy, S.S.	A partition cum unification based genetic-firefly algorithm for single objective optimization	Sadhana - Academy Proceedings in Engineering Sciences	Volume:46 Issue No:3 Page No:121 Year:2021 Month:
A. Ganguly, S. Pramanik, O. Mookherjee and S. Sengupta	Numerical investigation of laminar impinging jet cooling of a protruded heat source, Volume 143, 2021	ASME Journal of Heat Transfer	Volume:143 Issue No:12 Page No:122301 Year:2021 Month:Dec
Tanmoy Mondal tanmoy@mnit.ac.in and Shantanu Pramanik	Numerical study on mean flow field of turbulent dual offset jet	Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science	Volume:235 Issue No:23 Page No:6865-6882 Year:2021 Month:May



Arvind Raj, Ashwad Raaj, J Venkatramani, Sirshendu Mondal	Effect of parameter mismatch and dissipative coupling on amplitude death regime in a coupled nonlinear aeroelastic system	Chaos: An Interdisciplinary Journal of Nonlinear Science	Volume:31 Issue No:12 Page No:123112 Year:2021 Month:12
K. K. Dwivedi, A. K. Pramanick, M. K. Karmakar, P. K. Chatterjee	Synergistic effect on co-pyrolysis mechanism and kinetics of waste coal blended with high rank coal and biomass	Journal of Thermal Analysis and Calorimetry	Volume: Issue No: Page No: Year:2021 Month:
B Pradhan, NB Hui, DS Roy, G Srivastava, JCW Lin	Game-Theoretic Strategic Coordination and Navigation of Multiple Wheeled Robots	ACM Transactions on Internet Technology	Volume:21 Issue No:4 PageNo:1-15 Year:2021 Month:Jul
Mahato, S.K., Rana, S.C. & Barman, R.N.	Effect of Al ₂ O ₃ /Water and CuO/Water Nanofluids on Heat Transfer Enhancement Flows Through Twisted Clockwise–Counter-Clockwise Square Duct.	Arabian Journal for Science and Engineering	Volume:47 Issue No: Page No:8141 to 8159 Year:2021 Month:Sep
Swarup S Deshmukh, Arjyajyoti Goswami	Recent developments in hot embossing–areview	Materials and Manufacturing Processes	Volume:36 Issue No:5 PageNo:501-543 Year:2021 Month:Apr
Manish Kumar, Pronab Roy and Kallol Khan	New Empirical Equations for determining Plastic Collapse Moment of Initially Imperfect Pipe Bends Under Internal Pressure and In-plane Closing Bending Moment	Journal of the Brazilian Society of Mechanical Science and Engineering	Volume:44 Issue No:100 Page No: Year:2022 Month:Jan
Pronab Roy, Manish Kumar and Kallol Khan	Plastic Analysis of Initially Deformed Thin-walled Pressurized 30deg to 180deg Pipe Bends Under In-plane Opening Bending Moment	International Journal of Pressure Vessels and Piping	Volume:192 Issue No:2021 Page No:1-13 Year:2021 Month:Apr
Manish Kumar, Pronab Roy and Kallol Khan	Evaluation of Collapse Moment of Pressurized 30deg-180deg Bend Pipes Subjected to Out-of-plane Bending Moment	Journal of Mechanical Engineering Science	Volume:0 Issue No:0 PageNo:1-11 Year:2021 Month:Nov
R. K. Singh, A. K. Pramanick, S. C. Rana	Computational study of temperature separation for three-dimensional vortex tube with cold exit diameter and nozzle number variation	International Journal of Ambient Energy	Volume: Issue No: Page No:1-15 Year:2022 Month:
Prasenjit Sarkhel, Nirmal Baran Hui and Nilotpal Banerjee	Dynamic formulation of a two link flexible manipulator and its comparison analysis with a knuckle joint cantilever	International Journal of Vehicle Information and Communication Systems	Volume:7 Issue No:1 PageNo: Year:2022 Month:Feb

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Prabas Banerjee, Nirmal Baran Hui, Mithilesh K Dikshit, Saikat Som	FE MODELLING OF THREE DIMENSIONAL STAGGERED BACKWARD METAL FLOW FORMING PROCESS	International Journal of Modern Manufacturing Technologies	Volume:XIII Issue No:1 Page No:15-25 Year:2021 Month:Jun
Dhar, A.R., Gupta, D., Paul, A.R., Roy, S.S., Mukherjee, M.	Hybridized Artificial Neural Network-Based Expert Systems for Modelling of Robotic-Wire and Arc Additive Manufacturing Process	Journal of The Institution of Engineers(India): Series C	Volume:102 Issue No:6Page No:1461–1471 Year:2021 Month:
Dhar, A.R., Gupta, D., Roy, S.S., Lohar, A.K.	Forward and backward modeling of directmetal deposition using metaheuristic algorithms tuned artificial neural network and extreme gradient boost	Progress in Additive Manufacturing	Volume:7 Issue No:4 Page No:627–641 Year:2022 Month:
Kumar, V., Sen, S., Roy, S.S.	Motion planning of planar and redundant underwater serial link manipulator based on minimization of energy consumption	Archive of Mechanical Engineering	Volume:68 Issue No:4 PageNo:415-434 Year:2021 Month:
Swarup S Deshmukh, Tuhin Kar, Saikat Som, Arjyayoti Goswami	Investigation of replication accuracy of embossed micro-channel through hot embossing using laser patterned copper mold	Materials Today: Proceedings	Volume:60 Issue No: Page No:2222-2229 Year:2022 Month:Jan
Rik Dasgupta, Arjyayoti Goswami	Numerical studies on effect of ARC thickness for reflectance reduction of c-Si wafer	Materials Today: Proceedings	Volume:59 Issue No:1 Page No:1083-1087 Year:2022 Month:Jan
Tuhin Kar, Swarup S Deshmukh, Arjyayoti Goswami	Investigation of fiber laser micro-channel depth on silicon wafer	Materials Today: Proceedings	Volume:60 Issue No:3 Page No:2105-2110 Year:2022 Month:Jan
Tiasa Das, Sandip Kumar, Anamika Upadhyay, Arjyayoti Goswami	Minimizing surface reflectance of crystalline silicon: A simulation based study	Tiasa Das, Sandip Kumar, Anamika Upadhyay, Arjyayoti Goswami	Volume:1166 Issue No:012009 Page No:1-10 Year:2021 Month:Jul
Aparesh Datta, Nirmalendu Biswas, Nirmal K Manna, Dipak Kumar Mandal	Thermal Management of Nanofluid Filled Porous Cavity Utilized for Solar Heating System.	Journal of The Institution of Engineers (India): Series C	Volume:103 Issue No:2 Page No:207-221 Year:2021 Month:Sep
Milan K Mondal, Nirmalendu Biswas, Aparesh Datta, Dipak K Mandal, Nirmal K Manna	Thermofluidic transport phenomena of hybrid nanofluid in a porous wavy enclosure imposing magnetic	Materials Today: Proceedings	Volume:52 Issue No: Page No:505-512 Year:2021 Month:Nov
Shreyasi Maitra, Dipak Kumar Mandal, Nirmalendu Biswas, Aparesh Datta, Nirmal K Manna	Hydrothermal performance of hybrid nanofluid in a complex wavy porous cavity imposing a magnetic field	Materials Today: Proceedings	Volume:52 Issue No: Page No:419-426 Year:2021 Month:Sep



Gouda, R. K., Kumar, R., Mishra, C., Mitra, R. K.	Modelling and diagnosis of gear faults	International Journal of Mechanical and Production Engineering Research and Development (IJMPERD)	Volume:10 Issue No: Page No:491-499 Year:2020 Month:Aug
Reddy, A. L.K., Kumar, R., Mishra, C., Mitra, A. K., Dey, J.	SIMULATION AND MODELLING OF ROTARY MACHINERIES UNDER CONSTANT SPEED OPERATION	International Journal of Mechanical and Production Engineering Research and Development (IJMPERD)	Volume:10 Issue No: Page No:324-333 Year:2020 Month:Jun
S. P. Ebinezer, A. K. Pramanick, K. P. Ramachandra, P. K. Krishnan	Study of noise annoyance and vibration of structural designed window air conditioner	Trends in Sciences	Volume:19 Issue No: Page No:1- 20 Year:2022 Month:
Bishwajit Sharma, Mayur Krishna Bora, Md. Feroz Alam, Rabindra Nath Barman,	Mixed Convection Inside a Cavity Incorporating Cu-H ₂ O Nanofluid with Conducting Cylinders Placed at Optimum Position	Journal of Nano- and Electronic Physics	Volume: Volume 13 Issue No: Number 3 Page No: 03008 Year: 2021 Month: Jun

4.11.17 Journal: Accepted for Publication in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
Dhar, A.R., Gupta, D., Roy, S.S., Lohar, A.K., Mandal, N.	Covariance matrix adapted grey wolf optimizer tuned eXtreme gradient boost for bi-directional modelling of direct metal deposition process	Expert Systems with Applications	Volume: Issue No: Page No: Year: 2022 Month: Mar
Arora, A., Sarkar, D., Kumar, A., Sen, S., Roy, S.S.	Low-pressure pneumatic muscles: development, phenomenological modeling, and evaluation in assistive applications through sEMG analysis	Journal of Mechanical Science and Technology	Volume: Issue No: Page No: Year: 2022 Month: Feb

4.11.18 Journal: Published in Others in 2021-2022

Author(s) Name	Paper Name	Journal Name	Others Info
Prabas Banerjee, Arnab Karmakar, Nirmal Hui	Application of Adaptive Neuro- Fuzzy Inference System for Prediction of Mean Thickness in Backward Metal Flow Forming Process	Acta Mechanica Slovaca	Volume: 25 Issue No: 2 Page No: 46- 55 Year: 2021 Month: Jun

4.11.19 Journal: Accepted in Others in 2021-2022

NIL

4.11.20 Conference: Published in 2021-2022 DOI/ISBN

Author(s) Name	Paper Name	Conference Name	Other Info

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S K Mahato, S C Rana and R N Barman	Heat transfer and fluid flow characteristics within non-circular duct	IOP Conf. Series: Materials Science and Engineering	DOI/ISBN: doi:10.1088/1757-899X/1146/1/012013 Volume: Issue No: Page No: Year:2021 Month:Jun Presenter:CO-AUTHOR
S K Mahato, S C Rana and R N Barman	Study of heat transfer enhancement through the non-circular ducts using three-dimensional numerical investigations and their comparisons	IOP Conference Series: Materials Science and Engineering, Volume 1128, International Conference on Applications in Computational Engineering and Sciences (IConACES 2020) 30th-31st October 2020, Chennai, India	DOI/ISBN: doi:10.1088/1757-899X/1128/1/012037 Volume: Issue No: Page No: Year:2021 Month:Mar Presenter:CO-AUTHOR
Sarkar, D., Dasgupta, S., Sen, S., Roy, S.S., Arora, A.	Evaluating the Applicability of Analytical Models for Silicone Tube McKibben Actuators through Soft Computing	2021 IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT)	DOI/ISBN: 10.1109/CONECCT52877.2021.9622621 Volume: Issue No: Page No: Year:2021 Month:Jul Presenter:CO-AUTHOR
Arora, A., Sarkar, D., Sen, S., Kumar, A., Roy, S.S.	Dynamic Characterization and Phenomenological Modelling of Customizable Pneumatic Artificial Muscle	2021 IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT)	DOI/ISBN: 10.1109/CONECCT52877.2021.9622644 Volume: Issue No: Page No: Year:2021 Month:Jul Presenter:CO-AUTHOR
Paul S., Nath A., Roy S.S.	Additive Manufacturing of Multi-functional Biomaterials for Bioimplants: A review	International Conference on Advances in Materials, Mechanics, Mechatronics and Manufacturing (IC4M 2021)	DOI/ISBN: 10.1088/1757-899X/1136/1/012016 Volume: Issue No: Page No: Year:2021 Month:Presenter:CO-AUTHOR
Nath A., Roy S.S.	An Application of Computational Intelligence Techniques to Predict Biometal Deposition Characteristics in Metal Additive Manufacturing	International Conference on Technology Innovation in Mechanical Engineering (TIME 2021), Sagar Institute of Science & Technology, (SISTec)	DOI/ISBN: 10.1007/978-981-16-7909-4_45 Volume: Issue No: Page No: 493-501 Year:2021 Month:May Presenter:CO-AUTHOR



Singh A., Nath A., Roy S.S., Lohar A.K	Modeling of Laser aided Direct Metal Deposition of Stainless Steel using Supervised Deep Learning Algorithms	International Conference on Advances in Materials and Mechanical Engineering. (ICAMME- 2022)	DOI/ISBN: 10.1016/j.matpr.2022.03.468 Volume: Issue No: Page No:360- 366 Year:2022 Month:Feb Presenter:CO-AUTHOR
Biswas A., Nath A., Roy S.S	An Adaptive Neural- Fuzzy Approach for modelling of Droplet Frequency in E-jet based Micro-Additive Manufacturing	International conference on Recent Advances in Manufacturing (RAM 2021)	DOI/ISBN: 10.1007/978-981-16- 9952-8_16 Volume: Issue No: Page No:159-169 Year:2021 Month:Jun Presenter:CO- AUTHOR
S. K. Nasir Hasan, Amrendra Kumar and Kallol Khan	Parametric Study of stress Distribution in Bimodular Curved Beam	International Conference on Thermo- Fluids and System Design (ICTFSD 2022)	DOI/ISBN: https://doi.org/10.1016/j.matpr.2022.03.301 Volume: Issue No: Page No:27-33 Year:2022 Month:Mar Presenter:CO- AUTHOR
S. K. Nasir Hasan, Amrendra Kumar and Kallol Khan	Bending and Undamped free Vibration Analysis of Laminated Bimodular Composite Material laminated Thin Curved Beams	International Conference on Thermo- Fluids and System Design (ICTFSD 2022)	DOI/ISBN: https://doi.org/10.1016/j.matpr.2022.03.297 Volume: Issue No: Page No:10-15 Year:2022 Month:Mar Presenter:CO- AUTHOR
Shambhu Kumar Mahato, Subhas Chandra Rana, Rabindra Nath Barman	Study of heat transfer enhancement through the non-circular ducts using three dimensional numerical investigations and their comparisons	International Conference on Applications in Computational Engineering and Sciences (IConACES 2020) 30th-31st October 2020, Chennai, India	DOI/ISBN: doi:10.1088/1757- 899X/1128/1/012037 Volume: Issue No: Page No:012037 Year:2021 Month:Apr Presenter:CO-AUTHOR
Shambhu Kumar Mahato, Subhas Chandra Rana, Rabindra Nath Barman	Heat transfer and fluid flow characteristics within non-circular duct	Advances in Thermal- Fluids Engineering (ATFE 2021), 25th-26th March 2021, Gandhinagar, India	DOI/ISBN: doi:10.1088/1757- 899X/1146/1/012013 Volume: Issue No: Page No:012013 Year:2021 Month:May Presenter:CO-AUTHOR
Singh, Ravi Kant and Pramanick, Achintya Kumar and Rana, Subhas Chandra	Computational Study of the Effect of Cold Orifice Dimension on the Temperature Variation in the Counter Flow Vortex Tube	Advances in Fluid and Thermal Engineering. Lecture Notes in Mechanical Engineering. Springer, Singapore)	DOI/ISBN: DOI: 10.1007/978- 981-16-0159-0_28 Volume: Issue No: Page No:313—325 Year:2021 Month:Apr Presenter:CO- AUTHOR
Singh, Ravi Kant and Pramanick, Achintya Kumar and Rana, Subhas Chandra	Numerical study of a double inlet chamber counter flow vortex tube with insulation	Sustainable Energy Solutions for a Better Tomorrow (SESBT 2021	DOI/ISBN: doi:10.1088/1755- 1315/850/1/012024 Volume: Issue No: Page No:012024 Year:2021 Month:Jul Presenter:CO-AUTHOR
A Ganguly, S Pramanik, O Mookherjee, Sayantan Sengupta	On the Critical Heat Flow Features of Submerged, Low Reynolds Number Jets Impinging on a Protruded Heat Source	Proceedings of the 26th National and 4th International ISHMT- ASTFE Heat and Mass Transfer Conference	DOI/ISBN: DOI: 10.1615/IHMTC-2021.3210 Volume: Issue No: Page No:Pages 2125-2130 Year:2021 Month:Dec Presenter:CO- AUTHOR
Animesh Patari; Shantanu Pramanik:	Comparison Of Various Rans Models For Predicting Near-Wall Flow And	Proceedings of the 26thNational and 4th International ISHMT- ASTFE Heat and Mass	DOI/ISBN: DOI: 10.1615/IHMTC-2021.4220 Volume: Issue No: Page No:2781- 2787 Year:2021

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Tanmoy Mondal	Heat Transfer Characteristics Of A Turbulent Wall Jet	Transfer Conference	Month:Dec Presenter:SELF
R. K. Singh, A. K. Pramanick, S. C. Rana	Computational study for the optimization of Ranque-Hilsch vortex tube with the variation of number of inlet chamber and distance between the chambers	International Symposium on Fluids and Thermal Engineering	DOI/ISBN: https://iopscience.iop.org/article/10.1088/1742-6596/2178/1/012010 Volume: Issue No: Page No: Year:2021 Month:Jul Presenter:CO-AUTHOR
R. K. Singh, A. K. Pramanick, S. C. Rana	Numerical study of a double inlet chamber counter flow vortex tube with insulation	Second International Conference on Sustainable Energy Solutions for a Better Tomorrow	DOI/ISBN: https://iopscience.iop.org/article/10.1088/1755-1315/850/1/012024 Volume: Issue No: Page No: Year:2021 Month:Jul Presenter:CO-AUTHOR
R. K. Singh, A. K. Pramanick, S. C. Rana	Investigation of counter flow vortex tube with insulation and its effects on the thermal performance using a computational fluid dynamic approach	26th National and 4th International ISHMT-ASTFE Heat and Mass Transfer Conference	DOI/ISBN: https://www.dl.begellhouse.com/references/486d924a7e5ad8c3,393f7ffc7879d8ca,6cfb4678351acd16.html Volume: Issue No: Page No: Year:2021 Month:Dec Presenter:CO-AUTHOR
R. K. Singh, A. K. Pramanick, S. C. Rana	Computational study for the cooling performance and effect of insulation on the vortex tube with different insulating material	48th National Conference on Fluid Mechanics and Fluid Power	DOI/ISBN: https://www.me.iitb.ac.in/~fmfp/Fmfp%202021.html Volume: Issue No: Page No: Year:2021 Month:Dec Presenter:CO-AUTHOR

4.11.21 Conference: Published in Others in 2021-2022

Author(s) Name	Paper Name	Conference Name	Others Info
Malyadip Bhattacharya, Shantanu Pramanik and Tanmoy Mondal	Lattice Boltzmann Simulation of Convective Heat Transfer from Embedded Surface Heaters in a Laminar Wall Jet Flow	Proceedings of the 26th National and 4th International ISHMT-ASTFE Heat and Mass Transfer Conference	DOI/ISBN: Volume: Issue No: Page No: Year: Month: Presenter:
Animesh Patari, Shantanu Pramanik and Tanmoy Mondal	Comparison of Various RANS Models for Predicting Near-wall Flow and Heat Transfer Characteristics of a Turbulent Wall Jet	Proceedings of the 26th National and 4th International ISHMT-ASTFE Heat and Mass Transfer Conference	DOI/ISBN: Volume: Issue No: Page No: Year: Month: Presenter:
Avulam Naveen Kumar Shantanu Pramanik and Tanmoy Mondal	Two Phase Modeling of Mixed Convection in Nanofluids inside a Lid-driven Cavity for Various Aspect Ratios	Proceedings of the 26th National and 4th International ISHMT-ASTFE Heat and Mass Transfer Conference	DOI/ISBN: Volume: Issue No: Page No: Year: Month: Presenter:
Abhishek Ganguly, Shantanu Pramanik Orkodip Mookherjee and Sayantan Sengupta	On the Critical Heat Flow Features of Submerged, Low Reynolds Number Jets Impinging on a Protruded Heat Source	Proceedings of the 26th National and 4th International ISHMT-ASTFE Heat and Mass Transfer Conference	DOI/ISBN: Volume: Issue No: Page No: Year: Month: Presenter:
Bhattacharjee, S. S., Das, S. S., Datta, A., &	Efficacy of core cooling over natural and forced convection based surface cooling of Li-ion batteries	Proceedings of the 48th National Conference on Fluid Mechanics and Fluid Power (FMFP 2021),	DOI/ISBN: Volume: Issue No: Page No: Year:2021 Month:12 Presenter:CO_AUTHOR



Mondal, S.			
Bhattacharjee, S. S., & Mondal, S.	Effect of coolant precooling on axial core cooling of lithium-ion battery	Proceedings of the International Conference on Mechanical Engineering and Renewable Energy 2021 (ICMERE 2021)	DOI/ISBN: Volume: Issue No: Page No: Year:2021 Month:12 Presenter:CO_AUTHOR
Bhattacharjee, S. S., Datta, A., & Mondal, S.	Improved cooling system of Li-ion batteries by axial water flow through the core	Proceedings of the 26th National and 4th International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTTC 2021),	DOI/ISBN: Volume: Issue No: Page No: Year:2021 Month:12 Presenter:CO_AUTHOR

4.11.22 Books Authored

Author Name	Co-Author	Title of the Book	Title of the Chapter	Publication Details
Ranjan Kumar Mitra	D. Kumar, T. Chouhan, Md Farrukh, N. Faisal	Aging Effects on natural fibre reinforced polymer composites	Effect of moisture absorption on interfacial shear properties of the bio-composites	Publisher: CRC Press: Taylor & Francis Group Publication Date: 2022-03-02
Swarup S. Deshmukh, Arjayyoti Goswami, Ramakant Shrivastava, Vijay S. Jadhav		Mechatronic Systems Design and Solid Materials	Parametric Study and Optimization of Parameters in Powder Mixed Wire-EDM Using Taguchi Analysis	Publisher: Apple Academic Press Publication Date: 2021-05-09
Shibendu Shekhar Roy	Ravi Kant Jain, Bhaskar Ghosh	Smart Materials based Micro Manipulation System for Robotic Assembly		Publisher: LAP LAMBERT Academic Publishing Publication Date: 2021-10-19
Kallol Khan	Satyajit Sahu	Recent Advances in Computational and Experimental Mechanics, Vol I, Lectures Note in mechanical Engineering	Experimental Stress and Free Vibration Study of Woven Fiber Laminated Composite Beams	Publisher: Springer Nature Singapore Pte Ltd Publication Date: 2021-11-11
Kallol Khan	Manish Kumar, Pronab Roy	Recent Advances in Computational and Experimental Mechanics, Vol II, Lectures Note in mechanical Engineering	Numerical Investigation of Collapse Moment of Deformed Pipe Bends Subjected to Internal Pressure and Bending Moment	Publisher: Springer Nature Singapore Pte Ltd Publication Date: 2022-01-01

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Author Name	Co-Author	Title of the Book	Title of the Chapter	Publication Details
Ranjan Kumar Mitra		Differential Equations in Engineering: Research and Applications	Incremental Harmonic Balance Method for Multi-Degree-of-Freedom System with Time Delays	Publisher: CRC Press: Taylor & Francis Group Publication Date: 2021-08-03
Ranjan Kumar Mitra	S. S. Mondal, and A. K. Banik	Lecture Notes in Mechanical Engineering	Vibration Control of Duffing Oscillator by Passive and Active Control with Time-Delayed Linear and Nonlinear Acceleration Feedback	Publisher: CRC Press: Taylor & Francis Group Publication Date: 2021-09-23
Sirshendu Mondal	Rik Mondal, Chandan Bose	Advances in Nonlinear Dynamics	Synchronization Study on Vortex-Induced Vibrations Using Wake Oscillator Model	Publisher: Springer Publication Date: 2021-05-01

4.11.23 Seminars, Summer/Winter Schools, Short Term Courses Attended

Name of the Programme	Organized By	From Date	To Date	Organizing Country
Short term course on Advancement in Manufacturing Processes and Techniques	School of Mechanical Sciences IIT Bhubaneswar	2021-07-12	2021-07-16	India
IITG Mathematics Seminar (Webinar) Series Lec. No. 365	IIT Guwahati	2022-01-18	2022-01-18	India
IITG Mathematics Seminar (Webinar) Series Lec. No. 361	IIT Guwahati	2021-10-07	2021-10-07	India
IHMTC-2021	IIT Madras	2021-12-17	2021-12-20	India
26th National and 4th International ISHMT-ASTFE Heat and Mass Transfer Conference	IIT Madras, Chennai-600036, Tamil Nadu, India	2021-12-17	2021-12-20	India



4.11.24

Ph.D. Supervisor

Topic Name	Scholar	Supervisor	Status	Status Date
Analysis of Bimodular Material laminated Curved Beam using Equivalent Stiffness Method	Amrendra Kumar	Kallol Khan	DEGREE AWARDED	2021-04-19
Power plant with CO ₂ capture	Rajesh Kumar	Sujit Karmakar	ONGOING	2022-03-31
Advanced fuel cell based power plant	Pruthvi Deep	Sujit Karmakar	ONGOING	2022-03-31
Modeling And Control of a Multi-Echelon Inventory System	Debabrata Das	Nirmal Baran Hui	DEGREE AWARDED	2020-10-02
Dynamics and Control of Flexible Manipulators	Prasenjit Sarkhel	Nirmal Baran Hui and Nilotpal Banerjee	DEGREE AWARDED	2020-09-30
Modeling of Backward Metal Flow Forming Process	Prabas Banerjee	Nirmal Baran Hui	DEGREE AWARDED	2021-10-09
Manufacturing Analytics	Tarak Nath De	Nirmal Baran Hui and Chandan Mandal	ONGOING	2022-03-31
Supply Chain Management	Pravanjan Bera	Nirmal Baran Hui	ONGOING	2022-03-31
Condition Monitoring	Samrat Mondal	Chintamani Mishra and Nirmal Baran Hui	ONGOING	2022-03-31
Flow through Bluff Bodies	Kanchan Chatterjee	Nirmal Baran Hui and Dipankar Chatterjee	DEGREE AWARDED	2013-10-10
Manufacturing Analytics for Cold Flow Forming of Solution Annealed H30 Aluminum Alloy Tubes	Bikramjit Podder	Nirmal Baran Hui and K. Ramesh Kumar	DEGREE AWARDED	2018-06-22
Coordinated Navigation of Multiple Mobile Robots	Buddhadeb Pradhan	Nirmal Baran Hui and Diptendu Sinha Roy	DEGREE AWARDED	2020-01-31
Development of a tool for grading and diagnosis of depression patients	Kumar Ashis	Nirmal Baran Hui and Subhagata Chattopadhyay	DEGREE AWARDED	2020-06-14
Studies on hot embossing of polymer substrate for different applications	Swarup S Deshmukh	Arjya jyoti Goswami	ONGOING	2022-03-31
Studies on Fiber Laser parameters for different applications	Tuhin Kar	Arjya jyoti Goswami	ONGOING	2022-03-31
Design microsink with disruptive structure	Vivek Kumar	Aparesh Datta and Sirshendu Mondal	ONGOING	2022-03-31

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Topic Name	Scholar	Supervisor	Status	Status Date
Heat transfer in enhancement in solar absorber plate	Nirmalya Tripathi	Sirshendu Mondal and Aparesh Datta	ONGOING	2022-03-31
Development and Modelling of Low Pressure Actuated Pneumatic Artificial Muscle for Assistive Applications	Aman Arora	Shibendu Shekhar Roy	ONGOING	2022-03-31
Evaluation of Plastic Collapse Moment of Initially Geometric Imperfect Pipe Bends Under Internal Pressure and Bending Moment	Manish Kumar	Kallol Khan and Pronab Roy	DEGREE AWARDED	2022-09-25
Dynamics, Trajectory Planning and Design of Underwater Manipulator: An Approach using Empirical Hydrodynamics	Virendra Kumar	Shibendu Shekhar Roy, Soumen Sen	DEGREE AWARDED	2021-11-25
Experimental Study, Process Modelling and Optimization of Electrohydrodynamic Inkjet Based Micro-Additive Manufacturing Process	Raju Das	Shibendu Shekhar Roy	DEGREE AWARDED	2021-07-02
Development of Metaheuristic Algorithms tuned Artificial Intelligence-Based Models for Prediction and Optimization of Process Parameters of Metal Additive Manufacturing	Ananda Rabi Dhar	Shibendu Shekhar Roy, Nilrudra Mandal	SUBMITTED	2021-12-31
Combined Nanoindentation and Finite Element Modeling of Elasto-plastic Solids	Deeksha Porwal	kallol Khan and Arjun Dey	DEGREE AWARDED	2022-09-25
Bimodular Composite laminated Beams	Yogesh Kumar	Kallol Khan	ONGOING	2022-03-31
Experimental and Numerical studies on Hot Embossing of polymers for different applications	Subir Datta	Arjyajyoti Goswami	ONGOING	2022-03-31
Heat Transfer enhancement In Microchannel	Deepak Raj	Aparesh Datta	ONGOING	2022-03-31
Heat Transefer study with Phase change material	Subham Show	Aparesh Datta and Sirshendu Mondal	ONGOING	2022-03-31
Bending and Free Vibration Analysis of Bimodular Composite Material Laminated Beam Using Equivalent Stiffness Methods	Nasir Hasan Sk	Kallol Khan	DEGREE AWARDED	2022-09-25
Study of Heat Transfer and Flow Characteristics through Twisted Noncircular Ducts using Nanofluids.	Shambhu Kumar Mahato. (16ME1101), Registration No.. NITD/PhD/ME/2018/01033	Dr. S. C. Rana and Dr. R. N. Barman	DEGREE AWARDED	2021-11-18
Experimental and Numerical Investigation on Optimum Orientation of Fin Arrayed Heat Sinks	PABITRA KUMAR MANDAL, 14/ME/1504, Registration No. NITD/PhD/ME/2016/00779,PT	Dr. S. C. Rana and Dr. Dipankar Bhanja, NIT, Silchar	DEGREE AWARDED	2022-05-06
Vibration And Stability Analysis Of Rotating Shaft Using Bearings And	PRAVEENSHARMA15/ME/1107, Registration No. NITD/PhD/ME/2017/00968,FT	Dr. R. N. Barman and	SUBMITTED	2022-05-31



Topic Name	Scholar	Supervisor	Status	Status Date
Lubricants		Dr. S. C. Rana		
study of performances of S-shaped 3-d Diffuser	ASIM KUMAR DAS 17ME1301 , Registration No. 19RME041	Dr. S. C. Rana	ONGOING	2022-03-31
Studies On Flow Physics Of A Vortex Tube	RAVI KANT SINGH 18ME1102,Registration No. 20RME075,FT	Dr. Achintya Kumar Pramanick and Dr. S.C. Rana	ONGOING	2022-03-31
Performance study of Wind Turbine (Tentative)	ARUNABHA MAHATO 21M21102	Dr. S. C. Rana	ONGOING	2022-03-31
Condensation	Mr. Uttam Kumar Kar (19 ME1101)	Dr. S. Sengupta and Dr. S. Pramanik	ONGOING	2022-03-31
Heat Transfer	Mr. Avishek Mukherjee (21ME1107)	Dr. A. K. Pramanick and Dr. S. Sengupta	ONGOING	2022-03-31
Rheology	Mr. Arka Banerjee (19 ME1504)	Dr. S. Sengupta and Dr. S. Pramanik	ONGOING	2022-03-31
Nonlinear dynamics and active control of flexible systems under periodic excitations	Ranjan Kumar	Ranjan Kumar Mitra	ONGOING	2022-03-31
Modelling and Diagnosis of Gear Faults	Rajeev Kumar	Ranjan Kumar Mitra and Chintamani Mishra	ONGOING	2022-03-31
Friction Stir Welding	Meghnath Sen	Prof. (Dr.) A. B. Puri	ONGOING	2022-03-31
Friction Stir Welding	LALITA PRASAD NAYAK	Prof. (Dr.) A. B. Puri	ONGOING	2022-03-31
Modelling and diagnosis of faults in gears	Rajeev Kumar	Chintamani Mishra, Ranjan Kumar Mitra	ONGOING	2022-03-31
Defect diagnosis of rolling element bearing	Samrat Mandal	Chintamani Mishra; Nirmal Baran Hui	ONGOING	2022-03-31
AN INVESTIGATION ON DESIGN OF CONTINUOUS CASTING MOLDS	KOUSHIK RAY	INDRAJIT BASAK	DEGREE AWARDED	2021-07-31
A Sharp Interface Coupled-Level-Set- Volume-of-Fluid Method Based CMFD Development and its Applications for Analysis of Droplet Dynamics	Orkodip Mookhserjee	Dr. Shantanu Pramanick and Prof. Atul Sharma (IIT Bombay)	ONGOING	2022-03-31
Heat transfer augmentation in Solar Air Heater	Jay Shankar Prasad	Dr. Sirshendu Mondal	ONGOING	2022-03-31
Heat transfer augmentation in Solar Air Heater	Nirmalya Tripathy	Dr. Sirshendu Mondal, Dr. Aparesh Datta	ONGOING	2022-03-31
Heat transfer augmentation using nano enhanced phase change material	Subham Show	Dr. Aparesh Datta, Dr. Sirshendu Mondal	ONGOING	2022-03-31
Design of microsink	Vivek Kumar	Dr. Aparesh Datta, Dr. Sirshendu Mondal	ONGOING	2022-03-31

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4.11.25 Ongoing Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Amount (in Rs.)	Starting Year
Development of Assembly Auto Alignment Methodology	Nirmal Baran Hui and Ranjan Kumar Mitra	Advanced Systems Laboratory, Hyderabad, DRDO	1943500.0	2020
Development of Compliant Actuators with Mechanical Impedance Variability	Shibendu Shekhar Roy	DRDO, New Delhi	1250000.0	2018
Design of a Smart Material based Soft Lower Limb Exoskeleton to Assist Soldier	Shibendu Shekhar Roy	DRDO, New Delhi	8450000.0	2019
Design & Development of Force Reflecting Hand Exoskeleton for Application in Remote Handling in Defence	Shibendu Shekhar Roy	DRDO, New Delhi	940000.0	2019
Design of high-performance microsinks with disruptive structure like cavity, Secondary branch and rib	Aparesh Datta , Sirshendu Mondal and Amit Agrawal	SERB	3494202.0	2022
A universal advanced low-cost nano-hybrid platform for air pollution, water, and bio-fluids	Dr. A. Mondal & Dr. R. N. Barman	Scheme for Promotion of Academic and Research Collaboration (SPARC), MHRD, GoI	5846065.0	2019
Controlled assembly of main frame of the ballistic missile	Nirmal Baran Hui and Ranjan Kumar Mitra	Research Centre Imarat (RCI), Hyderabad, DRDO)	2200000.0	2021
Design of high-performance microsinks with disruptive structure like cavity, secondary branch and rib	Dr. Aparesh Datta, Dr. Sirshendu Mondal, Prof. Amit Agrawal	DST-SERB	3400000.0	2022

4.11.26 Completed Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Complete Year
Template based fabrication for development of various micro nano structured surfaces and their characterization	Arjyajyoti Goswami	SERB (DST)	2022
Development of a thermal assisted micro nano stamping setup	Arjyajyoti Goswami	RIG (NIT Durgapur)	2021
Study of Heat Transfer Enhancement with the application of Various Nanofluids in a Differentially heated cavity	Dr. R. N. Barman	The Institution of Engineers (India)	2022

4.11.27 Testing & Consultancy Services Rendered



Sponsoring Industry / Institute Name	Title of the Project	Total Amount (inRs.)	Remarks
Kolkata Metropolitan Development Authority (KMDA)	Water sample collection and analysis of 10 numbers big outfalls in Damodar at Asansol area.	192170.0	Completed

4.11.28 Reviews of Manuscripts for Publication in Journal

Reviewer	Name of the Journal	Publisher	Date of Final Review
Nirmal Baran Hui	Applied Soft Computing	Sciencedirect	2021-11-15
Nirmal Baran Hui	Journal of Intelligent & Fuzzy Systems	IOS Press	2021-11-29
Nirmal Baran Hui	International Journal of Computational Methods	Wold Scientific	2021-12-30
Nirmal Baran Hui	Sadhana	Springer	2022-02-11
Nirmal Baran Hui	Interaction Studies	John Benjamins	2022-05-22
Arjyayoti Goswami	Sādhana – Academy Proceedings in Engineering Sciences	Springer Science	2021-09-08
Arjyayoti Goswami	Materials Today: Proceedings	Elsevier	2022-02-18
Arjyayoti Goswami	Korean Journal of Chemical Engineering	Springer	2022-02-14
Arjyayoti Goswami	Smart and Sustainable Manufacturing Systems	ASTM Internaitonal	2021-12-29
Asit Baran Puri	The International Journal of Advanced Manufacturing Technology	SPRINGER	2021-05-23
Asit Baran Puri	Alexandria Engineering Journal	Elsevier	2021-06-02
Asit Baran Puri	International Journal of Abrasive Technology	INDERSCIENCE Publishers	2021-06-27
Asit Baran Puri	Sadhana	SPRINGER	2021-08-14
Asit Baran Puri	Journal of The Electrochemical Society	IOP Science	2022-01-31
Achintya Kumar Pramanick	Mathematical Problems in Engineering	Hindawi	2021-09-15

4.11.29 Invited Examiners/Paper-Setters/Board of Studies

Name of the Faculty	Name of the Examination	University/Institute	From Date	To Date
Asit Baran Puri	Ph. D Thesis examination and External Examiner to conduct Viva-Voce Examination,	Alia University	2021-07-14	2021-09-16
Asit Baran Puri	Ph. D Thesis examination and External Examiner for Ph'D. Viva -Voce Examination	NIT Patna	2021-07-05	2021-12-21
Asit Baran Puri	Ph. D Thesis examination and Ph.D. Open Viva -Voce Examination	Jadavpur University	2021-11-02	2021-11-26

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Asit Baran Puri	Ph. D Thesis examination and Ph.D. Open Viva -Voce Examination	VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, BURLA, ODISHA	2021- 12-20	2022- 05-05
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4.11.30 Invited Expert in Selection Committees

Name of the Faculty	Discipline	University/Institute	From Date	To Date
Nirmal Baran Hui	Mechanical Engineering	Bankura Unnayani Institute of Engineering, Bankura	2022- 02-25	2022- 02-25
Kallol Khan	PG Diploma	CMERI Durgapur	2021- 07-22	2021- 07-22
Asit Baran Puri	Mechanical Engineering	CMERI Durgapur	2021- 12-14	2021- 12-15
Indrajit Basak	Mechanical Engineering	CSIR-CMERI	2021- 07-22	2021- 07-22
Indrajit Basak	Mechanical Engineering	CSIR-CMERI	2021- 10-05	2021- 10-06
Indrajit Basak	Mechanical Engineering	CSIR-CMERI	2022- 03-10	2022- 03-10

4.11.31 Invited Lectures

Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Nirmal Baran Hui	Engineers for Skill Development and Employment in combating Covid 19	Engineers Day Celebration	IEI Durgapur	2021- 09-15	2021- 09-15
Nirmal Baran Hui	Teaching, Learning and Evaluation - Nexus	AICTE Sponsored 5-days online FDP on Examination Reforms	National Institute of Technology Agartala	2022- 01-24	2022- 01-28
Nirmal Baran Hui	4th Industrial Revolution and Role of Robots – Its implications for India	Online FDP on "Artificial intelligence in Industry, 4.0"	IEM Kolkata	2022- 02-14	2022- 02-18
Arjyajyoti Goswami	Workshop on Design Thinking and Critical thinking	Internal Workshop for NIT Durgapur Students	NIT Durgapur	2021- 12-09	2021- 12-09
Arjyajyoti Goswami	Workshop on Innovation Design	Internal Workshop for NIT Durgapur Students	NIT Durgapur	2021- 12-14	2021- 12-14
Arjyajyoti Goswami	Workshop on Design Thinking, Critical Thinking & Innovation Design	Invited LECTURE	Shree Ramkrishna Institute of Science and Technology, Kolkata (ONLINE)	2022- 02-19	2021- 12-19
Arjyajyoti Goswami	Structured surfaces Generation and applications	Faculty Development Program on Emerging Trends in Mechanical	Sharda University, Greater Noida (ONLINE)	2021- 06-21	2021- 06-26



Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
		Engineering”			
Arjyjayoti Goswami	Smart Manufacturing and Surface Coating Methods	Faculty Development Program on CURRENT & FUTURE PROSPECTS IN MECHANICAL HEAVY INDUSTRIES	Sharda University, Greater Noida (ONLINE)	2021-12-06	2021-12-10
Arjyjayoti Goswami	Nano Manufacturing	Invited Guest Lecture	Government College of Engineering, Karad (ONLINE)	2022-02-24	2022-02-24

4.11.32 Session Chair/Convenor

Name of the Faculty	Programme	Place	Session	From Date	To Date
Nirmal Baran Hui	35th National Convention on Production Engineers & National Conference on Emerging Technologies for Sustainable Manufacturing	IEI Durgapur	Chairman, Technical Committee	2021-10-30	2021-10-31
Asit Baran Puri	35th National Convention of Production Engineers, IEI,	DURGAPUR LOCAL CENTRE, DURGAPUR	Technical Session	2021-10-31	2021-10-31
Asit Baran Puri	8th International and 29th All India Manufacturing Technology, Design and Research Conference	Departments of Mechanical Engineering, PSG College of Technology	Technical Session	2021-12-10	2021-10-10
Asit Baran Puri	International Conference on Futuristic Advancements in Materials, Manufacturing and Thermal Sciences (ICFAMMT-22)	IITRAM, Ahmedabad and SSME, (SAC, ISRO), Ahmedabad January 20-22, 2022	Technical Session	2022-01-21	2022-01-21

4.11.33 Patents

Title	Inventors	Application Nos	Date of Filling
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4.12 Department of Metallurgical and Materials Engineering

4.12.1 Department at a Glance:

Brief Outline of the Department:

The Department, which started its journey in the year 1960, presently offers B.Tech. (Metallurgical and Material Engineering), M.Tech.(Metallurgy and Materials Technology) and Ph.D Programme. The Department maintains high level of interactions with other academic institutes (IIT Kharagpur, Jadavpur University, IIST (Shibpur) and NIFTT (Ranchi)), CSIR Laboratories, SAIL and other steel plants in India. At present, fifteen highly qualified and dedicated faculty members are serving this Department.

Teaching & Research Activities:

The teaching at B.Tech level focuses on the fundamental knowledge base development in various areas of Metallurgical and Materials Engineering, such as, Extractive Metallurgy, Physical Metallurgy, Mechanical Metallurgy and Corrosion Science and Engineering. M.Tech level teaching emphasizes on advanced knowledge input in new material development and latest techno-scientific progress in Metallurgical Industry. The research activities of the Department are centered on B.Tech and M.Tech Projects, Ph.D Programmes and sponsored research projects. Many research papers have been published in reputed peer reviewed Journals.

4.12.2 Mission & Vision

Mission:

1. To produce highly educated, well-rounded and motivated graduates possessing fundamental understanding and knowledge in Metallurgical and Materials Engineering, who can provide service and leadership to the nation and the world.
2. To pursue creative research and new technologies in Metallurgical and Materials Engineering in order to cater the needs of industry, government and society.
3. To accomplish visibility by active participation in conferences and technical activities.

Vision:

1. To prove and be accepted globally as a leading department and as a quality establishment for gathering and disseminating knowledge in the field of metallurgical and materials engineering.

4.12.3 Faculty

Name	Designation	Email-id
GhoshKarunaSindhu, PhD	Professor	ksgghosh2001@mme.nitdgp.ac.in
Maity Joydeep, Ph.D	Professor	joydeep.maity@mme.nitdgp.ac.in
Show Bijay Kumar, Ph.D	Associate Professor	bijay.show@mme.nitdgp.ac.in
GhoshMadan Mohan, Ph.D	Associate Professor	madanmohan.ghosh@mme.nitdgp.ac.in
MondalManas Kumar, Ph.D	Associate Professor	manas.mandal@mme.nitdgp.ac.in
Bera Supriya, PhD	Associate Professor	supriya.bera@mme.nitdgp.ac.in
GhoraiSatadal, PhD	Associate Professor	satadal.ghorai@mme.nitdgp.ac.in
PramanikSusanta, Ph.D	Associate Professor	susanta.pramanik@mme.nitdgp.ac.in
MajiBarnali, Ph.D	Assistant Professor	barnali.maji@mme.nitdgp.ac.in
MallikManab, Ph.D	Assistant Professor	manab.mallik@mme.nitdgp.ac.in
Mandal Arup Kumar, PhD	Assistant Professor	arup.mandal@mme.nitdgp.ac.in
MandalDurbadal, Ph.D	Assistant Professor	durbadal.mandal@mme.nitdgp.ac.in
YagatiKrishna Priya, Ph.D	Assistant Professor	kp.yagati@mme.nitdgp.ac.in

4.12.4 Equipments

Sl. No.	Name of the equipment	Date of Purchase	Amount (Rs.)
1	Sieve shaker	Jan-Mar 2022	45,800/-
2	Top Density Tester	Jan-Mar 2022	89,775/-
3	Digital Outside micrometer	Jan-Mar 2022	9,063/-
4	Vernier / Dial type Calipers	Jan-Mar 2022	12,199/-
5	Bernoulli's Theorem Apparatus	Jan-Mar 2022	38,500/-
6	ORIFICE METER APPARATUS	Jan-Mar 2022	42,000/-



Sl. No.	Name of the equipment	Date of Purchase	Amount (Rs.)
7	Reynolds Apparatus	Jan-Mar 2022	36,890/-
8	Venturi Meter Apparatus	Jan-Mar 2022	46,900/-
9	Sieve shaker	Jan-Mar 2022	38,900/-
10	Standard Precision Balance (4 Nos)	Jan-Mar 2022	3,30,000/0
11	Crushing strength equipment.	Jan-Mar 2022	22,500/-

4.12.5 Labs

Sl. No.	Name of Laboratory	Major equipment
1	X-Ray Diffraction Laboratory	XRD
2	Mechanical Working Laboratory	Rolling Mill
3	Transport Phenomena Laboratory	Bernoulli's Theorem Apparatus
4	Thermodynamics of Materials Laboratory	Gas-Solid Dissociation Unit and Oxidation Furnace, Fluidized Bed Furnace(High Temperature)
5	Metal Joining Laboratory	Welding Unit
6	Composites Laboratory	Stir-Casting Unit
7	Agglomeration Laboratory	Disk Pelletizer, Sintering Unit, Ball Mill
8	Foundry and Casting Laboratory	Sand Casting Unit
9	Powder Metallurgy Laboratory	Planetary Ball Mill
10	Heat Treatment Laboratory	Furnaces
11	Metallography Laboratory	Optical Microscopes
12	Corrosion Testing Laboratory	SSRT, Potentiostat
13	Surface Engineering Laboratory	Potentiostat / Galvanostat
14	Extractive Metallurgy Laboratory	Grinding Ball Mill, Pelletizer, Sintering unit
15	Mechanical Testing Laboratory	Instron, Vickers Microhardness tester, Hardness testers
16	Manufacturing Processes Laboratory	Melting Furnace, Indirect Arc Melting Furnace
17	Mineral Beneficiation Laboratory	Flotation Cell, Sieve Shaker
18	Nanomaterials Laboratory	Particle Size Analyser, Thermal Conductivity Measuring Equipment
19	Computation Laboratory	Computers, Servers
20	Reducibility Testing Laboratory	Reducibility Testing Unit
21	Materials Characterization Laboratory	DSC, Composition analyser, Wear testing unit

4.12.6 PhD degree awarded till 2021-22

Thirty Two.

4.12.7 Any other relevant information

NIL

4.12.8 Specialization

- Process Metallurgy
- Physical Metallurgy
- Physical Metallurgy, Materials Characterization
- Extractive Metallurgy and Waste utilization of Industries
- Corrosion Engineering and Welding Technology
- Mechanical Metallurgy
- Metallurgical and Materials Engineering
- Physical Metallurgy, Materials Characterization, Foundry Technology, Corrosion Engineering, Metal Joining

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4.12.9 Proposed Plan for Research

- Development of High entropy alloy
- Semi-solid treatment of Al-Si alloys and microstructure correlation with properties
- Development of new metallic alloys for bio-implant application.
- Development of Al-based alloys for high temperature application
- Green Steel making
- Preparation of an environment friendly better charge materials for BF/EAF
- Establishment of an environment friendly noble method for impurities removal from liquid iron
- Enhancement of high ash Indian coal in coke blend
- Value addition of integrated steel plant waste
- Development of wear resistant materials (Al alloys and Al based composites)
- The iron bearing fines and microfines of iron and steel industries may be converted into granules. Additionally, manganese ferro alloy fines and ferro chrome fines is added to the mixture. This mixture along with 5 % moisture is sintered in a down draught sintering machine. The sintering of the mixture will lead to alloy sponge iron.
- Innovative research in Materials Field
- Design and Development of Materials for Advanced Applications (e.g., Biomedical, Energy, Defence, Space, Nuclear, etc.)
- Advanced Materials
- Structure-property correlation
- Wire arc additive manufacturing of high strength Al-alloys for aerospace applications, Wire arc additive manufacturing of steel for marine applications, Joining of dissimilar materials
- Development and Characterization of materials

4.12.10 Area of Research Interest

- Ceramic
- Composites, Light Metals, Tribological Behaviour of materials, Micromechanics of materials
- Iron and Steel Making
- Circular Economy
- Advanced Steels, Alloy Development, Composite Materials
- Phase Transformation, Materials Characterization, Biomaterials, Metal Matrix Composite
- Alternative iron making, Agglomeration and raw materials characterization, Refining of liquid metal, Utilization of fines and waste materials, Recovery of valuable metal from low grade ore and Physical modeling
- Microstructure-property correlation and wear behaviour of different materials
- Manufacture of value added products by recycling of industry waste or employing Wire Arc additive manufacturing method
- Materials Characterization, Stress Corrosion Cracking (SCC) and Hydrogen Embrittlement (HE)
- Materials Modelling using Multiscale Approach (MD, FEM, MC, DFT, etc.)
- Physical Metallurgy
- Additive Manufacturing, Joining of materials
- Alloy Development, materials characterization

4.12.11 Institute Industry Collaboration

Collaborating Institute Organization	Areas of collaboration	Collaboration Activities
SAIL- DSP and RDCIS -SAIL Ranchi	Analytical Model to predict sinter property and conversion of fines to structural material	The work has just started with the collection of raw mix data and the final sinter chemistry. The work of converting fines to Structural material has been completed and has been proposed to the Team of SAIL
Collaborating Institute Organization	Areas of collaboration	Collaboration Activities
		.Further developments need to be done .



Collaborating Institute Organization	Areas of collaboration	Collaboration Activities
GE-ALSTOM	Joining of supercritical boiler steel	Successful Joining of supercritical boiler steel, research paper publication

4.12.12 Collaboration with Academic and Research Institutions

Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
CSIR-Central Mechanical Engineering Research Institute, Durgapur, West Bengal, India.	Mechanical property evolution	Dr. Himadri Roy	Joint Research Work
CGCRI, Kolkata	Biomaterials	Dr. S. Bera, Dr. D. Mandal & Dr. M. Das	Joint Ph.D. student
Department of Chemistry, Sikkim Manipal Institute of Technology, Sikkim Manipal University, Majhitar, East Sikkim 737136, India	Material Characterization	Dr. Joydeep Biswas	Joint Research Work
CSIR-National Metallurgical Laboratory Jamshedpur	Mechanical Metallurgy, Low cycle Fatigue Properties	Dr. Durbadal Mandal and Dr. H.N Bar (CSIR-NML)	Joint PhD Supervisor
Indus University, Ahmedabad, India	Alloy Development	Dr. D. Mandal and Dr. Sujoy K. Chaudhury	Joint Research and Development
Erich Schimdt Institute, Leoben, Austria	Al alloys, Biomaterials	Dr. S. Bera, Dr. P. Ramaswamy	Joint Research Work, Publications
IIT Roorkee	Al alloy	Dr. S. Bera and Dr. S. Das	Joint DST (CRG) project
KNU Asansol	Steel, Al alloy	S. Bera, Dr. G. Mondal, Dr. A. Sinha	Joint project, publications
RDCIS, Ranchi	Process Metallurgy	S. Ghorai	Joint guidance of PhD student
IIT Roorkee	Al-based Al-Cu-Ni alloys	PI: Dr. Supriya Bera NIT Durgapur Other Investigators: Dr. Sourav Das IIT Roorkee Dr. Bijay Kumar Show NIT Durgapur	Joint Project
CIMFER, Dhanbad	Development of HVLC treated steel	Dr. M. Mallick and Dr. D. Basak	New generation steel development, research paper publication
Rensselaer Polytechnic Institute (RPI), Troy, NY, USA	Molecular Dynamics study on domain switching of BaTiO ₃ with oxygen vacancy	Prof. Pawel Keblinski	M.tech final year project work
BARC Visakhapatnam	Design and development of Zr-Nb nano alloys with enhanced radiation damage tolerance and mechanical properties for structural materials in nuclear industry.	Dr. Manoj Warriar	Research work

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4.12.13 Workshops/Seminars Organized

Name of Key Speaker(s)	Name of the Programme	Date of the Programme
Dr B.K.Dubey, Prof PankajKumar ray , Prof Anupam Debsarkar Dr Alok BajpaiDr	Green Technology and Sustainability	2022-02-25

4.12.14 Journal: Published in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
Manivannan Raja, Yoshit Tiwari, Manidipto Mukherjee, Barnali Maji, Avik Chatterjee	Effect of bidirectional and switchback deposition strategies on microstructure and mechanical properties of wire arc additive manufactured Inconel 625	Journal of Advanced Manufacturing Technology	Volume:119 Issue No: https://doi.org/10.1007/s00170022-08687-2 Page No:4845-4861 Year:2022 Month:Jan
Mousumi Mallick, Swapan Kumar Mitra, Debasish Basak, Nirmal Kumar Roy and Joydeep Maity	Hardening of Steel Through High-Voltage Low-Current Energy Input	Steel Research International	Volume:92 Issue No:5 Page No:Article number: 2000588, (pp 1-18) Year:2021 Month:May
Suvam Chatterjee, Manas Kumar Mondal and Joydeep Maity	Fusion Welding of T23 and T91 Steel Joints for Advanced Thermal Power Plant Application	Journal of Materials Engineering and Performance	Volume:30 Issue No:10 Page No:7655–7667 Year:2021 Month:Oct
Suvam Chatterjee, Manas Kumar Mondal and Joydeep Maity	Experimental Analysis of T23–T91 Dissimilar Steel Joining in Supercritical Boiler by a Cost-Effective Fusion Welding Route	Steel Research International	Volume:92 Issue No:9 Page No:pp 1-13 of Article: 2100063 Year:2021 Month:Sep
Samata Saha, Manojit Ghosh, Ashit Kumar Pramanick, Chandan Mondal and Joydeep Maity	Attainment of high specific hardness and specific modulus in spark plasma sintered aluminium-copper-silicon carbide/titanium carbide hybrid composite	Material Science and Engineering Technology (Materialwissenschaft und Werkstofftechnik)	Volume:52 Issue No:9 Page No:965–981 Year:2021 Month:Sep
Samata Saha, Manojit Ghosh, Ashit Kumar Pramanick, Chandan Mondal and Joydeep Maity	Microstructure and Mechanical Properties of Al/Cu/SiCp/TiCp-Based Hybrid Composites Fabricated by Spark Plasma Sintering	Journal of Materials Engineering and Performance	Volume:31 Issue No:1 Page No:424-438 Year:2022 Month:Jan
R. Bhandari, P. Biswas, A. Pathania, M. Mallik and M. K. Mondal	Equal channel angular pressing die design through finite element analysis method for non-strain hardening material	Canadian Metallurgical Quarterly	Volume: Issue No: Page No:Canadian Metallurgical Quarterly Year:2022 Month:Mar



Author(s) Name	Paper Name	Journal Name	Others Info
Ram ji Omar, Raj Kumar Dishwar, Biswajit Mishra, A. K. Mandal, G. S. Mahobia & O. P. Sinha	Characterization of Multi-Metallic Magnetite Mineral of Nagaland Region in North-East India	Mining, Metallurgy & Exploration	Volume:38 Issue No: Page No:1681–1688 Year:2021 Month:May
Amit Kumar Singh, Sharvan Kumar, Biswajit Mishra, Raj Kumar Dishwar, Arup Kumar Mandal, Lakkoju Sankara Rao & Om Prakash Sinha	Direct reduction of fluxed iron ore pellets made from coarse iron ore particles	Canadian Metallurgical Quarterly	Volume: Issue No: Page No: Year:2022 Month:Mar
S. Chatterjee, M. K. Mondal, and J. Maity	Diffusional evolution of σ -phase to resolve a long-standing dissimilar material joining issue in supercritical boiler	Philosophical Magazine	Volume:102 Issue No:7 Page No:559–588 Year:2022 Month:
T. R. Paul, M. K. Mondal and M. Mallik	Densification behavior of ZrB ₂ –MoSi ₂ –SiCw composite processed by multi stage spark plasma sintering	Ceramics International	Volume:47 Issue No:22 Page No:31948–31972 Year:2021 Month:Nov
S. Chatterjee, M. K. Mondal, and J. Maity	Experimental Analysis of T23–T91 Dissimilar Steel Joining in Supercritical Boiler by a Cost-Effective Fusion Welding Route	Steel Research International	Volume:92 Issue No:9 Page No:2100063 (1 of 13) Year:2021 Month:May
S. Chatterjee, M. K. Mondal, and J. Maity	Fusion Welding of T23 and T91 Steel Joints for Advanced Thermal Power Plant Application	Journal of Materials Engineering and Performance	Volume:30 Issue No: Page No:7655–7667 Year:2021 Month:Jun
S. Basak, P. Biswas, S. Patra, H. Roy and M. K. Mondal	Effect of TiB ₂ and Al ₃ Ti on Microstructure, Mechanical Properties and Fracture Behaviour of Near Eutectic Al-12.6Si Alloy	International Journal of Minerals, Metallurgy and Materials	Volume:28 Issue No: Page No:1174–1185 Year:2021 Month:Jul
T. R. Paul, M. K. Mondal, and M. Mallik	Abrasive wear performance and wear map of ZrB ₂ –MoSi ₂ –SiCw composites	Journal of the European Ceramic Society	Volume:41 Issue No:22 Page No:3227–3251 Year:2021 Month:Nov
I. Biplab Hazra, Supriya Bera, Bijay Kumar Show	High temperature wear micromechanisms in Al–17Si–5Cu alloy after an isothermal heat treatment	Canadian Metallurgical Quarterly	Volume:60 Issue No:3 Page No:224–238 Year:2021 Month:
Biplab Hazra, Supriya Bera & Bijay Kumar Show	High temperature wear micromechanisms in Al–17Si–5Cu alloy after an isothermal heat treatment	Canadian Metallurgical Quarterly	Volume:60 Issue No:3 Page No:224–238 Year:2021 Month:Nov
Mousumi Mallick, Biplab Hazra, Swapan Kumar Mitra, Debasish Basak, Bijay Kumar Show &	Temperature-Dependent Wear Characteristics of a High-Voltage Low-	Journal of Materials Engineering and Performance	Volume:31 Issue No: Page No:3661–3678 Year:2022 Month:Jan

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Author(s) Name	Paper Name	Journal Name	Others Info
Joydeep Maity	Current Electric Energy-Treated AISI 1080 Steel		
Atosh Kumar Sinha , S Pramanik, K.P.Yagati	Research progress in Arc based Additive Manufacturing of Aluminium alloys - A Review,	MEASUREMENT	Volume:200 Issue No:111672 Page No: Year:2022 Month:Aug
SiSddhartha Sankar Mandal, Dipak Kumar Mondal, and K S Ghosh,	Cyclic annealing versus continuous annealing of 20 wt.% chromium white cast iron 2021	Metallurgical Research Technology	Volume:118 Issue No:4 Page No:404-419 Year:2021 Month:Jun
M Saha, M Mallik	Additive manufacturing of ceramics and cermets: present status and future perspectives	Sādhanā	Volume:46 Issue No:3 Page No:1-35 Year:2021 Month:Jul
Tanay Rudra Paul, Manas Kumar Mondal, Manab Mallik	Densification behavior of ZrB ₂ -MoSi ₂ -SiCw composite processed by multi stage spark plasma sintering	Ceramics International	Volume:47 Issue No: Page No:31948-31972 Year:2021 Month:Aug
Mousumi Mallick, Swapan Kumar Mitra, Debasish Basak, Nirmal Kumar Roy and Joydeep Maity	A novel approach of high-voltage lowcurrent electric energy input to synthesize cost-effective ultra-strong ductile material	Philosophical Magazine	Volume:101 Issue No:5 Page No:555-575 Year:2021 Month:May
Dishwar Raj Kumar, Mandal Arup Kumar, Sinha O.P.	Studies on reduction behaviour of highly fluxed iron ore pellets for application in steelmaking	Materials Today: Proceedings	Volume:46 Issue No:3 Page No:1471-1475 Year:2021 Month:Jun
R. Kumar, A.K. Mandal, Raj K Dishwar and O.P. Sinha	Utilization of iron ore slime and bottom ash: An overview	Materials Today: Proceedings	Volume:46 Issue No:3 Page No:1505-1514 Year:2021 Month:Jun
Ritwik Das , Manas Kumar Mondal and Susanta Pramanik	Effect of Extrusion on the Physical and Mechanical Properties of Briquette made with Blast furnace Flue dust and Iron ore Fines	Journal of institution of Engineers India Series D	Volume: Issue No: Page No: Year:2022 Month:May
A. K. Mandal	Synthesis of a two-part geopolymer from red mud and silica fume: Geopolymer from red mud and silica fume	Journal of Metals, Materials and Minerals	Volume:31 Issue No:2 Page No:10-18 Year:2021 Month:Jun
K S Ghosh	Precipitation Strengthening and Corrosion Behaviour of a 6061 Al-Mg-Si-Cu Alloy	Journal of Mineral, Metal and Material Engineering	Volume:7 Issue No: Page No:29-38 Year:2021 Month:Jul
S. Rai, R. Bhujel, M. K. Mondal, B. P. Swain and J. Biswas	Study of the morphological, optical, structural and electrical properties of silicon nanowires at varying concentrations of the catalyst precursor	Materials Advances	Volume:3 Issue No:6 Page No:2779-2785 Year:2022 Month:Feb



4.12.15 Journal: Accepted for Publication in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
Ritwik Das, Manas Kumar Mondal & Susanta Pramanik	Strengthening Behaviour and Microstructural Properties during the Compaction of Reduced Blast Furnace Flue Dust—Fly Ash—Iron Metal Matrix Composite Fines using Powder Metallurgy Route	IIM Transactions	Volume:75 Issue No: Page No: Year:2022 Month:Mar
26. Sk Md Arif, Satadal Ghorai, Himadri Nandan Bar and Durbadal Mandal	Effect of quenching and partitioning time on microstructure and mechanical properties of low carbon micro-alloyed steel	Materials Today: Proceedings	Volume: Issue No: Page No: Year:2022 Month:

4.12.16 Journal: Published in Others in 2021-2022

Author(s) Name	Paper Name	Journal Name	Others Info
M.M. Ghosh, Satadipa Banerjee, Hrishikesh Kumar and K.S. Ghosh	The Journey of the Department of Metallurgical and Materials Engineering, NIT Durgapur, Towards Achieving Academic Excellence	IIM	Volume: Issue No: Page No:1-8 Year:2021 Month:Nov

4.12.17 Journal: Accepted in Others in 2021-2022

NIL

4.12.18 Conference: Published in Others in 2021-2022

Author(s) Name	Paper Name	Conference Name	Others Info
Chandan Choudhary, K.L Sahoo and D. Mandal	Enhancement in Strength and ductility of Al-14Si alloy by Microstructural Modification in Modified SIMA Process	69th Indian Foundry Congress, IIF, Kolkata,	DOI/ISBN: NA Volume: Issue No: Page No:NA Year:2021 Month:Sep Presenter:CO-AUTHOR

4.12.19 Books Authored

Author Name	Co-Author	Title of the Book	Title of the Chapter	Publication Details
Manab Mallik	Mainak Saha	Carbon Nanomaterial Electronics: Devices and Applications	Carbon-Based Nanocomposites: Processing, Electronic Properties and Applications	Publisher: Springer Publication Date: 2021-0522
Manab Mallik	Mainak Saha	Advanced Materials for Biomechanical Applications	Additive Manufacturing and Characterisation of Biomedical Materials	Publisher: CRC Press Publication Date: 2021-0531
1) Sujoy Das	M.M. Ghosh	An Essential Guide to Thermal Conductivity	A Review of the Preparation, Stability and Thermal Conductivity of Nanofluids	Publisher: Nova Science Publishers Publication Date: 2021-12-03

4.12.20 Seminars, Summer/Winter Schools, Short Term Courses Attended

Name of the Programme	Organized By	From Date	To Date	Organizing Country
NMD ATM 2021	Indian Institute of Metals , Kolkata	2021-11-13	2021-11-16	India

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4.12.21 Ph.D. Supervisor

Topic Name	Scholar	Supervisor	Status	Status Date
Processing, microstructure and properties of ZrB ₂ based ultra high temperature ceramic composites	Tanay Rudra Paul (Registration no: NITD/PhD/MME/2016/00717, Roll no: PhD/MME/1106, FT, PhD)	Dr. M. Mallik and Dr. M. K. Mondal	DEGREE AWARDED	2021-04-13
An approach for effective joining of dissimilar metals used in supercritical boilers	Suvam Chatterjee (Registration No.: NITD/PhD/MME/2016/00720, Roll No.: 15/MME/1503/PT, PhD)	Prof. (Dr.) J. Maity and Dr. M. K. Mondal	DEGREE AWARDED	2022-03-25
study on the mechanical working of blast furnace flue dust & iron oxide & graphite composite briquette made with fly ash as a binder	Ritwik Das (Registration No.: NITD/PhD/MM/2018/01023, Roll No: 16/MM/1102)	Dr. S.Pramanik and Dr. M. K. Mondal	SUBMITTED	2022-03-21
Equal Channel Angular Pressing (ECAP) of in-situ Al-Mg ₂ Si composites: Mechanical and Tribological properties	Rahul Bhandari (Registration No.: 20RMM035, Roll No: 18MM1102)	Dr. M. K. Mondal and Dr. M. Mallik	ONGOING	2022-03-31
Synthesis and Characterization of Mg based alloys for biomedical application	S Paul	S. Bera, D. Mandal & M. Das	ONGOING	2022-03-31
Development of Cu-Co-Ni Alloys for Magnetic Applications	A. Sarkar	S. Bera & S. Chabri	ONGOING	2022-03-31
Development of Cu-based alloys and alloy composites for electrical applications	A. Mahato	S. Bera & BK Show	ONGOING	2022-03-31
Development of Cu-based alloys and alloy composites for electrical applications	S. Das	S. Bera & BK Show	ONGOING	2022-03-31
Development of Ti/Zr based materials for biomedical applications (Tentative)	S Arulmozhiselvar	S. Bera & D. Mandal	ONGOING	2022-03-31
Study on calcium ferrite formation in microwave	Raj Kumar Kalshyan	S. Ghorai & G. M. Chowdhury (RDCIS)	ONGOING	2022-03-31
Studies on enhanced utilization of Indian coking coal in coke making	Kashi Nath Mallik	A. K. Mandal & S. Ghorai	ONGOING	2022-03-31
TiC formation from Ilmenite	Rahul Dhibar	S. Ghorai	ONGOING	2022-03-31
Coupled multi-scale modeling and experimental approach to develop carbon fiber reinforced epoxy resins composites with enhanced mechanical properties for advanced structural applications.	Ajay Kumar Mishra	Dr. M.M.Ghosh and Dr. B.K.Show	ONGOING	2022-03-31



Topic Name	Scholar	Supervisor	Status	Status Date
Development of nano-AlN and nano-TiN reinforced Aluminum metal matrix composite by stir casting method	Md. Imran Rizwi	Dr. B.K.Show and Dr. D.Mandal	ONGOING	2022-03-31
Development of Cu-based alloys and alloy composite for electrical applications	Amar Mahato	Dr. S.Bera and Dr. B.K.Show	ONGOING	2022-03-31
Development of Al-Cu-Ni alloys for high temperature applications	Sagar Das	Dr. S.Bera and Dr. B.K.Show	ONGOING	2022-03-31
Studies on wire arc additive manufacturing of high strength aluminium alloys: process parameters -structure - property correlation	Atosh Kumar Sinha	Dr K.P. Yagati and S Pramanik	ONGOING	2022-07-28
Development and micromechanics of insitu Al-Mg ₂ Si composites	Prosanta Biswas (Registration No. NITD/PhD/MME/2017/00856, Roll No: 15/MME/1104)	Dr. M. K. Mondal and Dr. D. Mandal	SUBMITTED	2022-01-27
Study on the mechanical Working of Blast Furnace Flue Dust -Iron oxide - Graphite Composite Briquette made with Fly ash as a Binder	Ritwik Kumar Das	Dr S Pramanik and Dr M.K.Mondal	SUBMITTED	2022-03-21
Molecular Dynamics and Finite Element Method based Modelling and Simulations of Nanoparticles and Nanocomposites for Advanced Structural Applications	Krishnan Bandyopadhyay	Dr M M Ghosh and Prof K S Ghosh	DEGREE AWARDED	2022-04-19
Development and Micromechanics of InSitu Al-Mg ₂ Si Composite	Prosanta Biswas	M.K Mandal and D.Mandal	DEGREE AWARDED	2022-04-29
Fatigue behaviour of Multiphase low carbon microalloyed steels	SK MD ARIF	D. Mandal	ONGOING	2022-03-31
Development of nano-AlN and TiN reinforced Aluminium metal matrix composites by stir casting methods	MD Imran Rizwi	B.K Show and D. Mandal	ONGOING	2022-03-31
Processing, microstructure and characterization of biomaterials	Amit Dhar	Dr. Manab Mallik and Dr. Supriya Bera	ONGOING	2022-03-31
Processing, microstructure and properties of ZrB ₂ based ultrahigh temperature ceramic composites	Tanay Rudra Paul	Dr. Manab Mallik and Dr. Manas Kumar Mondal	DEGREE AWARDED	2021-04-13
ZrB ₂ —SiC based ultrahigh temperature ceramic composites for high temperature applications	Sayandip Sarkar	Dr. Manab Mallik and Dr. Manas Kumar Mondal	ONGOING	2022-03-31

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Topic Name	Scholar	Supervisor	Status	Status Date
Structure property correlation of magnesia (MgO)-spinel (MgAl ₂ O ₄) refractory	Abdur Rouf	Dr. Manab Mallik and Dr. Krishna Priya Yagati	ONGOING	2022-03-31
Structure property correlation of Co based ODS alloys	Anirban Hazra	Dr. Manab Mallik	ONGOING	2022-03-31
Severe plastic deformation processing of insitu cast Al–Mg ₂ Si composites	Rahul Bhandari	Dr. Manas Kumar Mondal and Dr. Manab Mallik	ONGOING	2022-03-31
An approach for effective joining of dissimilar metals used in supercritical boilers	Suvam Chatterjee	Prof. J. Maity, Prof. S.K. Mitra and Dr. D. Basak	DEGREE AWARDED	2022-03-25
Studies on wire arc additive manufacturing of high strength aluminium alloys	Atosh Kumar Sinha	Dr Susanta Pramanik	ONGOING	2022-03-31
Desulphurization studies of liquid iron by hydrogen in an indigenously fabricated transferred arc plasma furnace	Ramesh Kumar	Arup Kumar Mandal	ONGOING	2022-03-31
Studies on enhanced utilization of Indian coking col in coke making	Kashi Nath Malik	Arup Kumar Mandal; Satadal Ghorai	ONGOING	2022-03-31
Studies on sustainable steel making in 2050 using biomass as a reductant	Avash Kumar Saha	Arup Kumar Mandal	ONGOING	2022-03-31
Synthesis, Characterization and Thermal Conductivity Modelling of Nanofluids for Advanced Heat Transfer Applications	SUJOY DAS	Dr M M Ghosh	DEGREE AWARDED	2022-03-08
Design and Development of Ti-based Alloys by Multiscale Modelling to Manufacture through 3D Printing Technique for Advanced Applications.	Pritam Shadukhan	Dr. Barnali Maji and Dr. Madan Mohan Ghosh	ONGOING	2022-03-31
Design and Development of Nanostructured Zr–Nb-based Alloy with Enhanced Irradiation Tolerance	Satadipa Banerjee	Dr. Madan Mohan Ghosh and Dr. Barnali Maji	ONGOING	2022-03-31

4.12.22 Ongoing Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Amount(in Rs.)	Starting Year
Development of Al-Mg ₂ Si Composite	Dr. M. K. Mondal	Science and Engineering	3045000.0	2019



through Novel Equal Channel Angular Squeeze Casting (ECASC) Technique		Research Board (SERB) Department of Science and Technology, Government of India.		
Tailoring the architecture of microstructure in Al-based Al-Cu-Ni alloys to improve the mechanical properties	S. Bera, BK Show & S. Das	DST	4700400.0	2020
Tailoring the architecture of microstructure in Al-based Al-Cu-Ni alloys to improve the mechanical properties	PI: Dr. Supriya Bera NIT Durgapur Other Investigators: Dr. Sourav Das IIT Roorkee Dr. Bijay Kumar Show NIT Durgapur	DST-SERB	4419900.0	2020
Development of Model for predicting Sinter quality	Pof G Bandhopadhyay , Dr Amlan GHosh And Dr S Pramanik	SAIL-DSP	50000.0	2022
Development of Al-Si alloys with and without grain refiner or eutectic modifier by strain induced melt activation process	D. Mandal	DST-SERB	2405400.0	04122019
DST FIST Program 2018	HOD and D. Mandal	Ministry of Sci and Tech, DST R&D Div.Govt of India	14700000	28062019
Effect of Y2O3 Addition on Oxidation Behavior of Pressure-less Sintered ZrB2-SiC Composite	Dr. Manab Mallik	DST-SERB	3498959.0	2020

4.12.23 Completed Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Complete Year
Development of self lubricating nano-composite for wearresistant applications	PI: Dr. Nilrudra mandal (CSIR-CMERI) Other Investigators: Dr. Himadri roy (CSIR-CMERI) Dr. Kalisadhan Mukherjee (CSIR-CMERI) Dr. Bijay Kumar Show (NIT Durgapur)	DST (Nano Mission)	2021
Study on Structure Property Correlation of Pressureless Sintered ZrB2-Based Ultrahigh Temperature Ceramic Composites	Dr. Manab Mallik	DST-SERB	2015

4.12.24 Reviews of Manuscripts for Publication in Journal

Reviewer	Name of the Journal	Publisher	Date of Final Review
Manas Kumar Mondal	Advanced Engineering Materials	Wiley-VCH GmbH	2022-02-19
Manas Kumar Mondal	Materials Research Express	IOP Publishing	2022-01-11
Manas Kumar Mondal	Applied Composite Materials	Springer	2021-06-13
Manas Kumar Mondal	International Journal of Metalcasting	Springer	2021-11-08
Satadal Ghorai	Metallurgical Research & Technology	EDP Sciences	2021-09-07
Supriya Bera	Journal of Alloys and Compounds	Elsevier	2021-12-01
Supriya Bera	Transactions of the Indian Institute of Metals	Springer	2021-06-07

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Supriya Bera	Materials Letter	Elsevier	2021-09-07
Supriya Bera	Materials Science and Technology	Taylor & Francis	2021-12-12
Arup Kumar Mandal	Journal of Sustainable Metallurgy	Springer	2021-05-01
Arup Kumar Mandal	Journal of Sustainable Metallurgy	Springer	2021-05-15
Arup Kumar Mandal	Plasma Chemistry and Plasma Processing	Springer	2021-06-03
Arup Kumar Mandal	Journal of Hazardous Materials	Elsevier	2021-06-19
Arup Kumar Mandal	Plasma Chemistry and Plasma Processing	Springer	2021-07-13
Arup Kumar Mandal	Transactions of the Indian Institute of Metals	Springer	2021-09-18
Arup Kumar Mandal	Transactions of the Indian Institute of Metals	Springer	2021-11-03
Arup Kumar Mandal	Mineral Processing and Extractive Metallurgy Review	Taylor and Francis	2021-12-06
Karuna Sindhu Ghosh	1. Materials Science and Engineering-A, 2. Materials Science and Engineering-A, 3. Journal of Mineral, Metal and Material Engineering	Elsevier	2021-11-16
Manab Mallik	Transactions of the Indian Institute of Metals	Springer	2021-05-21
Manab Mallik	Surface Topography: Metrology and Properties	IOP Science	2021-05-29
Manab Mallik	Silicon	Springer	2021-11-23
Manab Mallik	Silicon	Springer	2022-01-19

4.12.25 Invited Examiners/Paper-Setters/Board of Studies

Name of the Faculty	Name of the Examination	University/Institute	From Date	To Date
Supriya Bera	Undergraduate 3rd Semester	KNU Asansol	2022-01-05	2022-01-05
Susanta Pramanik	IIM Associate Examination	Indian Institute of Metals , Kolkata	2021-07-01	2021-12-31

4.12.26 Invited Lectures

Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Manas Kumar Mondal	Development of Al-Mg ₂ Si Composites For Automobile Application	Webinar organized by The IIF Durgapur Activity Centre in association with IIF Howrah Chapter & IIF Eastern Region	Webinar	2021-06-19	2021-06-19

4.12.27 Patents

NIL

4.13 Department of Management Studies

4.13.1 Department at a Glance:

DMS offers MBA with specialization in Marketing, Finance, OB & HR and Systems and Operations. DMS in Collaboration with Mathematics and Computer Science and Engineering Departments offer M Tech in Operation Research. DMS offers Courses Like Principle of Management and Accounting for all streams of B Tech courses and open elective courses namely Marketing Research



and Analytics, Security and Stock Market Analysis and Industrial Marketing. In future DMS will start offering Minor program in B.Tech streams.

4.13.2 Mission & Vision

Mission

- To deliver rigorous and relevant education of international standing that inspires students to implement their professional skills in an enterprising manner and become architects of an equitable world. Through vibrant collaboration, and innovation we drive excellence in teaching and research to contribute to the intellectual, social and economic development of the communities. We serve thereby shaping a responsible future for both business and society.

Vision

- To become center of academic excellence with commitment to provide quality education in management, liberal studies, entrepreneurship and related fields to the students and working executives with a holistic approach, to develop them as entrepreneurs and future leaders of the industry.

4.13.3 Faculty

Name	Designation	Email-id
Dr. Mousumi Roy	Professor	mousumi.roy@dms.nitdgp.ac.in
Dr. Avijan Dutta	Professor	avijan.dutta@dms.nitdgp.ac.in
Dr. Gautam Bandyopadhyay	Professor	gautam.bandyopadhyay@dms.nitdgp.ac.in
Dr. Neelotpaul Banerjee	Associate Professor	neelotpaul.banerjee@dms.nitdgp.ac.in
Dr. Kaushik Mandal	Associate Professor and HOD	kaushik.mandal@dms.nitdgp.ac.in
Dr. Anupam De	Associate Professor	anupam.de@dms.nitdgp.ac.in
Dr. Durba Pal	Associate Professor	durba.pal@dms.nitdgp.ac.in
Dr. Amlan Ghosh	Associate Professor	amlan.ghosh@dms.nitdgp.ac.in
Dr. Subhadip Sarkar	Assistant Professor	subhadip.sarkar@dms.nitdgp.ac.in
Dr. Ujjwal Kanti Paul	Assistant Professor	ujjwalkanti.paul@dms.nitdgp.ac.in
Dr. Umamaheswararao Jada	Assistant Professor	umamaheswararao.jada@dms.nitdgp.ac.in

4.13.4 Equipments

Sl. No.	Name of the equipment	Date of Purchase	Amount
1	Desktop Computer and Printer	31/03/2022	213404
2	LCD Projector	8/02/2022	134266
3	UPS	19/03/2022	40755

4.13.5 Labs

Sl. No.	Name of Laboratory	Major equipment
1	Computer Laboratory	Desktop Computer

4.13.6 PhD degree awarded till 2021-22

Forty Eight.

4.13.7 Any other relevant information

Unique Selling Proposition of DMS

- 1) High Return on Investment (ROI) for students (Average package/Total expenditure for the study)
- 2) Multiple courses relevant to Business analytics
- 3) Focus on practical implementation through hybrid courses (theory and practical)

SWOT of DMS

Strengths:

- Well-qualified and motivated faculty members with industry background

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- An ideal mix of experience and youth in the faculty members
- Regular revision of curricula and syllabi with the help of experts from academia and industries
- Large number of publication and reviews by faculty members.
- Students encouraged to take up research early
- Faculty development programmes given highest priority
- Low tuition fee, higher average package
- Over 50 PhDs earned by the students of the DMS since its inception
- Providing exposure to all the BTech students through core, minor and open elective courses

Weaknesses:

- Inadequate facilities for the post graduate laboratories and research
- Limited number of Institute research scholars
- Limited number of students in reserved categories
- Inadequate number of technical and supporting staffs
- Inadequate space for expansion of laboratories and setting up new laboratories
- Limited access to case studies, and full text research articles of international peer-reviewed journals
- Inadequate number of equipped class rooms
- Budget constraint for promotion of MBA and PhD courses

Opportunities

- Globalisation of education opening up huge opportunities for market driven courses and research
- Government focus on skill based education and entrepreneurship.
- Huge demand for job oriented courses
- Rising demand for online and executive management programs
- Corporate Spending on CSR has increased as per new regulation. Thus, scopes for CSR based consultancies have risen.

Threat

- Challenges from newer IIMS and private management Institutes including newer branches spread over the country.
- Gradual reduction in number of applicants (CAT, XAT)
- Declining industrial activities in and around Durgapur
- Limited job opportunities in few specialisation areas like OB& HR, Systems and operations Management and Finance.
- Availability of online courses (certificate, regular and executive MBA)

4.13.8 Specialization

- Knowledge management, environment economics, circular economy, Sustainable development and industrialization, Quality education, Managing the economy towards low carbon economy, Technology strategy for managers and entrepreneurs
- Management (Finance)
- System & Operations Management
- Marketing, Rural Marketing
- Finance
- OPERATIONS MANAGEMENT
- Management- Finance
- Management- Organizational Behaviour & HRM
- Marketing, Societal Marketing, Marketing of Education as service
- Systems & Operations Management

4.13.9 Proposed Plan for Research

- Developing sustainable management strategy in the field of human resource and energy
- Financial Inclusion
- Application of data science in various management domain
- Data envelopment analysis
- Industry consultancy- applied to dsp
- Study on investor behavior
- Trading strategies in stock market
- 1. Four papers have been communicated since 2021. Reviews are awaited. Will try to convert them all. 2. Result of one research project is awaited.



3. Another project will be applied in the current academic year
- Workplace Inclusivity, Green HRM, Sports Psychology, Workplace Resilience • Related to societal Consumer Behavior and Brand Loyalty
 - Research in the domain of Marketing Management.

4.13.10 Area of Research Interest

- Developing sustainable management strategy in the field of human resource and energy
- Corporate Finance, Behavioural Finance, Capital Structure Issues, Dividend Policy, Working Capital Management, Financial Ratio Analysis, Capital Budgeting, Banking and Insurance, Stock Market Analysis
- Portfolio Optimization
- Application of optimization techniques in Business
- Application of statistical software's in Marketing & Human resource Management
- Financial market data analysis using soft computing techniques
- Finance, Banking Sector, Insurance Sector, Pension Sector, Microfinance, Post- Offices, Financial Public Policy Issues, Behavioural Finance.
- STRATEGIC GROUP THEORY, SCM, OM, APPLICATION OF DEA, STATISTICS,
- CAPITAL MARKET AND FINANCIAL MANAGEMENT
- Digital Marketing, Sustainable Marketing, Rural Marketing, Agricultural Marketing
- Psychological Capital, OCB, Employee Engagement, Workplace Adaptability, Employee Green Behaviour, Workplace Resilience, Sports Leadership, Workplace Inclusivity
- Marketing, Societal Marketing, Marketing of Education as service
- AI in marketing; Celebrity advertising; Consumer Behaviour & Culture

4.13.11 Institute Industry Collaboration

NIL

4.13.12 Collaboration with Academic and Research Institutions

Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
Lappeenranta University of Technology, Finland	Sustainable management strategy of Human resources, water resources & energy resources	Prof. M. Roy & Prof. L. Linnanen (LUT)	Research & publication
NIT Silchar	Joint Ph D supervision	Gurudas Das (NIT Silchar), Ujjwal Kanti Paul (NIT Durgapur)	Joint Ph D supervision

4.13.13 Workshops/Seminars Organized

NIL

4.13.14 Journal: Published in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
SUBHADIP SARKAR	Performance Measurement using Linear Additive Directional Distance Function and PCA Based Directions	Performance Measurement using Linear Additive Directional Distance Function and PCA Based Directions	Volume:156 Issue No: Page No:1-10 Year:2021 Month:Apr
SUBHADIP SARKAR	"Performance Measurement using A Novel Directional Distance Function Based Super Efficiency Model and Neighborhood Theory"	RAIRO-OPERATIONS RESEARCH	Volume:55 Issue No:6 Page No:3617 - 3638 Year:2021 Month:Dec

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Dey, A.K., Pramanik, P.K.D., Choudhury, P., Bandopadhyay, G.	Distinctive author ranking using DEA indexing	Quality and Quantity	Volume:55 Issue No:2 Page No:601-620 Year:2021 Month:Apr
Asmita Basu and Anupam De	Heritage Valuation Driving Sustainability of Cultural Capital in Bishnupur in Eastern India	PLURAL. History. Culture. Society	Volume:9 Issue No:1 (Supplement) Page No:103- 115 Year:2021 Month:Sep
R.P.Singh; Neelotpaul Banerjee	The mediating role of brand credibility on celebrity credibility in building brand equity and immutable customer relationship	IIMB Management Review	Volume:33 Issue No:2 Page No:119-132 Year:2021 Month:
S Roy and K Mandal	Economic Price Searching, Quality Seeking, Value Deriving Behavior of Women and Their Relationship with Demographics and Loyalty: An Empirical Study	Indian Journal of Marketing	Volume:51 Issue No:5- 7 Page No:32-47 Year:2021 Month:May

4.13.15 Journal: Accepted for Publication in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
Avijit Sarkar Hemant Gupta Avijan Dutta	In Search of the Determinants of Dairy Production in an Emerging Market: A Panel Data Approach	Veterinarska stanica	Volume: Issue No: Page No: Year:2021 Month:
Nayanjyoti Bhattacharjee and Anupam De	Firm Size Effect and the Price and Volume Reaction to Corporate News: Evidence from India	Afro-Asian J. of Finance and Accounting, Inderscience Publishers Ltd. (Scopus Indexed, ABDC-B)	Volume:NA Issue No:NA Page No:NA Year:2022 Month:Jun
Nayanjyoti Bhattacharjee and Anupam De	The Policy Response to COVID-19 Pandemic and its impact on the Equity Market Sentiment: The Indian Experience	Journal of Public Affairs (Scopus Indexed, ABDC-B)	Volume:https://doi.org/1 0.1002/pa.2823 Issue No:NA Page No:NA Year:2022 Month:May
Dipanita Deb, Philippe Gillet, Philippe Bernard and Anupam De	Examining the Impact of Corporate Social Responsibility on the Financial Performance of Indian Companies	FIIB Business Review, SAGE (Scopus Indexed)	Volume:https://doi.org/1 0.1177/23197145221099 682 Issue No:NA Page No:NA Year:2022 Month:May
Dipanita Deb, Philippe Gillet and Anupam De	Examining the association between Corporate Social Responsibility and Corporate Financial Performance: A Scientometric Analysis	Int. J. of Economics and Business Research, Inderscience	Volume:DOI: 10.1504/ijebr.2023.1004 3404 Issue No:NA Page No:NA Year:2021 Month:Jul
Nayanjyoti Bhattacharjee and Anupam De	Market Reaction to Corporate News in Emerging Markets: Evidence from India	Australasian Accounting, Business and Finance Journal (Indexed in Scopus, Web of Science and ABDC –B)	Volume:NA Issue No:NA Page No:NA Year:2022 Month:Jan
Nayanjyoti Bhattacharjee and Anupam De	Understanding the Risks in Faith- Based Equity Investments: A Markov Regime Switching Analysis	Iranian Economic Review, Journal of the University of Tehran (Scopus Indexed)	Volume:DOI: 10.22059/IER.2022.8577 2 Issue No:NA Page No:NA Year:2022 Month:Jan
SUBHADIP SARKAR	ABC Classification Using MCDA, DDF and TOPSIS Approach	INTERNATIONAL JOURNAL OF OPERATIONS RESEARCH	Volume: Issue No: Page No: Year:2021 Month:Mar



Author(s) Name	Paper Name	Journal Name	Others Info
Sayan Gupta, Gautam Bandyopadhyay, Sanjib Biswas, Arup Mitra	An Integrated Framework for Classification and Selection of Stocks for Portfolio Construction: Evidence from NSE, India	Decision Making: Applications in Management and Engineering	Volume: Issue No: Page No: Year:2022 Month:Feb
Ghosh, Amlan and Mukherjee, Abhijit	Does economic factors improves Property Liability Insurance consumption in India: an empirical assessment.	International Journal of Business and Globalisation	Volume: Issue No: Page No: Year:2021 Month:
Ghosh, Amlan and Mukherjee, Abhijit	Role of economic factors in property liability insurance consumption: empirically examining the Indian market	Studies in Business and Economics	Volume: Issue No: Page No: Year:2021 Month:
M.M.Chanda, Neelotpaul Banerjee, G.Bandyopadhyay,	Effective Implementation of Knowledge Management System (KMS) in Government Schemes/ Programs of Selected Sectors Using Soft Computing – A Conceptual Review Complete	International Journal of Knowledge Management	Volume: Issue No: Page No: Year:2022 Month:
Avijit Sarkar Avijan Dutta	The Milk Producers' Organization and Indian dairy sector: a strategic alignment	Veterinarska stanica	Volume: Issue No: Page No: Year:2021 Month:
Amlan Ghosh	Banking Stability and Financial Freedom: Post reform Indian Banking.	Empirical Economics Letters	Volume: Issue No: Page No: Year:2021 Month:

4.13.16 Conference: Published in 2021-2022 DOI/ISBN

Author(s) Name	Paper Name	Conference Name	Others Info
Mandal, V. & Pal, D.	An Empirical Review on Green Human Resource Management and Environmental Sustainability.	Global Conference on Innovations in Management and Business at NIT Warangal	DOI/ISBN: ISBN 978-1- 953224-01-9 Volume: Issue No: Page No:141-142 Year:2021 Month:Jul Presenter:CO- AUTHOR

4.13.17 Conference: Published in Others in 2021-2022

Author(s) Name	Paper Name	Conference Name	Others Info
Mandal, V. & Pal, D.	A Theoretical Overview on Green Human Resource Management Practices for Environment Friendly Organization in Context of COVID-19 Pandemic.	Conference on Excellence in Research and Education (CERE) 2021: 'Management Metamorphosis: Living with the Pandemic' at IIM Indore	DOI/ISBN: N.A Volume: Issue No: Page No:98 Year:2021 Month:Jun Presenter:CO-AUTHOR
Mandal, V. & Pal, D.	A Conceptual Review on Workforce Management Practices in Post Covid-19.	International Management Conference 2021 Post COVID Management Strategies: Recovery, Resilience & Adaptation, at IIM Bodhgaya	DOI/ISBN: N.A. Volume: Issue No: Page No:169 Year:2021 Month:Apr Presenter:CO-AUTHOR

4.13.18 Books Authored

Author Name	Co-Author	Title of the Book	Title of the Chapter	Publication Details
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Mousumi Roy	Sustainable Development Strategies	Publisher: Elsevier Science Publication Date: 2021-0401
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4.13.19 Seminars, Summer/Winter Schools, Short Term Courses Attended

Name of the Programme	Organized By	From Date	To Date	Organizing Country
World Finance Conference	University of Agder, Norway	2021-08-03	2021-08-06	Norway
Aging & Social Change: Eleventh Interdisciplinary Conference, 2021	Aging & Social Change research Network and Linköping University, Sweden.	2021-09-23	2021-09-24	Canada
The 29th Colloquium on Pensions and Retirement Research at Sydney, Australia	The International Pension Research Association (IPRA)	2021-12-01	2021-12-03	Australia

4.13.20 Ph.D. Supervisor

Topic Name	Scholar	Supervisor	Status	Status Date
Strategy development on Sustainable Energy Resources development & use	Iman Ghosh Dastidar	Prof.M.Roy & Prof.P.Pal	ONGOING	2022-03-31
Wavelet Based Multi-Horizon Investment Analysis in an Economy Dominated by Heterogeneous Agents	Anindya Chakrabarty	Anupam De	DEGREE AWARDED	2016-05-16
A Study on Corporate Social Responsibility and its Impact on the Performance of Indian Corporate Sector	Dipanita Deb	Anupam De and Philippe Gillet	ONGOING	2022-03-31
Capital Structure Determinants and Decisions during Pre and Post Period of the Recent Financial Crisis in Global Economy: An Empirical Study on Indian Scenario	Arindam Banerjee	Anupam De	DEGREE AWARDED	2017-01-25
Financial Analysis and Planning in Indian Urban Local Self Governments- A Theoretical and Empirical Study	Smriti Ranjan Bhattacharyya	Anupam De	DEGREE AWARDED	2017-06-28
Impact of Financial Cognition and Mental Accounting on Personal Financial Planning – A Study on Indian Households	Mousumi S. Mahapatra	Anupam De and Jayasree Raveendran	DEGREE AWARDED	2017-09-05
A Study on Predictability of Stock Returns and Behavioral Biases	Arindam Banerjee	Anupam De and Gautam Bandyopadhyay	DEGREE AWARDED	2018-11-02
Digital Learning & Its Impact	Ghosh Puja	Prof.Mousumi Roy	ONGOING	2022-03-31
The Market Impact of Corporate News Release: Indian evidence	Nayanjyoti Bhattacharjee	Anupam De	DEGREE AWARDED	2019-11-29
Frauds in Public Sector Banks of India: A Study to Find out the Factors and Impact	Souvik Kumar Ghosh	Anupam De	DEGREE AWARDED	2021-04-23



Topic Name	Scholar	Supervisor	Status	Status Date
A Study in Business Risk Assessment Methodologies under Multi-Criteria Fuzzy Environment having Applications in Integrated Steel Plant	Swarup Mukherjee	Anupam De	ONGOING	2022-03-31
Effects of Financial literacy on the Awareness and Usage of Financial Services: An Overview in Indian Context	Aishwarya Mitra	Anupam De	ONGOING	2022-03-31
Economic Sustainability and Strategic Management of Cultural Capital: An Exploratory Study with Special Reference to West Bengal	Asmita Basu	Anupam De	ONGOING	2022-03-31
A Study On Effective Management Of National Economic Planning Using Soft Computing Based Techniques	M.M .Chandra	1. Dr.Gautam Bandyopadhyay 2. Neelotpaul Banerjee	Degree Awarded	2021-09-30
Estimation Of Systemic Risk And Identification Of Systemically Important Firms In India	Subhash Karmakar	Dr. Gautam Bandyopadhyay	Ongoing	2022-03-31
Empirical Inference of Investment Decision Making From Operations Research Context : An Insight Of Fmcg And Consumer Durable Sectors In India	Sanjib Biswas	Dr. Gautam Bandyopadhyay	Ongoing	2022-03-31
A Comprehensive Soft-Computing Approach For Construction of Conservative Portfolio In Indian Equity Market	Sayan Gupta	Dr. Gautam Bandyopadhyay	Ongoing	2022-03-31
Harnessing The Association Between Inherent Interests Of Employees With Key Leadership Competencies For Organisational Development In Indian Industries	M.R. Chaki	Dr. Gautam Bandyopadhyay	Ongoing	2022-03-31
Factors Affecting Investment Behaviour In Mutual Fund Industry &Ndash;An Indian Perspective	Soumya Banerjee	1.Dr. Gautam Bandyopadhyay 2. Dr. Amlan Ghosh	Ongoing	2022-03-31
Comparative Analysis Of Listed Banks Using Financial Indicators And Stock Returns In Indian Scenario	Vinay Kumar Shao	Dr. Gautam Bandyopadhyay	Ongoing	2022-03-31
“Determinants of Property Liability Insurance Market in post-reform era and its relationship with economic growth in India”	Abhijeet Mukherjee	Amlan Ghosh	DEGREE AWARDED	2021-09-25
Factors Affecting Investment Behaviour In Mutual Fund Industry-An Indian Perspective	Soumya Banerjee	Prof. G. Bandyopadhyay and Amlan Ghosh	ONGOING	2022-03-31
Yet to be reistered	Keshav Kant Prasad	Amlan Ghosh	ONGOING	2022-03-31

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Topic Name	Scholar	Supervisor	Status	Status Date
yet to be registered	Abhisikta Basak	Amlan Ghosh	ONGOING	2022-03-31
Assessing potential tourist destinations in North Bengal: A tourism revival strategic planning	Sanmay Mallick	Amlan Ghosh and Prof D. Mitra	ONGOING	2022-03-31
A Study on the Adoption Intention of Electric Cars in India	Divya Singh	Ujjwal Kanti Paul	ONGOING	2022-03-31
Three Essays on eWOM	Krishna Roy	Ujjwal Kanti Paul	ONGOING	2022-03-31
Measuring Efficiency and its Determinants: A Firm Level Study on Micro-Enterprises of Assam	Bijoy Dey	Gurudas Das, Ujjwal Kanti Paul	ONGOING	2022-03-31
A study on effective management of national Economic planning and Budgeting using soft Computing based techniques	M.M.Chanda	G.Bandyopadhyay; Neelotpaul Banerjee	DEGREE AWARDED	2021-09-30
A Study on consumer buying decision in the time of pandemic.	PABITRA SAHOO	Neelotpaul Banerjee; K.Mandal	ONGOING	2022-03-31
A Study on the Determinants of Sports Leadership of a Group of Physical Educators in the Academic Institutions of West Bengal.	Hillol Mukherjee	Dr.Durba Pal	ONGOING	2022-03-31
Green OCB (Tentative)	V.Mandal.	Dr.Durba Pal.	ONGOING	2022-03-31
A Study on Workplace Adaptability: An Indian Perspective.	Sujata Bose	Dr.Durba Pal.	DEGREE AWARDED	2022-05-31
Workplace Inclusivity (Tentative)	I.N.Jha	Dr.Subhadip Sarkar; Dr.Durba Pal.	ONGOING	2022-03-31
Essay's on Earning management of Indian firms with special emphasis on family business and the role of corporate governance	Soumen Chatterjee	Avijan Dutta	ONGOING	2022-03-31
Investor behavior in Durgapur and Asansol Region, West Bengal India	Amrita Bhattacharya	Avijan Dutta	ONGOING	2022-03-31
Adoption of digital Payments-Issues and challenges	Pranay Kumar Singh	Avijan Dutta	ONGOING	2022-03-31
Strategy for dairy development in West Bengal , India	Avijit Sarkar	Avijan Dutta	SUBMITTED	2022-03-31
Not Yet Registered	Shantanu Dutta	Dr. Kaushik Mandal	ONGOING	2020-12-29
A New Approach of Gap Identification in Service Quality of Educational Institutes: An Empirical Study Based on West Bengal, India	Chandan Banerjee	Dr. Kaushik Mandal	DEGREE AWARDED	2017-03-16
The impact of website formation on various facets of business-An empirical study	Monami Dasgupta (Banerjee)	Dr. Kaushik Mandal	DEGREE AWARDED	2018-07-31



4.13.21 Ongoing Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Amount(in Rs.)	Starting Year
The Social Impact of Corporate Social Responsibilities of the Major Public Sector Undertakings in India: A Case Study of West Bengal	Anupam De	Indian Council of Social Science Research (ICSSR)	945000.0	2019

4.13.22 Completed Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Complete Year
Understanding the old age financial stress and retirement planning of workers in the unorganised sector in India	Amlan Ghosh	ICSSR, New Delhi	2021

4.13.23 Reviews of Manuscripts for Publication in Journal

Reviewer	Name of the Journal	Publisher	Date of Final Review
Anupam De	Social Indicators Research	Springer Journals	2021-09-30
Anupam De	Review of Market Integration	Sage Journals	2022-03-03
Amlan Ghosh	International Journal of Social Economics	Emerald Publishing Limited	2022-01-01
Amlan Ghosh	Journal of Financial Economic Policy	Emerald Publishing Limited	2022-01-26
Amlan Ghosh	Int. J. of Economic Policy in Emerging Economies	Inderscience	2022-03-26
Ujjwal Kanti Paul	Business Strategy and Environment	Wiley	2022-02-05
Ujjwal Kanti Paul	World Development	Elsevier	2021-07-17

4.13.24 Participation in National Committees/Visits

Name of the Faculty	Name of the Committee	Place of Visit	From Date	To Date
Durba Pal	Technical Committee.International Conference On “Interdisciplinary Research in Technology & Management” (IRTM 2021)	Online	2021-10-20	2022-02-26

4.13.25 Invited Examiners/Paper-Setters/Board of Studies

Name of the Faculty	Name of the Examination	University/Institute	From Date	To Date
Anupam De	PhD Viva Voce	ICFAI University, Jharkhand	2021-09-24	2021-09-24
Amlan Ghosh	To discuss exams process, paper setters, Moderators etc	Member of PG Board of Studies in Management, University of North Bengal.	2021-06-17	2021-06-17

4.13.26 Invited Expert in Selection Committees

Name of the Faculty	Discipline	University/Institute	From Date	To Date
Mousumi Roy	Across Engineering streams	Staff selection & promotion committee, CSIR-CMERI Durgapur, Govt. of India	2021-06-21	2021-06-25
Anupam De	Commerce & Finance	DVA Model School	2022-03-26	2022-03-26

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Avijan Dutta	Assessment of Technical Personnel	CMERI	2021-06- 22	2021-06- 24
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4.13.27 Invited Lectures

Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Amlan Ghosh	Time Series Forecasting	"AICTE Sponsored 6 days 2nd Online Short-Term Training Program on Business Analytics", organized by Computer Science and Engineering Department, MCKVIE, Liluah, WB.	MCKVIE, Liluah, WB.	2021-04-19	2021-04-24
Amlan Ghosh	Behavioural Finance and Markets.	online AICTE Training and Learning (ATAL) Academy sponsored Online Faculty Development Programme on 'Emerging Financial Management and Accounting Techniques' organized by the Department of Business Administration, The University of Burdwan, West Bengal.	The University of Burdwan, West Bengal.	2021-09-24	2021-04-24
Amlan Ghosh	How to Write Cases for Management Teaching	Online ATAL-Faculty Development Programme (FDP) in Management, organized by the Department of Management, University of North Bengal, Siliguri, West Bengal.	University of North Bengal, Siliguri, West Bengal.	2021-12-06	2021-04-06
Amlan Ghosh	Behavioural Finance	Online ATAL-Faculty Development Programme (FDP) in Management, organized by the Department of Management, University of North Bengal, Siliguri, West Bengal.	University of North Bengal, Siliguri, West Bengal.	2021-12-07	2021-04-07
Ujjwal Kanti Paul	New Ecommerce Policy, 2021 : Changing marketing strategies of online aggregators	FDP on "Changing Legal Scenario in Business World: Contemporary Issues	Amity University, Lucknow	2021-07-26	2021-08-01
Gautam Bandyopadhyay	Two-day' Online Workshop on Multivariate Statistical Techniques in Social Science and Business Research	Two days workshop organized by ADAMAS University	Online	2021-09-04	2021-09-04
Gautam Bandyopadhyay	Two-Week Certificate Course on Data Analysis using SPSS Statistics and SPSS AMOS	FDP organised by Calcutta Business School and Exceller Open in collaboration with SPSS.	Online	2022-03-14	2022-03-27
Gautam Bandyopadhyay	Advanced Quantitative Research Methods for Social	FDP organized by Bharatiya Vidya Bhavan Institute of Management Science, Kolkata	Online	2021-11-19	2021-11-20



Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
	Sciences Using SPSS & AMOS				
Gautam Bandyopadhyay	Business Analytics and Modelling by Spreadsheet and R	FDP organized by School of Management & Commerce Brainware University.	Online	2021-09-10	2021-09-10
Gautam Bandyopadhyay	Data Science	on 5-Days Online ATAL - Faculty Development Program organized by Department of Computer Science & Engineering, MCKVIE .	Online	2021-09-20	2021-09-21
Gautam Bandyopadhyay	Basic Statistics for Management Research	ATAL Program	Online	2021-12-07	2021-12-07
Kaushik Mandal	Classification, Cluster Analysis using SPSS	10 days online E workshop	online mode organised by AK Dasgupta Center Vivabharati	2021-11-26	2021-11-26
Kaushik Mandal	Cluster Analysis	Training on Data Collection and Analysis for Studies on Youth Issues	Tripura University Agartala	2022-03-26	2022-03-26
Kaushik Mandal	Conjoint Analysis	Training on Data Collection and Analysis for Studies on Youth Issues	Tripura University Agartala	2022-03-27	2022-03-27
Kaushik Mandal	Citation databases: Web of science, Scopus, etc.	07- day workshop on Research Publication Ethics (RPE) for all Ph.D. and M. Phil. Students (2020) under the Faculty Council (Arts etc.), BU,	Burdwan University in online mode	2022-03-13	2022-03-13

4.13.28 Patents

NIL

4.14 Department of Physics

4.14.1 Department at a Glance:

This is one of the oldest departments of the institute which has been providing the basic knowledge of physics to all the undergraduate students of this institute who come to become engineers of future. Physics is one of the core subjects along with mathematics that drive engineering and innovation as it teaches us about the laws of nature and its consequences in both microscopic and macroscopic domain. Over the years, the department has also established its identity as an independent knowledge centre for physical science studies and research through two postgraduate programs and PhD. Programs across diverse disciplines of Physical sciences. Currently, the interest of the department of physics spreads over many interdisciplinary areas of science and the boundaries are not rigidly defined. The department encourages and appreciates new ideas in physics that have relevance to technologies useful for the mankind.

The department currently boasts of several state-of-the-art research laboratories which provide the infrastructural support for cutting edge multidisciplinary research which is primarily focused on various aspects of synthesis, properties and applications of materials and in particular nanostructured materials. In recognition of the high-quality research in materials science and engineering conducted by its faculty members, the department has been selected by the MHRD, Govt. of India for the prestigious “Centre of Excellence” grant in 2013 (in partnership with the department of MME of this institute). In recent years, department has recruited several new faculty members to add more diversity to the knowledge and expertise. As a consequence, the department is now also very much active in terms of research in areas such as exploration of helium and geothermal power, earthquake precursory studies, environmental radioactivity, Water geochemistry, nonlinear systems and time series analysis, study of chaotic behavior of electronic circuits and systems and application of chaos in cryptography, nanomaterials for optical sensors, solar cells, photocatalyst, standard model and beyond standard model, B meson decays, boson phenomenology, biophysics and biostatistics,

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artificial intelligence and machine learning in physical and biological phenomena, etc. The research in the above-mentioned areas is conducted in the various laboratories which are described in the Laboratory section.

4.14.2 Mission & Vision

Mission

To provide quality education to students with sound understanding of the fundamentals and applications of physics for the advancement of science & technology with the following aims:

- To provide high quality teaching and research.
- To improve global visibility of the department through highly qualified and internationally acclaimed faculty and staff.
- To provide the most up to date and purposeful curriculum and the state- of-the-art laboratory facilities in a “student centric” approach to empower them in finding suitable employment.
- To improve employability of our graduates by arranging close interaction with nearby industries, so that our programs and graduates are highly regarded and accepted in their workplace.
- To provide necessary knowledge, experience and ethical values to the students leading them to responsible citizens of the nation

Vision

- To impart quality education & focus on research in basic and applied sciences leading to advancement of technology to cater to the need of the country.

4.14.3 Faculty

Name	Designation	Email-id
Ajit Kumar Meikap	Professor (HAG)	ajit.meikap@phy.nitdgp.ac.in
Pathik Kumbhakar	Professor (HAG)	patihk.kumbhakar@ phy.nitdgp.ac.in
Amit Kumar Chakraborty	Professor	amit.chakraborty@phy.nitdgp.ac.in
Sukadev Sahoo	Associate Professor	sukadev.sahoo@ phy.nitdgp.ac.in
Mrinal Kanti Mandal	Associate Professor	mrinalkanti.mandal@phy.nitdgp.ac.in
Soumen Basu	Associate Professor	soumen.basu@phy.nitdgp.ac.in
Hirok Chaudhuri	Associate Professor	hirok.chaudhuri@phy.nitdgp.ac.in
Aniruddha Mondal	Associate Professor	aniruddha.mondal@phy.nitdgp.ac.in
Soumik Das	Assistant Professor	soumik.das@phy.nitdgp.ac.in
Hemachander Subramanian	Assistant Professor	hemachander.subramanian@phy.nitdgp.ac.in
Syantari Ghosh	Assistant Professor	syantari.ghosh@phy.nitdgp.ac.in
Abhijit Ghosh	Assistant Professor	abhijit.ghosh@phy.nitdgp.ac.in

4.14.4 Equipments

Sl. No.	Name of the equipment	Date of Purchase	Amount (Lakh Rs.)
1.	PerkinElmer UV-Vis spectrophotometer (Model No: LAMDA 365+)	27/07/2022	10.5
2.	Keithley make source meter unit (I-V Meter) (Model no: 2450)	27/04/2022	4.0
3.	LCR Meter (Model No: IM3536)	18/04/2022	4.0

4.14.5 Labs

Sl. No.	Name of Laboratory	Major equipment
01	Electronics Laboratory	Oscilloscope 1GHz, RF Signal generator 3GHz, Spectrum Analyzer, Function Generator, Programmable power supply, Caddo-71 PCB Designer.
02	Nanoscience Laboratory	UV-Vis. absorption spectrophotometer, Photoluminescence spectrofluorometer.



Sl. No.	Name of Laboratory	Major equipment
03	Carbon Nanotechnology Laboratory	Centrifuge, vacuum furnace, hot air oven, rotary vacuum evaporator, spin coater, bath sonicator and probe sonicator, diamond wheel saw, fumehood, etc.
04	Materials Science Laboratory	DTA-TGA Perkin Elmer, Autolab 302N Electrochemical workstation, Agilent LCR meter, High temperature electrical measurement setup.
05	Facility for the theoretical study	Two GPU based HP workstation with different computational software
06	Optical Sensor Laboratory	E-Beam evaporation cum GLAD system (), Thermal evaporation cum GLAD system, VLS GLAD system, PerkinElmer UV-Vis spectrophotometer (Model No: LAMDA 365+), Photocurrent measurement system, Keithley make source meter unit (I-V Meter) (Model no: 2450), LCR Meter (Model No: IM3536), Helium Cryostat.
07	Low Temperature Characterization Laboratory	1 tesla electromagnet, Closed Cycle He-Cryostat, Liq. N ₂ Cryostat, Impedance Analyser (Hz to MHz & MHz to GHz) LCR meter, Keithley Electrometer, PH Multimeter, High Temp. furnace etc.
08	UG and PG Laboratories	The UG and PG laboratories are equipped with standard experimental setup B.Tech and MSc Physics student
09	Facility for research on Helium & Geothermal Exploration, and Earthquake Precursor Study and Environmental radioactivity	Rad 7 radon-222 semiconductor detector with aqua kit Alpha Guard ionisation chamber Radon detector Soil moisture, soil temperature detector
10	Facility for research on Water geochemistry, and photocatalyst for organic pollutant removal	Photocatalytic reactor, Muffle Furnace, Hot Air Oven, Ultrasonic Bath, Digital Balance, Wastewater treatment laboratory set up, Membrane set up for wastewater treatment, Multiparameter analyser for water

4.14.6 PhD degree awarded till 2021-22

Eighty.

4.14.7 Any other relevant information

- Prof. Pathik Kumbhakar, Department of Physics, and Dean (Academic Research) has been admitted as a Fellow of the Royal Society of Chemistry (FRSC), London in April 2021.
- World TOP 2% Scientists (Prof. P. Kumbhakar) from NIT Durgapur, India- According to the Database Prepared by Stanford University and Elsevier BV- Year 2021
- Prof. P Kumbhakar Attended (online) meeting of PGBOS, Dept. of Physics, Kazi Nazrul University (KNU), Asansol on 29 th June 2021.

4.14.8 Specialization

- Electronics
- Material Science
- Theoretical Biology / Biophysics
- Condensed Matter Physics
- Nuclear and Particle Physics
- Radiophysics and Electronics, Nanoscience, Nonlinear Optics, Random Laser, Photocatalysis
- Theoretical High Energy Physics
- Laser Application, Holography
- Biophysics
- Hybrid nanomaterials for sustainable energy and environmental applications
- Material for Water Pollution removal, Water quality monitoring, Geochemistry for Geothermal Energy, Nonlinear Dynamics, Earthquake Prediction, Environmental radioactivity, Helium exploration
- Material Science and opto-electronics

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4.14.9 Proposed Plan for Research

- Multiferroics
- Nanomaterials
- Fuel Cell
- Palindromic Origins of replication
- • Characterizations and study of optical and nonlinear optical properties of semiconducting and metallic nanoparticles, quantum dots and 2D materials. • Development of random laser for speckle free imaging applications. • Synthesis of nanomaterial for degradation of organic pollutants in wastewater • Synthesis and characterization of nanostructured materials.
- Low temperature characterization of nano-composites, conducting polymers and disordered alloys
- Studies on phenomenology of Z' Boson, B and K meson decays, Higgs boson and new physics, Theoretical study of quantum Hall effect and high energy physics phenomena in graphene
- Design and fabrication of holographic optical elements and their applications, Holographic solar concentrator for photovoltaic application, Laser speckle based measurement
- (i) Sustainable technology for smart off-grid renewable energy transformation and electrochemical storage management. (ii) Water splitting based on low cost first row transition metal catalyst. (iii) Synergistic coupling of CO₂ capture and its electrochemical upgradation
- Study on water pollution, Development of novel material for wastewater treatment, Environmental Radioactivity monitoring (in water bodies, subsoil gas), Nonlinear Time Series Analysis of climate data, geochemical data, medical data
- Fabrication of VO₂ phase change materials for space application and FET based electro-chemical Bio Sensor

4.14.10 Area of Research Interest

- Nonlinear dynamics and Chaos, Chaotic Cryptography, Sparse signal processing, etc.
- Multiferroics
- Fuel Cell
- Polymer nanocomposites
- DNA replication and information storage
- Nuclear and Particle Physics
- Experimental Physics
- Low Temperature Characterization, Thin-films Technology, Conducting polymers, Nanocomposites, Biomaterials
- Phenomenological study of Z' Boson, B and K meson decays, Higgs boson and new physics, Theoretical study of quantum Hall effect and high energy physics phenomena in graphene
- Holography, Holographic Optical Elements, Optical Interferometry, Photovoltaic Concentrator, Speckle Metrology, Laser Applications
- • Development of random lasers. • Green synthesis of metal nanoparticles, carbon-based nanomaterials and nanocomposites • Synthesis, characterization and study of linear optical and nonlinear optical properties of semiconducting, metallic nanoparticles and quantum dots • Synthesis of metal nanoparticles by laser ablation and study of its linear and nonlinear optical properties by Z-scan and SSPM techniques • Synthesis of various nanostructures for photocatalysis applications • Synthesis, optical and nonlinear optical properties of semiconducting, metallic nanoparticles and nanocomposites, and carbon quantum dots • Synthesis and applications of 2D transition metal dichalcogenide (TMDC) nanostructures in energy harvesting.
- Physics of Complex Living Systems
- Stochastic processes
- Machine Learning
- Nanomaterial, Catalyst, Renewable energy applications
- a) Study on water pollution (geochemical investigation, water chemistry) in Damodar River Basin and Ganga River. b) Development of novel material for wastewater treatment. c) Environmental Radioactivity monitoring (in water bodies, subsoil gas). d) Nonlinear Time Series Analysis of climate data, geochemical data, medical data. e) Development of a network of MPOs (Multi-parametric Geophysical Observatories): Geochemical precursors, Electromagnetic (EM) precursors, seismo-geochemical & seismo-geophysical modeling of earthquake precursors. f) Investigation on Geochemical and Geophysical Aspect for Geothermal Exploration. g) Large scale Extraction of helium from petroleum deposits and hydrothermal gas and its purification. h) Extraction of metals from fly ash. i) Electrokinetic treatment of contaminated soil
- Opto-electronic devices and 1D materials

4.14.11 Institute Industry Collaboration

Collaborating Institute Organization	Areas of collaboration	Collaboration Activities
Nil	Nil	Nil



4.14.12 Collaboration with Academic and Research Institutions

Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
CSIR-CGCRI	Development of room temperature multiferroics materials	M Pal	Joint PhD student and publication
Benaras Hindu University	Polymer multiferroics nano composites	Prof AK Ghosh	Joint Research and publication
Burdwan University	Research	Prof. S. K. Pradhan	Joint Ph.D. guidance
NIT Raipur	General Physics, Condensed matter physics	Dr. B. K. Sahoo	Joint Research & Book writing
KIIT University, Bhubaneswar	General Physics, Condensed matter physics	Dr. S. K. Sahoo	Joint Research & Book writing
TDB College, Raniganj	Nuclear Physics	Dr. B. Sahoo	Joint Research, Ph.D. student guidance
M.M.M. College, Durgapur	Nuclear Physics	Dr. S. Chakraborty	Joint Research, Ph.D. student guidance
Regional Institute of Education, Bhubaneswar (NCERT)	Physics Education & General Physics	Prof. M. Goswami	Joint Research & Book writing
Indian Institute of Technology (Indian School of Mines) Dhanbad, India	Holography, Laser Application	A. Ghosh and A. K. Nirala	Joint Research
The University of Burdwan	Research	Prof. T. Banerjee	Joint research and publication of paper
IIT Kharagpur	Preparation, Characterization and determination of nonlinear optical properties of nanostructured materials	Prof P K Datta	Joint publication of research paper
The University of Burdwan	Preparation, Characterization of nanostructured materials	Prof. U. Chatterjee	Joint publication of research paper
Assam University	Simulation of scattering properties of nanoparticles for random laser generation	Dr Sujit K Ghosh	Joint publication of research paper
Hyderabad University	Determination of nonlinear optical properties of nanostructured materials	Prof V R Soma & Prof A K Chaudhary	Joint publication of research paper
University of Tokyo, Tokyo, Japan & Brain Life Support Center, The University of ElectroCommunications, Japan	Preparation, Characterization and determination of nonlinear optical properties of nanostructured materials	Prof. T. Kobayashi	Joint publication of research paper
IIT Kharagpur	Network science	Dr. S. Bhattacharya	Joint research, Publication
IISc Bangalore	Gene regulation dynamics	Dr. Mohit Jolly	Joint research
Department of Physics and Stephenson Institute for Renewable Energy, University of Liverpool, Liverpool, L69 7ZF, UK	interface and nanoscale phenomena related to materials applicable in energy and semiconductor devices.	Amit K Chakraborty, Rajat Mahapatra	joint paper publication

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Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
Center for Nanofibers and Nanotechnology, Mechanical			
Engineering Department, National University of Singapore, Singapore 117576	Energy storage	Amit K Chakraborty	Ongoing
Centre for Materials Science,			
Queensland University of Technology, 2 George Street, QLD 4000, Australia	SnO ₂ for photovoltaic and energy storage	Amit K Chakraborty	joint paper publication
Institute of Materials Research and			
Engineering, A*STAR (Agency for Science, Technology and Research), 2 Fusionopolis Way, Innovis, #0803, Singapore 138634	Photovoltaics and photoelectrochemistry	Amit K Chakraborty	joint paper publication
Bose Institute/BKC College	Gas sensing	Amit K Chakraborty, Rajat Mahapatra	join paper publication
Jagadis Bose National Science Talent Search	lead free solder joint interface	Amit K Chakraborty	joint PhD guidance and paper publication
Electrochemical Process			
Engineering (EPE) Division, CSIR Central Electrochemical Research Institute (CECRI), Karaikudi, Tamil Nadu, India	Clean energy and sustainable development	Amit K Chakraborty	joint book writing
IIT Bombay, Department of Metallurgical Engineering and Materials Science	Biomass derived carbon	Amit K Chakraborty	Joint publication
Department of Engineering and Innovation, The Open University, Walton Hall, Milton Keynes, MK7 6AA, UK	Nanomaterials for energy harvesting and storage	Amit K Chakraborty	joint research project, joint paper publication
Vernadsky Institute of Geochemistry and Analytical Chemistry of Russian Academy of Science, Moscow, Russia	Study on water pollution (geochemistry) in Damodar River Basin and Ganga River	Dr. Evgeniya Soldatova	Collaborative Research and Joint Research Proposal and Joint Publication
East China University of Technology, Nanchang, China	a) Study on water pollution (geochemistry) in Damodar River Basin and Ganga River, b) Development of novel material for wastewater treatment	Prof. Sun Zhanxue	Collaborative Research and Joint Research Proposal and Joint Publication
Tomsk Polytechnic University, Tomsk, Russia	a) Study on water pollution (geochemistry) in Damodar River	Dr. Natalia Guseva	Collaborative Research and Joint



Collaborating Institute Organization	Areas of collaboration	Faculty Members Involved	Collaboration Activities
	Basin and Ganga River, b) Development of novel material for wastewater treatment		Research Proposal and Joint Publication
Dept. of Biotechnology, Jawaharlal University, New Delhi, India	a) Study on water pollution (geochemistry) in Damodar River Basin and Ganga River, b) Development of novel material for wastewater treatment	Dr. Kashyap Dubey	Collaborative Research and Joint Research Proposal and Joint Publication
Department of Chemistry, JIS College of Engineering, Kalyani, West Bengal, India	Study on water pollution (geochemistry) in Damodar River Basin and Ganga River	Dr. Trina Dutta	Collaborative Research and Joint Research Proposal and Joint Publication
Dept. of Civil Engineering, NIT Durgapur, India	a) Study on water pollution (geochemistry) in Damodar River Basin and Ganga River, b) Development of novel material for wastewater treatment	Dr. Supriya Pal	Collaborative Research and Joint Research Proposal and Joint Publication
Department of Chemical Engineering, NIT Durgapur, India	a) Study on water pollution (geochemistry) in Damodar River Basin and Ganga River, b) Development of novel material for wastewater treatment	Dr. Mrinal Kanti Mandal	Collaborative Research and Joint Research Proposal and Joint Publication
Department of Physics, NIT Durgapur, India	Development of novel material for wastewater treatment	Dr. Soumen Basu	Collaborative Research and Joint Research Proposal and Joint Publication
Department of Physics, Sidho-Kanho-Birsha University, Purulia, WB	Environmental Radioactivity monitoring (in water bodies, sub-soil gas)	Dr. Chiranjib Barman	Collaborative Research and Joint Research Proposal and Joint Publication
Plasma Division, Saha Institute of Nuclear Physics, Kolkata, India.	a) Nonlinear Analysis of Geochemical Precursory Signals for earthquakes, b) Nonlinear Analysis of medical data (EEG signals)	Prof. A. N. Sekar Iyengar	Collaborative Research and Joint Research Proposal and Joint Publication
Kazi Nazrul University, Asansol, WB	Nonlinear Analysis of climate data	Dr. Somenath Mukherjee	Collaborative Research and Joint Publication
, Far Eastern Federal University, Vladivostok, Russia	Extraction of metals from fly ash	Prof. A. Taskin	Collaborative Research and Joint Research Proposal
Federal University Of Sao Carlos, Brazil	Nanoelectronics	Aniruddha Mondal	Sample Charecterisation, Joint Research
Iit Bombay	Charecterisation Of Inn Nws	Aniruddha Mondal	Joint Research
Nit Nagaland	Nanotechnology	Aniruddha Mondal	Joint Research
Saha Institute Of Nuclear Physics	Nanotechnology	Aniruddha Mondal	Joint Research
University Of Nottingham, Uk	Nanotechnology	Aniruddha Mondal	Sample Cherecterisation And Joint Research
Queen's University, Canada	Research Idea Exchange	Aniruddha Mondal	Sparc Project
Frumkin Institute Of Physicsl Chemistry And Electro-Chemistry	Research Ideas Exchange	Aniruddha Mondal	Sparc Project

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4.14.13 Workshops/Seminars Organized

Name of Key Speaker(s)	Name of the Programme	Date of the Programme
Amitabha Ghosh, Debaprasad Duari, Suman Chakraborty,		
Bhupati Chakraborty, Biren Das, Jayanta Sthanapati, Sushanta Dattagupta, Partha Ghosh, Subir Saha, and many more	Vigyan Sarvatra Pujiyate (one week program)	2022-02-21
Prof. Satyanarayana Bheesette	Prof. M. S. Sinha Colloquium 2021	2021-08-05
Prof. Sabyasachi Bhattacharya	Physics Talk by Prof. Sabyasachi Bhattacharya, Former Director and Director, TCG Crest	2021-10-07
Prof. S.S. Gokhale (Chairman Of Bog, Nit Durgapur), Proff. J. Michel Nunzi (Queen's University, Canada), Proff. A. Tameev (Fipcec, Russisa), Proff. S.S.K. Iyer (Iit Kanpur)	Advanced Hybrid Materials For Sustainability	2021-11-26

4.14.14 Journal: Published in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
Sayantari Ghosh, Saumik Bhattacharya	Computational model on COVID-19 pandemic using probabilistic cellular automata	SN Computer Science	Volume:2 Issue No:3 Page No:1-10 Year:2021 Month:May
S Dey, P Chakraborty, DK Rana, S Pramanik, S Basu	Surfactant-free synthesis of carbon supported silver (Ag/C) nanobars as an efficient electrocatalyst for alcohol tolerance and oxidation of sodium borohydride in alkaline medium	SN Applied Sciences	Volume:3 Issue No:6 Page No:1-12 Year:2021 Month:Jun
P Chakraborty, DK Rana, S Basu	Enhanced electrical and magnetic properties of Sm-doped YCrO ₃ nanoparticles	Bulletin of Materials Science	Volume:44 Issue No:2 Page No:1-11 Year:2021 Month:Jul
K Seal, H Chaudhuri, S Basu, MK Mandal, S Pal	Study on Effect of the Solvothermal Temperature on Synthesis of 3D Hierarchical TiO ₂ Nanoflower and Its Application as Photocatalyst in Degradation of Organic Pollutants in Wastewater	Arabian Journal for Science and Engineering	Volume:46 Issue No:7 Page No:6315-6331 Year:2021 Month:Jul
R Sinha, M Halder, S Basu, AK Meikap	Dielectric relaxation and electrical conduction mechanism of Neodymium doped Yttrium Chromite	Physica B: Condensed Matter	Volume:615 Issue No: Page No:413035 Year:2021 Month:Aug



Author(s) Name	Paper Name	Journal Name	Others Info
S Dey, S Pramanik, P Chakraborty, DK Rana, S Basu	An easy synthesis of carbon supported silver–cobalt bimetallic nanoparticles to study the electrocatalytic performance in alkaline borohydride fuel cell	Journal of Applied Electrochemistry	Volume:52 Issue No:2 Page No:247-258 Year:2022 Month:Feb
P Chakraborty, S Basu	Structural, electrical and magnetic properties of Er doped YCrO ₃ nanoparticles	Materials Chemistry and Physics	Volume:259 Issue No: Page No:124053 Year:2021 Month:Apr
Srikanta Karmakar, Subrata Biswas, Pathik Kumbhakar	Optical, structural, and catalytic properties of synthesized Cu ₂ O nanocubes	Indian Journal of Physics	Volume:95 Issue No:4 Page No:607-619 Year:2021 Month:Apr
R. Sinha, M. Halder, S. Basu, A. K. Meikap	Dielectric relaxation and electrical conduction mechanism of Neodymium doped Yttrium Chromite	Physica B: Condensed Matter	Volume:615 Issue No:Nil Page No:413035(1-8) Year:2021 Month:Aug
Yugesh Kumar, Sukadev Sahoo, Amit K Chakraborty	Mechanical properties of graphene, defective graphene, multilayer graphene and SiC-graphene composites: A molecular dynamics study	Physica B: Condensed Matter	Volume:120 Issue No:November Page No:413250 Year:2021 Month:Nov
Punam Tiwary, S.G. Chatterjee, S.S. Singha, Rajat Mahapatra, Amit K. Chakraborty	Room temperature ethanol sensing by chemically reduced graphene oxide film	FlatChem	Volume:30 Issue No:November Page No:100317 Year:2021 Month:Nov
Kankana Seal, Hirok Chaudhuri, Soumen Basu, Mrinal Kanti Mandal, Supriya Pal	Study on effect of the solvothermal temperature on synthesis of 3D hierarchical TiO ₂ nanoflower and its application as photocatalyst in degradation of organic pollutants in wastewater	Arabian Journal for Science and Engineering	Volume:46 (7) Issue No: Page No:6315 - 6331 Year:2021 Month:Oct
Chiranjit Maji, Bikash Sadhukhan, Somenath Mukherjee, Saroj Khutia, Hirok Chaudhuri	Impact of climate change on seismicity : a statistical approach	Arabian Journal of Geosciences	Volume:14 Issue No:21 Page No:1-21 Year:2021 Month:Dec
Kankana Seal, Hirok Chaudhuri	A novel understanding of morphological anisotropy features of nanorod units in brookite dominated	Surfaces and Interfaces	Volume:29 Issue No: Page No:101715 (1-24) Year:2022 Month:

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Author(s) Name	Paper Name	Journal Name	Others Info
	tripphase mesoporous TiO ₂ and its excellent photocatalytic activity in phenol decomposition: The role of synthesis pH and surface hydroxylation		
Kankana Seal, Hirok Chaudhuri, Sanhita Pal, Raj Ranjan Srivastava, Evgeniya Soldatova	A study on water pollution scenario of the Damodar river basin, India: assessment of potential health risk using long term database (1980-2019) and statistical analysis	Environmental Science and Pollution Research	Volume:29 Issue No: Page No:53320–53352 Year:2022 Month:Feb
T. Chatterjee, S. K. Pradhan and A. K. Meikap	Effect of stacking faults on structural, morphological, and electrical properties of hydroxyapatite polycrystals	Materials Letters	Volume:298 Issue No:Nil Page No:130001(1-4) Year:2021 Month:Sep
R. Karmakar, A. K. Das, S. Pramanik, P. K. Kuiri and A. K. Meikap	Tunable dielectric properties and magneto-dielectric coupling of hematite based trap free free flexible semiconductor	Journal of Alloys and Compounds	Volume:881 Issue No:Nil Page No:160516(1-10) Year:2021 Month:Nov
A. K. Das, C. K. Raul, R. Karmakar, A. K. Meikap	Study of enhanced dielectric permittivity of functionalize multiwall carbon nanotube-based polyvinylidene fluoride free-standing film for flexible storage device	Physics Letters A	Volume:407 Issue No:Nil Page No:127455(1-9) Year:2021 Month:Aug
S. Sinha, B. Manna and S. Sahoo	Conformally Flat Charged Static Spherically Symmetric Space-Time for Spinning Fluid	Gravitation and Cosmology	Volume:28 Issue No:01 Page No:91–95 Year:2022 Month:Jan
S. Mahata, P. Maji, S. Biswas and S. Sahoo	Study of the semileptonic $B_c \rightarrow \eta_c \tau^+ \tau^-$ decay in W^\pm model	International Journal of Modern Physics A	Volume:36 Issue No:27 Page No:2150206 Year:2021 Month:Sep
6. Yugesh Kumar, Sukadev Sahoo and Amit K. Chakraborty	Mechanical properties of graphene, defective graphene, multilayer graphene and SiC-Graphene composites: A molecular Dynamics Study	Physica B	Volume:620 Issue No: Page No:413250 Year:2021 Month:Nov
S. Biswas, P. Nayek, P. Maji and S. Sahoo	Lepton Flavour Violating Λ_b decays in non-universal Z^\pm model	European Physical Journal C	Volume:81 Issue No:06 Page No:493 Year:2021



Author(s) Name	Paper Name	Journal Name	Others Info
			Month:Jun
B. Pradhan, P. K. Parida and S. Sahoo	Superconductivity and Jahn-Teller distortion in $s\pm$ -wave iron based superconductors	Brazilian Journal of Physics	Volume:51 Issue No:03 Page No:393–400 Year:2021 Month:Jun
B. Pradhan, P. K. Parida and S. Sahoo	Two-orbital model for interference of pseudo-gaps in the superconducting state of iron-based superconductors	Solid State Communications	Volume:330 Issue No: Page No:114273 Year:2021 Month:May
Koushik Mondal, Subrata Biswas, Tara Singha, Sudip Kumar Pal, Prasanta K Datta, Sujit Kumar Ghosh, Pathik Kumbhakar	Unusual higher-order nonlinear optical properties in Au-coated triangular Ag-Au nanostructures	Optics Letters	Volume:46 Issue No:19 Page No:4879-4882 Year:2021 Month:Oct
S Biswas, P Kumbhakar, T Kobayashi	Viscosity sensing by low power optical self phase modulation in two dimensional copper oxide nanostructures	Optik	Volume:252 Issue No: Page No:168546 Year:2022 Month:Feb
Srikanta Karmakar, Ashim Pramanik, Arup Kanti Koley, Udit Chatterjee, Pathik Kumbhakar	Syntheses of flower and tube-like MoSe ₂ nanostructures for ultrafast piezocatalytic degradation of organic dyes on cotton fabrics	Journal of Hazardous Materials	Volume:424 Issue No: Page No:127702 Year:2022 Month:Feb
Koushik Mondal, Subrata Biswas, Ashim Pramanik, Dipanjan Banerjee, Venugopal Rao Soma, Anil Kumar Chaudhary, Pathik Kumbhakar	Giant femtosecond nonlinear optical response in bi-metallic GO nanocomposites for photonic applications	Applied Surface Science	Volume:578 Issue No: Page No:151966 Year:2022 Month:Mar
Koushik Mondal, Ashim Pramanik, Tapashree Mondal, Sujit Sankar Panja, Rajat Sarkar, Pathik Kumbhakar	Self-Assembly of Solvent-Stabilized Au Nanocluster as Efficient Förster Resonance Energy-Transfer Initiator for White Light Generation	Journal of Physical Chemistry Letters	Volume:13 Issue No:13 Page No:3079-3088 Year:2022 Month:Mar
AD Paul, S Biswas, P Das, HJ Edwards, A Dalal, S Maji, VR Dhanak, A Mondal, R Mahapatra	Improved resistive switching characteristics of Ag/Al:HfO _x /ITO/PET ReRAM for flexible electronics application	Semiconductor Science and Technology	Volume:36 Issue No:6 Page No:065006 Year:2021 Month:Apr
Adyasha Samal, Annu Kumar Lakshya, Shyam Murli Manohar Dhar Dwivedi, Avijit Dalal, Anupam Ghosh, Argha Deep Paul, Rajat Mahapatra, Rajeev Kumar Gupta,	Stable and reversible phase change performance of TiO ₂ coated VO ₂ nano-columns: Experiments and theoretical analysis	Ceramics International	Volume:47 Issue No:10 Page No:14741-14749 Year:2021 Month:May

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Author(s) Name	Paper Name	Journal Name	Others Info
Mohammed Adnan Hasan, Arjun Dey, Aniruddha Mondal			
Sanjib Mondal, Chiranjib Ghosh, SMM Dhar Dwivedi, Anupam Ghosh, Sushama Sushama, Subhananda Chakrabarti, Aniruddha Mondal	An experimental and theoretical understanding of a UV photodetector based on Ag nanoparticles decorated Er-doped TiO ₂ thin film	Ceramics International	Volume:47 Issue No:10 Page No:14879-14891 Year:2021 Month:May
Avijit Dalal, Shyam Murli Manohar Dhar Dwivedi, Chiranjib Ghosh, Rini Lahiri, Mohamed Henini, Aniruddha Mondal	Mg: TiO ₂ alloy thin films based MOS capacitors grown on GaAs substrates	Journal of Alloys and Compounds	Volume:868 Issue No: Page No:159178 Year:2021 Month:Jul
Sanjib Mondal, Anupam Ghosh, Shyam Murli Manohar Dhar Dwivedi, Avijit Dalal, Aniruddha Mondal	Detailed experimental and theoretical analysis of the high-temperature current conduction properties of Er-doped TiO ₂ thin film based diodes	Materials Science in Semiconductor Processing	Volume:130 Issue No: Page No:105834 Year:2021 Month:Aug
Amitabha Nath, Bikram Kishore Mahajan, Aniruddha Mondal, Laishram Robindro Singh, Mitra Barun Sarkar	Synthesis and detailed characterizations of Ag nanoparticles coated In ₂ O ₃ nanostructured devices: An analytical and experimental approach	Journal of Vacuum Science & Technology B, Nanotechnology and Microelectronics: Materials, Processing, Measurement, and Phenomena	Volume:39 Issue No:5 Page No:052209 Year:2021 Month:Sep
Ankita Choudhury, Avijit Dalal, Shyam Murli Manohar Dhar Dwivedi, Anupam Ghosh, Nilanjan Halder, Soumik Das, Aniruddha Mondal	Vapour transport grown photosensitive GeO ₂ thin film	Materials Research Bulletin	Volume:142 Issue No: Page No:111397 Year:2021 Month:Oct
Mohammed Adnan Hasan, Shubham Chavan, Avijit Dalal, Alevoor Rajendra, Aniruddha Mondal, Baburao N Sherikar, Arjun Dey	Optical, electronic, and microstructural properties of mixed phase RF magnetron sputtered vanadium oxide thin films on quartz and aluminized quartz	Surface and Interface Analysis	Volume:53 Issue No:10 Page No:844-851 Year:2021 Month:Oct
AD Paul, S Biswas, A Dalal, A Mondal, R Mahapatra	Impact of Stack Engineering on HfO ₂ /Al: HfO ₂ -Based Flexible Resistive Memory Devices and Its Synaptic Characteristics	IEEE Transactions on Electron Devices	Volume:69 Issue No:4 Page No:1842-1848 Year:2022 Month:Mar
J. Karmakar, A. Pathak, D. Nandi and M. K. Mandal	Sparse representation based compressive video encryption using hyper-chaos and DNA coding	Digital Signal Processing	Volume:117 Issue No: Page No:103143 Year:2021 Month:Jun



Author(s) Name	Paper Name	Journal Name	Others Info
K. Mukherjee, K. Maji, A. Raja and M. K. Mandal	All-optical soliton based universal logic NOR utilizing a single reflective semiconductor optical amplifier (RSOA)	Photonic Network Communications	Volume:43 Issue No: Page No:101–108 Year:2022 Month:Jan
M. K. Garai, M. K. Mandal and S. K. Garai	Alternative approach of developing frequency encoded BCD encoder and decoder with polarisation switches	Journal of Optics	Volume:51 Issue No: Page No:565–573 Year:2022 Month:Mar
Priya Chakraborty, Sayantari Ghosh	Emergent correlations in gene expression dynamics as footprints of resource competition	The European Physical Journal E	Volume:44 Issue No:10 Page No:1-12 Year:2021 Month:Oct
Arindam Dey, Ashim Pramanik, Partha Kumbhakar, Subrata Biswas, Sudip Kumar Pal, Sujit Kumar Ghosh, Pathik Kumbhakar	Manoeuvring a natural scatterer system in random lasing action and a demonstration of speckle free imaging	OSA Continuum	Volume:4 Issue No:6 Page No:1712-1722 Year:2021 Month:Jun
Sayantari Ghosh, Arijit Chakraborty, Saumik Bhattacharya	How surface and fomite infection affect contagion dynamics: a study with self-propelled particles	The European Physical Journal Special Topics	Volume: Issue No: Page No:1-12 Year:2022 Month:Jan
M. Patra, S. K. Dubey, B. Mondal, K. Gupta, A. Ghosh, S. Mandal, S. Hazra, A. K. Meikap, U. K. Roy, S. Bhattacharjee and R. Saha	Design of II-conjugated flexible semiconductive 2D MOF and MOF derived CuO nano-spheres for solvent free C-X (S, O) hetero-coupling catalysis with enhanced conductivity	Nano-Structures & Nano-Objects	Volume:26 Issue No:Nil Page No:100756(1-11) Year:2021 Month:Apr
Monalisa Char, Amit K Chakraborty, Arnab S Bhattacharyya, Abhijit Kar	A Comparative Study on the Influence of SAC305 Lead-Free Solder Sandwiched by Sn on the Micromechanical and Electrical Properties of the Joints	Advanced Engineering Material	Volume:24 Issue No:1 Page No:2100679 Year:2022 Month:Jan
Piyali Chatterjee, Amit K Chakraborty	Enhanced solar water oxidation by CoWO ₄ -WO ₃ heterojunction photoanode	Solar Energy	Volume:232 Issue No: Page No:312-319 Year:2022 Month:Jan
Asim Senapati, Amit K Chakraborty	Flowerlike Fe ₂ O ₃ – polyaniline nanocomposite as electrode for supercapacitor	Journal of Materials Science: Materials in Electronics	Volume:32 Issue No:23 Page No:27794-27800 Year:2021 Month:Dec

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Author(s) Name	Paper Name	Journal Name	Others Info
Punam Tiwary, Nilanjan Chakrabarty, Holly J. Edwards, Vinod R. Dhanak, Abhijit Kar, Rajat Mahapatra. Amit K. Chakraborty	Hydrothermally grown uniform sized nickel hydroxide/oxyhydroxide hexagonal nanoprisms exhibiting room temperature ethanol sensing properties	Applied Surface Science	Volume:570 Issue No:December Page No:151090 Year:2021 Month:Dec
Goutam Kumar Dalapati, Himani Sharma, Asim Guchhait, Nilanjan Chakrabarty, Priyanka Bamola, Qian Liu, Gopalan Saianand, Ambati Mounika Sai Krishna, Sabyasachi Mukhopadhyay, Avishek Dey, Terence Kin Shun Wong, Siarhei Zhuk, Siddhartha Ghosh, Sabyasachi Chakraborty, Chandreswar Mahata, Sajal Biring, Avishek Kumar, Camila Silva Ribeiro, Seeram Ramakrishna, Amit K. Chakraborty, Satheesh Krishnamurthy, Prashant Sonar and Mohit Sharma	"Tin oxide for optoelectronic, photovoltaic and energy storage devices: a review"	J. Mater. Chem. A	Volume:9 Issue No:31 Page No:16621-16684 Year:2021 Month:Jun

4.14.15 Journal: Accepted for Publication in 2021-2022 SCI/SCOPUS/Web of Science

Author(s) Name	Paper Name	Journal Name	Others Info
T. Chatterjee, M. Ghosh, M. Maji, M. Ghosh, S. K. Pradhan, A. K. Meikap	Study of Microstructural and Electrical Properties of Silver Substituted Hydroxyapatite for Drug Delivery Applications	Materials Today Communications	Volume: Issue No: Page No: Year:2022 Month:Mar
M. Pal, S. Chakraborty, B. Sahoo and S. Sahoo	Theoretical study of the role of symmetry energy as well as its density slope and curvature on neutron star core crust transition density using finite range effective interaction	Physics of Particles and Nuclei Letters	Volume: Issue No: Page No: Year:2021 Month:Nov

4.14.16 Journal: Published in Others in 2021-2022

Author(s) Name	Paper Name	Journal Name	Others Info
Ashim Pramanik, Subrata Biswas, Arindam Dey, Pathik Kumbhakar	Optically Transparent Graphene Flakes as Nanogenerator of Microbubbles for Random Lasing in Weakly Scattering Regime	Advanced Photonics Research	Volume:2 Issue No:8 Page No:2100063 Year:202, Month:Aug
Ganapati Dash, Kumar Gaurav, Sayantari Ghosh	Effects of Vaccination Decisions and Peer influence on Epidemic Dynamics: A Network Perspective	Proceedings of 2021 IEEE 18th India Council International Conference (INDICON)	Volume:18 Issue No: Page No:1-10 Year:2021 Month:Dec

4.14.17 Journal: Accepted in Others in 2021-2022

Author(s) Name	Paper Name	Journal Name	Others Info
Abhijit Ghosh, Nishant Kumar and A K Nirala	Single hololens imaging configuration in laser speckle photography for in-plane displacement measurement	Asian Journal of Physics	Volume:31 Issue No:1 Page No:107-113 Year:2022 Month:



4.14.18 Conference: Published in 2021-2022 DOI/ISBN

Author(s) Name	Paper Name	Conference Name	Others Info
A. K. Das, R. Karmakar, and A. K. Meikap	High Temperature DC Electrical Transport Property of Polyvinylidene Fluoride Flexible Film	65th DAE Solid State Physics Symposium	DOI/ISBN: 81-8372-085-4 Volume: Issue No: Page No:717-718 Year:2021 Month:Dec Presenter:SELF
R. Karmakar, A. K. Das, and A. K. Meikap	Optical and electrical transport properties of flexible PVA-chitosanhematite composite film	65th DAE Solid State Physics Symposium	DOI/ISBN: 81-8372-085-4 Volume: Issue No: Page No:727-728 Year:2021 Month:Dec Presenter:CO-AUTHOR
C. K. Raul, M. Halder, and A. K. Meikap	Temperature Dependent Dielectric Response of Ni Coated MWCNT/PVDF Nanocomposite Film	65th DAE Solid State Physics Symposium	DOI/ISBN: 81-8372-085-4 Volume: Issue No: Page No:713-714 Year:2021 Month:Dec Presenter:CO-AUTHOR
T. Chatterjee, S. K. Pradhan, and A. K. Meikap	Enhanced Electrical Transport Properties of Ex-situ Ball-milled Silver Doped Hydroxyapatite for Rectifying Applications	65th DAE Solid State Physics Symposium	DOI/ISBN: 81-8372-085-4 Volume: Issue No: Page No:711-712 Year:2021 Month:Dec Presenter:CO-AUTHOR
S. Atta, M. Halder, and A. K. Meikap	Magnetodielectric Coupling and High Frequency Relaxation Behaviour of Neodymium Doped Nickel Ferrite Nanoparticles	65th DAE Solid State Physics Symposium	DOI/ISBN: 81-8372-085-4 Volume: Issue No: Page No:736-737 Year:2021 Month:Dec Presenter:CO-AUTHOR
K. Maji, K. Mukherjee and M. K. Mandal	All Optical Logic XNOR Gate Using Dual Control Dual SOA TOAD	IEEE VLSI Device Circuit and System	DOI/ISBN: 10.1109/VLSIDCS53788.2022.9811448 Volume: Issue No: Page No:9-12 Year:2022 Month:Feb Presenter:CO-AUTHOR
M. K. Garai, M. K. Mandal, S. K. Garai	An alternating approach of developing frequency encoded data based optical packet switching scheme	International online Conference on Electronics, Material Engineering & Nano-Technology (IEMENTech-2021)	DOI/ISBN: 10.1109/IEMENTech53263.2021.9614928 Volume: Issue No: Page No: Year:2021 Month:Sep Presenter:CO-AUTHOR
M. K. Garai, M. K. Mandal, S. K. Garai	Implementation of three input AND gate using polarization switch	IEEE International Conference on Communication, Computing & Industry (C2I4)-2021	DOI/ISBN: 10.1109/c2i454156.2021.9689427 Volume: Issue No: Page No: Year:2021 Month:Dec Presenter:CO-AUTHOR

4.14.19 Conference: Published in Others in 2021-2022

Author(s) Name	Paper Name	Conference Name	Others Info
S. Mahata and S. Sahoo	The effect of W^+ boson on the semileptonic $B_d^{*+} \rightarrow D_d^{*+} \tau^+ (\nu_\tau)$ decay	65th DAE BRNS Symposium on Nuclear Physics	DOI/ISBN: Vol. 65 Volume: Issue No: Page No:559-560 Year:2021 Month:Dec Presenter:CO-AUTHOR

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M. Kumar and S. Sahoo	An explanation of 3d structure of neutrons and protons using string theory	65th DAE BRNS Symposium on Nuclear Physics	DOI/ISBN: Vol. 65 Volume: Issue No: Page No:615–616 Year:2021 Month:Dec Presenter:
Koushik Mondal, Subrata Biswas, Pathik Kumbhakar	Plasmonic field assisted unusual higher order nonlinear optical properties of Au coated triangular shaped Ag nanostructures	Frontiers in Optics & Photonics, 2021	DOI/ISBN: Paper ID: NPHMOND1 Volume: Issue No: Page No: Year:2021 Month:Sep Presenter:CO-AUTHOR
Arindam Dey, Pathik Kumbhakar	Random Lasing in Rhodamine-B dye Coated Natural Scattering System	Frontiers in Optics & Photonics, 2021	DOI/ISBN: Paper Id: DESDEY1 Volume: Issue No: Page No: Year:2021 Month:Sep Presenter:CO-AUTHOR
Ashim Pramanik, Pathik Kumbhakar	Observation of CW laser induced Third Order Nonlinear Optical Response in Quantum Graphene Flakes	Frontiers in Optics & Photonics, 2021	DOI/ISBN: Paper Id: MATPRAM1 Volume: Issue No: Page No: Year:2021 Month:Sep Presenter:CO-AUTHOR
Pathik Kumbhakar, Koushik Mondal, Subrata Biswas and Ashim Pramanik	Laser Induced Tuning in Linear and Nonlinear Optical Properties of Triangular Shaped Ag Nanostructures	16th DAE-BRNS Biennial Trombay Symposium on Radiation & Photochemistry (TSRP-2022)	DOI/ISBN: ISRAPs Bulletin (TSRP-2022 special issue) Volume: Issue No: Page No: Year:2022 Month:Jan Presenter:SELF

4.14.20 Books Authored

Author Name	Co-Author	Title of the Book	Title of the Chapter	Publication Details
M. Goswami and S. Sahoo		A TEXT BOOK OF OSCILLATIONS AND WAVES		Publisher: Scitech Publications (India) Pvt. Ltd., Chennai Publication Date: 2021-09-10
Nilanjan Chakrabarty, Amit Kumar Chakraborty		Sulfide and Selenide Based Materials for Emerging Applications	Sulfides and selenides as electrodes for supercapacitor	Publisher: Elsevier Publication Date: 2022-0101
Aatreyee Sarkar, Piyali Chatterjee, Amit Kumar Chakraborty		Sulfide and Selenide Based Materials for Emerging Applications	Sulfides and selenides as electrodes for dye-sensitized solar cells	Publisher: Elsevier Publication Date: 2022-0101
Ragunath Madhu, Goutam Kumar Dalapati, Terence Kin Shun Wong, Siarhei Zhuk, Amit Kumar Chakraborty, Subrata Kundu		Sulfide and Selenide Based Materials for Emerging Applications	Clean energy for sustainable development: Importance of new materials	Publisher: Elsevier Publication Date: 2022-0101



Author Name	Co-Author	Title of the Book	Title of the Chapter	Publication Details
Manisha Sharma	Ankush Yadav, Mrinal Kanti Mandal, Shailesh Pandey, Supriya Pal, Hirok Chaudhuri, Sandip Chakrabarti, and Kashyap Kumar Dubey	Circular Economy and Sustainability VOLUME2, Environmental Engineering	Wastewater treatment and sludge management strategies for environmental sustainability	Publisher: Elsevier Publication Date: 2022-0914

4.14.21 Seminars, Summer/Winter Schools, Short Term Courses Attended

Name of the Programme	Organized By	From Date	To Date	Organizing Country
65th DAE Solid State Physics Symposium	Department of Atomic Energy, BARC	2021-12-15	2021-12-19	India
65th DAE BRNS Symposium on Nuclear Physics	Nuclear Physics Division, Bhabha Atomic Research Centre, Mumbai-400085, India	2021-12-01	2021-12-05	India
IEEE 18th India Council International Conference (INDICON)	IEEE India Council	2021-12-19	2021-12-21	India
International conference on Emerging trends in Mathematical sciences & Computing (iemsc-22)	IEM Kolkata	2022-02-04	2022-02-06	India
The 16th biennial DAE – BRNS “Trombay Symposium on Radiation & Photochemistry”, (TSRP-2022)	Bhabha Atomic Research Centre (BARC), Mumbai (attended online)	2022-01-12	2022-01-15	India
Carbon Nanostructures for Electrochemical Supercapacitors”, International Conference on Energy Materials & Devices (ICEMD 2022)	Banaras Hindu University	2022-01-11	2022-01-12	India
Nanostructured Metal Oxides and Their Composites for Sustainable Development”, AICTE funded Training Program on “Emerging Nanomaterials for Sustainability	MAK Azad University of Technology	2021-08-30	2021-09-04	India
Nanotechnology for Sustainable Energy & Environment	Jagadis Bose National Science Talent Search	2021-07-25	2021-07-31	India
Environmental Awareness Campaign 2021	Srinkhala, Bahrain	2021-06-30	2021-06-30	Kingdom of Bahrain
International Conference - BRICS NUs: Water Resources and Pollution Treatment [WRPT-21],	NIT Durgapur, IIT Kanpur and BRICS ITG	2021-07-06	2021-07-08	India
Climate change and disaster management	National Institute of Disaster Management,	2021-10-04	2021-10-06	India

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Name of the Programme	Organized By	From Date	To Date	Organizing Country
	Ministry of Home Affairs, Govt. of India and School of Law, Christ (Deemed to be University), Delhi			

4.14.22 Ph.D. Supervisor

Topic Name	Scholar	Supervisor	Status	Status Date
Preparation and characterization of nanocrystalline multiferroics.	Sk Mazafar Hossain	S Basu, M Pal (Csircgcri)	DEGREE AWARDED	2013-06-30
Investigation on water pollution scenario of Damodar river basin and treatment of organic contaminants in wastewater by the heterogeneous photocatalyst	Kankana Seal	S Basu, M K Mandal	DEGREE AWARDED	2022-08-12
Study of optical, electrical and magnetic properties of nanostructured multiferroics.	Pradipta Chakraborty	S Basu	DEGREE AWARDED	2021-11-30
Electrical and magnetic properties of multiferroic bismuth ferrite nanoparticles both pure and doped prepared by chemical route	Ayan Mukherjee	S Basu	DEGREE AWARDED	2015-10-12
A Study on electrical transport properties of some rare earth chromite nanocomposites	Ranjita Sinha	A K Meikap, S Basu	DEGREE AWARDED	2020-02-24
Electrical and magnetic properties of Polymer multiferroic nanocomposites	Dhiraj Kumar Rana	S Basu	DEGREE AWARDED	2019-12-02
Synthesis and Characterization of multiferroic rare earth orthoferrites nanostructure	Shovan Kumar Kundu	S Basu	DEGREE AWARDED	2019-12-06
Development of novel metal free electrocatalyst for fuel cell application	Santanu Dey	S Basu	ONGOING	2022-03-31
Study on the Structural, Electrical and Magnetic Properties of doped Multiferroics Nanoparticles	Mahasweta Banerjee	S Basu	DEGREE AWARDED	2019-08-02
Development and Characterization of Hydroxyapatite and Green Synthesized Noble metal Nanocomposites for Gas sensing Applications	Tuli Chatterjee	Prof. A. K. Meikap & Prof. S. K. Pradhan	ONGOING	2022-03-31
Development and Characterization of Polymer-Multiferroic Nanocomposites for Enhance Magneto Dielectric Behavior	Shubhadip Atta	Prof. A. K. Meikap	ONGOING	2022-03-31
Development of metal-oxide based polymer nanocomposites for optoelectronics application	Riju Karmakar	Prof. A. K. Meikap	ONGOING	2022-03-31
Development and characterization of functionalized carbon nanotube polymer nanocomposites having enhanced dielectric properties for charge storage device	Chandan Kumar Raul	Prof. A. K. Meikap	ONGOING	2022-03-31
Development of ferroelectric polymer bases nanocomposites for solid state fractional order capacitors and memory device	Bilwadal Dutta	Prof. A. K. Meikap	ONGOING	2022-03-31



Topic Name	Scholar	Supervisor	Status	Status Date
applications				
Development of Ferrite base gas sensor	Mita Karmakar	S Basu	ONGOING	2022-03-31
Development of electrocatalyst for borohydrate fuel cell	Manas Mondal	S Basu	ONGOING	2022-03-31
First principle study of MoS ₂ for electrocatalysis application	Vivekananda Mukherjee	S Basu	ONGOING	2022-03-31
Phenomenology of Z' boson, B mesons, Higgs boson and New Physics	Dr. Priya Maji	Dr. S. Sahoo	DEGREE AWARDED	2021-05-14
Theoretical study of the coexistence of superconductivity, antiferromagnetism and Jahn-Teller distortion in iron based superconductors	Dr. Prasanta Kumar Parida	Dr. S. Sahoo & Dr. B. Pradhan Bjb College (Govt.) Bhubaneswar	DEGREE AWARDED	2021-09-10
Possible Signatures of New Physics in Rare Decays of b Hadrons in the Framework of Non-Universal Z' Model	Swagata Biswas	Dr. S. Sahoo	ONGOING	2022-03-31
Theoretical study of Z' boson, B meson decays, and Higgs boson	Supravat Mahata	Dr. S. Sahoo	ONGOING	2022-03-31
Theoretical investigation for new physics with Z' boson, B meson decays and Higgs boson	Mansi Mandal	Dr. S. Sahoo	ONGOING	2022-03-31
Theoretical study of some properties of finite nuclei and core-crust transition density of neutron stars with finite range effective interaction	Mahadeb Pal	Dr. S. Sahoo, Dr. B. Sahoo & Dr. S. Chakraborty	ONGOING	2022-03-31
Imaging and non-imaging applications of holographic optical elements	Rahul Mandal	Dr. Abhijit Ghosh	ONGOING	2022-03-31
Low-cost Opto-electronic devices for photosensing applications	Iman Biswas	Dr. Aniruddha Mondal	ONGOING	2022-03-31
Thesis Title: "Mg doped TiO ₂ Nanostructures on GaAs and Si Substrate for the application of MOS Devices, Deep UV Photodetectors and Breath Sensor for Health Monitoring"	Avijit Dalal	Dr. Aniruddha Mondal	ONGOING	2022-03-31
Thermo-chromic variable emittance coating	Subrata Saha	Dr. Aniruddha Mondal	ONGOING	2022-03-31
Thesis Title: "Fabrication of Erbium doped TiO ₂ Thin Film and Its Nanostructures for the application of UV Photodetectors and Gas Sensors for the purpose of Environmental Monitoring"	Sanjib Mondal	Dr. Aniruddha Mondal	ONGOING	2022-03-31
Metal-Oxide Optical Photodetector	Ankita Choudhury	Dr. Aniruddha Mondal	ONGOING	2022-03-31
Thesis Title:- Synthesis of InN nanostructure by unique vapour transport method and development of infrared detector	Shyam Murli Manohar Dhar Dwivedi	Dr. Aniruddha Mondal	DEGREE AWARDED	2020-11-25
Synthesis of Metal and Metal Oxide NanoWires and Its Characterization	P Chinnamuthu	Dr. Aniruddha Mondal	DEGREE AWARDED	2013-02-08

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Topic Name	Scholar	Supervisor	Status	Status Date
Studies on glancing angle synthesized low dimensional TiO ₂ and its heterostructures based optical detector	Bijit Choudhuri	Dr. Aniruddha Mondal	DEGREE AWARDED	2017-06-28
Ag nanoparticle dispersed in TiO ₂ nanowire based UV-Vis detector	Chitrlekha Ngangbam	Dr. Aniruddha Mondal, Dr. Sumita Deb	DEGREE AWARDED	2016-02-27
Studies on Optoelectronic and Electronic Performance of Glancing Angle Deposited Low Dimensional Erbium Doped TiO ₂ Material	Rini Lahiri	Dr. Aniruddha Mondal	DEGREE AWARDED	2019-09-23
Low dimensional thin film and its porous structure for optoelectronic device application	Anupam Ghosh	Dr. Aniruddha Mondal	DEGREE AWARDED	2020-03-30
Plasmonic based optoelectronic devices	Aparna Ganguly	Dr. Aniruddha Mondal, Dr. R.K Yadav	DEGREE AWARDED	2015-02-06
SiO _x /TiO ₂ heterostructure nanowire based Optoelectronic devices	Jay Chandra Dhar	Dr. Aniruddha Mondal	DEGREE AWARDED	2016-03-30
SiO _x /In ₂ O ₃ nanowire based Photodetector	Naorem Khelchand Singh	Dr. Aniruddha Mondal	DEGREE AWARDED	2016-03-30
TiO ₂ nanoparticle based UV detector	Subhro Chakrabartty	Dr. Aniruddha Mondal, Dr. Apu Kumar Saha	DEGREE AWARDED	2016-11-08
Indium doped TiO ₂ thin film and its photocatalytic properties	Mitra Barun Sarkar	Dr. Aniruddha Mondal, Dr. Paritosh Bhattacharya	DEGREE AWARDED	2018-05-16
Sparse Representation of Signals and its Applications	Jayashree Karmakar	M. K. Mandal	DEGREE AWARDED	2021-10-29
Studies on Sparse Representation for Data Processing and Applications	Arghya Pathak	M. K. Mandal	ONGOING	2022-03-31
Studies on Design and Analysis of All Optical Logic Gates and Processors Utilizing Nonlinear Properties of Semiconductor Optical Amplifiers.	Kajal Maji	Dr. M. K. Mandal & Dr. K. Mukherjee	ONGOING	2022-03-31
Studies on Data Encryption Algorithm based on Hyperchaotic System.	Subhashish Pal	M. K. Mandal	ONGOING	2022-03-31
Studies on some all optical logic processors effective for WDM-based data communication system	Manas Kumar Garai	Dr. M. K. Mandal & Dr. S. K. Garai	ONGOING	2022-03-31
Machine Learning for Intelligent Treatment Planning	Suresh Das	Dr. Sayantari Ghosh	ONGOING	2022-03-31
Machine Learning for Thunderstorm Time Series Prediction	Debopriya Nandi	Dr. Hirok Chaudhuri And Dr. Sayantari Ghosh	ONGOING	2022-03-31
Resource Competition in Gene Regulatory Dynamics	Priya Chakraborty	Dr. Sayantari Ghosh	ONGOING	2022-03-31
Infodemics & Epidemics on Multilayer Network	Dibyajyoti Mallick	Dr. Sayantari Ghosh	ONGOING	2022-03-31



Topic Name	Scholar	Supervisor	Status	Status Date
Synthesis of Metal nanostructure for application as an active and passive scatter in generation of random laser	A. Dey	Prof. Pathik Kumbhakar	ONGOING	2022-03-31
Investigations on Synthesis, Linear and Nonlinear Optical Properties of Some Carbon Nanomaterials and Nanocomposites	Koushik Mondal	Prof. Pathik Kumbhakar	ONGOING	2022-03-31
Investigations on synthesis, characterizations, optical properties of some carbon nanostructured materials and its applications	Ashim Pramanik	Prof. Pathik Kumbhakar	DEGREE AWARDED	2022-09-30
Development of Chemiresistive Ethanol sensors using Nanostructured Metal Oxide/Hydroxide films	Punam Tiwary	Amit K Chakraborty & Rajat Mahapatra (Ece)	SUBMITTED	2021-12-31
Development of bimetallic oxide nanostructures for photocatalytic and photoelectrochemical applications	Piyali Chatterjee	Amit K. Chakraborty	ONGOING	2022-03-31
TBD	Anurup Chakraborty	Amit K. Chakraborty	ONGOING	2022-03-31
Development of a Cu-SAC305 based lead free solder joint interface with improved reliability and environmental stability	Monalisa Char	Amit K. Chakraborty & Abhijit Kar (Jbnsts, Kolkata)	SUBMITTED	2022-06-09
Dielectric engineering on GaN for high electron mobility transistors	Partha das	Rajat Mahapatra & Amit K Chakraborty	SUBMITTED	2021-10-25
Not decided yet Pre-registration talk not been delivered as yet	Miss Rajalaxmi Nath	Dr. Hirok Chaudhuri	ONGOING	2022-03-31
Investigation on physics of nonlinearity of the earth system data	Mr. Saroj Khutia	Dr. Hirok Chaudhuri	ONGOING	2022-03-31
Not decided yet Pre-registration talk not been delivered as yet	Mr. Premanshu Sekhar Dey	Dr. Hirok Chaudhuri	ONGOING	2022-03-31
Not decided yet Pre-registration talk not been delivered as yet	Mrs. Ankita Dawn	Dr. Hirok Chaudhuri	ONGOING	2022-03-31
Radiation Dose Estimation using Radiation Detector	Pijushkanti Jana	Dr. Soumik Das	ONGOING	2022-03-31
Not decided yet Pre-registration talk not been delivered as yet	Debopriya Nandi	Dr. Hirok Chaudhuri	ONGOING	2022-03-31
Low-Level Radioactivity Measurement using background suppression technique	Biswajit Saha	Dr. Soumik Das, Dr. Aniruddha Mondal	ONGOING	2022-03-31
Synthesis of GeO _x and GaO _x low dimensional materials and photodetector	Ankita Choudhury	Dr. Aniruddha Mondal, Dr. Soumik Das	ONGOING	2022-03-31

4.14.23 Ongoing Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Amount(in Rs.)	Starting Year
Quantification of mutagenic potential of palindromic sequences in prokaryotic and eukaryotic genomes	Hemachander Subramanian	SERB	1857900.0	2021

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Title of the Project	Investigator	Sponsor Authority	Amount(in Rs.)	Starting Year
Development and characterization of functionalized carbon nanotubes-polymer nanocomposite having enhanced dielectric properties for Charge storage device	Prof. A. K. Meikap	DST&BT-WB	1446000.0	2019
Study of quantum Hall effect, high energy physics phenomena and mechanical properties of graphene	Dr. Sukadev Sahoo	CSIR, Govt. of India.	480000.0	2020
Some novel phenomenologies of Multi Higgs Doublet Models and higher dimensional operators in the light of Naturalness	Dr. Ambalika Biswas & Dr. Sukadev Sahoo	SERB, DST, Govt. of India.	1830000.0	2021
Thermo-Chromic Variable Emittance Coating	Dr. Aniruddha Mondal	ISRO	2178000.0	2022
Titanium dioxide (TiO ₂)/VO ₂ NWs heterostructure as a stable optical switch	Dr. Aniruddha Mondal	DST-SERB	4919992.0	2021
Universal advanced low-cost nano-hybrid platform for air pollution, water, and bio-fluids	Dr. Aniruddha Mondal, Dr. R.N. Barman	SPARC (IIT KGP)	5846065.0	2019
Development of some 2D transition metal dichalcogenide semiconductor nanostructures and nanocomposites for photocatalytic dye degradation, light energy harvesting and hydrogen production	Prof. P. Kumbhakar	CSIR	1904000.0	2019
Synthesis of semiconductor and metal Nanostructures and the investigation of their Role as active or passive scatterer in random Laser generation	Prof. P. Kumbhakar	Dept. of Science and Technology & Biotechnology, Govt. of West Bengal	1450000.0	2019
Understanding host-circuit interaction and resource sharing in synthetic biology	Dr. Sayantari Ghosh	DST INSPIRE	3500000.0	2018
Sustainable Technology for Smart Off-Grid Renewable Energy Transformation and Electrochemical Storage Management	Amit K Chakraborty (PI) and Ananta Sarkar (CI)	SERB, DST, GOI	13800000	2021
Nano technological Intervention on jutegeotextile to adapt long term sustainability and enhanced durability for its cost effective and wide application in flexible pavement systems	Dr. Supriya Pal, Dr. Hirok Chaudhuri, Dr. M. K. Mandal, Dr. Rajib Ghosh Chaudhuri	National Jute Board, A Statutory Body, Ministry of Textiles, Govt. of India	6952000.0	2021
Development of guidelines to adopt the process of height increment of overburden dumps at open cast coal mines in India using jute-geotextile as reinforcing material	Dr. Supriya Pal, Dr. Hirok Chaudhuri, Dr. M. K. Mandal, Dr. Rajib Ghosh Chaudhuri	National Jute Board, A Statutory Body, Ministry of Textiles, Govt. of India	7172000.0	2021



Title of the Project	Investigator	Sponsor Authority	Amount(in Rs.)	Starting Year
Nonlinear dynamics (NLD) of long range anticorrelated chaotic oscillation in plasmas and application of nonlinear dynamics to condensed matter and dark matter research, geo-chemical oscillations from hot springs and chaos control	Prof. A. N. Sekar Iyengar, Prof. K. SR. Menon, Dr. Hirok Chaudhuri	SERB, DST Govt. of India	2990000.0	2021
Environmental geochemistry and treatment of organic pollutants in aquatic systems in the selected areas of China, India and Russia	Supriya Pal, Dr. Hirok Chaudhuri, Dr. M. K. Mandal. Dr. K. Dubey, Prof. Oleg Savichev, Prof. Zhanxue Sun	DST, Govt. of India	4408000.0	2019

4.14.24 Completed Sponsored Projects Details

Title of the Project	Investigator	Sponsor Authority	Complete Year
Development and Characterizations of Multiferroics nanomaterials	Soumen Basu	SERB, DST	2013
Design and exploration of nanocrystalline multiferroic materials	Soumen Basu, Mrinal Pal	DAE	2014
A Study on Electron Dephasing Scattering Rate in Disordered Alloys and A15 Compounds at Low Temperature	Ajit Kumar Meikap, Soumen Basu, Mrinal Kanti Mandal	SERB,DST	2016
Development of noble metal free electro catalyst for direct oxidation of ethylene glycol in direct ethylene glycol fuel cell (DEGFC)	Soumen Basu	SERB,DST	2020
Evaluation of the role of Vitamin D in obesity,cardiovascular diseases ,and diabetes using SiOx/TiO2 nanowire-based sensor	Dr. Aniruddha Mondal (P.I.)	DST (SERB)	2020
A unique technique for Synthesis of InN Nano-Wire assembly for the application of optical sensor	Dr. Aniruddha Mondal (P.I.)	DAE	2019
To develop and fabricate an efficient TiO2 nanowire arraybased UV detector using plasmonic nanoparticles array	Dr. Aniruddha Mondal (P.I.)	CSIR	2019
Synthesis of In2O3 Nano-Wire assembly and UV detector	Dr. Aniruddha Mondal (P.I.)	DST (SERB)	2015
High-Efficiency In2O3/Si Nano-wire based heterojunction solar cell	Dr. Aniruddha Mondal (P.I.)	AICTE	2013

4.14.25 Reviews of Manuscripts for Publication in Journal

Reviewer	Name of the Journal	Publisher	Date of Final Review
Ajit Kumar Meikap	Journal of the Indian Chemical Society	Elsevier	2021-09-16
Ajit Kumar Meikap	Journal of Alloys and Compounds	Elsevier	2021-10-06
Ajit Kumar Meikap	ChemPhysChem	Wiley-VCH	2021-11-15
Ajit Kumar Meikap	Journal of Alloys and Compounds	Elsevier	2021-11-23
Ajit Kumar Meikap	Current Applied Physics	Elsevier	2021-11-28
Ajit Kumar Meikap	Ceramics International	Elsevier	2021-11-28
Ajit Kumar Meikap	Polymer Bulletin	Springer	2021-12-01

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Reviewer	Name of the Journal	Publisher	Date of Final Review
Ajit Kumar Meikap	Diamond & Related Materials	Elsevier	2021-12-23
Ajit Kumar Meikap	Polymer Composites	Wiley-VCH	2022-01-11
Ajit Kumar Meikap	Polymer Bulletin	Springer	2022-02-14
Ajit Kumar Meikap	Journal of Thermoplastic Composite Materials	SAGE Publications	2022-02-26
Ajit Kumar Meikap	Results in Physics	Elsevier	2022-03-08
Sukadev Sahoo	Asian Journal of Research and Reviews in Physics	Asian Journal of Research and Reviews in Physics	2021-08-20
Sukadev Sahoo	Journal of NanoScience , NanoEngineering & Applications	STM Publication	2022-01-23
Pathik Kumbhakar	Nanotechnology	IOP	2021-05-17
Pathik Kumbhakar	Appl. Opt.	OPTICA	2021-05-04
Pathik Kumbhakar	Opt. Lett.	OPTICA	2021-04-04
Pathik Kumbhakar	Opt. Lett.	OPTICA	2021-04-23
Pathik Kumbhakar	Physica Status Solidi (RRL) - Rapid Research Letters	Wiley	2021-06-04
Pathik Kumbhakar	physica status solidi (a)	Wiley	2021-10-08
Pathik Kumbhakar	Photonics Tech. Lett.	IEEE Photonics Society	2021-06-03
Pathik Kumbhakar	Laser & Photonics Reviews	Wiley	2021-07-13
Pathik Kumbhakar	Nature Communications	Nature	2022-03-28
Pathik Kumbhakar	ACS Omega	ACS	2022-01-15
Pathik Kumbhakar	Crystal Research and Technology	Wiley	2021-10-24
Pathik Kumbhakar	J. Luminescence	Elsevier	2021-05-29
Pathik Kumbhakar	Journal of Optics	Springer	2021-09-03
Pathik Kumbhakar	New J Chemistry	RSC	2021-07-22
Pathik Kumbhakar	Opt. Lett.	OPTICA	2021-08-15
Pathik Kumbhakar	Opt. Lett	OPTICA	2021-10-14
Pathik Kumbhakar	Spectrochimica Acta: Part A	Elsevier	2021-07-13
Pathik Kumbhakar	Opt. Material Express	OPTICA	2021-07-13
Pathik Kumbhakar	JOSA B	OPTICA	2021-08-29
Pathik Kumbhakar	Opt. Lett.	OPTICA	2022-02-20
Sayantari Ghosh	Physical Biology	IOP Science	2021-07-13
Sayantari Ghosh	Scientific Reports	Nature	2021-09-23
Aniruddha Mondal	Alloy And Compounds	ELSEVIER	2022-03-03
Aniruddha Mondal	Scientific Reports	NATURE	2022-03-01
Aniruddha Mondal	Applied Surface Science	ELSEVIER	2022-02-15
Aniruddha Mondal	Journal Of Alloys And Compounds	ELSEVIER	2022-02-13
Aniruddha Mondal	Plasmonics	SPRINGER	2022-02-03
Aniruddha Mondal	Journal Of Alloys And Compounds	ELSEVIER	2022-01-14
Aniruddha Mondal	Ceramic International	ELSEVIER	2021-11-16
Aniruddha Mondal	Applied Surface Science	ELSEVIER	2021-11-09
Aniruddha Mondal	Applied Nanomaterials	ACS	2021-09-12
Aniruddha Mondal	Plasmonics	SPRINGER	2021-09-08

4.14.26 Review of Books

Reviewer	Title of the Book	Name and Affiliation of the Author	Publisher	Date
Sayantari Ghosh	Lessons of the Pandemic: Data-driven modeling of COVID-19	Ellen Kuhl	Springer Nature	2021-03-17



4.14.27 Participation in National Committees/Visits

Name of the Faculty	Name of the Committee	Place of Visit	From Date	To Date
Amit Kumar Chakraborty	Admitted as Fellow of the Royal Society of Chemistry	RSC	2021-04-19	2021-04-19

4.14.28 Invited Examiners/Paper-Setters/Board of Studies

Name of the Faculty	Name of the Examination	University/Institute	From Date	To Date
Ajit Kumar Meikap	Meeting of Board of Research Studies in Physics	Kazi Nazrul University, Asansol	2021-05-24	2021-05-24
Ajit Kumar Meikap	Ph.D. Viva-Voc Examination	Vidyasagar University	2021-04-04	2021-04-04
Ajit Kumar Meikap	Meeting of Board of Research Studies in Physics	Kazi Nazrul University, Asansol	2021-06-09	2021-06-09
Ajit Kumar Meikap	Project presentation and Grand Viva Examination (2021) of PG 4th semester	Kazi Nazrul University, Asansol	2021-08-28	2021-08-28
Ajit Kumar Meikap	Circulation based BRS meeting	Kazi Nazrul University, Asansol	2021-09-05	2021-09-05
Ajit Kumar Meikap	Comprehensive examination and DAC meeting	CMERI Durgapur	2021-09-28	2021-09-28
Ajit Kumar Meikap	Meeting of Board of Research Studies in Physics	Kazi Nazrul University, Asansol	2021-12-28	2021-12-28
Mrinal Kanti Mandal	M.Sc. Sem-IV in Physics Practical Examination 2022 P-MSPH-403	The University of Burdwan	2022-07-06	2022-07-06
Sayantari Ghosh	Paper Setter University Exam (Paper 5)	Kazi Nazrul University	2021-05-01	2021-05-02
Amit Kumar Chakraborty	Int. M. Sc. Project Seminar	Viswabharati University	2021-08-23	2021-08-23
Amit Kumar Chakraborty	Int. M. Sc. Project Seminar	Viswabharati University	2022-02-25	2022-02-25
Amit Kumar Chakraborty	Member, Board of Studies, MSc in Materials Science	Maulana Abul Kalam Azad University of Science & Technology (MAKAUT)	2021-11-15	2022-09-16

4.14.29 Invited Expert in Selection Committees

Name of the Faculty	Discipline	University/Institute	From Date	To Date
Ajit Kumar Meikap	Faculty selection in Physics	NIT Raipur	2021-05-29	2021-05-29
Ajit Kumar Meikap	PhD student selection in Physics	Kazi Nazrul University, Asansol	2021-06-14	2021-06-15
Amit Kumar Chakraborty	Senior Talent selection interview	Jagadish Bose National Science Talent Search, Kolkata	2021-12-03	2021-12-07

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4.14.30 Invited Lectures

Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Hemachander Subramanian	Structure-function relationship in DNA: the importance of kinetics	Statistical and Nonlinear Physics Lecture Series organized by Prof. Surajit Sen, University at Buffalo, SUMY	Online	2021-08-07	2021-08-07
Sayantari Ghosh	“Understanding and predicting epidemic dynamics”	Webinar	Gurudas College	2021-07-03	2021-07-03
Sayantari Ghosh	Developing yourself for entrepreneurship	Workshop	Durgapur	2021-12-13	2021-12-13
Pathik Kumbhakar	Laser Induced Tuning in Linear and Nonlinear Optical Properties of Triangular Shaped Ag Nanostructures	The 16th biennial DAE – BRNS “Trombay Symposium on Radiation & Photochemistry”, (TSRP2022)	BARC, Mumbai	2022-01-12	2022-01-15
Pathik Kumbhakar	Recent Developments and Measurements of Nonlinear Optical Effects of Some Nanostructured Materials	Refresher Course in Advances in Nano-Science and Nano- Technology	The University of Burdwan (HRDc)	2021-12-02	2021-12-02
Amit Kumar Chakraborty	Engineered nanostructures of carbon and their composites for sustainable development	Refresher Course on Recent Advancement in Science & Technology	North Bengal University	2022-02-15	2022-02-28
Amit Kumar Chakraborty	Nanostructured Metal Oxides and Their Composites for Sustainable Development	AICTE funded Training Program on “Emerging Nanomaterials for Sustainability	MAK Azad University of Technology	2021-08-30	2021-09-04
Amit Kumar Chakraborty	Nanotechnology for Sustainable Energy & Environment	Jagadis Bose National Science Talent Search	Kolkata	2021-07-25	2021-07-31
Hirok Chaudhuri	Climate change, water security and food nexus	Climate change and disaster management	National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India and School of Law, Christ (Deemed to be University), Delhi	2021-10-04	2021-10-06
Hirok Chaudhuri	Synthesis of triphase mesoporous TiO ₂ photocatalyst for degradation of organic pollutants in wastewater	at International Conference - BRICS NUs: Water Resources and Pollution Treatment [WRPT-21] organized by NIT Durgapur, IIT Kanpur and BRICS ITG	Virtual	2021-07-06	2021-07-08



Name of the Faculty	Title of the Lecture	Programme	Place	From Date	To Date
Hirok Chaudhuri	Water Resources and Pollution Treatment	at Environmental Awareness Campaign 2021, organized by Srinkhala , Bahrain	Virtual	2021-06-30	2021-06-30

4.14.31 Session Chair/Convenor

Name of the Faculty	Programme	Place	Session	From Date	To Date
Sukadev Sahoo	Startup Ideation for the Northeast: All India competition	Cotton University, Guwahati, Assam (Online)	Evaluator/Judge	2021-12-21	2021-12-22
Sayantari Ghosh	IEEE Indicon 2021 (Track Chair)	Guwahati	Computational Biology and Bioinformatics	2021-12-19	2021-12-21
Amit Kumar Chakraborty	International Conference on Energy Materials & Devices (ICEMD 2022)	Banaras Hindu University	Chair@ Supercapacitor	2022-01-11	2022-01-12

4.14.32 Patents

NIL

5. Centers

5.1 Center for Advanced Research on Energy (CARE)

5.1.1 Centre at a glance

In the wake of environmental concerns and the global uproar about rapidly-declining reserves of fossil fuels the development of alternative fuels is crucial for the sustenance and development of human civilization. Climate change, pollution, and energy insecurity are significant problems, and addressing them requires major changes to energy infrastructures. Renewable energy technologies are essential contributors to the energy supply portfolio, as they contribute to world energy security, reduce dependency on fossil fuels, and provide opportunities for mitigating greenhouse gases. Climate-disrupting fossil fuels are being replaced by clean, climate-stabilizing, non-depletable sources of energy. Today, renewables are seen not only as sources of energy, but also as tools to address many other pressing needs, including: improving energy security; reducing the health and environmental impacts associated with fossil and nuclear energy; mitigating greenhouse gas emissions; improving educational opportunities; creating jobs; reducing poverty; and increasing gender equality. Renewables have entered the mainstream.

Due to the growing environmental concerns and depleting reserves of fossil fuels along with their expensive extraction and processing, more emphasis is being laid on finding alternative fuels which are non-polluting and renewable/abundant. Solar energy, being the most abundant of the renewable energy sources, is being sought after to cater to the increasing global power demand in order to minimise environmental damage. The average solar power received by the earth's surface stands at 173000 terawatts. This enormous amount of energy can act as source of energy if we can successfully convert and store it as electrical energy as per our requirement. One can achieve this by photovoltaic devices which can convert the solar photons into electrons to create a current or can hydrolyse water (another abundant resource) by the means of a photo-catalyst through photo-electro-chemical water splitting. Both these approaches have enormous potential as alternative and renewable energy technology for the future generation.

In view of the above, and due to rapid urbanisation of Indian economy, the demand for alternative energy has been ever increasing in India. Durgapur being an industrial city, and due to Govt. of India's look east policy, need for developing technologies that can

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provide energy in a sustainable way for long term economic growth of the eastern India, it is high time that researchers at NIT Durgapur, take proactive role in transforming this growth process within the region. It is with these objectives, that a group of researchers as underlined below from several departments of NIT Durgapur, a premier technological institute, have come together to work jointly to develop technologies that can contribute significantly to the sustainable growth of the eastern region of India.

To establish a **Center for Advanced Research on Energy (CARE)** at NIT Durgapur is to promote multidisciplinary activities focused to various facets of energy technology and systems in the form of research, teaching and consultancy. The research activities in the centre will be in the form of research-based projects funded by various national and international funding agencies. Faculty members from various departments of the institute will be associated with the centre for the promotion of interdisciplinary research for sustainable energy. To support the research work in the projects, the centre will start academic programmes - Doctor of Philosophy (PhD) and M. Tech by Research. Some salient objectives of CARE are:

- To carry out advanced interdisciplinary research activities in the area of energy to the needs of the society.
- To conduct training programmes in the related areas for professional skill development.
- To facilitate incubation of business ideas from students and mentor them to develop as entrepreneurs in relevant areas.
- To introduce post graduate courses in energy with certain specializations that will focus on emerging areas of energy devices Design and Development, sensors, smart materials, etc.
- To provide a platform for interaction between industry fraternity with scientists and management experts from neighbouring institutions interested to work in identified topics by organizing regular seminar series.
- To provide customized/flexible PhD Program to student(s) of any department of the institute on specific problems in energy.
- To enter into collaborative research engagements with Extra-mural funding agencies and Industrial Organizations for better understanding of issues of scientific and technological management between different stakeholders.

5.1.2 Faculty & Staff details

Name	Designation	Email id (Institute & other id)
Prof. Parimal Acharjee, EE	Professor	Parimal.acharjee@ee.nitdgp.ac.in
Prof. Kaustav Aikat, BT	Professor	Kaustav Aikat <kaustav.aikat@bt.nitdgp.ac.in>
Prof. Atul Kumar Banik, CE	Professor	Atul Krishna Banik <atul.banik@ce.nitdgp.ac.in>,
Prof. Tapas Kumar Saha, EE	Professor	Tapas Saha <tapas.saha@ee.nitdgp.ac.in>,
Prof. S. N. Mahato, EE	Professor	sankar Mahato <sankar.mahato@ee.nitdgp.ac.in>,
Dr. A. Mondal, PH	Associate Professor	"Dr. Aniruddha Mondal" <aniruddha.mondal@phy.nitdgp.ac.in>,
Dr. J. Dey, EE	Associate Professor	Jayati Dey <jayati.dey@ee.nitdgp.ac.in>,

5.1.3 Papers/Projects/Books/Book Chapters/Patents

Journal Papers (No.)	Conference Papers (No.)	Projects (for 2021-22) (No.) Ongoing	Completed	Book Chapters (No.)	Books/Edited Volume (No.)	Patents (No.)
32	36	06	02	03	02	NIL



5.1.4 Workshops/Seminars Organised (2020-21)

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	1. Prof. Jean-michel.nunzi, Queen's University, Canada; 2. Prof. Aleksei Tameev, A.N. Frumkin Institute of Physical Chemistry & Electrochemistry, Moscow, Russia; 3. Dr. M. Shahiduzzaman (Sohel), Nanomaterials Research Institute (NanoMaRi), Kanazawa University, JAPAN; 4. Prof. Yara Galvão Gobato, Physics Department, Federal University of Sao Carlos (UFSCAR)-Brazil; 5. Prof. Mohamed Henini, School of Physics and Astronomy, University of Nottingham, UK. 6. Prof. P. Chakrabarti, Director IEST Shibpur, India. 7. Prof. Subhananda Chakrabarti, IITB, India. 8. Prof. J.P. Singh, IIT Delhi, India.	International Webinar on "Advanced Hybrid Materials for Sustainability"	November 26, 27 & 28, 2021

5.1.5 Doctoral Programme (No. Only)

Ongoing	NIL
Completed	NIL

5.1.6 Facilities available

- High speed Internet facility with Wi-Fi connectivity.
- Workshop for any fabrication, model making requirements and design software.
- Simulation software such as MATLAB, PSIM, PS-CAD, PSPICE, Mi-Power Software.
- Computers with necessary software
- Solar Simulator
- Water and Electricity for 24 hours
- Hardware and software laboratories
- Library – books, journals (Hardcopy), unlimited journals, conference papers download, plagiarism Checking facility

5.1.7 Equipment

Sl. No.	Name of the equipment	Date of Purchase	Amount
1	Solar Simulator I-V System with IPCE	23-03-2022	4803387.06

5.1.8 Future Plans

Future Plans are as follows:

- ❖ Introduce post graduate courses on energy with certain specializations that will focus on emerging areas of energy devices, design and development, sensors, smart materials, etc.
- ❖ Start PhD Program to student(s) on specific problems on energy.
- ❖ Purchase Equipment which will be multi-disciplinary. Experimental set-up for PG course will be developed. Those purchased equipment will be helpful and useful for PG students, PhD scholars to perform multidisciplinary research.
- ❖ Conduct workshop, seminar, Conference and training programmes in the related areas for professional skill development.
- ❖ Collaborative research engagements with Extra-mural funding agencies and Industrial Organizations for better understanding of issues of scientific and technological management between different stakeholders.
- ❖ Promote multidisciplinary activities focused to various facets of energy technology and systems in the form of research, teaching and consultancy.

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5.2 Centre of Biomedical Engineering & Assistive Technology (BEAT)

5.2.1 Centre at a glance

The Centre of Biomedical Engineering & Assistive Technology (BEAT) is focused on specific research to solve complex biomedical problems that are crucial to human welfare and society, in general. It invites /aims at multidisciplinary perspective that include engineering sciences, physical sciences mathematical, and biological sciences. This centre is determined to enhance interdisciplinary engineering education & research, training of paramedical and medical skills of personnel in the field /application. The thematic focus areas for research under the BEAT

- (i) Biomaterials & Biofabrication,
- (ii) Biomechanics & Biomechanical Engineering,
- (iii) Biomedical Devices, Bio-Instrumentation & Bio-sensors,
- (iv) Assistive Technology & Rehabilitation Engineering.

5.2.2 Faculty & Staff details

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Monidipa Ghosh	Asso Professor	Molecular Immunology, Biosensor development, Host-pathogen interaction	monidipa.ghosh@bt.nitdgp.ac.in
Supriya Bera	Asso Professor	Phase Transformation, Materials Characterization, Biomaterials,	supriya.bera@mme.nitdgp.ac.in
Manab Mallik	Asstt Professor	Structure property correlation of Biomaterials	manab.mallik@mme.nitdgp.ac.in
Madan M. Ghosh	Asso Professor	Simulation for Designing Structural Materials Nanomaterials - Nanoparticles, Nanocomposites	madanmohan.ghosh@mme.nitdgp.ac.in
Tushar K. Bera	Asstt Professor	Biomedical Instrumentation, Sensors and Actuators, Medical Electronics, EIHM	tusharkanti.bera@ee.nitdgp.ac.in
Ashis K. Dhara	Asstt Professor	Computer-aided Diagnosis System, AI & Machine Learning, Deep Learning in Med Image Analysis.	ashis.dhara@ee.nitdgp.ac.in
Suman Halder	Asstt Professor	Biomedical Instrumentation, Biomedical Modeling	suman.halder@ee.nitdgp.ac.in
Chiranjib Koley	Professor	Signal Processing, Pattern Recognition, Soft Computing, Process Control & Instrumentation	chiranjib.koley@ee.nitdgp.ac.in
NB Hui	Professor	Robotics, Soft Computing, Multi Agent Systems, Design Optimization	nirmal.hui@me.nitdgp.ac.in
K Khan	Asso Professor	Composite materials, bimodular composite, Finite element method, Functionally graded materials	kallol.khan@me.nitdgp.ac.in
SS Roy	Professor	Additive Manufacturing & 3D Printing, CAD/CAM, Robotics	shibendu.roy@me.nitdgp.ac.in
RN Barman	Asstt Professor	Computational Fluid Dynamics (CFD), Modeling and Simulation	rn.barman@me.nitdgp.ac.in
Bibhash Sen	Asso Professor	Embedded System & its application in medical science, Assistive Technology	bibhash.sen@cse.nitdgp.ac.in
Mamata Dalui Chakraborty	Asstt Professor	Intelligent Biomedical Devices, Assistive Technology	mamata.dalui@cse.nitdgp.ac.in
Suchismita Roy	Professor	FPGA based Embedded System design	suchismita.roy@cse.nitdgp.ac
Aniruddha Mondal	Asso Professor	Fabrication of 1d metal oxide semiconductor nanostructure, hybrid semiconductor detectors, Bio sensor	aniruddha.mondal@phy.nitdgp.ac.in
Nilanjan Chattaraj	Asstt Professor	Smart materials based devices and Structronic Systems, Electromechanical systems, Flexible-Mechatronics	nilanjan.chattaraj@ece.nitdgp.ac.in



Name	Designation	Areas of Research Interest	Email id (Institute & other id)
System Engineering			
Diptesh Das	Asso Professor	Passive, Semi-active and Hybrid Vib Control, AI and Soft Computing Offshore Struct. Engineering	diptesh.das@ce.nitdgp.ac.in
Dakshina Ranjan Kisku	Associate Professor	Biometrics, Machine Learning, Deep Learning, Image Processing, Pattern Classification, Affective Computing	drkisku@cse.nitdgp.ac.in
Debashis Nandi	Professor	Image Processing, Medical Imaging, Communication Security, Chaos and Security, Bio-inspired Optimization, Deep Learning in Computer Vision	debashis@cse.nitdgp.ac.in
Amiya K. Samanta	Professor	Comp. & exp. Mechanics, simulation of composite structures, innovative materials.	amiyak.samanta@ce.nitdgp.ac.in

5.2.3 R&D Activities

Technology Developed:

- A system for measurement of Vitamin D level in serum samples.
Monidipa Ghosh, Chiranjib Koley, Doel Pal, Moumita Maji
IN Patent Published, App. File No. 201,931,051,578, 2019.
- An Electrode based system for analysis of Biomarkers/Biological specimens
Monidipa Ghosh, Chiranjib Koley.
IN Patent Published, App. File No. 2019310472 03, 2019.
- Amorphous silicon mono oxide-based nanowire electrode biosensor.
A Mondal, **M Ghosh**, CG Shyam Murli Manohar Dhar Dwivedi, ...
IN Patent Published. App. File No. 2019310079 81, 2019.

5.2.4 Papers/Projects/Books/Book Chapters/Patents:

Journal Papers (No.)	Conference Papers (No.)	Projects (for 2021-22) (No.)		Book Chapters (No.)	Books/Edited Volume (No.)	Patents (No.)
		Ongoing	Completed			
01		NIL	--	02	-	03

Journal Published:

- A novel therapy to combat non-small cell lung carcinoma (A549) using platinum (IV) and barium titanate conjugate.
Moumita Maji, Praveen Kivale, **Monidipa Ghosh**.* Journal of Drug Delivery Science and Technology, 2022 (Accepted). (IF: 5.06)

Book Chapters published:

- An IoT Enabled Enzyme Embossed Biosensor for Determination of Vitamin D Level in Human Blood Sample.
Monidipa Ghosh*, Chiranjib Koley. Modern Techniques in Biosensors. 2021, Pages, 95-109, Publisher: Springer, Singapore.
- Smart nano-biosensing for COVID-19 diagnosis. **Monidipa Ghosh*** and Sayak Roy Chowdhury. 2022. Book: Next generation Nano biosensor devices for Point- of-care diagnostics. Publisher: Elsevier

5.2.5 Workshops/Seminars Organised (2020-21)

NIL

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5.2.6 Doctoral Programme (Number Only)

Ongoing	01
Completed	NIL

5.2.7 Facilities available

Yet to be developed.

5.2.8 Equipment

NIL till date (under process around 35 Lacs)

5.2.9 Future Plans

The Centre is composed a very dynamic team of associated Faculty Members across the Institute, who are constantly thriving and determined to take the centre forward in terms of interdisciplinary research work in addition to their individual departmental responsibilities.

5.2.10 Misc.

- A. Number of activities undertaken by the Center till date
- WORKSHOP ECN2019 HELD IN JULY2019
 - workshop RTBE2020 ORGANIZED DURING 3-7 JAN 2020
- B. Have you started /planned to start any program under the banner of the Center (if so a brief report/ proposal of the same)
- XEO742-MEDICAL INSTRUMENTATION & ASSISTIVE TECHNOLOGY APPROVED IN 2019
 - MTECH- CURRICULUM FRAMING IN PROGRESS.
- C. How many students are working on interdisciplinary problems using the facilities of the Center.
- NO STUDENTS INTAKE, POSSIBLE YET.
 - 1 NO HONORARY PDF APPLICATION (Nibedita Datta)
 - 1 no. Cat-I PhD RS under TKB+AKS
 - 1 No. Institute research Scholar has been approved by the 67th Senate, which will be executed from next Academic Year.
- E. Have you been allocated a space? YES ROOM N0 - 004 & 008 (CRF BLDG./Market Complex)
- F. Have you arranged to get the place furnished?
- YES (AC-4 nos., ELECTRICAL, ROOM PREPARATION) EXCEPT INTERNET FACILITY & FURNITURE.
 - REQUISITION FOR FURNITURE RAISED ON 16-10-2020, 15-02-2021 WITH REGISTRAR /JR-ESTT. RECENT REMINDER SENT TO CHAIRMAN-FURNITURE COMMITTEE
- G. What is the status of the procurement of equipment or infrastructural requirements for your center ?
- INSTRUMENTS /EQUIPMENTS RAISED AGAINST HEFA has been TO BE INITIATED
- H. Fund Utilized /spent till date ?
- Rs. 1,01,330/- spent for Room preparation and electrical works.
 - Rs. 2,03,158/- spent for chemicals purchase.
 - INSTRUMENTS /EQUIPMENTS RAISED AGAINST HEFA has been TO BE INITIATED
- I. Publications /Patent(s) under the banner of the Center
- 03 Patent filed on Dec'2019..published in the Gazette
 - 1no.- Jr. of drug delivery Science & Technology-Accepted July 2022

5.3 Centre for Research on Environment and Water (CREW)

Ministry of Education, GoI through HEFA has approved the fund of Rs. 4 Crore to set up a Centre for Research on Environment and Water (CREW) at NIT Durgapur. This centre will be equipped with high valued analytical instruments with an aim to develop expertise to assist industries and municipal bodies in developing and implementing evaluation, remediation and management strategies for pollution related issues using sole and/or integrated treatment strategies and develop technologies to convert waste to value added products. As Durgapur is a rapidly developing city with a burgeoning population, increasing use of fossil fuels and generation of municipal wastes are associated with its development. In this localized scenario as well as in the national scenario, a



state of the art centre for studies and research on such environmental issues is extremely relevant. As the Centre is interdisciplinary in nature and made by multiple departments like Earth and Environmental Studies, Physics, Chemistry, Mathematics, Chemical Engineering, Biotechnology, Civil Engineering, Mechanical Engineering, Management Studies and Computer Science and Engineering to implement for ensuring total environmental compliance by industrial houses and municipal bodies. Finally, UG, PG students and research scholar are benefitted through such advanced centre for their better understanding with their interdisciplinary curriculum.

5.3.1 Centre at a glance

A centre with a multidisciplinary approach towards advanced research on environment and water in an institute of national importance, such as National Institute of Technology Durgapur can play a very effective role in this regard. Such a centre would need precision high value analytical instruments for this activity. The centre would aim to develop the expertise to assist industry and civic administrations in developing and implementing evaluation, remediation or management strategies for contamination issues and develop technologies to convert wastes to value-added products wherever feasible. Hybrid treatment technologies encompassing chemical, biological and physico-chemical treatment schemes would be a viable and practical option to substitute inadequate conventional treatment systems. As the Centre is interdisciplinary in nature and made by multiple departments like Department of Earth and Environmental Studies, Physics, Chemistry, Mathematics, Chemical Engineering, Biotechnology, Civil Engineering, Mechanical Engineering, Management Studies and Computer Science & Engineering to implement for ensuring total environmental compliance by industrial houses and municipal bodies.

5.3.2 Faculty & Staff details

Name	Designation	Email id (Institute & other id)
Dr. Rajnarayan Saha	Professor and Coordinator	rajnarayan.saha@ch.nitdgp.ac.in
Dr. Hirok Chaudhuri	Associate Professor and Joint Coordinator	hirok.chaudhuri@phy.nitdgp.ac.in
Dr. Sandip Mondal	Assistant Professor and Joint Coordinator	sandip.mondal@ees.nitdgp.ac.in
Dr. Kalyan Adhikari	Professor	kalyan.adhikari@ees.nitdgp.ac.in
Dr. Apurba Dey	Professor (HAG)	apurba.dey@bt.nitdgp.ac.in
Dr. Kaustav Aikat	Professor	kaustav.aikat@bt.nitdgp.ac.in
Dr. Dalia Dasgupta Mandal	Professor	dalia.dasgupta@bt.nitdgp.ac.in
Dr. Surabhi Chaudhuri	Professor	surabhi.chaudhuri@bt.nitdgp.ac.in
Dr. Sufia Kazy	Associate Professor	sufia.kazy@bt.nitdgp.ac.in
Dr. Parimal Pal	Professor (HAG)	parimal.pal@che.nitdgp.ac.in
Dr. Tamal Mandal	Professor	tamal.mandal@che.nitdgp.ac.in
Dr. Susmita Dutta	Professor	susmita.dutta@che.nitdgp.ac.in
Dr. Gopinath Halder	Professor	gopinath.halder@che.nitdgp.ac.in
Dr. Mrinal Kanti Mandal	Associate Professor	mrinalkanti.mandal@che.nitdgp.ac.in
Dr. Bimal Das	Assistant Professor	bimal.das@che.nitdgp.ac.in
Dr. Supriya Pal	Associate Professor	supriya.pal@ce.nitdgp.ac.in
Dr. Soumen Basu	Associate Professor	soumen.basu@phy.nitdgp.ac.in
Dr. Sankar Ch. Moi	Professor	sankar.moi@ch.nitdgp.ac.in
Dr. Jitamanyu Chakrabarty	Associate Professor	jitamanyu.chakrabarty@ch.nitdgp.ac.in
Dr. Sujit Sankar Panja	Associate Professor	sujit.panja@ch.nitdgp.ac.in
Dr. Utpal Adhikari	Associate Professor	utpal.adhikari@ch.nitdgp.ac.in
Dr. Tanmoy Kr. Saha	Assistant Professor	tanmoy.saha@ch.nitdgp.ac.in

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Dr. Sujoy Saha	Assistant Professor	sujoy.saha@cse.nitdgp.ac.in
Dr. Anita Pal	Associate Professor	anita.pal@maths.nitdgp.ac.in
Dr. Mousumi Roy	Professor	mousumi.roy@dms.nitdgp.ac.in
Dr. Parag Kumar Guhathakurta	Assistant Professor	paragkumar.guhathakurta@cse.nitdgp.ac.in
Dr. Subhas Rana	Associate Professor	subhas.rana@me.nitdgp.ac.in
Dr. Arup Kumar Mandal	Assistant Professor	arup.mandal@mme.nitdgp.ac.in
Dr. Soumik Das	Assistant Professor	soumik.das@phy.nitdgp.ac.in
Dr. Nilanjan Chattaraj	Assistant Professor	nilanjan.chattaraj@ece.nitdgp.ac.in
Dr. Nibedita Mahata	Assistant Professor	nibedita.mahata@bt.nitdgp.ac.in
Dr. Sudipta Mondal	Assistant Professor	sudipta.mondal@bt.nitdgp.ac.in

5.3.3 Papers/Projects/Books/Book Chapters/Patents:

Journal Papers (No.)	Conference Papers (No.)	Projects (for 2021-22) (No.)		Book Chapters (No.)	Books/Edited Volume (No.)	Patents (No.)
		Ongoing	Completed			
03	07	01	-	3		

5.3.4 Workshops/Seminars Organised

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1.	<ul style="list-style-type: none"> Dr. Hirok Chaudhuri, Associate Professor, Department of Physics and Center for Research on Environment and Water, National Institute of Technology Durgapur, India Prof. Y. M. Joshi, Dean of International Relations, Indian Institute of Technology Kanpur, India, Professor, Department of Chemical Engineering, Indian Institute of Technology Kanpur, India Prof. Anupam Basu Director, National Institute of Technology Durgapur, India, Prof. Abhay Karandikar Director, Indian Institute of Technology, Kanpur, India Prof. Faizal Bux, BRICS ITG: Water Resources and Pollution Treatment, BRICS NUs ITG Chair Professor, Director, Institute for Water and Wastewater Technology, Durban University of Technology, South Africa Prof. Vinod Tare, Title of the Talk: “Arth Ganga” – River Conservation Synchronised Development: A Key Concept in Managing River Basins and Water Resources, Former BRICS NUs ITG Chair Professor, Professor, Department of Civil Engineering, Indian Institute of Technology Kanpur, India Prof. Nilo Nascimento Professor, Department of Hydraulic and Water Resources Engineering Universidade Federal de Minas Gerais, Brazil Prof. Yali Woyessa Central University of Technology, South Africa 	<p>International conference- BRICS Network University: Water Resources and Pollution Treatment [Virtual meeting]</p> <p>Supported by NIT Durgapur, IIT Kanpur and BRICS ITG</p>	June 6-8, 2021



- Dr. Evgeniya Soldatova Senior Researcher, Vernadsky Institute of Geochemistry and Analytical Chemistry of RAS, Moscow
- Prof. Otto Corrêa Rotunno Filho Professor, Civil Engineering Program, COPPE/UFRJ, Federal University of Rio de Janeiro
- Prof. Pankaj Kumar Roy, Dean, Faculty of Interdisciplinary Studies, Law & Management, Jadavpur university, Professor & Joint Director

School of Water Resources Engineering, Jadavpur University, India

- Dr. Zebing Li Lecturer, School of Water Resource and Environmental Engineering, East China University of Technology, China

5.3.5 Doctoral Programme (No. Only)

Ongoing	01
Completed	NIL

5.3.6 Facilities available

Centre procured Environmental Radioactivity monitoring system: portable Radon-222 Monitor.

5.3.7 Equipment

NIL

5.3.8 Future Plans

Development of low cost technological solutions of industrial effluent treatment, particulates and gaseous emission control system and solid waste management system.

Precise assessment of contamination and transport mechanism of contaminants in soil and groundwater system and development of control mechanism.

Development of low cost highly sensitive environmental monitoring equipment, particularly electronic sensors with data logger.

Development of strategies to monitor environmental radioactivity and to provide feasible solutions.

Development of processes for bioremediation of wastes to convert them to harmless/less harmful forms or to yield value-added products

Direct interfacing with industries to solve their specific pollution control problems

5.4 IoT and Intelligent Systems (IoTIS)

5.4.1 Centre at a Glance

The vision of the Centre of excellence for 'Advanced Research on IoT and Intelligent Systems' (IoTIS) is to study, explore, design and develop reliable self organized networks and intelligent systems leading to a ubiquitous computing environment that offers an inclusive, sustainable and way of living. To achieve this, primarily a scalable IoTIS testbed involving High Performance computing facilities, programmable network infrastructure and plethora of sensing / actuating is in the process of development. This facility will be utilised by a number of proposed inhouse application specific subsystems of interdisciplinary nature. The facility will be integrated with existing campus wide networks and centrally available computing facilities. Hence, the experimental IoT subsystem proposed in the center can be extended to any location of the campus. Moreover, the whole testbed will be made available to other Industries / organizations / Institutions for carrying out their IoTIS related activities and research.

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5.4.2 Faculty & Staff details

Name	Designation	Email id (Institute & other id)
Dr. Prasenjit Choudhury	Coordinator and Associate Professor, CSE	Prasenjit.chowdhury@cse.nitdgp.ac.in

The Team

Member	Subhrabrata Choudhury , Professor, Department of Computer Science and Engineering, subhrabrata@cse.nitdgp.ac.in
Member	Anirban Sarkar , Associate Professor, Department of Computer Science and Engineering, anirban.sarkar@cse.nitdgp.ac.in
Member	Tandra Pal , Professor, Department of Computer Science & Engineering
Member	Parag Kumar Guha Thakurta , Asst. Professor, Department of Computer Science & Engineering
Member	Bibhash Sen , Associate Professor, Department of Computer Science and Engineering, bibhash.sen@cse.nitdgp.ac.in
Member	Jaydeep Howlader , Asst. Professor, Department of Computer Science and Engineering
Member	Suvadip Batabyal, Asst. Professor, Department of Computer Science and Engineering
Member	Chiranjib Koley , Professor, Department of Electrical Engineering, chiranjib.koley@gmail.com
Member	Animesh Dutta , Associate Professor, Department of Computer Science and Engineering
Member	Subrata Nandi , Professor, Department of Computer Science and Engineering
Member	Sujoy Saha , Asst. Professor, Department of Computer Science and Engineering
Member	Aniruddha Chandra , Associate Professor, Department of Electronics & Communication Engineering
Member	Mousumi Saha , Associate Professor, Department of Computer Science and Engineering
Member	Sujit k Mandal , Asst. Professor, Department of Electronics & Communication Engineering
Member	Nanda Dulal Jana , Asstt. Professor, Department of Computer Science & Engineering, nandadulal@cse.nitdgp.ac.in
Member	Nirmal Baran Hui , Professor, Department of Mechanical Engineering, nirmal.hui@me.nitdgp.ac.in, nirmalhui@gmail.com
Member	Nilanjan Chattaraj, Asst. Professor, Department of Electronics & Communication Engineering
Member	Suman Samui, Asst. Professor, Department of Electronics & Communication Engineering
Member	Suvomoy Changder , Associate Professor, Department of Computer Science and Engineering
Member	Suvrojit Das , Associate Professor, Department of Computer Science and Engineering
Member	Sajal Mukhopadhyay , Associate Professor, Department of Computer Science and Engineering
Member	Sarit Maitra , Associate Professor, Department of Mathematics
Member	Asish Kumar Mal , Associate Professor, Department of Electronics & Communication Engineering
Member	Sanghita Bhattacharjee , Asst. Professor, Department of Computer Science and Engineering
Member	Shibendu Shekhar Roy , Professor, Department of Mechanical Engineering
Member	Suchismita Roy , Professor, Department of Computer Science and Engineering
Member	Mamata Dalui , Asst. Professor, Department of Computer Science and Engineering
Member	Rajat Mohapatra , Professor, Department of Electronics & Communication Engineering
Member	Satya Bagchi , Associate Professor, Department of Mathematics
Member	Debojyoti Deb , Assistant PProfessor, Department of Bio-Technology
Member	Aniruddha Bhattacharjee , Assistant PProfessor, Department of Bio-Technology

5.4.3 R&D activities

R&D activities are being carried out primarily on the theoretical aspects of IoT system architecture, protocols, middlewares and service management due to non-availability of equipments and required space for installations. However, a significant number of research works on IoT subsystems harnessing machine learning tools have been carried out during the last year. Separate research



on Intelligent Systems for a plethora of problem domains have been carried out by the members of the Group, which is clearly evident from the publications profiles.

5.4.4 Papers/Projects/Books/Book Chapters/Patents

NIL

5.4.5 Workshops/Seminars Organised

NIL

5.4.6 Doctoral Programme (No. Only)

Ongoing	NIL
Completed	NIL

5.4.7 Facilities available

Till last year an 'Eye Tracking Software' to carry out a collaborative project titled 'Neurocomputing and Cognitive Intelligence' with IIT Delhi, sponsored (49.48 lakha) by MeitY, Govt. of India. The software will be used for other projects on cognitive learning and healthcare IoT. The tracking software is also supposed to be utilised by the cognitive computing project group. All other equipments are already under the process of procurement.

5.4.8 Equipments

Sl. No.	Name of the equipment	Date of Purchase	Amount
1	Eye tracker software		9 lakhs

5.4.9 Future Plans

- Purchasing of all equipment under the center is likely to be completed by 31.03.2022. Once the equipments are installed, the full fledged implementation of 11 inhouse projects will be started.
- Some algorithmic solutions and prototype subsystems implementations have already been carried out. IPR filings of the same will be taken up after running those over the testbeds.
- Internships will be offered to UG and PG students of this and other Institutes..
- Short-term skill development programs on general IoT and IS to industries / organisations. In addition to that, special customised training programs on related topics will also be offered to specific industries.
- A PG level course on this special area will be offered from the year 2024 by the center.

6. Centralised Services

6.1 Computer Centre

Sl. No.	Name of the Lab	Area of the Lab
1.	Lab-1	24'X40'
2.	Lab-2	34'X24'
3.	Lab-3	34'X24'
4.	Lab-4	34'X24'
5.	Lab-5	23'X15'
6.	Lab-6	36'X15'
7.	Institute Server Room	40'X24'
8.	ERP Cell	1170 sq. ft.

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Sl. No.	Name of the Lab	Number of System (PC)	Configuration of the System	Software
1.	Lab-1	48 Nos. (48 nos. running)	Lenovo Thinkcentre Intel core i5 Vpro, 3.3 GHz; 6GB RAM---17 Nos. HP EliteDesk 800G-- Intel core i5; 3.5 GHz; 8GB RAM--- 31 Nos.	Windows 10 pro, Ubuntu -18.04.0, MS Office 2013, Codeblocks, eclipse, NetBeans, StarUML, Dev C++.
2.	Lab-2	32 Nos. (32 nos. running)	HP EliteDesk 800G-- Intel core i5; 3.5 GHz; 500GB HDD; 8GB RAM--- 22 Nos Acer Veriton - Intel core i5-8500; 3.0 GHz; 1TB HDD; 8GB RAM--- 10 Nos.	Windows 10 pro, Ubuntu -18.04.0, Mysql, Codeblocks, eclipse, NetBeans, StarUML, Dev C++.
3.	Lab-3	33 Nos. (33 nos. running)	Acer Veriton - Intel core i5-8500; 3.0 GHz; 1TB HDD; 16GB RAM--- 33Nos.	Windows 10 pro, Ubuntu -18.04.0, Mysql, Codeblocks, eclipse, NetBeans, StarUML
4.	Lab-4	32 Nos. (32 nos. running)	Acer Veriton - Intel core i5-8500; 3.0 GHz; 16 GB RAM---32 Nos.	Windows 10 pro, MS Office 2016, NetBeans, Dev C++.
5.	Lab-5	Neurocomputing & Cognitive Intelligence Developing a Model for Analysing the Learning Disabilities of Children. (Sponsored by MeitY, Govt. of India)		
6.	Lab-6	22 Nos. (22 Nos. running)	Acer Veriton - Intel core i5-8500; 3.0 GHz; 1TB HDD; 8GB RAM--- 07 Nos., Lenovo Core 2 duo--- 10 Nos. Lenovo Thinkcentre Intel core i5 Vpro --- 01 No. & HP EliteDesk 800G--- 02 Nos.	Windows 10 pro, NetBeans.
7.	Institute Server Room	19 Nos. Server (All are running), 05 Nos. Desktop (All are running), & 03 Nos. Laptop (All are running).	Server: - Dell EMC PowerEdge R750-- 07 Nos. Inspur NF5280M4-- 02 Nos. IBM SystemX3550-- 02 Nos. HP ProLiant DL360-- 02 Nos. HP ProLiant DL380-- 02 Nos. NETGEAR(NAS)[RR331200]-- 01 No. Dell PowerEdge R740-- 02 Nos. Dell PowerEdge R720-- 01 No. Desktop: - HP ProDesk400G Microtower-02 Nos. Acer Veriton M6660G- 01 No. HP elite desk 800G1TWR- 01 No. Dell OPTIPLEX 755- 01 No. Laptop: - Acer TMP249-G2-M- 01 No. Toshiba satellite pro A120- 01 No. Dell Latitude 0820- 01 No.	Linux OS, Ubuntu 18.04.3 Canonical OS, CentOS, Windows server Data Centre 2022, Consol, MatLab, Ansys, Discovery & Abacus.
8.	ERP Cell	01 No. Server (Running), 07 Nos. Desktop (All are running) & 02 Nos. NAS Storage (running)	Server: - Dell EMC R750 -- 03 Nos. Desktop: - HP ProDesk400G Microtower-07 Nos. NAS Storage: - Dell EMC PowerNet-- 02 Nos.	Windows 10 pro, Ubuntu 18.04.3, MS Office, Adobe Reader, SMILE ERP.

6.2 Library

6.2.1 At a Glance

The Central Library as one of the important central facilities of the Institute supports the study, teaching, research, and development programmes of the Institute. It is housed in a separate building having three floors on a plinth area of 1070.60 sq. m. The library has a collection of 192036 volumes, which includes text books, reference books & bound volumes of Journals, Standards etc.



Library operations have been automated with the help of an integrated library management software package, KOHA. The book database is accessible through OPAC (Online Public Access Catalogue). It has a healthy collection of reference books covering maximum branches of engineering and other useful resources. It also has a good collection of electronic resources in its digital collection.

The Central Library is an institutional member of DELNET (Developing Library Network), and NPTEL (National Programme on Technology Enhanced Learning). It is also a beneficiary member of eSS (e-ShodhSindhu) previously known as INDEST-AICTE (Indian National Digital Library in Engineering, Science & Technology) which provides Desktop Access to high quality e-resources (online journals and databases).

6.2.2 Facilities & Teaching and Learning Resources

The Central Library is fully AC and equipped with WiFi facility in the reading halls to access e-resources. The library has a well-equipped photocopying facility. The users can avail of this facility on request. It also has some Audio-Visual equipment like Colour TVs, VCPs, Video Cameras, Direct Projectors, Multimedia Projectors, etc. It also has a good IT infrastructure.

6.2.3 Access to the Resources

The Central Library subscribes to the electronic resources through e-Shodh Sindhu as well as directly from the publishers. The Off-Campus Access service is provided to the faculty members and students to seamlessly access the subscribed scholarly electronic resources from outside of the NIT Durgapur campus through The INDIAN Access Management Federation (INFED) to all its users as well as through unique id/passwords to its users. URL: <https://idp.nitdgp.ac.in/>

6.2.4 Studio

The Central Library has a lecture recording system of the Institute. Faculty members and eminent experts from different fields deliver their lectures in the studio room simultaneously. Live Streaming can be done at 3-4 different locations in the Institute and their lectures recorded and indexed for future use of the users. Video conferencing can also be done from here.

Sl. No.	Name of Resource	Sl. No.	Name of Resource
1	ACM Digital Library	9	JSTOR
2	American Institute of Physics	10	MathSciNet
3	American Physical Society	11	Oxford University Press
4	ASCE Journal Online	12	Project MUSE
5	ASME Journals Online	13	Springer Link 1700 Collection
6	Economic & Political Weekly	14	Nature Journal
7	Institute for Studies in Industrial Development (ISID) Database	15	Ouriginal (Urkund) Plagiarism detection software
8	JGate Plus (JCCC)	16	Ouriginal (Urkund) Plagiarism detection software

6.2.5 E-Journals, Databases & Tools

The Central Library individually subscribes several high-quality e-Journals and Databases, Tools from leading publishers in the field of Engineering, Science & Technology to support teaching research to the Institute.

E-Journals

Sl. No.	Name of the Resource	Sl. No.	Name of the Resource
1	American Chemical Society (ACS)	9	Royal Society of Chemistry (RSC Gold EA)
2	Emerald - Journals Package	10	Sage iMeChE - Material Science & Engineering & Management & Org. Studies
3	IEEE (IEL Online)	11	SAE Journal
4	ASTM Standards	12	Taylor and Francis (4 Subject Collection)
5	Emerald 310 Journals Collection	13	Wiley Online (27 Journals)
6	Science Direct (11 Subject Collection)	14	14 American Concrete Institute
7	Indian Standards (BIS Code)	15	Journal of Pension Economics & Finance
8	PNAS Tier – 3		

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Databases & Tools

Sl. No.	Name of Database/Tool
1	SCOPUS
2	PROWESS Database (CMIE)
3	SciFinder
4	IEEE SWEBOK
5	iThenticate
6	Grammarly

6.2.6 E-Journals Backfiles (From Vol. 1 Issue 1 to till date)

Backfiles of the e-journals are one of the important resources useful to the researchers which helps them to find the most relevant works for their research. In connection this library procured backfiles of core journals from some of the leading publishers.

1. Elsevier Backfiles Collection: Engineering & Technology (164 titles) and Chemical Engineering (36 titles)
2. Royal Society of Chemistry (RSC Gold): Archive 1841-2007
3. Emerald Backfiles Collections:
 - a. Accounting and Economics – 1974- 2006 (27 Journals)
 - b. Marketing -1967-2006 (18 Journals)
 - c. HR Learning and Organisational Studies -1952-2006 (28 Journals)
 - d. Operational Logistics and Quality – 1971-2006 (22 Journals)
 - e. Public Policy and Environment -1899- 2006 (10 Journals)

6.2.7 E-Books

E-books play an important role in accessing high quality books on campus as well as off-campus. Library procured eBooks from different leading publishers. Presently the library has around 16000+ ebooks.

1. E-Textbooks through <https://digital.elib4u.com/> platform. (Different Publishers)
2. Oxford e-Book collection for Mathematics and Physics
3. Springer eBook Collection, LNCS (Lecture Note in Computer Science) from 1973 to 2016
4. Elsevier eBooks
5. CRC Press

6.2.8 Print Collections

The Central Library has a good collection of print resources consists of books, standards, journals etc. collection are as below (up to 31.03.2022)

Collection (Books)	General Book	1,24,487
	Book Bank	41,261
	Bound Volume	7,744
	SC/ST	4,244
	BIS Code	5,072
	Gift	5,125
	Misc.(Bengali Lit, Theses etc.)	557
	TEQIP Books	3,546
	TOTAL	1,92,036

6.2.9 Library Hours

- 8:30 A.M to 09:00 P.M (Weekdays)
- 9:00 AM to 5:00 P.M. (Saturday)
- During vacations 8:30 A.M. to 5:30 P. M. (on Institute holidays remain close).
- Library is a growing organism and the collections of the Central Library is increasing, it is introducing new services day by day so that users can avail best services of its kind



6.3 SRCC

6.3.1 Projects

Research Projects	Completed		Ongoing	
	No.	Value	No.	Value
	34	14,97,548.00	95	8,45,50,726.00

6.3.2 Consultancy

Sl. No	Name of Faculty	Title of the Consultancy	Funding Agency	Total Amount Received
1	Dr. Somnath Karmakar	Proof checking of design and drawing of 40 nos bridges substructures and foundations.	CE Testing	₹ 236,000.00
2	Dr. Supriya Pal	Consultancy service for ground improvement to proposed B+G+10 storied res. Building.	Durgapur Real Estate Pvt. Ltd	₹ 177,000.00
3	Dr. Somnath Karmakar	Proof checking of steel structural shed of 2400 sqm.	Ramkrishna Engineering Works	₹ 147,500.00
4	Dr. Somnath Karmakar	Safety checking of 2 nos. bridges over NH31C at Ch.190.729 and 190.872 KM in the district of Alipurduar, WB	Mr. Ram Chandra Paul	₹ 118,000.00
5	Dr. Somnath Karmakar	Proof checking of structural design and drawing of Academic (G+2) building at Central University ,Ranchi	M/S Narayan Kumar	₹ 236,000.00
6	Dr. Somnath Karmakar	Proof Checking on Rehabilitation and upgradation of road from Ch.00.00 to 16.290 for 4- laninig of Manu- Lalcheera Section of NH - 44A(part A: Road and culverts + part B: bridges)	SSK Infratructures	₹ 684,400.00
7	Dr. Somnath Karmakar	Proof of checking of Design and drawing of ROB at road ch. 43.961 KM of NH82 in lieu LC no. 48/B/3-E in between Manjwaya Halt and Tilaya in Nawada Section.	Gayatri Project Ltd.	₹ 236,000.00
8	Dr. Amiya Kr. Samanta	Checking stability of existing water tank and recommendation.	Sanjeeb Das, East India Pharmaceutical	₹ 118,000.00
9	Dr. Supriya Pal	Geotechnical investigation report preparation for proposed construction of bridge foundation on Dwarka River at Murshidabad District for M/s Chakraborty & Company.	M/s Chakraborty & Company	₹ 306,800.00
10	Dr. Supriya Pal	Consultancy services for checking the desing and drawings of propose construction of 2000 KL firewater storage tank at Rishra site of M/S HINDUSTHAN NATIONAL GLASS & INDUSTRIES LTD.	M/s Hindusthan National Glass & Industries Ltd.	₹ 147,500.00
11	Dr. Somnath Karmakar	Proof checking of redesign and drawing of ROB at road ch.10+923,LC No. 67-spl/3E between bandhua and manpur of NH 82.	Gayatri Project Ltd	₹ 47,200.00
12	Dr. Somnath Karmakar	Proof Checking and Design and Drawings of Additional proposed test shed adjacent to existing test shed inside the workshop in CLW/CRJ.	H.S. Virdi	₹ 100,300.00
13	Dr. Aniruddha Bhattacharya	Approval of electrical design and drawings for the project name "Design,supply,installation,testing and commisioning of grid intractive 100 KWp spv based solar power plant for banks main office building, south gandhi maidan , Patna.	Nimbus Irrigaation Pvt. Ltd.	₹ 30,000.00

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14	Dr. Supriya Pal	Vetting of the structural design and drawing for proposed residential building of Anurag Ph-1 for M/S Durgapur Real Estate Pvt Ltd over dag no. 38 Khaitan No. 168,1711, JL No.- 109 (LR) Mouza Sankarpur, PS. \NTSPS, Dist Paschim Bardhaman	Durgapur Real Estate Pvt. Ltd.	₹ 147,500.00
15	Dr. Supriya Pal	Verification of traffic survey report of thr PMGSY road from Gangatikuri to Rasui within Ketugram II Block vide Package No.- WB-05-44	WBSRDA, Purba Bardhaman Division	₹ 72,500.00
16	Dr. Supriya Pal	Vetting of the geotechnical investigation report for proposed construction of 15 storied towers at Dobo near Jamshedpur, Jharkhand	Srijan Home Makers Pvt. Ltd.	₹ 88,500.00
17	Dr. Supriya Pal	Scrutiny Of The Project Proposals for the State of West Bengal under Pradhan Mantri Gram Sadak Yojna (PMGSY)- Payment To the State Technical Agencies (STAs)	National Rural Infrastructure Development Agency, MRD-GoI	₹ 642,020.00
18	Dr. Somnath Karmakar	Safety checking of Kendriya Vidyalaya Asansol	R. P. Mishra & Associates	₹ 59,000.00
19	Dr. Showmen Saha & Dr. Somnath Karmakar	Third Party Quality Control Assurance in various projects executed by CPWD at ISM Dhanbad	CPWD, IIT(ISM) Dhanbad Project Division	₹ 362,961.00
20	Dr. Somnathn Karmakar	Safety checking for 4-laning of Barhi-Koderma section of Nh-31 from km 0.0 to 27.5000 in the state of Jharkhand.	Ram Kripal Singh Construction Pvt. Ltd.	₹ 236,000.00
21	Dr. Somnathn Karmakar	Proof checking of design and drawing of 40 nos bridges' substructures and foundations.	CE Testing	₹ 236,000.00
22	Dr. Supriya Pal	Sceintific study of OC mines pit slope, dump slope stability and monitoring of slopes at 4 nos . OCP under DGMS (Tech) circular no.-03 of 2020	ECL	₹ 3,097,500.00
23	Dr. Dilip Kr. Singha Roy	Design Mix of M30 Grade HRC (Heat Resistance Concrete) Concrete for Construction of the Coke Oven Plant at SSPL.	Dascon Sourav Commerical pvt. Ltd.	₹ 92,000.00
24	Dr. Somnathn Karmakar & Dr. Showmen Saha	Third Party Quality Control Assurance in various projects executed by CPWD at ISM Dhanbad	CPWD, IIT(ISM) Dhanbad Project Division	₹ 574,997.00
25	Dr. Somnathn Karmakar	Revised Safety checking for 4-laning of Barhi-Koderma section of NH-31 from km 0.0 to 27.500 in the state of Jharkhand.	Ram Kripal Singh Construction Pvt. Ltd.	₹ 118,000.00
26	Dr. Somnathn Karmakar	Proof checking of supporting structures for erection and launching scheme of 36 m bow string girder of bridge no. 133 in between Kharagpur to Hijli for 3rd line.	Vrinda Engineers Pvt. Ltd.	₹ 88,500.00
27	Dr. Dilip Kr. Singha Roy	Proof checking of structural design & drawing of B+5+1 building	Parashmani Medical Center Pvt. Ltd	₹ 88,500.00
28	Dr. Pronab Roy	MIX-DESIGN HEAT RESISTANT CONCRETE M30 (HRC) Temperature 600 deg. At the site of Shyam SEL & Power Ltd Jamuria, West Bengal.	Electro Mech Engineers	₹ 92,040.00



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29	Dr. Somnathn Karmakar	Proof checking of Design and drwaing of 40 nos bridges' substructures and foundations.	CE Testing	₹ 236,000.00
30	Dr. Supriya Pal	Soil Sample Testing For Locations For The Project Named "Re-construction And Up-gradation Of Banaful Sarani At Sagarbhanga, Durgapur-11"	ADDA	₹ 42,952.00
31	Dr. Dilip Kr. Singha Roy	Compressive Strength of pilling job for PEB shed extension & MATIX.	Srijon Nirman	₹ 313,732.00
32	Dr. Somnathn Karmakar	Proof checking of mix design of M30 grade of concrete.	Ace Pipeline Contracts Pvt. Ltd.	₹ 35,400.00
33	Dr. Diptes Das	Consultancy for restoration work of damaged S. k setn.	Chittaranjan Locomotive Workrs	₹ 563,450.00
34	Dr. Amiya Kumar Samanta	30m high ment structural design approval for 100L kalyani.	Mars Developments	₹ 47,200.00
35	Dr. Supriya Pal	Scrutiny Of The Project Proposals for the State of West Bengal under Pradhan Mantri Gram Sadak Yojna (PMGSY)- Payment To the State Technical Agencies (STAs)	NRIDA	₹ 0.00
36	Dr. Pronab Roy	Design calculation of proposed 450mm dia M.S casing pipe with 280 mm dia HDPE carrier water pipeline crossing at KM 430/28-26 between stations GHNH-RQP on BRAG-TLHR branch line for JK Lakshmi	PIR Projects And Consultancy Pvt Ltd	₹ 81,125.00
37	Dr. Diptesh Das	Vetting of Design and Drawings of project LB+UB+G+3 storied commercial and partly LB+UB+G+14 storied residential building at Patia,Bhubaneswar,odisha ander Bhubaneswar Development Authority.	Bright Projects (p) Ltd	₹ 413,000.00
38	Dr. Sandip Kumar lahiri	Consultancy in Ethylene Oxide Reactor Optimization Module.	M/S SCIETIFIC DESIGN COMPANY,USA	₹ 718,348.00
39	Dr. Sandip Kumar lahiri	Consultancy in hybrid optimization Module.	M/S SCIETIFIC DESIGN COMPANY,USA	₹ 1,602,328.00
40	Dr. Somnath Karmakar	Proof checking of design and Drawing of Railway bridge.	CE Testing	₹ 118,000.00
41	Dr. Somnath Karmakar	Proof checking of design and Drawing of one bridges.	Metal Craft Engineering Pvt. Ltd	₹ 88,500.00
42	Dr. Sandip Kumar lahiri	Consultancy in hybrid optimization Module.	M/S SCIETIFIC DESIGN COMPANY,USA	₹ 532,948.00
TOTAL				₹ 13,373,701.00

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6.4 Career Development Center (CDC)

6.4.1 Placement

Training & Placement Department of the institute provides employment opportunities to the final year students and training to the 3rd year students after 6th semester. 579 UG students have been placed in the session 2021-2022. Apart from that few students have opted for higher studies in various IITs and IISc. 218 companies visited the campus including MICROSOFT, AMAZON, ORACLE, GOLDMAN SACHS, J.P. MORGAN, AMDOCS, IBM, L&T, TCS, WIPRO, CESC, HSBC, PWC, RELIANCE JIO, HERO MOTOCORP, VEDANTA.

103 companies visited the campus for M.Tech courses and 127 no of students have been placed in the academic session 2021-2022. Rest of the students have gone for higher studies. 17 companies visited for MBA and 11 students have been placed out of total eligible strength of 29. 12 companies visited for M.SC and 4 students have been placed out of total eligible strength of 91.

Training and Allied Activities

Industrial Training/ Vocational Training is provided to the students of 3rd year after passing 6th semester. Annexure-III provides the list of companies for each individual branch.

Along with training the department organizes seminars entitled from classroom to boardroom by reputed global players such as TCS, Wipro and IBM.

Student's development activities such as communication and interpersonal skills by reputed organizers are also conducted. Each year 5 no of students go for Internship in CERN (European Council for Nuclear Research, Switzerland). Foreign universities like ANUS, Singapore also allows NIT students for internship.

The UG & PG statistics for placement respectively are:

PLACEMENT RECORDS (Up to 30.06.2022)

B.TECH: 2021-22

[0- Considered but not selected, (-) Not considered.]

Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED (BRANCH WISE)								
			B.Tech								
			BT	CE	CHE	CSE	ECE	EE	ME	MME	TOTAL
1	INFOSYS	-	2	1	3	2	1	3	4	2	18
2	TCS NINJA	-	0	3	2	1	0	2	2	4	14
3	MICROSOFT	17 & 23.07.2021	-	-	-	17	2	0	-	-	19
4	AMAZON	24 & 27.07.2021	-	-	-	6	1	1	1	-	9
5	QUALCOMM	25 & 28.07.2021	-	-	-	-	1	-	-	-	1
6	TRILOGY INNOVATIONS	29.07.2021	0	0	0	0	0	0	0	0	0
7	WELLS FARGO	31.07, 02 & 03.08.2021	-	-	-	12	3	-	-	-	15
8	ORACLE INDIA	04 & 06.08.2021	-	-	-	7	2	-	-	-	9
9	J.P. MORGAN	17.06.2021	-	-	-	10	5	1	-	-	16
10	BOSCH LIMITED	06.08 & 02.09.2021	-	-	0	-	0	0	0	-	0
11	TCS (Digital)	07 & 08.08.2021	-	-	-	0	0	0	0	-	0
12	YUGABYTE	12.08.2021	-	-	-	0	-	-	-	-	0
13	CESC(PPO)	-	-	-	-	0	-	2	2	-	4
14	GOLDMAN SACHS(PPO)	-	-	-	-	1	-	-	2	-	3
15	INFOSYS(PP)	-	1	0	0	1	0	0	0	0	2



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16	SAMSUNG(PPO)	-	-	-	-	1	0	-	-	-	1
17	ZS ASSOCIATES(PPO)	-	1	-	-	1	1	1	2	-	6
18	BAJAJ AUTO(PPO)	-	-	-	-	-	-	-	1	-	1
19	TATA STEEL(PPO)	-	-	-	-	-	-	-	1	1	2
20	ADOBE(PPO)	-	-	-	-	0	1	0	-	-	1
21	TATA METALIKS(PPO)	-	-	-	-	-	-	1	2	-	3
22	PAYU	13 & 16.08.2021	-	-	-	1	0	0	-	-	1
23	NATWEST GROUP	13 & 18.08.2021	-	-	-	5	1	0	-	-	6
24	DELOITTE	17 & 24.08.2021	0	6	9	11	11	5	8	0	50
25	REBEL FOODS	21.08 & 04.09.2021	-	-	-	2	-	-	-	-	2
26	PUBLICIS SAPIENT	23 & 26.08.2021	-	-	-	9	1	-	-	-	10
27	SABRE	26 & 30.08.2021	-	-	-	1	0	-	-	-	1

Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED (BRANCH WISE)								
			B.Tech								
			BT	CE	CHE	CSE	ECE	EE	ME	MME	TOTAL
28	ACCOLITE DIGITAL	27 & 28.08.2021	-	-	-	0	0	0	-	-	0
29	USHUR	30 & 31.08.2021	-	-	-	0	1	-	-	-	1
30	MERILYTICS	01.09.2021	-	0	-	2	0	1	0	-	3
31	PWC	30.08 & 02.09.2021	2	-	-	9	4	7	13	1	36
32	VERIZON	31.08 & 03.09.2021	-	-	-	7	5	4	0	-	16
33	MAQ SOFTWARE	03 & 09.09.2021	-	-	-	2	-	-	-	-	2
34	AMDOCS	06 & 10.09.2021	-	-	-	7	0	-	-	-	7
35	CAPGEMINI	08 & 10.09.2021	5	3	3	6	3	5	18	4	47
36	ALSTOM	10, 13 & 20.09.2021	-	-	-	0	1	0	0	-	1
37	L&T INFOTECH	11 & 18.09.2021	3	0	0	0	0	1	2	4	10
38	BIRLASOFT	11, 14, 17 & 18.09.2021	-	-	-	0	-	-	-	-	0
39	OPTUM	13, 15 & 16.09.2021	-	-	-	2	1	2	-	-	5
40	PIRAMAL GROUP	15 & 18.09.2021	-	-	-	0	-	-	-	-	0
41	OFSS	18 & 23.09.2021	-	-	-	2	2	2	4	-	10
42	EXL SERVICE	16 & 22.09.2021	2	0	0	1	0	1	2	1	7
43	IBM	20.09.2021	-	-	-	0	0	1	-	-	1
44	WIPRO	20 & 23.09.2021	2	3	6	3	1	1	6	8	30
45	HERO MOTOCORP	20, 22 & 23.09.2021	-	-	-	-	-	-	5	-	5

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46	KANTAR ANALYTICS	22 & 23.09.2021	0	1	1	0	0	0	0	0	2
47	314e CORPORATION	24 & 25.09.2021	-	-	-	0	-	-	-	-	0
48	GENPACT	25.09 & 07.10.2021	2	2	1	1	0	1	-	1	8
49	NAPIER HEALTHCARE	25 & 27.09.2021	-	-	-	0	0	-	-	-	0
50	TATA ELECTRONICS	26.09 & 06.10.2021	-	-	-	-	0	0	2	-	2
51	MPHASIS	27.09 & 01.10.2021	-	-	-	6	2	6	-	-	14
52	RELIANCE JIO	28 & 30.09.2021	-	-	-	4	3	-	-	-	7
53	MAGIC BRICKS	28.09.2021	-	-	-	2	-	-	-	-	2
54	QUANTIPHI	28 & 30.09.2021	0	4	3	1	1	2	2	2	15
55	ACCENTURE	29.09 & 04, 11, 12.10.2021	1	1	1	0	0	0	3	0	6
56	COMVIVA	29.09 & 04.10.2021	-	-	-	0	0	-	-	-	0
57	TALENT RECRUIT	30.09 & 03.10.2021	-	0	-	0	0	1	0	-	1
58	TREDENCE ANALYTICS	30.09 & 12.10.2021	0	1	2	1	1	3	2	3	13

Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED (BRANCH WISE)								
			B.Tech								
			BT	CE	CHE	CSE	ECE	EE	ME	MME	TOTAL
59	INFO OBJECTS	01.10 & 10.11.2021	-	-	-	0	-	-	-	-	0
60	TEXAS INSTRUMENTS	02 & 08.10.2021	-	-	-	2	1	0	-	-	3
61	TERADATA	04 & 05.10.2021	-	-	-	1	-	-	-	-	1
62	MEDIA NET	06.10.2021	-	-	-	0	0	0	-	-	0
63	TAVANT TECHNOLOGIES	07, 08 & 11.10.2021	-	-	-	0	2	-	-	-	2
64	INNOMINDS	11, 18 & 21.10.2021	-	-	-	0	1	0	0	-	1
65	SIEMENS HEALTHINEERS	18 & 19.10.2021	-	-	-	0	0	-	-	-	0
66	SUPER PROCURE	19 & 20.10.2021	-	-	-	0	-	-	-	-	0
67	DOVER INDIA	20 & 23.10.2021	-	-	-	1	0	0	0	-	1
68	WHITEKLAY	21 & 22.10.2021	0	0	0	0	0	0	0	0	0
69	GANIT BUSINESS	22.10.2021	1	1	0	0	0	0	0	1	3
70	ZENSAR	23 & 26.10.2021	1	0	2	1	2	1	0	1	8
71	LARSEN & TOUBRO	24.10 & 12, 16 & 17.11.2021	-	6	2	0	0	3	10	1	22
72	ADDVERB TECHNOLOGIES	25 & 26.10.2021	-	-	-	0	0	0	1	-	1



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73	INTERRA SYSTEMS	25 & 27.10.2021	-	-	-	0	0	-	-	-	0
74	RELIANCE JIO(2)	26 & 28.10.2021	-	-	-	0	2	-	-	-	2
75	HFCL	28.10.2021	0	0	0	1	2	0	0	0	3
76	MATHWORKS	29.10 & 03.11.2021	-	-	-	1	0	0	-	-	1
77	UBER	30.10 & 10.11.2021	-	-	-	0	1	0	-	-	1
78	DIGIT INSURANCE	03 & 09.11.2021	-	-	-	0	0	-	-	-	0
79	RELIANCE INDUSTRIES	08, 17.11 & 03.12.2021	-	-	6	-	-	6	8	3	23
80	NEENOPAL	10 & 30.11.2021	0	0	0	0	0	0	0	0	0
81	SAMSUNG R&D(Bangalore)	10 & 30.11.2021	-	-	-	4	2	0	-	-	6
82	ABZOOBA	10.11.2021	-	-	-	0	-	-	-	-	0
83	COGOPORT	10, 12 & 13.11.2021	0	0	1	0	1	0	0	0	2
84	AM/NS	11.11 & 07, 09.12.2021	-	-	-	-	-	0	1	2	3
85	LINDE	11 & 12.11 & 01.12.2021	-	-	1	-	-	2	3	1	7
86	MINIORANGE	11 & 14.11.2021	-	-	-	0	1	1	-	-	2

Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED (BRANCH WISE)								
			B.Tech								
			BT	CE	CHE	CSE	ECE	EE	ME	MME	TOTAL
87	DECIMAL	12 & 15.11.2021	-	-	-	0	0	2	3	-	5
88	HELIUM CONSULTING	13.11.2021	-	-	0	0	-	-	-	-	0
89	PCBL	15, 29.11 & 08.12.2021	-	-	-	-	-	0	0	-	0
90	CGI	15.11 & 02.12.2021	-	0	1	0	0	1	1	-	3
91	CASHFREE	16 & 19.11.2021	-	-	-	0	0	-	-	-	0
92	GREYB	17, 18 & 19.11.2021	0	-	0	0	0	0	2	1	3
93	CADENCE	18 & 29.11.2021	-	-	-	0	1	0	-	-	1
94	MAVENTIC	18.11.2021	-	-	-	0	0	0	-	-	0
95	ALFA LAVAL	20.11 & 01, 02, 03.12.2021	-	-	0	-	-	-	0	-	0
96	HALDIA PETROCHEMICALS	29, 30.11 & 01.12.2021	-	-	0	-	-	0	0	-	0
97	PHARMAACE	29 & 30.11.2021	2	0	2	0	0	0	4	1	9
98	BRIGOSHA	29.11 & 01.12.2021	-	-	-	1	0	0	-	-	1
99	SIGMOID ANALYTICS	29.11 & 02, 07.12.2021	-	-	-	2	1	0	-	-	3
100	WINJIT	01 & 02.12.2021	-	-	-	0	0	-	-	-	0

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101	HDFC	02 & 04.12.2021	-	-	-	0	1	-	-	-	1
102	HITACHI ENERGY	03 & 06.12.2021	-	-	-	-	-	1	-	-	1
103	SANDVINE TECHNOLOGIES	03, 04 & 07.12.2021	-	-	-	1	1	-	-	-	2
104	UNITED BREWERIES	04 & 06.12.2021	-	-	-	-	-	1	1	-	2
105	BRANE ENTERPRISES	06, 08 & 09.12.2021	0	0	0	4	1	3	0	0	8
106	COGNIZANT	06.12.2021	0	0	0	1	0	1	2	1	5
107	HCL	06 & 10.12.2021	0	-	-	0	1	1	0	0	2
108	ORMAE	09 & 11.12.2021	0	0	0	0	0	0	0	0	0
109	RELIANCE RETAIL	09 & 10.12.2021	-	2	-	-	-	-	-	-	2
110	IQUANTI	10.12.2021	0	0	0	0	0	3	2	0	5
111	TATA MOTORS	10.12.2021	-	-	-	-	0	0	-	-	0
112	WEST PHARMACEUTICALS	10, 14 & 15.12.2021	-	-	-	0	0	-	-	-	0
113	BYJU'S	11.12.2021	2	0	0	0	0	0	0	0	2
114	CARRIER CORPORATION	11 & 15.12.2021	-	-	-	0	-	-	-	-	0

Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED (BRANCH WISE)								
			B.Tech								
			BT	CE	CHE	CSE	ECE	EE	ME	MME	TOTAL
115	TOPPR	12 & 14.12.2021	0	0	0	2	1	0	0	0	3
116	ADVANTAGE CLUB	13 & 15.12.2021	0	0	0	0	0	0	0	0	0
117	FIITJEE	13.12.2021	0	0	0	0	0	0	0	0	0
118	AAKASH INSTITUTE	14.12.2021	0	0	0	0	0	0	0	0	0
119	CARS24	14 & 15.12.2021	-	-	-	0	-	-	-	-	0
120	NETCRACKER	14.12.2021	-	-	-	0	-	-	-	-	0
121	PARK+	17, 21 & 24.12.2021	-	-	-	0	0	0	0	-	0
122	TCS(R&I)	17.12.2021	0	0	0	0	0	0	0	0	0
123	JSW STEEL	18.12.2021	-	0	0	0	0	0	0	0	0
124	CUBASTION	19 & 20.12.2021	0	0	2	0	0	2	0	0	4
125	JAI KISAN	20 & 22.12.2021	0	0	0	0	0	0	0	0	0
126	ZYCUS	20 & 22.12.2021	0	0	0	0	-	0	-	-	0
127	ATPL	21 & 23.12.2021	-	-	-	0	-	-	-	-	0
128	C-DAC	21.12.2021	0	-	-	0	1	0	-	-	1
129	SAMSUNG (NOIDA)	21 & 28.12.2021	-	-	-	1	2	-	-	-	3
130	NAVYUG	22.12.2021	-	-	0	0	0	0	0	-	0
131	NATION WITH NAMO	23 & 29.12.2021	0	0	0	0	0	0	0	0	0



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132	STERLITE TECHNOLOGIES	23.12.2021	-	-	-	0	0	-	-	-	0
133	KNOWLVERS	24 & 28.12.2021	0	1	0	0	0	0	1	0	2
134	DARWINBOX	26 & 28.12.2021	0	0	0	0	0	0	0	0	0
135	LATENTVIEW	27.12.2021	0	0	0	0	0	0	0	0	0
136	CIREL SYSTEMS	29.12.2021	-	-	-	-	1	-	-	-	1
137	ICICI BANK	30.12.2021	-	2	-	-	-	-	-	-	2
138	TARGET CORPORATION	30.12 & 06.01.2021	-	-	-	0	1	0	-	-	1
139	VEDANTA	31.12.2021	-	1	4	-	-	1	1	9	16
140	HSBC	09, 11 & 12.01.2022	0	0	0	0	0	0	1	1	2
141	BEL	12 & 13.01.2021	-	-	-	0	3	1	5	-	9
142	SISA	03 & 04.01.2022	-	-	-	0	0	-	-	-	0

Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED (BRANCH WISE)								
			B.Tech								
			BT	CE	CH E	CSE	EC E	EE	ME	MME	TOTAL
143	VISTA INTELLIGENCE		-	-	-	0	0	-	-	-	0
144	ACKOTE CH	04.01.2022	-	-	-	1	0	-	-	-	1
145	HESTABIT	04.01.2022	-	-	-	0	0	-	-	-	0
146	THERMAX	04.01.2022	-	-	-	-	-	0	0	-	0
147	ATLASSIAN	05 & 19.01.2022	-	-	-	1	0	0	-	-	1
148	SAMSUNG (DELHI)	06.01.2022	-	-	-	0	1	0	-	-	1
149	IFB INDUSTRIES	07.01.2022	-	-	-	-	0	0	2	-	2
150	TCE	07.01.2022	-	-	2	-	-	1	-	-	3
151	DYNAMIC DIGITAL	08.01.2022	-	-	-	0	-	-	-	-	0
152	AARTI INDUSTRIES	10 & 15.01.2022	-	-	0	-	-	0	2	-	2
153	THOUGHT GENESIS	10.01.2022	-	-	-	0	0	-	-	-	0
154	UNIFIED INFOTEC H	12, 13 & 17.01.2022	-	-	-	0	-	-	-	-	0
155	AZURE POWER	20.01.2022	-	-	-	0	0	0	0	-	0
156	RAPIDO BIKE	13 & 18.01.2022	-	-	-	0	0	-	-	-	0
157	SSWL	14 & 18.01.2022	-	-	-	-	-	0	0	-	0

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158	CTRLS CLOUD4 C	19 & 21.01.2022	-	0	-	0	0	0	0	-	0
159	RECRUIT CRM	18 & 21.01.2022	-	-	-	0	-	-	-	-	0
160	HP	20.01.2022	0	0	0	-	0	0	0	0	0
161	PORTER	20, 21.01 & 04.02.2022	0	1	0	0	0	0	0	0	1
162	ADANI GROUP	22.01 & 11.02.2022	-	0	0	0	0	0	2	-	2
163	OLA ELECTRI C	23.01.2022	-	-	-	0	0	2	-	-	2
164	PRIMET ALS	24.01.2022	-	-	-	-	0	0	-	-	0
165	METYIS	25 & 29.01.2022	-	1	0	0	0	0	0	-	1
166	TATA POWER	25 & 29.01.2022	-	0	0	0	0	1	0	-	1
167	HIND RECTIFI ERS	27 & 28.01.2022	-	-	-	-	-	-	0	-	0
168	ONEBAN C	27.01.2022	-	0	-	0	0	0	-	-	0
169	TITAN	27.01.2022	-	-	-	0	0	-	-	-	0
170	LAVA INTERNA TIONAL	29.01.2022	-	-	-	0	0	0	0	-	0

Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED (BRANCH WISE)								
			B.Tech								
			BT	CE	CHE	CSE	ECE	EE	ME	MME	TOTAL
171	TATA IQ	29.01.2022	0	0	0	0	0	0	0	0	0
172	AGNIK	31.01 & 21.03.2022	-	-	-	0	0	-	-	-	0
173	PRISM JOHNSON	05.02.2022	-	0	0	0	-	0	-	-	0
174	SAINT GOBAIN	08, 09 & 10.02.2022	-	0	0	0	0	0	0	-	0
175	TATA COMMUNICATION	09 & 12.02.2022	-	-	-	0	1	-	-	-	1
176	JSL	14.02.2022	-	-	0	0	0	0	0	0	0
177	GLOBAL PAYEX	18 & 23.02.2022	-	-	-	0	-	-	-	-	0
178	ITD CEMENTATION	18 & 23.02.2022	-	2	-	-	-	1	0	-	3
179	SMS GROUP	18.02.2022	-	-	-	-	0	0	0	0	0
180	THOMSON DIGITAL	18.02.2022	-	-	-	0	0	0	0	-	0
181	DANIELI	21 & 28.02.2022	-	-	-	-	0	0	0	0	0
182	DMT INDIA	21 & 22.02.2022	-	-	-	-	-	-	-	0	0
183	TATA BLUESCOPE	21, 22, 23.02 & 01.03.2022	-	-	-	-	-	-	0	-	0
184	MARUTI	03.03.2022	-	-	-	-	-	0	0	-	0
185	TATA HITACHI	11.03.2022	-	-	-	-	-	-	0	-	0
186	GLENMARK	16.03.2022	-	-	0	-	-	-	-	-	0



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187	ABB	19.03.2022	-	-	-	0	0	0	-	-	0
188	ERICSSON	22.03.2022	-	0	-	0	1	2	0	-	3
189	SASKEN TECHNOLOGIES	24.03.2022	-	-	-	0	0	0	-	-	0
190	C-DOT	01.04.2022	-	-	-	-	-	-	-	-	0
191	LEXMARK	30.03 & 04.04.2022	0	0	0	0	0	0	0	0	0
192	KEC INTERNATIONAL	04, 13 & 14.04.2022	-	-	-	-	-	-	3	-	3
193	AFCONS	06.04.2022	-	0	-	-	-	-	-	-	0
194	DATA INSIGHTS	11.04.2022	-	-	-	0	-	-	-	-	0
195	NUMERATOR	11.04.2022	2	0	0	0	0	0	0	0	2
196	MPS	18 & 22.04.2022	-	-	-	0	0	-	-	-	0
197	PYRAMID	21.04.2022	-	0	0	-	-	0	0	-	0
198	PRADAN	24.04.2022	3	1	0	0	0	1	1	0	6

Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED (BRANCH WISE)								
			B.Tech								
			BT	CE	CHE	CSE	ECE	EE	ME	MME	TOTAL
199	SOUTH INDIAN BANK	28.04.2022	0	1	0	0	1	0	0	0	2
200	ALIENS GROUP	29.04.2022	0	0	0	0	0	0	0	0	0
201	TEGA INDUSTRIES	02.05.2022	-	-	-	-	-	-	0	-	0
202	UPGRADE	04.05.2022	0	0	0	0	0	0	0	0	0
203	RODIC CONSULTANT	05.05.2022	-	0	-	0	-	0	-	-	0
204	IOCL	05 & 07.05.2022	-	-	-	-	4	-	-	-	4
205	DXCORR	06 & 07.05.2022	-	-	-	0	0	-	-	-	0
206	VESUVIUS	06, 09 & 11.05.2022	-	-	1	-	-	-	0	0	1
207	PEPSICO	13.05.2022	-	-	-	-	-	0	0	-	0
208	IQVIA	19.05.2022	0	0	0	0	0	0	0	0	0
209	NUVOCO	19.05.2022	-	1	0	-	0	0	1	-	2
210	BEML	21.05.2022	-	-	-	-	-	0	0	0	0
211	PAPERPEDIA	25.05.2022	-	-	-	0	-	-	-	-	0
212	SHYAM SEL & POWER	25 & 26.05.2022	-	-	1	-	-	-	-	3	4
213	VISA STEEL	25.05.2022	-	-	-	-	-	-	-	0	0
214	HUL	04.06.2022	-	-	3	-	0	1	0	-	4
215	BHAGYANAGAR GAS	09.06.2022	-	-	-	-	-	-	1	-	1
216	M. N. DASTUR	17.06.2022	-	0	0	-	-	0	0	0	0
217	UTTAM GALVA	22.06.2022	-	-	-	-	-	-	0	-	0
218	HMEL	23.06.2022	-	-	1	-	0	1	0	0	2
Eligible Students			53	58	54	147	77	82	143	60	674

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Total Placed	28	39	51	141	74	73	124	49	579
Percentage Placed	52.83	67.24	94.44	95.91	96.10	89.02	86.71	81.66	85.9
Total Job Offered	32	45	60	169	93	94	142	56	691
Double Job	4	6	9	28	19	21	18	7	112

M.TECH: 2021-22

[0- Considered but not selected, (-) not considered]

NUMBER OF STUDENTS PLACED (BRANCH WISE)																					
S L N o .	COMP ANY	DATE OF SELE CTION	M.Tech Specialization																		
			B T	CE	C H E	C S E	ECE	EE	ME	M M E	H SS	P H Y	M A T H	E S	DUA L DEG REE	TO TA L					
			B T	G E	S E	C H E	C S E	T E L E	V L SI	P E	P S	M D	F M	T E	M M T	M S W	A M ST	O R	E S T	B T	C H E
1	INFOSYS (Mass)	-	0	0	0	1	4	0	0	2	5	3	0	0	0	0	0	0	0	0	15
2	INTEL	-	-	-	-	-	9	-	6	-	-	-	-	-	-	-	-	-	-	-	15
3	MICROSOFT	17, 22 & 23.07. 2021	-	-	-	-	0	0	0	0	0	-	-	-	-	-	-	-	-	-	0
4	AMAZON	24 & 27.07. 2021	-	-	-	-	0	0	0	0	0	0	0	0	-	-	-	-	-	-	0
5	QUALCOMM	25 & 28.07. 2021	-	-	-	-	-	1	0	-	-	-	-	-	-	-	-	-	-	-	1
6	TRIL OGY INNO VATIONS	29.07. 2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	WELLS FARGO	31.07, 02 & 03.08. 2021	-	-	-	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	0
8	ORACLE INDIA	04 & 06.08. 2021	-	-	-	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	0
9	TCS (Digital)	07 & 08.08. 2021	-	-	-	-	0	0	0	0	0	0	0	0	-	-	-	-	-	-	0
10	PAYU	13 & 16.08. 2021	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0
11	NATWEST	13 & 18.08. 2021	-	-	-	-	2	0	0	-	-	-	-	-	-	-	-	-	-	-	2

[illegible]

NUMBER OF STUDENTS PLACED (BRANCH WISE)

S L. N o .	COMP ANY	DATE OF SELEC TION	M.Tech Specialization																				
			B T	CE	C H E	C S E	ECE	EE	ME		M M E	H S S	P H Y	M A T H	E E S	DUAL DEG REE	TOTAL						
									B T	G E								S E	C H E	C S E	T E L E	V L SI	P E
17	CAPGE MINI	08 & 10.09. 2021	1	0	0	0	4	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	7
18	ALSTO M	10, 13 & 20.09. 2021	-	-	-	-	0	1	0	0	0	1	0	0	-	-	-	-	-	-	-	-	2
19	OPTU M	13, 15 & 16.09. 2021	-	-	-	-	4	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	4
20	OFSS	18 & 23.09. 2021	-	-	-	-	1	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	1
21	IBM	20.09. 2021	-	-	-	-	1	0	1	0	0	-	-	-	-	-	-	-	-	-	-	-	2
22	COMV IVA	29.09 & 04.10. 2021	-	-	-	-	2	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	2
23	TEXAS INSTR UMEN TS	02 & 08.10. 2021	-	-	-	-	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	0
24	GE	02 & 29.10. 2021	-	-	-	-	-	-	-	0	0	0	0	0	0	-	-	-	-	-	-	-	0

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2 5	TERAD ATA	04 & 05.10. 2021	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0
2 6	MEDIA NET	06.10. 2021	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0
2 7	INNO MINDS	11, 18 & 21.10. 2021	-	-	-	-	2	0	0	0	0	0	0	0	-	-	-	-	-	-	2
2 8	SIEME NS HEALT HINEE RS	18 & 19.10. 2021	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0
2 9	SUPER PROC URE	19 & 20.10. 2021	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0
3 0	DOVE R INDIA	20 & 23.10. 2021	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	0
3 1	WHITE KLAY	21 & 22.10. 2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 2	ICF	22 & 26.10. 2021	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0
3 3	LARSE N & TOUB RO	24.10 & 01.11. 2021	-	0	0	0	1	0	0	0	1	3	0	0	-	-	-	-	0	-	5
3 4	INTER RA SYSTE MS	25 & 27.10. 2021	-	-	-	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	0

NUMBER OF STUDENTS PLACED (BRANCH WISE)

S L N o .	COMPA NY	DATE OF SELE CTION	M.Tech Specialization																		
			B T	CE	C H E	C S E	ECE	EE	ME		M M E	H S S	P H Y	M A T H	E S S	DUA L DEG REE	TO TA L				
3 5	ABB	27 & 30.10. 2021	-	-	-	-	2	0	0	0	0	-	-	-	-	-	-	-	-	2	
3 6	MATHW ORKS	29.10 & 03.11 2021	-	-	-	-	0	0	0	0	0	-	-	-	-	-	-	-	-	-	0
3 7	NEENOP AL	10 & 30.11 2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	-	-	1
3 8	COGOP ORT	10, 12 & 13.11 2021	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0



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3 9	AM/NS	11 & 12.11 .2021	-	-	-	-	-	-	-	0	0	0	0	0	0	-	-	-	-	-	-	0
4 0	MINIOR ANGE	11 & 14.11 .2021	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
4 1	GREYB	17, 18 & 19.11 .2021	0	-	-	-	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	0
4 2	PCBL	15, 29.11 & 08.12 .2021	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0
4 3	CADENC E	18.11 .2021	-	-	-	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0
4 4	PHARM AACE	29 & 30.11 .2021	1	-	-	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
4 5	SIGMOI D ANALYT ICS	29.11 & 02, 07.12 .2021	-	-	-	-	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	0
4 6	WINJIT	01 & 02.12 .2021	-	-	-	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0
4 7	SANDVI NE TECHNO LOGIES	03, 04 & 07.12 .2021	-	-	-	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0
4 8	HCL	06 & 10.12 .2021	0	-	-	-	3	0	0	0	0	0	0	0	-	-	-	-	-	-	-	3
4 9	GRAB GRECO	08 & 10.12 .2021	-	-	-	-	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	0
5 0	ORMAE	09.12 .2021	-	-	-	-	0	-	-	-	-	-	-	-	-	-	0	-	-	-	-	0
5 1	TATA MOTOR S	10.12 .2021	-	-	-	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	0
5 2	WEST PHARM ACEUTI CAL	10, 14 & 15.12 .2021	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0

NUMBER OF STUDENTS PLACED (BRANCH WISE)

S I. N o .	COMP ANY	DATE OF SELECTION	M.Tech Specialization																	
			B T	CE	C H E	C S E	ECE	EE		ME		M M E	H S S	P H Y	M A T H	E S S	DUAL DEGREE	TOTAL		
			B T	G E	S E	C H E	C S E	T E L E	V L SI	P E	P S	M D	F M	T E	M M T	M S W	A M ST	O R	E S T	B C T H E

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53	CARRIER CORPORATION	11 & 15.12.2021	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0
54	BAJAJ AUTO	17 & 22.12.2021	-	-	-	-	-	-	-	-	-	0	0	0	-	-	-	-	-	-	0
55	CUBASTION	19 & 20.12.2021	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0
56	JAI KISAN	20 & 22.12.2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57	EATON INDIA	21.12.2021	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
58	SAMSUNG R&D(Noida)	21 & 28.12.2021	-	-	-	-	1	0	0	0	0	-	-	-	-	-	-	-	-	-	1
59	ADVANTAGE CLUB	13 & 15.12.2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
60	AAKAH INSTITUTE	14.12.2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61	TCS(R&I)	17.12.2021	-	-	-	-	0	0	0	0	0	-	-	-	-	-	-	-	-	-	0
62	STERLING TECHNOLOGIES	23.12.2021	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	0
63	LATENTVIEW	27.12.2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
64	CIRELSYS	29.12.2021	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0
65	C-DAC	21.12.2021	0	-	-	-	1	0	0	0	0	-	-	-	-	-	-	-	-	-	1
66	AMD	-	-	-	-	-	1	0	0	-	-	-	-	-	-	-	-	-	-	-	1
67	PARK+	17, 21 & 24.12.2021	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0
68	SISA	03 & 04.01.2022	-	-	-	-	5	0	0	-	-	-	-	-	-	-	-	-	-	-	5
69	VISTA INTELIGENCE	03.01.2022	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0
70	ACKO TECH	04.01.2022	-	-	-	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	0

NUMBER OF STUDENTS PLACED (BRANCH WISE)

S
I. COMP
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M.Tech
Specialization



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No.		SELECTION	BT	CE	CHE	CSE	ECE	VLSI	EE	PE	PS	ME	MD	FM	TE	MT	MSW	PHYST	MATH	ES	DUAL DEGREE		TOTAL
																					BT	GETE	
71	TCE	07.01.2022	-	-	4	0	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	4	
72	DYNAMIC DIGITAL	08.01.2022	-	-	-	-	1	-	-	-	-	1	0	0	-	-	-	-	-	-	-	2	
73	P.K. GLOBAL	09.01.2022	-	-	-	-	0	0	0	-	-	0	0	0	-	-	-	-	-	-	-	0	
74	HSBC	09, 11 & 12.01.2022	0	0	0	1	1	0	0	1	0	0	1	0	0	0	0	0	0	2	0	-	6
75	MAHINDRA & MAHINDRA	06 & 10.02.2022	-	-	-	-	0	-	-	2	0	3	3	3	-	-	-	-	-	-	-	-	11
76	SAINT GOBAIN	08, 09 & 10.02.2022	-	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	0
77	Global PayEx	18 & 23.02.2022	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
78	DANIELI	21 & 28.02.2022	-	-	-	-	-	2	0	1	0	0	0	0	0	0	-	-	-	-	-	-	3
79	TATA BLUE SCOPE	21, 22, 23.02 & 01.03.2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1
80	FEDERAL BANK	28.02 & 02, 03 & 09.03.2022	0	1	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	-	-	5
81	BEL	12 & 13.01.2021	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
82	THOUGHT GENESIS	10.06.2022	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
83	UNIFIED INFO TECH	12, 13 & 17.01.2022	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
84	AZURE POWER	20.01.2022	-	-	-	-	-	0	0	0	3	-	-	-	-	-	-	-	-	-	-	-	3

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85	RECR UITC RM	18 & 21.01. 2022	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0
86	TATA IQ	29.01. 2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87	AGNI K	31.01. 2022	-	-	-	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	0
88	DAIM LER	04 & 07.02. 2022	-	-	-	-	-	-	-	1	0	0	0	1	-	-	-	-	-	-	2

NUMBER OF STUDENTS PLACED (BRANCH WISE)

S L N o	COMP ANY	DATE OF SELECTION	M.Tech Specialization																			
			B T	CE		C H E	C S E	ECE		EE		ME		M M E	H SS	P H Y	M AT H	E S	DUAL DEGREE		TOTAL	
				B T	G E			S E	C H E	C S E	T E L E	V L SI	P E						P S	M D		F M
89	EXIDE	16.03.2022	-	-	-	0	-	-	-	0	0	0	0	0	-	-	-	-	-	-	-	0
90	GLENMARK	16.03.2022	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
91	INQUIZITY	16.03.2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	0	
92	LIVNSENSE	31.03 & 06.04.2022	-	-	-	-	0	0	0	0	0	0	0	0	-	-	-	1	-	-	-	1
93	C-DOT	01.04.2022	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
94	EMERITX	01 & 19.04.2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
95	MPS	18 & 22.04.2022	-	-	-	-	0	0	0	-	-	-	-	-	-	-	0	-	-	-	0	
96	EY	23 & 28.04.2022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	
97	TATA HITACHI	23.04.2022	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	3	
98	UPGRADE	04.05.2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
99	RODIC CONSULTANT	05.05.2022	-	0	0	-	1	-	-	0	0	-	-	-	-	-	-	-	-	-	1	
100	DXCORR	06 & 07.05.2022	-	-	-	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	0	
101	VESUVIUS	06, 09 &	-	-	-	0	-	-	-	-	-	0	0	0	0	-	-	-	-	-	0	



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		11.05. 2022																			
1 0 2	R.S. SOFT WARE	23.05. 2022	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	
1 0 3	PAPE RPEDI A	25.05. 2022	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0	
Eligible Students			1 0	1 8	1 8	1 2	6 6	15	18	1 7	1 4	1 9	1 1	1 5	9	2	5	13 7	1 5	3 287	
Total Placed			2	1	4	1	5 5	4	7	7	9	1 1	7	7	0	0	0	9	1 1	1 1	127
Total Job Offered			2	1	4	2	6 6	5	7	8	1 1	1 3	7	7	0	0	0	11	1 1	1 1	147
Double Job			0	0	0	1	1 1	1	0	1	2	2	0	0	0	0	0	2	0 0	0 0	20

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Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED
1	WHITEKLAY	21 & 22.10.2021	0
2	NEENOPAL	10 & 30.11.2021	0
3	BERGER PAINTS	-	2
4	XIAOMI	-	4
5	BAJAJ FINANCE	-	1
6	PLANET SPARK	-	3
7	AAKASH INSTITUTE	14.12.2021	1
8	TIGER ANALYTICS	23.12.2021	0
9	LATENTVIEW	27.12.2021	0
10	RECRUITCRM	-	0
11	LJI	19 & 20.01.2022	0
12	PORTER	20, 21.01 & 04.02.2022	0
13	FEDERAL BANK	28.02 & 02, 03 & 09.03.2022	0
14	SHOPPER STOP	03.03.2022	0
15	NEC CORPORATION	07 & 09.03.2022	0
16	PRADAN	24.04.2022	0
17	ALIENS GROUP	29.04.2022	0
Eligible Students			29
Total Placed			11
Total Job Offered			11

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Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED
1	NEENOPAL	10 & 30.11.2021	0

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2	COGOPORT	10, 12 & 13.11.2021	0
3	BYJU'S	11.12.2021	2
4	PHARMAACE	29 & 30.11.2021	0
5	AAKASH INSTITUTE	14.12.2021	2
6	KNOWLVERS	24 & 28.12.2021	0
7	LATENTVIEW	27.12.2021	0
8	METYIS	25 & 29.01.2022	0
9	AGNIK	31.01.2022	0
10	FEDERAL BANK	28.02 & 02, 03 & 09.03.2022	0
11	EMERTXE	01 & 19.04.2022	0
Eligible Students			91
Total Placed			04
Total Job Offered			04

6.5 Medical Unit

6.5.1 About Us

Institute's Medical Unit takes care of both physical and mental health of all bona fide persons of N.I.T Durgapur community. Medical Unit runs 24x7, provides Emergency Medical services round the clock and Morning and Evening Outdoor services. The prime beneficiaries are all the students (including UG, PG, and PHD), teaching and non-teaching employees with their dependent family members, Pensioners and their spouse and also those who work under service providers.

6.5.2 Facilities Available

- Morning and evening outdoor patient consultation except Sundays and Holidays.
- Round the clock medical emergency services
- Pharmacy
- Minor OT
- Visiting Physicians of different fields on fixed days.
- Male and female wards with observatory beds.
- Isolation wards for the students.
- Nebulization, ECG, Multipara meter monitor.
- Autoclave facility for sterilization.
- 24 hours two ambulance services with five drivers.
- Sample collection center for outsourced pathological laboratory.
- Tie up with various super-specialty hospitals in Durgapur and Kolkata where the patients get referred in case of necessity and treated on credit basis as per CGHS rates.
- Students are covered under insurance and are treated in referral hospitals if necessary.

Counselling Centre	Isolation Unit	Eye Clinic	Dental Clinic	No. of beds	Ramp for PWD	Average No. of patients attended (OPD)/month
Yes Clinical Psychologists-02 (both visit twice weekly) Psychiatrist-01 (visits once weekly)	Yes For Chicken Pox & Measles	Yes Visits weekly once	Yes Visits weekly thrice	06(Six) observatory beds	Not available	Approximately 2000 nos of patients per month.



Ambulance No.	No. of Doctors	No. of Nurse	No. of Assistance
02(Two) with five drivers on shift basis	Total 05(Five) at present Permanent-03(Three) Contractual-02(Two) Specialist Doctors of different field: 06(Six) Psychiatrist for Counselling Centre: 01(One)	Total 05(Five) at present Permanent-01(One) Contractual- 03(Three) Service provider-01(One)	Office peon-01(One) Multi Task Assistants- 08(Eight)

6.5.3 Notable Activities

- During COVID-19 Pandemic, fever patients were closely monitored through fever file management.
- COVID positive patients were treated under close monitoring in **home isolation** and in **COVID-19 isolation ward (Old guest house)**
- All were sensitized and given psychological support by organizing webinars on COVID-19 in association with Counselling Centre.
- Routinely Pulse Polio vaccination is being conducted.

6.6 Hostels

Hostels	Boys/Girls	No. of Rooms	Actual student Capacity	Number of students accommodated	Facilities							
					Special Toilet for PwD Students	Ramp for PwD Students	Games	Water Purifier	Lift	Wi-Fi	Mess/Canteen	Misc.
Hall-1	Boys	148	444	430	Nil	Nil	Yes	Yes	Nil	Yes	Mess	
Hall-2	Boys	148	444	416	Nil	Nil	Yes	Yes	Nil	Yes	Mess	
Hall-3	Boys	84	252	206	Nil	Nil	yes	Yes	Nil	Yes	Mess at Hall 1	
Hall-4	Boys	252	250	236	Nil	Nil	Yes	Yes	Nil	Yes	Mess	
Hall-5	Boys	380	370	243	Nil	Nil	Yes	Yes	Nil	Yes	Mess	
Hall-6	Boys	115	115	60	Nil	Nil	Yes	Yes	Nil	Yes	-----	
Hall-7	Girls	72	125		Under renovation work by CPWD							
Hall-8	Girls	125	125	112	Nil	Yes	Nil	Yes	Nil	Yes	Canteen	
Hall-9	Boys	120	360	233	Nil	Nil	Yes	Yes	Nil	Yes	Canteen	
Hall-10	Girls	85	255	-----	Nil	Nil	Yes	Yes	Yes	LA N	Canteen	
Hall-11	Boys	240	720	660	Yes	Yes	Yes	Yes	Yes	Yes	Canteen	
Hall-12	Boys	160	160	115	Nil	Nil	Yes	Yes	Yes	Yes	Canteen	
Hall-13	Girls	250	750	732	Yes	Yes	Yes	Yes	Yes	Yes	Canteen	
Hall-14	Boys	447	1250	NIL	Yes	Yes	Yes	Yes	Yes	Yes	Canteen	

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6.7 SAC

The Student Activity Centre is one of the Central facilities of the Institute organized students' choice based Co-Curricular Activities in Physical Education, Yoga, Martial Art (Taekwondo), NCC & NSS as compulsory subjects to all first year B-Tech, B-Tech/M-Tech (Dual Degree) and integrated MSc students with one credit point in each semester.

Beside academic activities the Centre lays emphasis on promotion of Games & Sports of the Institute. The Centre has been sincerely guiding both UG/PG, PhD students and employees of the Institute in different areas of Games & Sports activities. The Centre organized various sporting events throughout the year, be Intra NIT or Inter NIT Tournaments. Regular practice in every major games is carried out under the guidance and supervision of the Centre. Institute teams are picked, trained and exposed to various level of tournaments.

6.8 Workshop

The Department of Workshop of the Institute is a cluster of eight shops, namely (1) Machine Shop, (2) Fitting Shop, (3) Electrical Shop, (4) Carpentry & Pattern Shop, (5) Black Smithy Shop, (6) Welding Shop, (7) Sheet Metal Shop and (8) Foundry Shop, clustered in five different sheds. Training to all UG students of first year is provided through these shops in accordance to UG Curricula which include Workshop classes for all branches of engineering at different levels. Fifth Semester Mechanical Engineering Students and Fourth Semester Chemical Engineering Students are also provided special training as per UG Curricula. The Workshops are modernised periodically by utilizing the grants provided to it under different scheme to update the training; very recently a 3-axis CNC Milling Machine is installed. Some departments also use workshop for advance training on machineries and processes. Students from all the departments utilize the workshop facilities for their Project works in undergraduate and postgraduate level. The students are encouraged to use the facility to make fabrications and prototypes of different levels of technical competitions.

6.9 Estate

6.9.1 About Us

Estate Office plays an instrumental role in the management of assets of the Institute. The Estate Office is entrusted with the work of Estate Management and Civic amenities. The Estate Section of the Institute mainly looks after all the infrastructure related works, security services, cleaning services, water & electricity supply, garden maintenance, horticulture and landscaping, allotment of quarters, transport services, service on lease and others allied works.

6.9.2 Notable activities with Photographs

Augmentation of CSE Department by Construction of Shed over the roof of Chemistry Department:

To facilitate the adequate space to the students as well as faculty members Augmentation of CSE Department has been completed. Total cost of the project Rs. 1.44 crore.





EE Measurement Lab through vertical extension of electrical engineering lab:

EE Measurement Lab through vertical extension of electrical engineering lab has been completed to enhance the adequate space / infrastructure. Total cost of the project Rs. 1.11 crore.



Central Research Laboratory (G+10) (UTKARSH BHAVAN)

Construction of G+10 Central Research Laboratory named as “UTKARSH BHAVAN” is under progress under HEFA Project. To facilitate all the research activities centrally in the Institute the building had been proposed and expected to be completed by 31.12.2022.



Internal Renovation of 27 Nos. LM Type Quarters:

To accommodate eligible staff members of the Institute, internal renovation of 27 Nos. of LM type quarters including civil, electrical & plumbing works have been completed. Total cost of the project Rs. 0.53 crore.



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Construction of Vertical Extension of Thermal Engineering Lab:

To facilitate adequate space to the students “construction of vertical extension of Thermal Engineering Lab” is in progress. Estimated cost of the project is Rs. 0.46 crore.



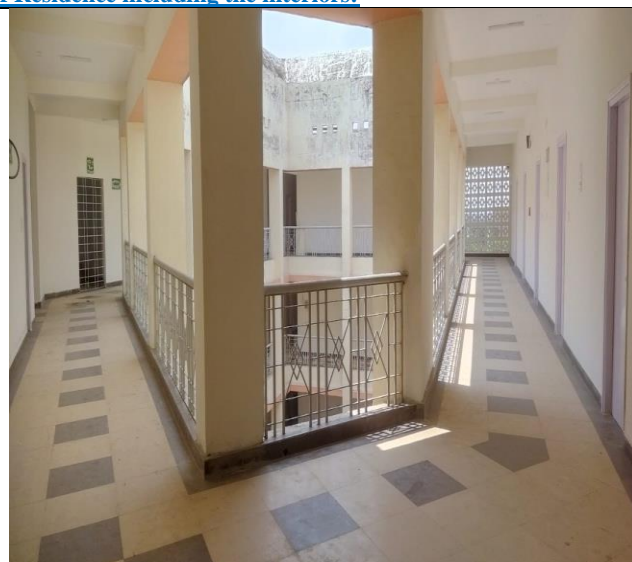
Construction of vertical extension of the IT building (previous Administrative Building):

To facilitate the adequate space to the students, faculties and staff members, “construction of vertical extension of the IT building” is in progress. Estimated cost of the project is Rs. 1.53 crore.



Completion of the Top two floors of Sarojini Naidu Hall of Residence including the interiors:

To enhance adequate space for accommodation of the girls students, construction of top 02 floors of Sarojini Naidu Hall of Residence (Hall-13) including the interiors is completed.





Lifts for physically impaired students:

Lifts for physically impaired students have been installed in the Main Academic Building, CSE Department and ECE Department.



6.9.3 In charge

- Ajit Kumar Bhagat, Asst. Registrar (Estate & Security)

7. Student Activities

7.1 NCC

A unit of National Cadet Corps (NCC) Army wing (open vacancy) among UG students (Boys & Girls) under the supervision of 10 Bengal Bn, NCC Asansol. The cadets have participated regular training programme including attend camps, appearing 'B' 'C' Certificate Examination and actively involved in several extension activities through-out the year. This unit also observed and participated various important days like environment day, Voters day, organized rallies, Swachhta programme, tree plantation etc.

Achievements:

1. Enrolment of 'B' 'C' Certificate courses, total 22 cadets out of which SD-15 Cadets and SW 05 Cadets.
2. Special Camp EBSB-10 (Online) attended 01 SD Cadet during September 25-30, 2021.
3. NCC 'B' Certificate awarded 01 SD Cadet
4. NCC 'C' Certificate awarded 02 SD Cadets.



NATIONAL CADETS CORPS
National Institute of Technology Durgapur
Unit

7.2 NSS

NSS NITD is the National Institute of Technology Durgapur chapter of the National Service Scheme, institutionalized under the Ministry of Youth Affairs & Sports Govt. of India. The Motto of NSS, "Not Me But You", reflects the essence of democratic living and upholds the need for self-less service. NSS helps the students develop appreciation to other person's point of view and also show consideration to other living beings.

In the academic year 2021-22, the activities of NSS are organized in hybrid mode. Under the situation of Covid 19, events like, National Education Day *Swachhata Pakhwada*, Vigilance Awareness Week and *Matrihasha Diwas* are organized in online mode while the special camp is organized at Pratappur village (in offline mode) during 25-27 March 2022. Following the norms of COVID 19 the volunteers of NSS visit the houses of the village and spread the awareness of health issues during pandemic, sanitation, and cyber alertness among the villagers.

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7.3 Games & Sports Facilities:

The Student Activity Centre has adequate infrastructure facilities for both outdoor and indoor games. The Centre has one central air condition Gymnasium equipped with sufficient number of equipment's. Different slots are provided to all the users as students (Male & Female), Employees and their spouses. The Institute play grounds (Oval & Lords) always bubble with outdoor activities like football, cricket, handball, athletics, hockey etc. Turf and concrete courts with flood light facilities are also available in volleyball, basketball tennis, badminton etc. Student Activity Centre has air condition indoor auditorium, which accommodated 500 seating capacity multi activity auditorium includes Badminton synthetic court, Table Tennis boards and Chess facilities.

Beside central sports facilities, most of the halls of residence equipped with Volleyball and concrete Badminton courts. Indoor games like Table Tennis, Carom boards & Chess are also available.



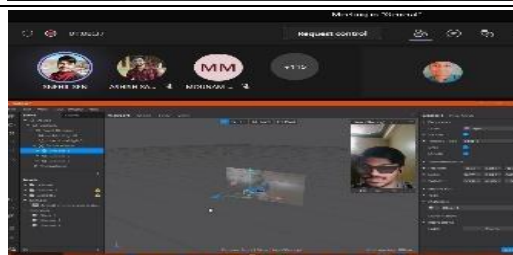
7.3.1 Games & Sports Participation

In the year 2021-2022 the Institute participated in the following All India Inter University Tournaments.




1. All India Inter University Taekwondo (Male) championship organized by University of Kerala during March 21-24, 2022.



7.4 Clubs/Body/Centres

Name of the Club/Body/Centre: Centre for Cognitive Activities (CCA)			
About us: CCA, Centre for Cognitive Activities, is the focal point where convergence of all technical and scientific endeavours of the students materialises. As the technical gymkhana of the institute, bulk of the extracurricular activities held in the college all the year round are organised by the CCA, which includes techno-managerial domains like robotics, entrepreneurship, web design, etc. Additionally, CCA also focuses over working for social causes by organising various CSR events throughout the year. Altogether, the club works with a vision towards bringing opportunities and providing platform for students to grow and showcase their skills.			
Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Dr. Joydeep Banerjee Dr. Oindrilla Mukherjee Dr. Aniruddha Bhattacharya	Ram Sharma	Prashant Mishra	Link: https://www.ccanitd.in/
Three Notable Activities			
Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)	
1.	Entrepedia , 20/6/21: A weekly short- video series bringing explanations on entrepreneurial terms and concepts helping out the viewers to learn quickly and efficiently over social media. The series accumulated around 2k views over all platforms		
2.	The Leader's Mindset , 7/12/21: A podcast series accumulating over 33k views, aiming to instill a sense of leadership among its audience, featuring notable personalities like IAS Ms Ira Singhal, among others.		
3.	AR Atelier , 2/02/22-5/2/22: A 2-day workshop followed by a 36-hour long hackathon on Augmented Reality using Spark AR by Meta that witnessed a participation of over 500 students from in and outside the college.		
For Other Activities: https://www.ccanitd.in/			

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Name of the Club/Body/Centre: Dance Club			
About us: Dance Club, NIT Durgapur is the official dance club of NIT Durgapur which actively takes part in all the activities including festivals, Independence day & Republic day, Matribhasa Divas, fests and also, conduct our own events which are totally executed by us. We also go to different colleges like IIT Kharagpur, IIM Calcutta, ISM Dhanbad, etc. to participate in different competitions organized by them for dance during their fests and bring laurels to our college by winning.			
Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Mousumi Saha	Subodh Laguri	Ankita Singh	Link: https://www.facebook.com/DanceClubNITD/
Three Notable Activities			
Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)	
1.	Independence Day Performance (15/08/2021) On this occasion, we perform in front of everyone and the performance is always based on a theme which conveys a social message to the audience.		
2.	Step It Up (16/01/2022 – 03/02/2022) This is an independent event organized by the club which is focused on bringing out the dance talents from our college. This event has been solely created and conducted by us.		
3.	Republic Day Performance (26/01/2022) On this occasion, we perform in front of everyone and the performance is always based on a theme which conveys a social message to the audience.		
For Other Activities: https://www.ccanitd.in/			



Name of the Club/Body/Centre: Hindi Chhatra Sangh: Darpan

About us: We Darpan are the official Hindi club of NIT Durgapur, we are trying to help Hindi to get it's identity back as Hindi is getting faded from the youth of India. We conduct various events related to Hindi. In the academic year 2021 – 22 we conducted many such events some of them are Prahelika, Ansune Alfaz, Aakhiri khat etc. and we are planning for more events in the year 2022 – 23.




Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Dr. Manoj Ozha	Rahul Kumar Shaw	Adarsh Pandey/Sandeep Kumar Vaishya	Link: https://www.facebook.com/darpan.nitdgp https://www.instagram.com/darpan_nitdgp/ https://youtube.com/channel/UCM1RFEHofmsrallIs39g03dA

Three Notable Activities




Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)
1.	Aakhiri Khat (15 June 2021): It was an confession writing opportunity for the students about their college life and experiences.	
2.	Ansune Alfaz (01 Feb. 2021-02 Feb 2021): 'Ansune alfaz' was a creative event organized by team Darpan, where participants were provided with several hindi related symbols, words and lines based on which they had to show their knowledge and creativity.	
3.	Prahelika (12th Aug. 2021 – 14th Aug. 2021): It was the 3 days long quiz event held on 15 August 2021, where the lots of audio visual type of questions were asked about our freedom fighters.	

Youtube Link : <https://youtube.com/channel/UCM1RFEHofmsrallIs39g03dA>



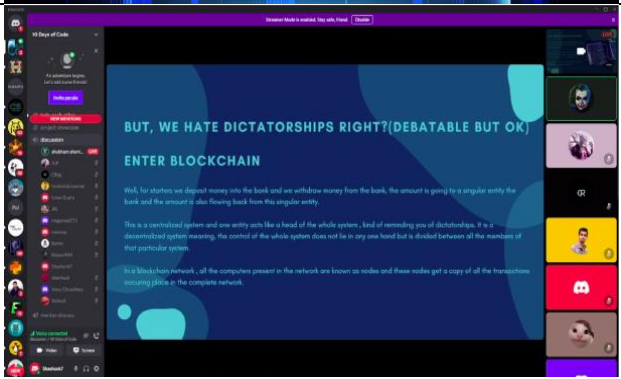
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Name of the Club/Body/Centre: Debating Society, NIT Durgapur			
About us : The Debating Society, NIT Durgapur is the definition of tenacity and dedication. It is our endeavour to create a space that allows healthy discourse and, subsequently, an array of narratives regarding different topics. Being a group of ardent thinkers and speakers, we represent NIT Durgapur at various national and international competitions and ace these competitions. With an aim to remove the phobia of public speaking and promote a culture of healthy discussion, we host an impressive lineup of events, including some of the largest debating events in the eastern circuit, drawing national and international participation.			
Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Dr Shri Krishan Rai	Rishav Raj Kumar	Tanushree Bhattacharyya	Link: Debsoc Nitdgp
Three Notable Activities			
Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)	
1.	Asian Parliamentary Debate (2nd edition) – 19 th – 21 st March 2021 Participants: 170+ Description: It is our flagship, fest-scale event conducted on an international level (2nd largest of its kind in Eastern India). With a higher team cap, and more qualified core adjudication panel, the competition got even better to bring out the best in pan-India participants.		
2.	OXFORD UNION DEBATE (2nd edition) - 24th-26th September 2021 Participation: 125+ Description: The Oxford Union Debate is a 1v1 debate where the audience plays a crucial role and asks questions about the speeches and votes for the side that they think has the upper hand.		
3.	KILLCODE (2nd Edition) - 1st-2nd February 2022 Participation: 320+ Description: The Debating Society, NIT Durgapur organized KillCode II, a cryptic event which lasted for 2 days. It was a mystery-thriller game, hosted using a website customized for the event.		
For Other Activities: Provide the Link (Institute home page link of each club): Clubs NIT Durgapur (nitdgp.ac.in)			



Name of the Club/Body/Centre: Enteract			
About us: Enteract is the official Dramatics Club of NIT Durgapur. Enteract produces a wide variety of performances ranging from street plays and stage plays to Monoacts and mimes, arguably with professional competency. The club keeps an in-depth knowledge of cinematography too which helps it to excel in movie and ad film making. Moreover, the club participates in various cultural fests across the country creating awareness about various social issues and organizes events and workshops round the year, thus assisting the students to leave behind their stage fear, develop confidence and channelize their energy to do something creative.			
Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Subhrabrata Choudhury	Raj Gaurav	Satyam Mishra & Aditi Gedam	Link: NIL
Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)	
1.	Nukkad Natak – The Faceless Men, 14th April 2022, a street play on the topic of mob lynching performed inside Students Activity Centre (SAC) on the occasion of Ambedkar Jayanti.		
2.	Dramatics Workshop (9th & 10th April 2022) by Suranjana Dasgupta the Director of Nirbak Abhinay Academy was organized to teach the fundamentals of Stage Play in an interactive way.		
3.	NIT's Got Talent (NGT), 26th & 27th January 2022, fun and lively event where students get to showcase their talents based on diversified fields such as dancing, singing, acting, etc.		
For Other Activities: Provide the Link (Institute home page link of each club): Clubs NIT Durgapur (nitdgp.ac.in)			

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Name of the Club/Body/Centre: GNU/Linux Users' Group			
About us: The GNU/Linux Users' Group, NIT Durgapur, is a community of designers, contributors and developers that believe in learning as a unit through spreading awareness into the power of open source. With over 45,000 views and 1.6k subscribers on Youtube , 3.5k likes on Facebook and 900 followers on Instagram , our reach spans over 30+ institutions across Eastern India . Our flagship events include Foobar CTF with over 1000+ international participants, GSoC Heat as well as fun events like Digital Fortress . As a free and open source club, all our events are free for everyone attending. May the Source be with you!			
Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Prof. Subrata Nandi Dr. Animesh Dutta	Nikhil Kumar	Rishav Rajkumar	Link: https://nitdgplug.org/
Three Notable Activities			
Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)	
1.	Foobar CTF : Date:- 1st February, 2022 A Capture The Flag event, to explore various domains of cybersecurity and master the concepts of ethical hacking via various techniques like pwn , reverse engineering , cryptography and more. This was a huge success with over 1000+ participants worldwide including 100+ foreign participants .		
2.	Ask me Anything(AMA) session : Date:- 3rd October, 2021 Ask Me Anything sessions are talk shows wherein we interact and conduct scholarly discussion between our members and alumni from different walks of life, carrying experience working in various MNCs , as well as research in renowned Ivy League colleges . Last year, we witnessed huge participation in the session, with a total 1100+ views on Youtube .		
3.	Ten Days of Code (TDoC) and DevTalks : Date:- 17th October - 26th October 2021 One of our flagship events, where students within and beyond our institute, learn from a myriad of 6 projects using various technologies and build it from scratch. We also conduct DevTalks wherein renowned personalities from the field of technology address the students and share their insights. Last year, TDoC saw a participation of more than 400 students from our institute and across the country .		
For Other Activities: https://nitdgplug.org/events			

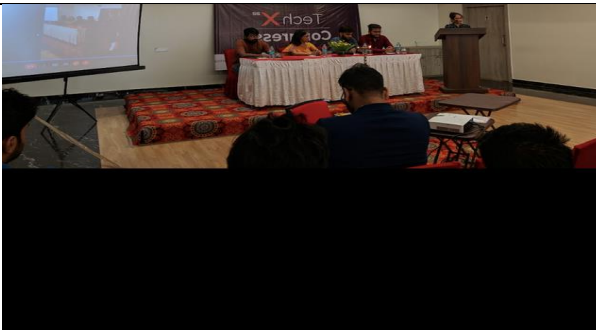



Name of the Club/Body/Centre: IEEE Student Branch NIT Durgapur


About us: The IEEE Student Branch, NIT Durgapur is a society of enthusiasts aimed at promoting research-related activities in the campus. We are a direct handshake to IEEE, an international body that allows countless young researchers the opportunity to present & publish their innovations every year. Consisting of bright researchers, developers, speakers, and other contributors we are a society that welcomes in the era of better research prospects, on the camp

Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Aniruddha Chandra (Faculty Advisor), Nirmal Kumar Roy (Branch Counselor)	Santam Roy Choudhury	Payel Bose	Link: https://www.ieeesbnitdgp.com/

Three Notable Activities

Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)
1.	TechX'22 (1st-3rd April, 2022): TechX Congress 2022 was jointly organized by IEEE Student Branches NIT Durgapur and Jadavpur University. It included tracks from various upcoming technical realms including Cloud Computing, ML/AI, AR/VR, hosted by renowned speakers from across the world. The event witnessed a massive participation of over 150 participants from all over the country.	
2.	DogeX (2nd-3rd February, 2022): DogeX was the first ever workshop solely dedicated to one of the most widely hailed technologies of the recent years: the blockchain tech. Leading personnels working in domains of the blockchain architecture and Ethereum DApps introduced the participants to the technology and an ensuing hands-on workshop got them acquainted to its fundamentals.	

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3.	SDV Workshop (22nd-23rd January, 2022): SDV was jointly conducted by IEEE SB NIT DGP and SAE NITD and served to get the participants acquainted with the fundamentals of EV Simulation.	 <p>The poster is for the 'SDV 3.0 Self-Driving Vehicle Workshop'. It features a central image of a car with glowing blue sensor lines (lidar) projecting outwards. The text on the poster includes 'SDV 3.0', 'Self-Driving Vehicle Workshop', 'Venture into the World of Autonomous Driving', 'JAN 22-23 10 AM MS TEAMS', 'REGISTRATION FOR THE WORKSHOP IS ABSOLUTELY FREE', and 'SCAN THE QR TO REGISTER' with a QR code. Logos for 'CONFER' and 'SAE INDIA' are also present.</p>
For Other Activities: Provide the Link (Institute home page link of each club): Clubs NIT Durgapur (nitdgp.ac.in)		



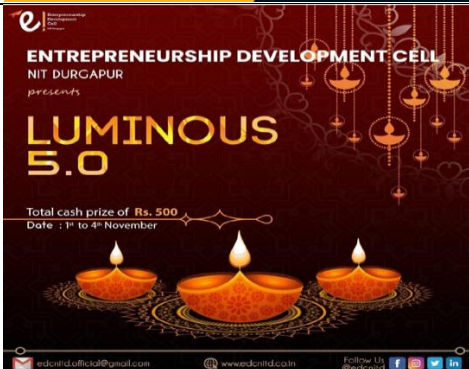


Name of the Club/Body/Centre: Entrepreneurship Development Cell

About us: The Entrepreneurship Development Cell, NIT Durgapur is the institution's official Entrepreneurship Promoting student body. Our goal is to promote entrepreneurial culture and nurture young entrepreneurs. Through a plethora of initiatives throughout the year, we remain steadfast to our sole dream of creating a sustainable and diverse entrepreneurial ecosystem where the young and the elderly come together to make entrepreneurship a common reality in India.

Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Dr. Sandip Kumar Lahiri	Sukanya Dutta	Ashish Jha	Link: https://edcnitd.co.in/

Three Notable Activities

Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)
1.	E-Summit , 1st-3rd April, 2022, famed as the second largest E-Summit of its kind in Eastern India. Through a gamut of events such as entrepreneurial guest talks, workshops, competitions and much more!	
2.	BizCup 4.0 , 24 th 26 th December, 2021, was one of the biggest events of the year, helping EDC with its goal of fostering the entrepreneurial spirit amongst college students.	
3.	Luminous 5.0 , 31st October to 6th November, 2021, the traditional Diwali happening of EDC! Showcase your creativity, create a theme with any source(s) of light, make an art, capture and tell us what it's about.	

For Other Activities: Provide the Link (Institute home page link of each club) <https://edcnitd.co.in/>

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Name of the Club/Body/Centre: IIM Student Chapter			
<p>About us: On 19th September 2020, The Indian Institute of Metals Students' Chapter NIT Durgapur started its journey at Metallurgical and Materials Engineering Department of NIT Durgapur. Several dignitaries of The IIM and NIT Durgapur were graced the inaugural program which was organized by the MME Department, NIT Durgapur. It was long-sought and despite seeing some delays, the event was attended with much zeal and enthusiasm by all. Keeping in with the COVID-19 restrictions, the program was held entirely online via the Microsoft Teams platform and was also live-streamed on Facebook and YouTube simultaneously. The student chapter was formally approved vide IIM council Meeting No: 342/III/2019-20 on 22nd November 2020 at Kaladham Conference Hall, Vidyanagar in presence of president, Dr. U Mudali and other council members as per Point 6b resolution. The aim of this student's chapter to emphasized the harmonious and smooth working of IIM in association with NIT Durgapur and especially the MME Department. A joint venture wherein all the students' chapters all across the country could organize seminars and conferences.</p>			
Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Dr. Arup Kumar Mandal (Faculty-in-Charge) Dr. Satadal Ghorai (Associate Faculty-in-Charge)	Shubhadip Paul (Chairperson)	Chelluboina Sravani (Vice Chairperson)	Link: https://nitdgp.ac.in/p/iim-student-chapter
Notable Activities			
Sl. No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)	
1.	<p>Women in Metallurgy Program (27.03.2022)</p> <p>On the occasion of International Women's Day Celebration, IIM Durgapur Chapter in association with IIM Students' Chapter NIT Durgapur jointly organized the "Women in Metallurgy" program at DM Sen. Seminar Hall.</p>	<p>Lecture was given by Prof. N.C. Shanti Srinivas, Professor, Dept. of Metallurgical Engineering, IIT (BHU), Varanasi on "Metal addictive manufacturing".</p> <p>Awardees: ("Women in Metallurgy Award") (Based on Highest CGPA of following pass out Batch)</p> <p>1. DAYEETA PAL (2020-21) 2. KHANSA SHAHNAWAZ (2021-22)</p>	
2.	<p>Metallurgy and Materials Quiz Event (10.10.2021)</p> <p>Quiz program was organized on Phase diagrams, Metallography and Microstructures for all undergraduate students of NIT Durgapur.</p>	<p>Winners:</p> <p>1st: Arpan Ghosh 2nd: Saurabh Sonwalkar 3rd: Atharva Vyawahare</p>	
Notable Achievements by Members			
1	<p>2022 IIM Students' Prize for securing Highest marks in order of merit in the final B.E./ B.Tech. examination during 2021-22 Academic Session among all National Institute of Technology (NIT)/ Indian Universities/ Engineering Colleges</p>	<p>1. Syed Abdur Rahaman (Immediate Past President, IIM SC)- 1st Prize for securing highest marks 2. Sarathi Dey (Member, IIM SC)- 3rd Prize for securing 3rd highest marks</p>	
<p>For Other Activities: Provide the Link (Institute home page link of each club) https://nitdgp.ac.in/p/iim-student-chapter</p>			


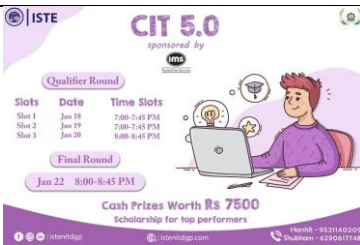



Name of the Club/Body/Centre: ISTE Students' Chapter NIT Durgapur

About us: The Indian Society for Technical Education (ISTE) is the leading National Professional non-profit making Society for the Technical Education System in our country with the motto of Career Development of Teachers and Personality Development of Students and overall development of our Technical Education System operating in association with All India Council for Technical Education (AICTE) and other International Projects. ISTE Students' Chapter NIT Durgapur took birth on the auspicious occasion of Saraswati Puja way back in 1995 and is the Oldest Student Chapter of Eastern India. We work with an aim to provide an appropriate platform presenting, meaningful and thought-provoking future aspects of the technical education system supported with meaningful suggestions for solutions, refinement and innovation.


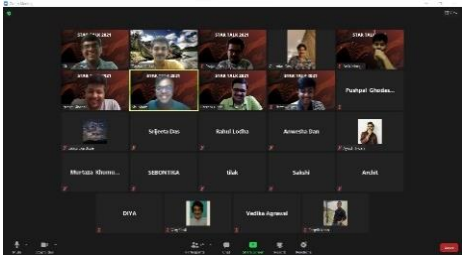
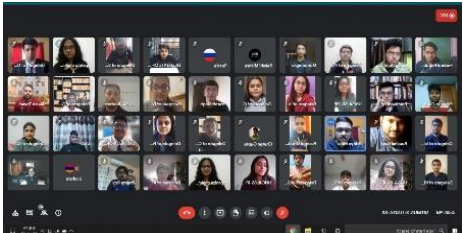
Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Dr. Anita Pal Dr. Rowdra Ghatak	Mukesh Kumar Gupta	Shivam	https://www.istenitdgp.com/

Three Notable Activities

Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)
1.	Runtime Terror 2.0 (August 8, 2021 & August 10, 2021) A two round programming competition comprising Math, Aptitude, Programming, Data Structures, and Algorithm to test the logical and coding skills of the participants.	
2.	CIT 5.0 - Cognitive Intelligence Test (January 18, 2022 - January 22, 2022) A two round test consisting of interesting and mind-boggling questions on the subjects like basic mathematical aptitude, verbal and logical reasoning, and data interpretation.	
3.	Technovate (March 31, 2022 - April 10, 2022) A hackathon of around a week, wherein we collaborated and brainstormed over pressing social challenges. Problem statements consisted of Healthcare, AI/ML and EV domains.	

For Other Activities: <https://www.istenitdgp.com/events>

Annual Report 2021-22

Name of the Club/Body/Centre: The Literary Circle			
About us: We stand out as an active cultural club of the college, and pride ourselves in encouraging creativity and free thought. The Circle, through events like Literati, NITMUN and cultural fests like Verve, helps students to get out of their creative cocoons, engage in healthy debate, and exchange ideas among themselves. Last year, a new venture was picked up as our college had its first TEDx, and we strive to pull off an inspiring TEDx every year henceforth. Apart from these, we maintain the blog Darkest White, the Instagram page Humans of NITDGP and publish The Yearbook for the batch passing out.			
Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Dr. Joydeep Banerjee Dr. Arjyayoti Goswami Dr. Sutanuka Banerjee	Sebontika Bose	V Rohan Rao	Link: https://lcnitd.co.in/
Three Notable Activities			
Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)	
1.	VERVE 16 : 9-11 APRIL 2021 East India's largest youth cum literary festival, with Literati, the one of its kind annual creative writing competition, vocabulary based competition, wildcard events and a public speaking event.		
2.	STAR TALK : 10-12 APRIL 2021 Where inspiring and famous personalities come and throw light upon lessons learnt through their journeys on their path to success in personal and professional lives.		
3.	NITMUN 10 : 30-31st JAN 2022 A forum based off of the UN, convened by us for discussion and analysis of global issues, panned across multiple committees.		
For Other Activities: Provide the Link (Institute home page link of each club): https://nitdgp.ac.in/p/clubs-1			



Name of the Club/Body/Centre: Maths N Tech Club

About us: We, Maths N Tech Club are the official knowledge club of our college, National Institute of Technology, Durgapur. Our club was formed in 2004 with a particular focus on spreading information across the students of the campus, while also entangling it with Mathematics and Technology to whatever extent possible. We aim to make the students aware of all the opportunities and information there is regarding different fields so they can make better choices, specially in placement regards. Our attempts also aim to kindle analytical reasoning and logical aptitude in the brain through various fun events and experiences.




Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Dr. Anita Pal, Dr. Seema Sarkar Mondal, Dr. Sarit Maitra	Abantika Basu	Siddharth Tripathi	Link: https://mntcnitdgp.co.in

Three Notable Activities

Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)
1.	ANKSHALA: (18 April 2021) Flagship event of Maths N Tech Club conducted nationwide for school students of classes 9-12. It witnessed 1500+ participants from across the country.	
2.	IDEATHON: (19 September 2021) Hackathon targeted at college students across the country. Witnessed the participation of 40+ teams and ably judged by professors from IITs and NITs.	
3.	GRAPHIC DESIGN WORKSHOP: (22-23 January 2022) Graphic Design Workshop mainly targeted at college students. Witnessed participation of 400+ across many colleges.	

For Other Activities: Provide the Link (Institute home page link of each club)

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Name of the Club/Body/Centre: Music Club			
About us: We are the official Music Club of NIT Durgapur. We bring the love we have for music to everyone in this college through live performances and the people outside the college through our page and YouTube channel. We perform both Eastern and Western genres of music.			
Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Dr. Suvrojit Das	Bidyutprabha Das	Avishek Deb	https://drive.google.com/file/d/1oRPVibW0bIBdC9vfe8OH_pM4ZgcBvK1n/view?usp=sharing
Three Notable Activities			
Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)	
1.	COVER UP (06/01/2022-21/01/2022) Cover Up was an online event hosted in Facebook. The students submitted their entries and the top performers were rewarded.		
2.	AAROHAN PERFORMANCE (March, 2022) Music Club performed at AAROHAN organised by team Aavishkar. Amidst all the technical events conducted by the clubs MuC tries to engage, the crowd with some captivating music.		
3.	VERVE PERFORMANCE (10/04/2021) Music club in collaboration with Literary Circle of NIT Durgapur performed Verve 2021 putting up a phenomenal performance each year to lift the spirits of the people.		
For Other Activities: Facebook: https://www.facebook.com/MuC.NITD/ Instagram: https://www.instagram.com/musicclub_nitd/ YouTube: https://www.youtube.com/c/MuCNITD/			



Name of the Club/Body/Centre: PRAKRITI (THE ENVIRONMENTAL CLUB OF NIT DURGAPUR)



About us: We the People of PRAKRITI- THE ENVIRONMENTAL CLUB OF NIT DURGAPUR strive to make a difference and inculcate the seed of awareness and action in the minds of prospective scientists and engineers to make this environment a sustainable place for every living being. Our motto is to change the notion that Scientists and Engineers do not care for the environment into making every individual on campus a GreenEngineer / GreenScientist, who minimizes the risk of pollution that might be caused with new inventions or breakthrough researches in technology. As a club, we imbibe to the values our Mother Nature has taught us: Perseverance, Sustenance and Progress. Right from its rootage, Team Prakriti has made true those envisions of the founders of our club and crossed many milestones ever since its onset. We conduct our events throughout the year, reminding and awakening the slumbered minds, the importance of environment and its preservation.

Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Prof. Kalyan Adhikari Dr. Subhankar Roy-Barman	Ms. Niharika Yellanki	Mr. Sourav Kumar Roy	Link: https://www.prakriti.in.net/

Three Notable Activities

Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)
1.	<p>SUBLIME: 14th August 2021</p> <p>Mother nature can be a big source of inspiration for us as with her beauty she can fill our lives with wonder and joy. We may not know it, but later with research and some scientific tests we will be knowing that they are the gems that can fill our life's treasure chest everyday.</p> <p>With these views in our mind, we have introduced SUBLIME the environmental edition of mind boggling where you have to hunt for colors to bring out the beauty of the portrait of MOTHER NATURE by going through riddles ,puzzles etc. The participant, who will bring out the beauty of the nature with colors having least timing will win the event and could win prizes worth 3K and the top 10 participants will get E-CERTIFICATES.</p>	

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<p>2.</p>	<p>SQUID GAME: 22nd January 2022 Squid Game is an event with different rounds of puzzles testing the mental ability of the participants one of which is an Environment Quiz. The winner is awarded with exciting prizes worth 2k. The event is a combination of fun & environmental rounds, based on the theme of the latest popular web series , Squid game. It had 4 rounds, 2 were conducted on the website and 2 conducted through Google forms. It was a huge success of more than 180 participants.</p>	
<p>3.</p>	<p>SNAP SPLASH 3.0: 18th March 2022 Celebrating the beautiful transition of seasons with the SEASON OF COLORS, take a dip in the hues, and feel the colors as every color has its own story to tell. PRAKRITI is very enthusiastic regarding SNAP SPLASH 2.0, the second edition of SNAP SPLASH, where participants share with the world their best moments in the season of colors by capturing the essence in their cameras. Nearly 150-160 participants participated online mode, and results were made based on no. of likes, comments, and shares.</p>	
<p>For Other Activities: https://www.prakriti.in.net/</p>		



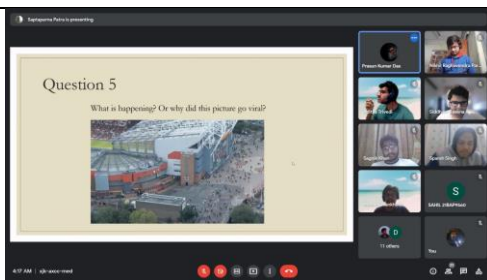


Name of the Club/Body/Centre: QuizInc

About us: QuizInc, the official quizzing club of NIT Durgapur provides an incredible interactive platform for all those who are endlessly curious and love exchanging ideas and knowledge. We believe that there is nothing better than pursuit for knowledge. We host a variety of quizzes all year, with all of them culminating into our flagship fest, Quizzitch Cup - a huge extravaganza of quizzing, knowledge and a healthy dose of fun. We also run QuizInc, our very own blog.

Name of the Faculty Advisor(s)	Name of the President	Name of Vice President	Further Information
Dr. Joydeep Banerjee Dr. Arjyayoti Goswami	Saptaparna Patra	Souryatanu Saha	Link: https://quizinc.co.in/

Three Notable Activities

Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)
1.	Quizzitch Cup: Our annual flagship fest. It was held from 9th-11th April and comprised various quizzes on entertainment, literature, art, sports, business and technology. We also hosted Qonversation, a virtual talk show.	
2.	Qriosity: A general quiz especially catered towards the freshmen of our college. The preliminary round was held on 28th December, and eight teams paved their way to a thrilling finale.	
3.	Gone Viral Quiz: A quiz based on the growing internet culture and its idiosyncrasies. The prelims were held on the website of QuizInc on 22nd January, followed by the finals on 23rd January.	

For Other Activities: <https://quizinc.co.in/>

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Name of the Club/Body/Centre: RADIO NITROZ			
<p>About us : We, the People of Radio NITroz of NIT Durgapur, strive to make a difference in the hectic life of college by bringing fun events and help people learn better with a calm mind because "Life is to live". Radio NITroz was formed in the year 2006 by our brilliant seniors. Radio NITroz is the 3rd successful LAN/Internet based Radio among all IITs and NITs. It is a matter of proud for us. We work on the motto to make life a bit easy and fun. We have been very popular for our Radio Shows on LAN and the Live Dedication. There was a time when everyone used to tune into Radio NITroz using VLC and tell us whom they want to dedicate songs and messages if any. It was amazing to be loved by everyone. For this, we carry out different events throughout the year, enthralling people with Joie de vivre.</p>			
Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Saravanan Chandran	Sonali Sah	Aditya Gupta	Link: https://radionitroz.in/
Three Notable Activities			
Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)	
1.	<p>EVENT NAME -MEME-RAN-TINE 2.0 DATE- 26TH JULY – 2ND AUGUST 2021 Radio NITroz conducts an event 'MEME-RAN-TINE' where participants has to show off their sense of humour by making memes about the college life and experience More than 95 people participated in the event. Out of these 95, 3 were chosen winners</p>		
2.	<p>EVENT NAME -SHAM-E-NOOR DATE- 3RD – 7TH NOVEMBER 2021 The SHAAM-E-NOOR has a different hue of the Diwali celebration. Flowers and rangolis, diyas and fairy lights, crackers and fireworks, celebration and happiness all around. It had been a great success with 226 outstanding entries from different Institutions all Out of these 226 entries only 2 were declared winner and they are – 1.Projit Nashkar and 2.Keshav Goyal</p>		
3.	<p>EVENT NAME - COLLEGE KE TASHANBAAZ DATE- 17TH – 23RD JANUARY 2022 College Ke Tashanbaaz is an awesome series of events where our beloved participants get the chance to showcase their talent in various fields like singing, dancing, instrumental or whatsoever field they are talented in. There were about 86 entries and out of which three selected as winners.</p>		
For Other Activities: Provide the Link (Institute home page link of each club) https://radionitroz.in/			






Name of the Club/Body/Centre: REcursion

About us: REcursion is the official programming community of NIT Durgapur which focuses on improving coding culture institute wide by conducting regular lectures from beginner to advanced topics of programming. Our goal is to increase student's participation in inter-collegiate contests like ACM-ICPC and help them get better.

Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Debasis Mitra, Bibhash Sen	Hritesh Mourya	Chilukuri Sri Harsha	Link: https://www.recursionnitd.in/

Three Notable Activities

Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)
1.	REcursion classes : REcursion organises weekly classes for the first and second year students of our college on various programming topics from basics to an advanced level. Classes are normally taken twice a week. Some dates of our past classes: (16/01/22, 19/01/22, 22/01/22, 26/01/22)	
2.	RECode : RECode is a monthly coding contest mainly based on the topics that have been taught in the class till then. The RECodes can be only for our college or can also be open to all where global participants are allowed. We conduct rated for all RECodes too. Some dates of our past RECodes : 27/09/21, 15/11/21, 28/01/22	
3.	Alohomora : Alohomora is an ICPC-styled team coding contest open to global participants with teams of at most 3 having questions of varying difficulty. Alohomora 2021 date- 11/06/21	

For Other Activities: REcursion official website: <https://www.recursionnitd.in/>

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Name of the Club/Body/Centre: Society of Automotive Engineers (SAE)

About us: SAE India Collegiate Club of NIT Durgapur was conceived in 2007 with an idea to integrate the students of the college into automobile engineering. Presently, 200 students are enjoying the benefits of SAE India membership. We organize a number of innovative events, webinars, workshops round the year and a competitive place where the sharpest minds battle in the quest to achieve distinction. SAE is a part of Aarohan - The Annual Techno-management Fest of NIT Durgapur. SAE NIT Durgapur also publishes its annual magazine called Autopia for automobile enthusiasts to know about the latest technologies at one place.

Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Prof(Dr.) Apurba layek Prof(Dr.) Nilotpal banerjee Prof(Dr.) Tapas kumar saha	Divas Gupta	Satyam Shorya Jha	

Three Notable Activities

Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)
1.	AAROHAN 3-6 March 2022 The Annual Techno-Management fest of NIT Durgapur, the 2nd Largest of its kind in the whole of eastern India. Started in the year 2003, it has been leading the light of instilling a culture of science, technology and innovation among the youth of the nation. With more than 40 events covering all genres of technology and management	
2.	TEDx 31st October 2022 SAE India Collegiate Chapter of NIT Durgapur, conducted the 2021 edition of TEDxNITDurgapur. The event featured a series of speakers from a multitude of domains, which assisted in propagating ideas, and inculcated amongst the students a yearning for carrying out constructive discussions on things that matter.	
3.	BAJA COMPETITION 5th September 2021(Phase 1) 8-12 December 2021(Phase 2) Team NDORS (NIT Durgapur Off-Road Sports) is the official SAE BAJA team of NIT Durgapur representing the institute in mBAJA SAE INDIA. The team designs, fabricates and competes against other All-Terrain Vehicles at an event popularly called as BAJA SAE	

For Other Activities: RECurion official website: <https://www.recurionnitd.in/>



Name of the Club/Body/Centre: SPIC MACAY


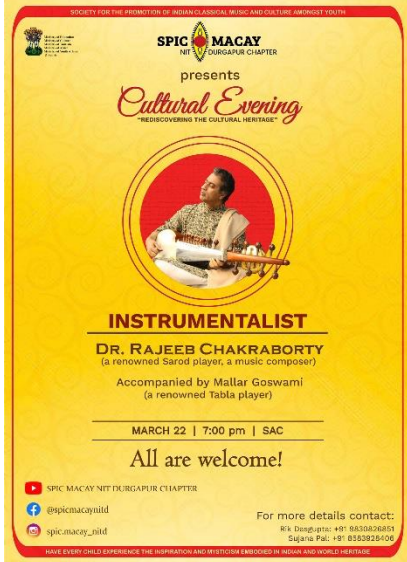
About us: SPIC MACAY (Society for the Promotion of Indian Classical Music And Culture Amongst Youth) is a non-political, nationwide, voluntary movement founded in 1977 by Dr Kiran Seth, Professor-Emeritus at IIT-Delhi who was awarded the 'Padma Shri' for his contribution to the arts in 2009. SPICMACAY's intention is to enrich the quality of formal education by increasing awareness about different aspects of Indian heritage and inspiring the young mind to imbibe the values embedded in it. It seeks to inspire youth through experiencing the mysticism embodied in the rich and heterogeneous cultural tapestry of Indian and World Heritage, with a hope that the beauty, grace, values and wisdom embodied in these arts will influence their way of life and thinking and inspire one to become a better human being. For this, the most accomplished artistes of the country render programs of Indian Classical music and dance, folk, poetry, theatre, traditional paintings, crafts & yoga primarily in schools and colleges.

Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Dr. J. Chakrabarty Prof. P. Gupta Dr. Nilanjan Chattaraj	Sayan Majumder Ph No: 9339581814	Ramiz Mollah Ph No: 7003319263	Email: spicmacay@nitdgp.ac.in




Three Notable Activities

Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)
1.	<p>Film Screening: The Great Dictator Date: 20th March 2022 A Film Screening of Charlie Chaplin's all time classic The Dictator. A movie that didn't only show us the social construct of 20th century politics with satirical context but also condemned anti-Semitism. The silent technique of the movie also helped overcome the language barrier and communication of controversial and critical social issues.</p>	

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<p>2.</p>	<p>Kalighat Art workshop by Bappa Chitrakar Date: 22nd – 24th March 2022</p> <p>The Art workshop held on the 22, 23, and 24 of March by Bappa Chitrakar provided a glimpse at its nature and majestic art form as a one kind experience into channeling creative boldness. The elevating session of indulgence and artistic clarity mesmerized everyone participating in it.</p>	
<p>3.</p>	<p>Sarod Performance by Dr. Rajeeb Chakraborty Date: 22nd March 2022</p> <p>Unveiling the magic of classical culture of India, SPIC MACAY NIT Durgapur Chapter has presented us with a majestic never-forgettable cultural evening in the honourable presence of Dr. Rajeeb Chakraborty, accompanied by renowned tabla-player Mallar Goswami Ji.</p>	



Name of the Club/Body/Centre: Strokes			
<p>About us: STROKES is the official art and photography club of NIT DURGAPUR, a place for practicing artists to hone their skills, develop their techniques and portfolios, collaborate with other artists, create bonds with others through the arts, and learn how to work together through group projects that will beautify the community. We at Strokes organize various art exhibitions and photo walks attracting a multitude each and every year to spread the culture of art and photography in the college.</p>			
Name of the Faculty Advisor(s) or equivalent post	Name of the President or equivalent post	Name of Vice President or equivalent post	Further Information
Dr. Suvamoy Changder	Ramyanil Raha	Sankhadeep Ghosh	https://drive.google.com/file/d/1-jS8f2twhXnG9EgIda4EeAP0T8rEqKIY/view?usp=sharing
Three Notable Activities			
Sl No.	Name of the Activities, Date And its Details	Corresponding Photograph (one for each activity)	
1.	<p>KALAKRITI (28/03/22-29/03/22)</p> <p>The ritual rendition of Kalakriti 8.0, the annual arts and photography exhibition where digital arts, paintings, and photography made and captured by our creative artists were displayed on Mozilla Hubs.</p>		
2.	<p>LENSEMBLE 2.0 (30/04/21-02/05/21)</p> <p>A three-day fun-filled and informative event hosted on Instagram where eminent photographers from across the world share their valuable experience and knowledge.</p>		
3.	<p>CHITRAKALA (June, 2021)</p> <p>An art series, brought by Strokes, where artworks inspired by different traditional art styles across India were posted on Instagram.</p>		
For Other Activities: https://www.instagram.com/wearestrokes/			

7.5 Gymkhana

National Institute of Technology Durgapur Students' Gymkhana, colloquially known Gymkhana is the only representative body of the students of National Institute of Technology, elected by all the regular students of UG and PG courses of the Institute.

Annual Report 2021-22

The Gymkhana at NIT Durgapur is a non-sectarian, non-communal and non-political body that indulge in normal functioning of the Institute including academic activities and strive for a peaceful ecosystem which supports the growth and advancement of students individually and as a body. It upholds liberty of thought and freedom of expression, equality of status and of opportunity, fostering and developing all co-curricular activities, and creation of a sound and healthy Student-Administration relationship.

The affairs of Gymkhana 2022 are controlled by the Executive Council (E.C.) consisting of following office-bearers which are headed namely by:

- President: Sankhadeep Ghosh
- Vice-President: Manish Kumar
- General Secretary: Md Adnan Hussain
- Asst. Gen. Secretary(Culturals): Sankalp Mishra
- Asst. Gen. Secretary(Social & Sports): Anthyush Mellemputti

The last evens conducted by Gymkhana was ReCrave(an annual food festival), and amongst the proposed upcoming events are a Film Festival, NIT Premier League, Nityamini(earlier Recstasy).

Gymkhana is also looking forward to the enhancement of the Institute's infrastructure and building a better sports and cultural facility.

Gymkhana stands united in every matter related to the student community and with the support of Administration and Faculties it will surely reach newer heights.

8. Annual Accounts

8.1 Information related to Annual Accounts:

8.1.1 Analysis of Plan and Non-Plan Grants (2021-22)

Plan (General Component) Grants	2715.53 [Rs. In Lakh]
Non-Plan Grants	12609.38 [Rs. In Lakh]

8.1.2 Sources of Grants

Till Financial Year 2002-03	From Financial Year 2003-04 Onward
GoI and Govt. of WB	MoE, GoI

8.1.3 Expenditure Position for Last 5 Years

Plan head Expenditure [Rs. In Lakh]		Non-Plan head Expenditure [Rs. In Lakh]	
2017-18	6310.36	2017-18	12423.47
2018-19	1403.84	2018-19	14814.37
2019-20	3286.51	2019-20	15130.18
2020-21	1801.55	2020-21	13417.44
2021-22	2317.63	2021-22	15323.96

8.1.4 Details of Annual Accounts and Separate Audit Report (SAR)

Detail Annual Accounts and SAR are provided as an addendum for the ready reference. Detail Annual Accounts consists of 88 pages and SAR consists of 10 pages.



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**Annual Accounts
2021-22**

(April 01, 2021 – March 31, 2022)

[Page No.: 01 – 88]

**Scanned Copy of
Separate Audit Report
Of the Annual Account
For the year
2021-22**



National Institute of Technology Durgapur



राष्ट्रीय प्रौद्योगिकी संस्थान दुर्गापुर

NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR

An Institute of National Importance under Ministry of Education(Shiksha Mantralaya), Government of India

Mahatma Gandhi Avenue, Durgapur- 713209, West Bengal, India

