



61st ANNUAL REPORT 2020-21



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

61st

ANNUAL REPORT 2020-2021

(April 01, 2020 – March 31, 2021)



राष्ट्रीय प्रौद्योगिकी संस्थान दुर्गापुर NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR

Mahatma Gandhi Avenue, Durgapur-713209
West Bengal, INDIA

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under
Ministry of Education (Shiksha Mantralaya)
Government of India



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From Director's Desk



*It is my pleasure
to publish the 61st
Annual Report
2020-21 of the
Institute highlighting
the progress in the last
financial year*



National Institute of Technology Durgapur is an Institute of National Importance fully funded by the Ministry of Education, Government of India besides imparting quality technical education, equal importance is ascribed to research and outreach here. Under the Unnat Bharat Abhiyan (UBA) program, the Institute has been selected for the Perennial Fund Award.

NIT Durgapur has been ranked 29th in the NIRF-2021 (Engineering) and 71st (Overall). Five hundred and ninety research articles were published/accepted in top journals and 83 PhD degrees were awarded in 2020-21. Presently, 114 sponsored research projects are being executed by the faculty members, while 2 patents were granted and 9 more were filed in the year. In pursuit towards synergising research and academic infrastructure and encouraging multi-disciplinary research, Utkarsha Bhavan is being set up through HEFA loan and four new advanced centres of research have been established. Two new M.Sc. programme in Life Science and Applied Geology and Geo-informatics were started this year.

The Institute, using open-source LMS and different platforms, ensure smooth online teaching-learning-examinations and could complete the academic session in time. In spite of challenges posed by the Covid-19 pandemic. In its endeavour to develop Covid-combat devices under Make in India programme, Pranayam, a low-cost indigenous portable Oxygen concentrator, was developed, and the technology was transferred to various manufacturers. An affordable, plug-and-use, semi-automatic ambu-bag ventilation system, Pranesh, was developed too.

I look forward to the institute scaling greater heights and reaching newer landmarks in research, innovation and outreach.

Professor A. Basu

Director

National Institute of Technology Durgapur



Progress at a Glance (2020-2021)

- ▶▶ The Institute has been Ranked 29th in NIRF (Engineering) and 71st (Overall) in 2020-21.
- ▶▶ The faculty members of the Institute have publication and acceptance of 595 research articles/ reviews in peer-reviewed journals, and also published 137 papers in proceedings of national and international conferences in 2020-21.
- ▶▶ One hundred and fourteen sponsored projects are being executed by the faculty members during the financial year.
- ▶▶ Eighty three PhD degrees were awarded by the Institute in 2020-21.
- ▶▶ Faculty members acted as reviewers for 340 peer-reviewed journals.
- ▶▶ 437 UG & PG students were placed through in-campus interviews in the session 2020-21. In addition to that 73 UG & PG students secured more than one job. 117 companies, including most of the global players, visited the campus to recruit UG students while 32,17 and 06 companies recruited the M Tech, MCA and MBA students respectively.
- ▶▶ 118 online workshop/ short-term courses/ webinar and conferences were organized by various departments of the institute.
- ▶▶ The 16th Convocation of the Institute was held on January 12, 2021 on virtual platform. Dr. Ramesh Pokhriyal 'Nishank', the Hon'ble Shiksha Mantri, Government of India graced the occasion as the Chief Guest, while Prof. Ashutosh Sharma, Secretary, DST, Ministry of Science & Technology, Government of India was the Guest of Honour. In the 16th Convocation, 663 B. Tech., 220 M. Tech., 18 MBA, 28 MCA, 39 MSc, 6 MSW and 128 PhD degrees were awarded.
- ▶▶ Two new M. Sc. programs in Life Science and applied Geology and Geo-informatics were started in 2020-21.
- ▶▶ Various projects such as 1500-capacity auditorium, augmentation of lecture halls and galleries, renovation of Central Library, ramp & toilets for differently abled students, Internal renovation of staff quarters, augmentation of CSE Dept., construction of EE measurement laboratory are in progress.
- ▶▶ Utkarsha Bhavan, a 10-storyed 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 has been selected for the Perennial Fund Award.
- ▶▶ The Institute has been actively participating in the TEQIP-III program, a World Bank assisted programme for improvement in quality of technical education and research.
- ▶▶ Various innovative devices were developed by the Institute to combat COVID-19 like PRANAYAM, a low-cost indigenous Oxygen Concentrator, PRANESH, an affordable, plug-and-use, easily maintainable semi-automatic ambu-bag ventilation system, UV-C based Document Sanitization, Material Sanitization Chambers, Room Sanitization System, Touch-less Hand Sanitizer Dispenser, Water Tap, Non-Contact IR Thermometer, etc.
- ▶▶ Due to the outbreak of Covid-19, the teaching-learning process was conducted online using the LMS Moodle under various platforms. The examinations were also held online.
- ▶▶ New schemes of post-doctoral fellowship and institute-sponsored multi-disciplinary projects were introduced.





1.0 INTRODUCTION

1.1 VISION DOCUMENT

Vision

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

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.

Objectives

1. To choose a fully inclusive growth path, carrying all the students, the faculty members and the staff with it.
2. To focus on excellence and innovation.
3. To attribute greater emphasis on post graduate education and research.
4. To focus on inter-disciplinary research.
5. To encourage the faculty to take up more sponsored projects and consultancy, and increase internal resource generation.
6. To become a major player in the endeavour to make India a most favoured destination for international students and global research.
7. To collaborate with premier universities and organizations across the globe on research.
8. To initiate undergraduate students to research very early in pursuance of the “catch them young” policy.

9. To restructure the academic departments, and to set up schools and centres to offer interdisciplinary post graduate and doctoral programmes.
10. To reorient/ restructure the academic programmes in keeping with the developments and market forces.
11. To revise the curricula and syllabi regularly.
12. To initiate greater interaction with industries in the areas of collaborative projects and programmes, exchange of resource persons and training of students.
13. To remain committed to responsibilities towards providing services to community, to make people aware of crucial socio-technical and socio-economic problems, and offer technical solutions in rural, urban and agricultural sectors.

Action Plan

A. Research

1. In addition to the existing research areas, new research activities will be taken up in different thrust areas. The required infrastructure will be set up to support such activities. Intake of Institute full-time research scholars will be increased as they play a vital role in sustaining research activities in an institution. Moreover, they will cater to the urgent requirement of faculty in the technical education sector. As has been the practice, freshly recruited young faculty members will be provided with start-up grants for quality research project proposals by the Institute. Funding from TEQIP-III, plan grant and different sponsoring agencies will be utilized for the enhancement of research activities.

The Institute will focus on a few research areas where it would like to excel and lead the country, such as Environment, Energy, Biotechnology, Corrosion, Structure, Water Resource, Power Systems, High Voltage



Engineering, Microelectronics, Microwave, Machine Design, Thermal Engineering, Materials, Nanotechnology, and Software Engineering.

2. To initiate students to research early, all students including undergraduate students will be encouraged to get engaged in research early. As has been the practice, the students will be financially supported for international research internship and for presenting papers in national and international conferences. They will also be associated with collaborative research projects.

B. Collaboration

1. Collaborations with various premier academic and research institutions in India and abroad have been established. It encompasses exchange programmes of faculty and students, joint academic programmes and research activities. More number of joint research proposals with premier academic and research institutions will be submitted to various funding agencies.
2. A special focus has been placed on forming inter-NIT research groups in multi-disciplinary thematic areas. Joint projects, doctoral and post graduate research will be carried out to gather synergistic benefits.
3. In order to strengthen the industry-academia platform, collaborative research programmes, participation of experts from industries in academic decision-making, invited lectures, training programmes for industry personnel will be further enhanced. Internship in industries shall be encouraged.

C. Teaching & Training

1. To strengthen existing B. Tech. programmes – The UG laboratories will be further expanded and augmented. Teaching-learning process has been modernized with teaching aids and learning resources. It will be further upgraded as required. Online students' feedback system on the performance of the faculty is being introduced.
2. To strengthen existing PG Programmes – 16 existing M. Tech. Programmes will

be strengthened by modernizing the PG laboratories. In TEQIP (Phase II) various PG laboratories have been modernized.

3. New academic programmes in emerging areas will be introduced. Skilled postgraduates will be produced in areas having market demand.
4. The curricula and syllabi are revised regularly in keeping with technological advances. External experts from industries and academia will be consulted in the endeavour.
5. More multi-disciplinary academic programmes will be encouraged in order to bring more flexibility in academic programmes.
6. In order to provide with academic support to weaker students, remedial teaching and special training on soft skill will be conducted.
7. The faculty members will be encouraged to participate for refresher courses, training programmes and collaborative research programmes to premier institutions in India and abroad. They will also undertake pedagogical training. The staff members will also be trained in different areas. The entire training programme will be based on an exhaustive training need analysis carried out by the departments.
8. More Continuing Education programmes for the faculty members and staff of academic institutions and industry personnel will be organized regularly. A Continuing Education cell will be set up.
9. In order to enhance the Institutional Management capacity, the responsible officials like Deans and Heads will be exposed to modern management techniques so that these tools may be used in education management.

D. Infrastructure Development

1. To strengthen central academic facilities – Various central academic facilities like computer centre, library, workshop, central instrumentation facility, etc. will be modernized. More text books shall be issued to the students.
2. Institute Automation – A comprehensive Institute Automation system will be set up to integrate all the activities of the Institute, to speed up the decision-making process and to move towards a paperless and transparent administration.





3. **Campus Expansion** – The present campus is now grossly inadequate in view of the recent and future expansion of the institute. It has become absolutely necessary to acquire additional land around the present campus for expansion. In case it is not available, land may be explored in and around Durgapur to set up a second campus.
4. **Expansion and improvement of Infrastructure** – Infrastructure needs urgent expansion to cope with rapidly increasing strength of students and faculty. Though additional facilities are being set up, it needs much more. Construction of more students' hostels, faculty quarters, and academic blocks housing classrooms, laboratories, faculty rooms and other supporting infrastructure are needed urgently. The entire Institute campus should be made wi-fi enabled. The infrastructure for health service should be expanded and improved. Departmental libraries should be strengthened. Audio system should be installed in large classrooms. Adequate facilities shall be provided to the staff members. The acute shortage of basic amenities like power and water must be overcome from additional sources.
5. **Students' Amenities** – Auditorium, Open Air Theater, Swimming Pool and additional playgrounds will be set up. The existing facilities of indoor games and other sports and gymnasium will be expanded.

1.2 EDUCATION SYSTEM



National Institute of Technology (NIT) Durgapur is a leading Institute in technical education. It offers UG and PG programmes in various disciplines of engineering, technology, science and management. Doctoral programme is also offered in engineering, science, and humanities.

NIT Durgapur is a part of the erstwhile REC system where education and national integration were considered inseparable, with half the seats allocated to the students from the state while the rest were reserved for the students from other states. Seats are also reserved for students from

backward communities as per the guidelines of the Government of India. The education system is holistic with equal importance being attached to academic as well as overall development of the students.

The Institute awards its own degree since it was granted academic autonomy in July 2003, and it awards its own degree. The Senate is the highest policy-making academic body of the Institute.

1.3 NEW INITIATIVES



NIT Durgapur successfully completed the World Bank-funded Technical Education Quality Improvement Programme (TEQIP) phase II as a lead institute and improved its academic infrastructure and quality of human resources. The Institute is now selected as mentor of NIT Nagaland and Dumka Engg College Jharkhand Under TEQIP Phase III. A new Centre of Excellence on "Advanced Materials" has been set up under TEQIP-II. Over the last several years, NIT Durgapur gradually evolved from a teaching-centric institution to an institution focusing on both teaching and research. The faculty members were encouraged to intensify their research activities. This resulted in a rapid increase in research output, like publication in peer-reviewed journals and being selected for sponsored projects. The Institute also initiated collaborative research programmes with esteemed research and academic institutions like CERN, Geneva, Caledonian College of Engineering, Muscat Oman, National University of Singapore, and many other academic institutions. Internship was arranged for the undergraduate students in CERN, Geneva, Germany and NUS Singapore. A number of seminars, conferences, workshops and short-term courses were organized and the faculty members were encouraged to visit premier institutions in India and abroad for participation in conferences, short-term courses and training programmes. New academic blocks, student hostels and faculty residential blocks have been constructed and the existing academic building is being renovated.



2.0 AN OVERVIEW

2.1 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 nine B. Tech. programmes and sixteen M. Tech. programmes. Besides, a three-year MCA programme and two-year MBA programme are also offered. The Institute has also introduced M. Sc. programmes in Physics, Chemistry and Mathematics with Computer Applications.

2.2 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.

2.3 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.

2.4 ADMINISTRATION

NIT Durgapur is an autonomous institution under the Government of India since July 2003. As per MOA, the Institute is headed by a Director and administered by a Board of Governors. It also has Finance Committee and Building and Works Committee. In the Board, there are representatives from the Government of India, the Government of West Bengal, industries, other institutions, and the faculty.

2.5. ACADEMIC PROGRAMMES

The National Institute of Technology Durgapur is an Institute of National Importance with a reputation cutting across international boundaries. It 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 in Biotechnology and Chemical Engineering. And it also runs five year Integrated M.Sc programme in Chemistry.

The Institute offers four semester M. Tech. programme. Total number of M. Tech. programme offered in the year are sixteen. A two-year full time MBA, two-year full time M. Sc and two-year full time MSW programmes have been on the offer

All the Programme offered in the academic year, as mentioned above are regular and fulltime in nature.



The Institute also offers PhD programme in fourteen disciplines.

Each academic year is spreading over the period from 1st July of the year to 30th June of the next year and is divided into two semesters of about eighteen weeks each.

2.6 PROGRAMMES OFFERED

2.6.A. B.TECH / DUAL DEGREE / INTEGRATED M.Sc PROGRAMME:

The Institute provides instruction in the courses leading to Eight Semester (Four Year) B. Tech. Degree / Ten Semester (Five Year) B. Tech and M. Tech Dual Degree / / Ten Semester (Five Year) Integrated M.Sc Degree

Sanctioned intake of Programme

Discipline	OP	OP-PWD	EWS	EWS-PWD	SC	SC-PWD	ST	ST-PWD	OBN	OBN-PWD	TOTAL	TOTAL
BT	28	2	7	1	13	0	5	0	18	1	75	909
CH	28	2	8	0	11	0	6	0	18	2	75	
CE	32	0	8	0	11	2	6	0	19	2	80	
CS	73	3	18	1	25	2	13	1	49	2	187	
EE	38	2	10	0	14	2	6	1	26	1	100	
EC	36	2	10	0	14	1	6	1	26	1	97	
ME	72	4	17	1	27	2	13	1	48	2	187	
MM	28	2	7	1	11	0	5	1	19	1	75	
CH-DD	2	0	1	0	1	0	1	0	2	0	7	
BT-DD	2	0	1	0	1	0	1	0	2	0	7	
CY-INT	8	0	2	0	3	0	1	0	5	0	19	

The students from Andaman & Nicobar Islands were admitted in Supernumerary Quota as was decided by CSAB 2020.

In addition, some seats were filled up by foreign students as nominated by the Government of India under various schemes.

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.

2.6 B. POST-GRADUATE PROGRAMMES

(a) Full-time programmes

The Institute offers 16 four-semester M. Tech. programmes, 1 four semester MBA and 3 four- semester M. Sc. Programmes.

Sanctioned intake of M. Tech Programme

Special-ization / Program	OC	OC-PWD	EWS	EWS-PWD	SC	SC-PWD	ST	ST-PWD	OBN	OBN-PWD	CCMT	SPON	TOTAL
BT	7	1	2	0	3	0	2	0	5	0	20	2	22
CE	8	0	2	0	2	1	1	0	6	0	20	2	22
GE	7	1	2	0	3	0	2	0	5	0	20	2	22
SU	7	1	2	0	3	0	1	0	6	0	20	2	22
XG	32	1	7	1	11	1	5	0	21	1	80	8	88
EH	7	1	2	0	3	0	2	0	5	0	20	2	22
PB	7	1	2	0	3	0	1	0	6	0	20	2	22
PO	8	0	2	0	3	0	2	0	4	1	20	2	22
MQ	8	0	2	0	3	0	1	0	5	1	20	2	22
TL	8	0	1	1	3	0	2	0	5	0	20	2	22
OR	8	0	2	0	2	1	2	0	5	0	20	2	22
FH	7	1	2	0	3	0	2	0	5	0	20	2	22



Special-ization / Program	OC	OC-PWD	EWS	EWS-PWD	SC	SC-PWD	ST	ST-PWD	OBN	OBN-PWD	CCMT	SPON	TOTAL
MD	8	0	2	0	3	0	1	0	5	1	20	2	22
TI	8	0	2	0	3	0	2	0	5	0	20	2	22
TY	8	0	2	0	3	0	1	1	5	0	20	2	22
MK	8	0	2	0	3	0	1	0	5	1	20	2	22
	146	7	36	2	54	3	28	1	98	5	380	38	418
TOTAL	191	57	29	103	380	38	418						

Other Post-Graduate Programmes (Sanctioned Intake)

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

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

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

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.



2.7 ADMISSION PROCEDURE

2.7.A. UNDER-GRADUATE PROGRAMMES:

As decided by the Government of India, Ministry of Education, the procedure for selection of candidates for admission to the Bachelor of Technology / Dual Degree / Integrated M.Sc programmes in National Institute of Technology Durgapur and in other NITs is on the basis of AIR in JEE (Main) and the same is executed through counseling by Joint Seat Allocation Authority (JoSAA) / Central Seat Allocation Board (CSAB) under guidance from GOI, MOE.

2.7.B. POST-GRADUATE PROGRAMMES:

Mode of Admission is detailed hereunder.

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

2.8. STUDENTS

The students find the environment of the Institute conducive not only to exercise their intellectual capability but also to learn with living in cultural diversity and religious heterogeneity. In this era of open market economy, India is a part of global village unconfined to its territory. Our students are actively involved in the field of researching in higher academic institutes, and working in transnational companies that have already made their marks internationally. With a large number of students at under-graduate and post-graduate levels, the institute has excelled not only in academics but also in every field one can think of. Foreign Students are admitted supernumerary as decided by the GOI, the Ministry of External Affairs and the Ministry of Education. The students have received many

prizes and awards from various other institutes in multidisciplinary activities. The NIT Durgapur is proud of producing the trained-brains where most of them get employed by campus interview itself. Some of the alumni are in the higher positions in the organisational hierarchy of the corporate sectors in India, Europe and USA.

Students' Research Activities



EXTRACURRICULAR ACTIVITIES:

i. Centre for Cognitive Activities

Centre for Cognitive Activities (CCA), is the technical gymkhana of NIT Durgapur. Intertwining every facet of engineering, CCA is a fusion of five different cells which together make it unique. It promotes scientific and technical acumen over different fields such as robotics, entrepreneurship, research, innovation, web design, and management. The variety of events and workshops organized by CCA throughout the year helps in the holistic growth of the participants. Coping up with the drastic changes in the current scenario and still fulfilling its requirements, is surely the biggest achievement of CCA in the academic year of 2020-2021.

Enlightening the minds of the new batch with its first-ever virtual campus tour using Minecraft. The Virtual Orientation Parichay 2020 with over 3.5k views has surely proved the point that CCA is open to new ideas and is capable of implementing them. To illuminate the inner strength of students, CCA started its podcast show 'The Leader's Mindset'. The podcast was endorsed by the presence of eminent guests such as Mrs. Anuradha TK and Hon. Deepak Rao with a great reach of 17k views. As the technical gymkhana of NIT Durgapur, CCA understands its role in developing insight into the future's mind. CCA organized their round-the-year successful and amenable Youth Parliament, Bally-who 5.0 saw a good response with a total of 100+ entries.

CCA, as always, has got the immense pleasure of organizing prominent workshops and seminars throughout the year, namely, the



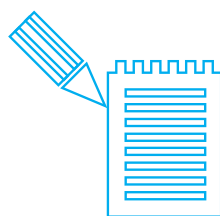
Satellite Seminar, Workshop on Data Science and Python, Stock Pro Workshop, and Seminar on Preparation Strategy for UPSC. Hard times allow starting something afresh, so did the CCA. Started the culture of grooming the new members of this college with our YouTube tutorial series SCALE-UP and ESCAPARATE. Covering some important concepts like Python, image processing, and demonstrating projects made by our club.

In pursuit of the club's goal of instilling the spirit of science and technological innovation on a national level. CCA participated in various Hackathons and competitions around the year. Securing the position of "Galactic Problem Solver Pre-Qualifier" in the Global round of the NASA Space Apps Challenge, Among the Top-10 teams in the zonal round of the Aakruti Hackathon conducted by Dassault Systems, won the Innovation Contest 2020 (IIIC, NIT Durgapur), and Open Idea Challenge 2021 (IIIT Nagpur).

Aarohan, The Annual Techno-Management Fest of the institute. The 19th edition of Aarohan, the second-largest of its kind in Eastern India.

Aarohan21, its first online edition, was a huge success for CCA. With 40+ virtual events, covering the most competitive and challenging of technical environments, exploring cybersecurity, robotics, automobile, coding, and many more. First Virtual TECH MELA, the annual science exhibition that received an excellent response with entries from all across the country and appreciation from all the judges. Inspiratie, where-in luminaries from all walks of life come and share their insights and inspiring students. Technical workshops on Catia, Cryptocurrency and blockchain, cybersecurity, Machine Learning, and AI had massive participation and elevated the spirit of technical extravaganza. CCA understands the importance of social awareness. Consequently, Organized an online fundraiser for the HOPE foundation that collected over INR 3k. With such vision and determination, CCA will keep improving and reach greater heights in the upcoming sessions.





AVANT

CCA's Annual Newsletter

Edition 4 | May 2021

About us :

Centre for Cognitive Activities(CCA) is the focal point where convergence of all technical and scientific endeavours of the students materialises in our institute NIT Durgapur

Throughout the session, CCA remains active by efficiently organising various technical workshops and events for college students.It also organises

Aarohan, the second largest techno-management fest of Eastern India

A Peak at the contents

- ❖ YEAR LONG ACTIVITIES
- ❖ AAROHAN'21
- ❖ PHOTO GALLERY

YEAR LONG ACTIVITIES :

TRIVIO:

The Web, Design and Creative Team (WDCT) at Centre for Cognitive Activities (CCA) conducted Trivio, the trivia quiz, on the CCA mobile app. It was a 100 seconds long event with 10 questions and a time limit of 10 seconds per question. The questions were based on general knowledge. The event was held on three consecutive days and had an average of 50 participants per day. The top three winners on each day were awarded with cash prizes.



Chundi. It was followed by popular career planning techniques and explanations of concepts such as the Ikigai framework. With the concept of "Career is a marathon and not a sprint" advices were given for making decisions based on long-term goals rather than short ones.

The final segment of the webinar was on the proper utilisation of time during the lockdown and strategies to maximise the remaining time on campus.

The webinar ended with a Q&A session which cleared out the doubts of the attendees.

SATELLITE SEMINAR:

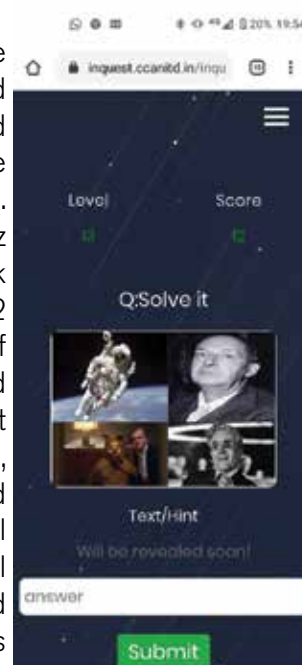


A live webinar on career counselling was organized by Centre for Cognitive Activities (CCA) in association with LifeClass. The webinar was conducted by Vishnu Chundi, Co-founder and CEO of AssetVault, a multi-award fin-tech and an alumnus of the London Business School.

The webinar started off with a brief self-introduction by the speaker, Vishnu

INQUEST:

Inquest, the online treasure hunt, was conducted by the Web Design and Creative Team at Centre for Cognitive Activities. The event followed a quiz format. The event took place over a course of 2 days and had a total of 34 questions which had to answered at any point during the event hours, questions were selected from a larger pool in real time; hence the total number of questions varied according to the progress of the event. The questions





belonged to multiple genres like art, science, literature and history. Participants were required to make connections between the displayed images and answer accordingly. The event had a total participation of 336. The top 3 names on the leaderboard were given cash prizes at the end of the event.

PYTHON / DATA SCIENCE WORKSHOP:

Centre for Cognitive Activities (CCA), in association with "What After College" (WAC), conducted a workshop series on the basics of Python and Data Science.

Participants hailed from different corners of India and mostly included eager to learn school looking to enrich their resumes before entering their respective colleges. The python program started from basic python syntax and ventured into more intermediate and advanced topics like web-scraping using beautifulsoup, meanwhile the Data Science curriculum had more detailed and specific instruction for people with prior knowledge on the topic. The workshops were overall well received by the participants and enjoyed a very positive feedback, most commended the superior instruction and the high efficiency of the management team which succeeded in adapting to the rather new online mode.

The workshops took place simultaneously over a period of 2 days for a total time of 10 hours each, they were made available to the participants at a 25% discount on the original price. Every participant was awarded a certificate of completion at the end of their respective workshops.

CASE STUDY CHALLENGE:

The Entrepreneurship Cell of Centre for Cognitive Activities (CCA), in association with Dare2Compete, ET Cases and Shaw Academy, conducted an online Case Study challenge on the D2C platform.

The event saw a massive participation of around 250+ teams from various IIMs and other institutes with each team allowed to have a maximum of 4 members.



Case abstract: The case was regarding the growth of the largest E-commerce brand, Amazon inside India and what went wrong with the company when they did business in China. A detailed explanation of the business of the company in both the nations was given in the abstract and the participants were given a set of questions at the end regarding the difference in the business strategies of Amazon in both the countries and the possible changes Amazon could have implemented in their Chinese business.

Phase 1(Case Submission): The case abstract was released on 5th September and in this online round, teams had to create an abstract of their solution in the form of a PowerPoint presentation and submit it on the D2C platform till 18th September. 8 presentations were selected for the next round.

Phase 2(Final Round): This round was conducted via online platforms, where the selected 8 teams from Phase-1 were given a chance to present their solution in a detailed format in front of the judge for the competition, Dr. Chandreie Mukherjee (Asst. Professor, IIM Vizag).

The final round commenced with a welcome speech followed by a brief speech from the judge. Following this, each team was allotted 20 Mins, 10 mins for the presentation and 10 mins for a Question and Answer round. The winner declaration took place shortly after every team got over with their presentations.

GENERAL BODY MEETING:

The General body meeting of Centre for Cognitive Activities for the session 2020-21 was held on





google

meet platform in the presence of our faculty advisors of CCA, Dr. P. Kumbhakar and Prof. J. Banerjee.

The meeting was attended by each and every member of Centre for Cognitive Activities from all the years.



Meeting started with a presentation that showed the glimpse of the work done by the club in the session. After that all the post holders announced the name of new office bearers for the respective posts, which was followed by a short speech by new Convener & Head of the club Shaswat Bhattacharjee.

At last our faculty advisors wish luck to the new post holders and praised the work done by the club in the past session and told us the area where we can improve.

PREPARATION STRATEGY FOR UPSC(WEBINAR):

Centre for Cognitive Activities(CCA) in association with NEXT IAS organized a webinar on UPSC preparation strategy. Jyestha Maitrei (IPS 2018) And Ruchika Bhardwaj (Faculty at NEXT IAS) were invited as speakers for the webinar.



The webinar was commenced by Mrs. Ruchika Bhardwaj, who introduced the attendees with the syllabus and pattern of the Civil Services Examination(UPSC). A brief description about the examination was followed by a detailed analysis

on the strategy of preparation by Ms. Jyestha Maitrei. She shared her own experience and the methodologies which worked for her during the preparation. Her practical and straightforward approach towards the preparation strategy and the importance of decision making was well-liked by the attendees.

The webinar concluded with a Q&A session, in which the speakers cleared all the doubts regarding preparation and the exam.

PARICHAY:

Centre for Cognitive Activities(CCA) conducted the very first virtual edition of Parichay, an annual event organized to introduce the freshers to the club and its activities. The event was conducted through Youtube Live on the official youtube channel of CCA.



The live stream started at 6:00 pm and firstly, a short introduction about CCA, its cells, and its activities was given by the Convener and Head, CCA. Following this was the General Secretary of the club who gave details about the Core Cell, its role, and functions in the club.

This was followed by each Cell Heads giving an introduction about their respective cells. Entrepreneurship Cell announced their fun event BallyWho 5.0 during the event. Robo cell and RnD cell displayed their innovative projects and robots with the help of videos.

The highlighting feature of Parichay2020 was the Virtual College Campus of NIT Durgapur, which the club members created using Minecraft. The audience was kept engaged by showing clips of different locations of the college in the virtual campus and by conducting different poll questions related to the college campus.



The live stream saw a huge response with over 3400 views on Youtube. This was followed by a fun online event 'The Fleeting Conundrum' conducted on Instagram which had many riddles and brain teasers.

BALLYWHO 5.0:

Entrepreneurship Cell, CCA organized their round-the-year event, Ballywho 5.0. It was a fun event wherein the participants had to apply their brains and choose an on-screen personality or character as a brand ambassador for a specific brand.



The entries given by the participants were posted on the Facebook page of CCA and winners were decided on the basis of likes, shares, and comments of each entry. The event saw a good response with a total of 118 entries.

IMAGE PROCESSING WORKSHOP:

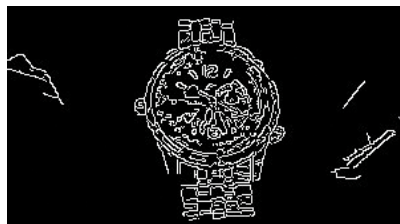
Centre for Cognitive Activities, specifically Robocell, conducted a 2-day instructional workshop on image processing. Image processing is one of the most trending technologies which finds its importance in every field of engineering. The event enjoyed very positive feedback from over 350 students, over a hundred of which were out-house participants from different colleges from all over India.

Robocell also showcased some of its attractive projects which hadn't been revealed to anyone outside of CCA previously. There were: -



RoboStare: A movement tracking webcam device which literally would "keep staring" at the user's face.

Inkless: A contactless virtual pen to draw/write on any surface. This project was intended to be used as a teaching aid during online classes.

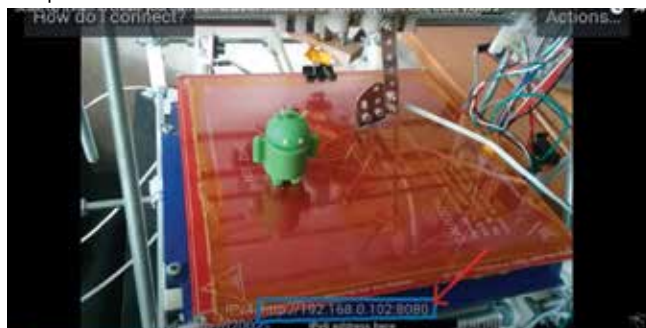


The participants were taught python programming, the basics of image processing using python along with the advanced color

detection application and shown some real life examples of the same. A combination of MS Teams and Google Collab was used to adapt to the necessary online mode of instruction. Participation in this one of a kind workshop event was made free of cost and the participants were awarded Certificates of Participation endorsed by an esteemed member of the faculty.

SCALE UP:

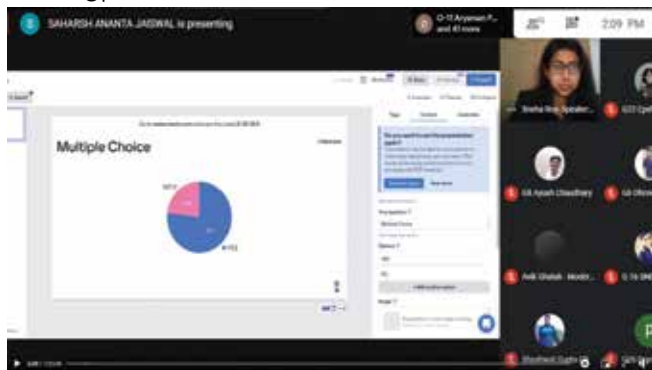
Scale-up was a "Learn by Doing" event conducted by the Research and Development Cell, CCA. First, tutorial videos were uploaded on the club's YouTube page, where key topics were explained and small projects based on those topics were demonstrated. These tutorial videos were uploaded to the channel on 21st January 2021 and 22nd January, 2021. Then, the participants were given a week's time to go through the videos, understand the concepts and use them to improvise on the given projects or to use their concepts for a different purpose. They had to submit their entries on 28th January, 2021. The most creative and innovative entries were chosen as the winner and special mentions and certificates were given out accordingly. The event saw a good turnout with 149 registrations and an enthusiastic response on the YouTube channel.





YOUTH PARLIAMENT 7.0:

The seventh edition of Youth Parliament was conducted virtually on 24 January, 2021 under the guidance of prof. Sutanuka Banerjee, and prof. Balraj Sidhu, esteemed faculty member of IIT Kharagpur.



The participants had to choose among Government, Opposition and press during registration. A workshop was conducted 3 days prior to the event to explain the roles of the different bodies to the participants. During the event, the parliament was divided into two- the government and the opposition and they were presented with several topics. Formal debates were carried out on these topics and bills were drafted accordingly. At the end, a press conference was carried out where the press could ask questions. The top performers in each category were given the Top Performer award and special mentions were given out as well.

The event was a great success, with over 180 registrations, with participants from both inside and outside college.

MAIDAN-E-CREATIVE:

CCA presents Maidan-e- Creative, a week full of creativity and learning designing from scratch.

Spanning over for almost a week Maidan E Creative offered a perfect platform for the students to showcase their artistic acumen. The students were provided with the required softwares and follow along tutorial videos to help them set up. This was followed by workshops on Graphic Designing using Adobe Photoshop and Adobe Illustrator that gave the students the exposure required for designing. The event helped students come up with minimal graphic designs and gain knowledge about the basics of designing.

The event was also followed by an exciting art

competition where the artworks of the participants that they designed during the workshops were displayed in the club's website.

ESCAPARATE:

ESCAPARATE, a video series presenting innovations that makes tackling daily life problems easier.

ESCAPARATE showcased how technology is entangled with the solutions to our daily life problems through a sequence of videos that were uploaded in YouTube. The event commenced by presenting 'Attendo', an advanced attendance system based on radio frequency identification technology, that helps the students to keep a track of their attendance with just a tap on the mobile screen and is completely hassle free.

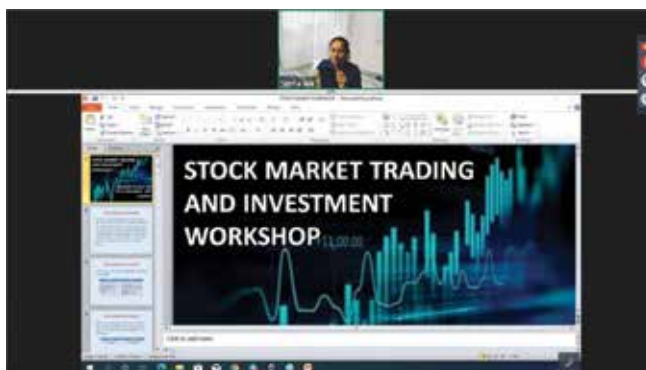


The second video of the series was all about 'unmanned aerial vehicles: Drones'. Quadcopters or Hexacopters called UAV's , having the same working principle of generating thrust for motion, were demonstrated through this video.

Despite being conducted in an online platform this event had overwhelming response from the students.

STOCK TRADING AND INVESTMENT WORKSHOP:

CORE CELL at Centre for Cognitive Activities





(CCA), in association with Stock Pro Academy conducted a workshop based on Stock Market Trading and Investment.

Participants hailed from different corners of India summing up to almost 350+ registrations. It was a 2 day training program held on GOTOWEBINAR app in which the students were taught the basics of stock market and also how to monitor stock prices in trading view. They were also taught about the different forms of trading and how stock prices depend on institutions. The participants were awarded certificates of completion at the end of the workshop.

THE LEADER'S MINDSET:

Core Cell, CCA launched its podcast series, 'The Leader's Mindset' with the aim of sharing stories of commitment, hard work, and success to foster a sense of innovation and leadership in every individual. A podcast featuring some of the most extraordinary personalities with their inspiring stories from all across the world.



The first episode of the series was launched on 10th December 2020 on the official Youtube channel of CCA. The video has over 17000 views on Youtube.

The podcast series has 4 episodes in total with some influential personalities from different fields.



Episode 1: Hon. Major Dr. Deepak Rao, considered the Indian Pioneer of Modern Close Quarter battle training. He was bestowed with Hon. rank of Major and commissioned into Parachute Regiment TA Battalion on Nov 2011 with MS Dhoni and Abhinav Bindra.

Episode 2: Shawrya Mehrotra, CEO of Metvy, India's first multilingual superconnector

Episode 3: Mrs. Anuradha TK, first ever woman project director at ISRO.

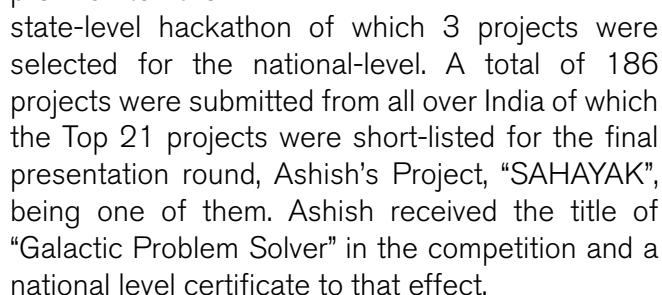
Episode 4: Mr. Bhavneet Singh, Stock Market Trader, a professional stock market trader who quit his job to pursue his passion in the markets.





NASA SPACE-APP CHALLENGE:

The hackathon consisted of three stages: prelims, state-level hackathon and a national-level hackathon. 35 teams made it through the prelims to the



Google meet. More than 180 projects from all over the country were registered for the event in which his project “SAHAYAK” (It is a human-machine interface designed for specially abled people. It is an Assistive system based mouse and keyboard that can be attached to the body of individuals with special needs and it allows them to type and interact with the computer with ease.) Has found its place in the top 3 for which he has been awarded with certificate and a cash prize of 25000.

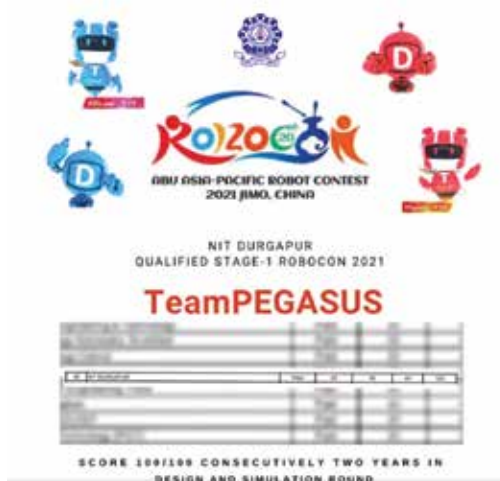
ROBOCON '21:

Team Pegasus, part of Centre for Cognitive Activities (CCA), participated in Robocon 2021. Robocon is a part of the Asia-Pacific robot contest (ABU Robocon) and is organised by Asia Pacific Broadcasting Union (ABU) since 2002. Over 92 prestigious colleges took part in the event's first round from across the country comprising most of the IITs and NITs. Team pegasus scored a perfect 100/100 in this event.

TECHNOCARE HACKATHON:



Ashish Saha from centre for cognitive activities participated in the Technocare - National hackathon on healthcare 2021 organized by Manipal University, Jaipur. Event was conducted virtually on



AAROHAN'21

PRE-AAROHAN EVENTS:

KNIGHT'S REGIUM:

Knight's Regium was the first ever Virtual Chess Tournament in association with PBDCA, organized by Team Aavishkar, as a Pre-Aarohan Event. The event saw a massive participation with over 250 registrations from all around the country.

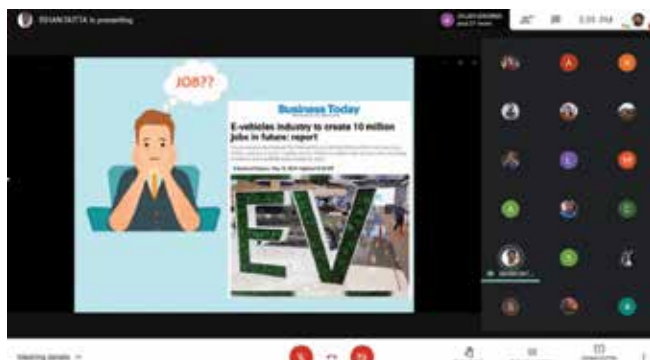


The tournament started at 10 pm sharp and the participants entered the Knight's Regium lobby on the lichess platform competing against each other in 5+0 min format matches to gain the top spot on the leaderboard. After an enthralling 1 hour of fierce matches, the Top 4 participants on the leaderboard qualified for the semi-finals.

The final match was held between Soumyadip Deb (Alumnus NITDGP) and Aman Kumar (B.Tech 4th Year, NITDGP) and the tournament ended with a thrilling match.

ROBOTIZATION:

Robo cell at Centre for cognitive activities (CCA) in association with Logiczap, conducted ROBOTIZATION in AAROHAN 2021.



Firstly two days workshop was conducted on MS Teams before aarohan in which 300+ participants registered and were taught about the Arduino and sensors and how they can use them.

It was a 3 days event in which participants were provided with several problem statements which they had to solve using their robotic knowledge and made a model showing the same. Winners were decided on the basis of their model and their knowledge and were awarded with certificates and gift vouchers.

DAY 0:



The first ever virtual edition of Aarohan was held between 1st April – 4th April, 2021. Airmeeet, a platform built for online summits and events, was used as the virtual arena for the fest. The zeroth day of Aarohan '21 saw the heads of the organising clubs address the audience and declare the fest open. This was followed by a speech by the director, prof. Anupam Basu sir, along with other members of the faculty.



After the inauguration ceremony, the first slot of preliminary round was conducted for several events, held on the AAROHAN app. The first slot of prelims was followed by performances by Enteract. The second slot of the preliminary rounds were held after that.

An amazing dance performance by SPICMACAY marked the end of the zeroth day of the fest.



TECHMELA:

The Research and Development (R&D) cell of the CCA conducted the annual science & tech exhibition of NIT Durgapur, Techmela, during Aarohan. As none of the projects could be physically displayed, the virtual exhibition was held by displaying the videos of the 3D models or simulations, along with clips of software models on the Techmela website. The



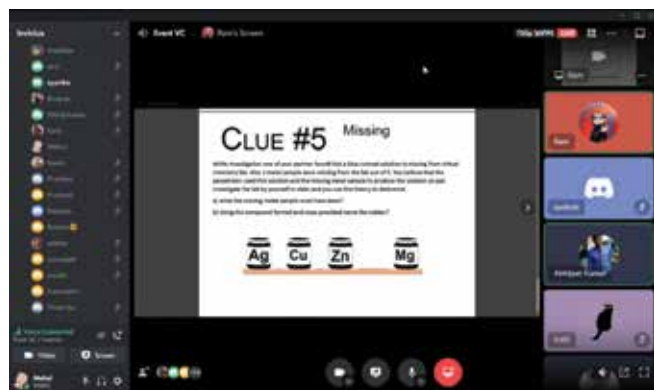


exhibition allowed participants to showcase their technical prowess and get reviews from students and professors.

DAY 1:



Day 1 of Aarohan '21 was kicked off to an early start with a series of Hackthons at 9 in the morning of 2nd April, 2021. Invictus, the flagship event of Aarohan, was conducted at noon, followed by events like Pixelate and Innovare. In Invictus, participants had to apply their knowledge in the fields of electrical, chemical, civil and mechanical engineering and perform various tasks. For the final round, they were asked to build a virtual bridge on a specified software within a day's time, the judging of which was done on day 2 of Aarohan. Pixelate was a fun event based on image processing while Innovare was an opportunity for participants to display their creative skills and innovation in various domains like waste management and smart traffic control.



The evening commenced with the rejuvenating speeches of various remarkable personalities, guesting on Inspiratie. It was followed by the 3rd and 4th phase of the prelims. A star talk-show was held right after, with Keshav Tyohar- a child prodigy who

rose to musical fame in his pre-teens. The session saw him answering questions on various topics like his life and career, along with performing several songs which kept the audience hooked right till the end. In Aarohan's Day 1 midnight, the college found itself engrossed in the exhilarating overnight gaming with games like Valorant and COD Mobile.

INSPIRATIE:



Entrepreneurship Cell, Centre For Cognitive Activities, in association with SoulNation Campus conducted their flagship event, Inspiratie in Aarohan 2021. Four notable personalities took the stage in the latest edition of Inspiratie .



The first speaker was Mr. Ashwani Lohani, Ex-Chairman & MD, Air India and Former Chairman of Railway Board of Indian Railways And Presently working as CEO Services with GMR Group. Mr. Lohani also holds an omega aquaterra 2017 Limca Record for having four engineering degrees in Mechanical engineering, Electrical Engineering, Metallurgical engineering and Electronics & Telecommunication Engineering from Institution of Engineers (India), Kolkata. He shared some of his unique life experiences with the audience about the challenges he faced during his career as well as his general approach towards things in life.

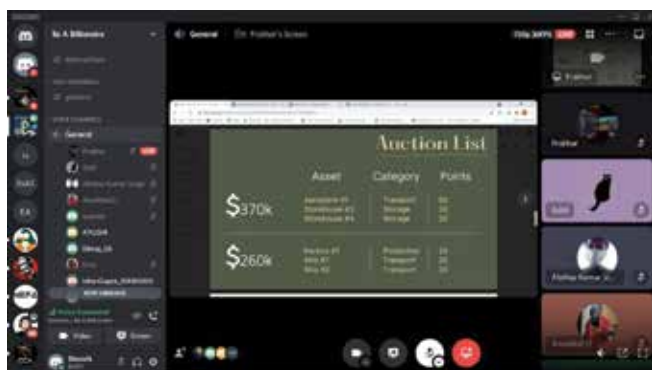


The second speaker of Inspiratie was Captain Raghu Raman, Founding CEO NATGRID, Ex-President Reliance Industries, Distinguished fellow ORF & Author. He gave an inspiring presentation on "leading in a ruptured world" for the future leaders of technology in the audience.

The third speaker was Pooja Sachdeva, Slam poet with over 40M views on social media, YouTuber, Writer, Influencer. She shared experiences from her journey from her humble beginnings to a successful Youtuber.

The fourth speaker was Vipin Sharma, Indian film actor known for his incredible performance in movies like Taare Zameen Par and Gangs of Wasseypur among many others. He provided an insider perspective on the Indian Film Industry from his own experiences. The success stories of the speakers were truly Inspiring and the Inquisitive audience charged up the atmosphere to greater heights.

DAY 2:



Day 2 of AAROHAN'21 began with Be a Billionaire which started at 11 am. This was a 2 stage event where the participants had to operate as the CEO of a firm. The event was filled with lots of thrill and excitement as teams played competitively in auctions and buying assets for their firm in order to max out their profit at the end and win the event. Be

a Billionaire was followed by another competitive event Game of Recruitment. It was an interview based event where the participants were tested for a variety of skills which include confidence, creativity, decision making etc. The afternoon saw another exciting event Colossus, wherein the participants were tested on their wit in every way possible and a murder mystery was to be solved at the end.

The evening of Day 2 was filled with a series of talk shows- Tamasha.Live and Ignitia wherein various remarkable personalities joined in and inspired the audience with their words.



The major attraction of the day was the Standup Night with Rajat Sood. A huge audience joined the live standup and thoroughly enjoyed the time.

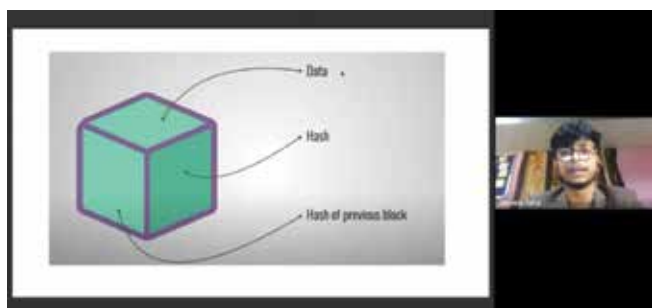
WORKSHOPS IN AAROHAN'21:

Aarohan '21 witnessed 4 workshops encompassing various fields in technology, on some of the trending topics within the industry at present. The workshops, namely- Workshop on Cyber Security, CATIA V5, Machine Learning and Artificial Intelligence and Cryptocurrency & Blockchain, were held between 2nd – 4th April, 2021 on Microsoft Teams.



Cyber Security has become a trending topic in recent times with the advent of digitalization. As we shift from the offline to online, it has become important to protect our data from attacks. The cyber security workshop covered various topics like Linux and Network security technologies, along with providing the participants with practical exercises.





Manufacturing techniques have moulded its way into digitalization and the first step towards it is CAD (Computer Aided Design). CATIA is a CAD software which is widely used in the Aerospace and Automotive industry. The Catia V5 workshop gave participants a look into both 2D and 3D modelling, along with the different workbenches of CATIA.

Artificial Intelligence and Machine Learning has been a trending topic in the industry for quite some time now. The real-life applications of AI and ML are huge, and ever-growing. Participants of this workshop were taught how to build their own ML/AI projects from ground-up.

Cryptocurrency and Blockchain workshop threw light on the concept of blockchains, and cryptocurrency as the new form of digital payment. The workshop was held considering the growing importance of Blockchain Technology in real world applications which include digital identity, smart contracts, digital voting, and IoT applications. The best performers of the workshop were rewarded with bitcoin worth 10 dollars.

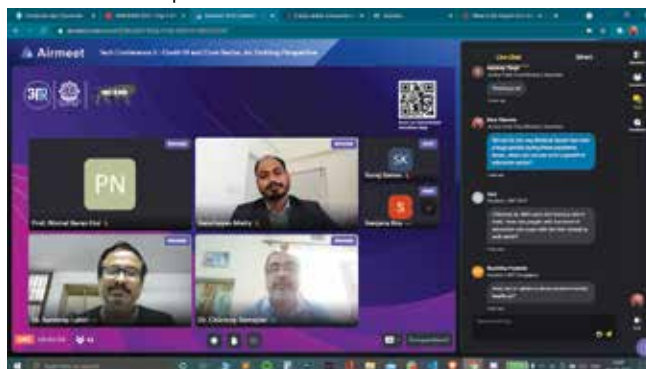
The workshops saw a total participation of nearly 250 students from NIT Durgapur, as well as various other colleges. All students were awarded a certificate of completion at the end of the workshops.

DAY 3:

The third and final day of Aarohan'20 started off with the final rounds of various events. It was an exciting morning that saw massive participation in Contraptions, an event that required participants to assemble various household items to achieve a common goal. It was followed by the conclusion to the annual B-plan event organised in AAROHAN.



The much anticipated Tech-Conference took place at noon where an esteemed panel discussed the effect of the pandemic on the core sector.



The events continued until evening, after which the Valedictory ceremony was scheduled. Performances by SPICMACAY, Enteract and Music Club took place during ceremony after which a Stand Up Comedy performance was given by Mr. Devesh Dixit. Finally, after numerous events AAROHAN 2021 came to an end with the competitive coding event Decathlon.



DANCE CLUB

ANNUAL REPORT 2020-2021

DANCE CLUB, the official dance club of NIT Durgapur, has always been a platform for the dance lovers to showcase their talent and creativity through the language of dance.

A team, putting its best efforts, continuously, to improve its skills in the depiction of many things regarding society, culture and daily life perfectly through the power of the various forms of dancing. Our development is not only limited to our group, but we also concentrate on individual improvement. Amidst of this global pandemic and the crisis faced by every individual every member devoted their precious time and energy to make each and every event successful and memorable. Even in this online mode of dance performance we kept entertaining people and raised the standards of the club even more.

The club began its journey on **Independence Day**, its performance was based on the impact of Covid-19 on our lives. It was conducted via online mode. Through the "dance", the club tried to exhibit the change in lifestyle after the pandemic hit us and then followed by lockdown and eventually how everyone dealt with stress and depression because of the alarming effect of this deadly virus without losing hope and believing that this hard time shall pass soon.

Due to this pandemic, we did not get enough opportunity to perform so the next occasion was **Republic Day**. This time it was based on how technologies have become an integral part of every human being and through "dance" we portrayed the pros and cons of using technologies and how overusing it has affected us and the environment. So as a responsible citizen we should take care of our mother earth by not overusing technologies.

Next was an online **Induction** program to first years where we introduced our club and explained about our club activities, followed by a couple of videos showing our performances based on bollywood, semi-classical and hip-hop style to show the view

of how we perform, commence and improve ourselves through the journey with the club.

The next event we performed was on **Esummit** conducted by the EDC club of NIT Durgapur via online mode. There all the members performed on different songs showing different dance styles like hip-hop, bollywood, semi-classical and thus keeping the online viewers entertained.

Next on the line was **Verve**, an event conducted by the LC club of our college. Here the members participated to present a stunning performance that added an extra charm to the event.

The club also performed in the fest like **Aarohan** in freestyle and different forms to entertain not only our college peeps but also the audiences outside college via online mode. We always try to bring out the best performance after long hours of online practice session and entertain our viewers to the full level.

We ended this session by performing on the **World Dance Day**. The entire club performed on some famous songs and then compiling them together we brought out one of mostly viewed video on our YouTube channel.

The club is pretty much active on YouTube and in this pandemic we have tried our level best to improve the status of the club through online dance performances.

LIST OF EVENTS:

AUGUST	INDEPENDENCE DAY
JANUARY	REPUBLIC DAY
FEBRUARY	INDUCTION
APRIL	ESUMMIT, VERVE, AAROHAN, WORLD DANCE DAY



DARPAN

ANNUAL REPORT 2020-2021

दर्पण द्वारा आयोजित इस वर्ष के कार्यक्रम

1 April 2020 to 31 March 2021

1. दृश्यम

“प्रतीक्षा की घड़ियाँ गिन चुके,

मन मचल रहे संगम को।

गद्य-पद की झड़ी लगाने,

नैन तरस रहे दृश्यम को।”

अपार हर्ष व्यक्त करते हुए हिंदी छात्र संघ ‘दर्पण’ राष्ट्रीय प्रद्योगिकी संस्थान दुर्गापुर के समक्ष प्रस्तुत करता है एक ऑनलाइन कार्यक्रम “दृश्यम”। इस कार्यक्रम के अंतर्गत आप सभी सहभागियों के लिए नित्य (12 जनवरी-16 जनवरी) एक चित्र पोस्ट किया जायेगा जिससे संबंधित आप अपनी कोई भी स्वरचित कविता या रचना, आडियो, वीडियो या लिखित रूप में प्रस्तुत कर सकते हैं जो हमारे फेसबुक पेज पर पोस्ट किया जाएगा। इस प्रतियोगिता में प्रतियोगी अपनी एक या एक से अधिक रचनाएँ हमें भेज सकते हैं। आप के द्वारा आई एंट्री पर प्राप्त लाइक, कमेंट और शेयर के आधार पर विजेता निर्धारित किये जायेंगे। प्रथम तीन विजेताओं के लिए आकर्षक पुरस्कार भी हैं।

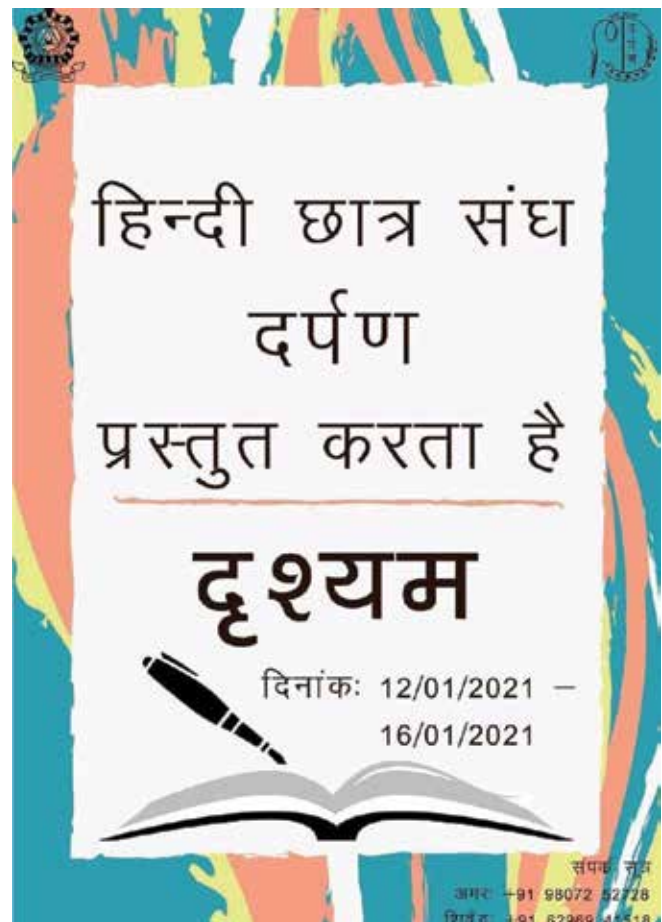
तो अपने अंदर के छिपे हुए कवि, शायर तथा लेखक को बाहर लाएं एवं इस प्रतियोगिता में भाग लेकर इसे पूर्ण रूप से सफल बनाएँ।

धन्यवाद।

आप अपनी रचना हमारे फेसबुक पेज, प्रस्तुत चित्र के नीचे कमेंट में या फिर नीचे दिए गए वॉट्सएप नंबर पर भेज सकते हैं।

Amar-9807252728

Shivendra- 6296941518





2. अभिव्यक्ति

जो भरा नहीं है भावों से बहती जिसमें रसधार नहीं
वो हृदय कहां फिर पत्थर है
जिसमें "अभिव्यक्ति" के आसार नहीं।

हिंदी छात्र संघ 'दर्पण' राष्ट्रीय प्रौद्योगिकी संस्थान दुर्गापुर की तरफ से हिंदी दिवस के अवसर पर प्रस्तुत है एक आनलाइन कार्यक्रम "अभिव्यक्ति"। इस कार्यक्रम के अंतर्गत आप सभी सहभागियों को किसी भी शीर्षक पर कोई स्वरचित कविता या शायरी लिखित, आडियो या वीडियो रूप में देना होगा जो कि हमारे फेसबुक पेज पर पोस्ट किया जाएगा।

आप के द्वारा आई इंटी पर प्राप्त लाइक कमेंट और शेयर से विजेता निर्धारित किया जाएगा। विषय-वस्तु की गुणवत्ता पर विशेष ध्यान दिया जाएगा। प्रथम तीन विजेताओं के लिए आकर्षक पुरस्कार। आपकी सहभागिता ही इस कार्यक्रम की सफलता का पैमाना है।

धन्यवाद!!

1 like=1point

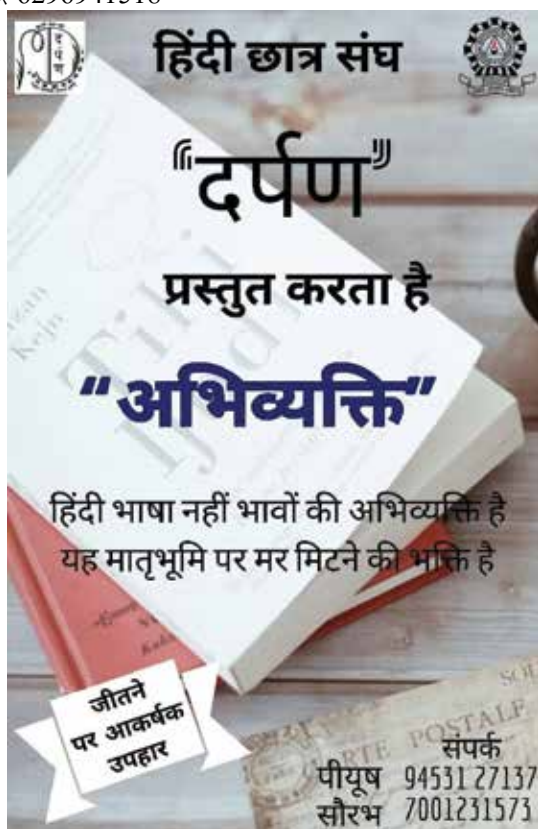
1 comment =2point

1share=5 point

संपर्क सूत्र-

अमर-98072 52728

शिवेंद्र-6296941518



3.



4.





5.



Published on Nov 14, 2020
Published on 14 nov 2020

"कविता लिखी नहीं जाती, ये आपके दिल के भावों को समेटे हुए कलम से उतर जाती है।"
हिंदी छात्र संघ द्वारा प्रस्तुत आज का यह कविता जीवन में व्याप्त संघर्ष एवं समाज की कुछ बुराइयों को दर्शाता है, और हमें उनका सामना करने अथवा समाज में खुशियों बिखेरने के लिए प्रेरित करता है। हम हर वर्ष दिवाली के प्रासंगिकता को भूल मन की विलासता के लिए अप्राकृतिक ढंग से दीवाली मानते हैं। आइये इस वर्ष परस्पर दीप सा पावन वक्ष लगाएँ (दीपावली) और मिलकर प्राकृतिक ढंग से दीवाली मनाएँ।

EXECUTIVE MEMBERS		
SR NO	NAME	POST
1.	MAHIMA KRITI	PRESIDENT
2.	SUDEEPTA GORAI	VICE-PRESIDENT
3.	SARAH BAITULLAH	GENERAL SECRETARY
4.	KARTICK KUMAR GHOSH	TECHNICAL HEAD
5.	CLAN ABY PHILIP	TREASURER
6.	SNEHA SINGH	CONVENER



EVENT CALENDER		
SR NO	EVENT	DATE
1.	OXFORD DEBATE 2020	5TH-6TH SEPTEMBER, 2020
2.	KNOW YOUR CAMPUS	6TH-15TH DECEMBER, 2020
3.	ICEBREAKER	23RD-26TH DECEMBER, 2020
4.	RENEGADO	16TH-17TH JANUARY, 2020
5.	FICTIONARY	27TH-28TH JANUARY
6.	ASIAN PARLIAMENTARY DEBATE II	19TH-21ST MARCH
7.	TAKE DEBATE 3.0	24TH APRIL



OXFORD DEBATE 2020

DATE - 5TH TO 6TH SEPTEMBER



Oxford debate 2020 was the first edition of its kind, the format of this debate was inspired by Oxford Union debate where the audience also plays a major role when choosing the winning side. This debate took place online on MS teams besides was a 1v1 debate, a topic was given 30 mins prior to the debate and each debater had to prepare a stance assigned by the OC to deliver speeches of 4 minutes. Once the debaters have completed their speech, audience plays a crucial role and ask questions pertaining to the speeches moreover votes for the side which they think have upper hand. More than 70 debaters participated along with a dozen adjudicators from all across India and made this event a great success for the Debating Society NIT Durgapur.

KNOW YOUR CAMPUS

DATE - 6TH TO 15TH DECEMBER



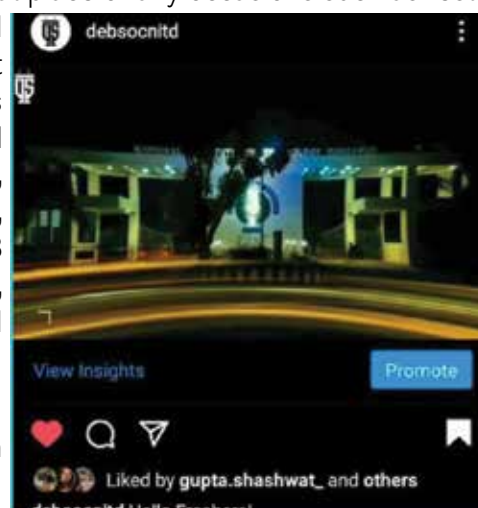
As seniors we understand how exciting it is to gather information regarding the college, all sorts of myth and exotic places we have heard on the internet or via seniors before perhaps this series was tailored only for the new joinees, Know Your Campus, which has the motive of taking them through a virtual tour of the campus. Moreover we also gave them a chance to go Mano e Mano with the seniors of the club about any topic that baffles them. This series extended over a week where each day we released

one video dedicated to a specific place on campus along with a very-well elucidating writeup which describes that place or any occasions such as fests associated with that place. Series included Hall 1, Hall 7, Ovals, Lords, SAC, MAB and NAB, Nescafe and Library.

We

received an exhilarating response

from every year across the college where half of the videos have been viewed 1000 times on instagram.





ICEBREAKER

DATE - 23RD TO 26TH DECEMBER



Icebreaker was an online event and our first event to initiate a conversation and to give first year an opportunity to think differently on a bit out of the league topics. We released one topic each day moreover all participants were asked to send us their

argument either in support or as opposition. After this we posted their argument if it abides by the policies of facebook. The participants with maximum likes, comments and shares plus considering OC's views were chosen to be the winners. Few topics were: If you had a time machine, would you go to the Future or the Past? Between Teleportation and Invisibility, which power would you rather have? We received more than 120 responses through facebook and email including a lot of positive applause from the first years.



If you had a time machine, would you go to the Future or the Past?

Entry No: 23
Name: Shubham Shantamraju
Roll No: 20B80041

At some point in our lives we have all overthought the possibilities of what would have happened in our lives if something were to happen differently in the past, what would have happened if I had confessed to my crush,

RENEGADO

DATE - 16TH TO 17TH JANUARY



Renegado was our first debating event specifically targeted to the first year as no prior knowledge was expected at all. Renegado was a Turncoat debate, in its essence, where you even betray your very own stance, that too in the same breath. A debater is asked to prepare for both sides on a topic and switch

the stance in between while speaking, 4 minutes were given in total, 2 minutes for both the stances. It's an enthralling debate format which is often

touted to be a critical assessment of a debater, wherein his/her arguments and rebuttals need to be equally balanced to furnish a great speech.

More than 55 first years plus outhouse participants from Delhi University and Jadavpur University to name a few participated out of which only 15 were promoted to the finals and 3 were chosen as winners.





FICTIONARY

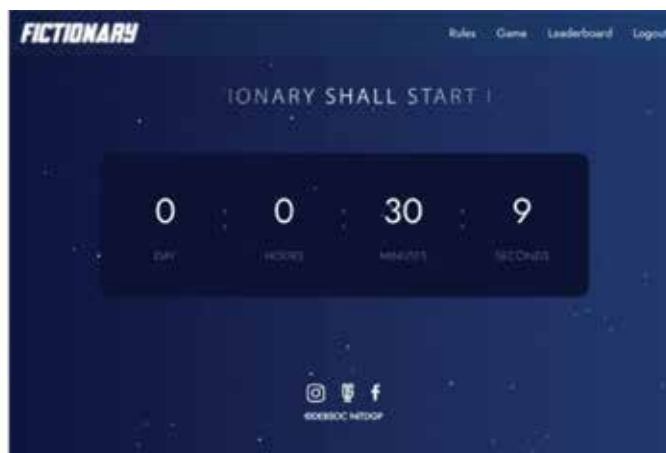
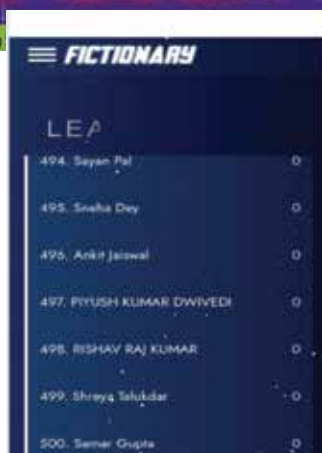
DATE - 27TH TO 28TH JANUARY



After conducting a lot of serious events pertaining to our motive, this time we chose FICTIONARY as it was a quiz event based on series, novels, films, and characters that found a special corner in our heart. It was a collection of daunting

masterpieces, to brush up our thinking and conquer the binge world! Participants had to be quick and witty to make the cut.

FICTIONARY gathered over 500 participants. Performances were seen from every year be it first, second, third, or the final year. We got to see a brilliant display of fast thinkers.



ASIAN PARLIAMENTARY DEBATE

DATE - 19TH TO 21ST MARCH





We were proud to present our second edition of the **Asian Parliamentary Debate, APD II**

A year back we had held our very first edition of the same and this time we made it bigger and better, not letting the pandemic deter our spirits. With a higher team cap, quality core adjudication panel and an even higher prize money, the competition just got better to bring out the best in the pan India participants.

This APD saw 180+ participants, ranging from the prestigious Delhi Debating Circuits to International Invited Adjudicators, this was indeed a unique learning experience of debating for all of us. The prize money pool also added weight to the intensity of debates and increased their enthralling factor.

TAKE DE-BAIT 3.0

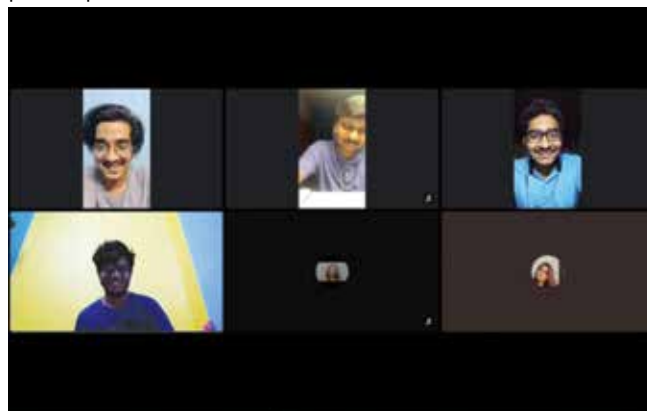
DATE - 24TH APRIL



You are never punished for crime, you are only punished for not executing it carefully so as to not get caught.

TakeDeBait 3.0 grew on the suspense quotient from the second with an even more complex storyline with a lot of mysteries hidden to check the detective capabilities of the participants.

A lot of twists and turns, a lot of finger pointing among the suspects and the dodgy murderer, laced the event, held virtually this year and saw 100+ participation.





Entrepreneurship Development Cell

Annual Report 2020-2021



Entrepreneurship Development Cell

National Institute of Technology Durgapur

M.G. Avenue, Durgapur

West Bengal, PIN - 713209

ANNUAL REPORT: 2020-21

ON CAMPUS HULT PRIZE(13TH DECEMBER 2021):

One of the world's largest student entrepreneurship programs offered in partnership with the United Nations. With a \$1,00,000 prize for the global winners as its anchor activity, Hult Prize is the largest platform for one to create ideas and take action to build a better world. The OnCampus Rounds of Hult were conducted in NIT Durgapur by EDC and saw an overwhelming participation from enthusiastic students pitching their best ideas before a panel of highly qualified judges and mentors. The winning teams received mentorship and went on to the Hult regionals. With more than 25 teams comprising 120+ students, the first edition of On-Campus Hult Prize was a grand success.

LUMINOUS 3.0(15TH NOVEMBER 2021):

An event where participants are required to showcase their artistic side by making designs using any source of light. The art is to have an entrepreneurial linkage and a picture of the same had to be sent along with a suitable caption. Held around Diwali, in online mode, this event aimed to test their creative capabilities and awarded the best talent. Luminous 2020 boasted of more than 100 submissions from enthusiastic participants.

Bizcup 3.0(16,17,19th January 2021):

The third edition of Bizcup was held online due to the ongoing pandemic. However, the participation and the zeal of students were on the rise as the competition saw a participation of around 200+. Through three exciting rounds of the contest, we aim to put the students in the shoes of entrepreneurs to help them understand and take interest in Entrepreneurship. With over 250 participants,

BizCup 2021 was one of the biggest events of the year, helping EDC with its goal of fostering the entrepreneurial spirit amongst college students.

E-SUMMIT 2021(2-4TH APRIL 2021):

E-summit 2021 was a phenomenal success held during the month of April 2021 this year that swept the college and around with the uncompromised quality and was a giant leap in our ambitions to build an enterprising community. E-Summit'21, despite being a virtual summit, saw an exponential growth in participation, activity, influence and reach. It witnessed a footfall of more than 5000 students across all events from various colleges and schools nationwide and a social media reach of more than 10000 individuals.

PRE-ESUMMIT EVENTS:

Before E-Summit began, there were a number of "warm up" events organized to raise spirits and to support charitable causes as well. "**Million dollar questions**" sought the insight of college students on various riveting and electrifying scenarios. A gaming event, "**Ring of Rivals**", was organized for Valorant enthusiasts and featured popular names from the world of streaming(namely-HellRanger, antidote, deathmaker). A countdown series(**A Moment Out of Time- A post-pandemic tale**) was presented as an effort to empathise with the struggles of the small business owners who had enriched the lives of so many students of NIT Durgapur.

RING OF RIVALS

One of a kind event where talent meets opportunity. It was organized to help promote the Gaming Content Creation Industry. Gamers compete to earn a chance to fight some of the best gaming streamers in the country and prove their mettle in front of the world. Through the donations made on streams, the event managed to raise over Rs.11580 to support the Bihari More Education Project(BMEP), which assists underprivileged children.

HIGHLIGHT EVENTS OF E-SUMMIT

AUCTION ARCADIA

Auction Arcadia was a mock auctioning of IPL



teams which saw enthusiastic participation from the students. The team which formed the best IPL team at the end with the allotted virtual money was declared the winner. It tested the risk-taking and strategy-making abilities of students.

CORPORATE ESPIONAGE.

An event based on a real-life scenario involving a spy in a company who leaks secretive information about it. As a result of an inadvertent lapse in the automobile industries, participants take up the roles of the directors navigating turbulent waters, who have to devise a plan to survive the crisis or, that of a spy playing for more than one team. The event tested the strategy-making and decision-making skills of the students. Being fun at the same time due to the mysterious nature of the contest.

PITCH FEST:

EDC's flagship event where students from all across India presented their creative business ideas before a panel of renowned judges, mentors and investors with the chance to gain funding and mentorship from the industry experts. The perfect opportunity for students to pitch themselves and get a practical experience of true entrepreneurship. E Summit'21 saw a plethora of brilliant ideas from students across several colleges, putting up a tough competition for the top spots. The best ideas received prizes, coupons and mentorship from the esteemed panel to shape their entrepreneurial dreams. The event was graced by a keynote speech from digital marketing veteran, Mr. Atul Hegde.

INTERNSHIP FAIR:

A one of a kind event where opportunity came knocking on the door for students yearning to get their hands dirty in the corporate industry. With more than 10 companies to apply to, students got the chance to intern at startups for various profiles including web development, content writing, digital marketing, etc. This event gave the students the exposure and insight into what goes on behind interview walls and posed as the perfect challenge to best develop their skills.

RANNIT-E:

It is a Case Study event. It puts being able to think out of the box and a keen presence of mind to the test by making participants step into the shoes of a CEO in charge of steering a company out of a crisis by making shrewd, calculated decisions.

Participants presented their solutions in front of incredibly accomplished guests.

QUIZ-A-PRENEUR:

A flagship event particularly aimed at school students to develop their interest towards Entrepreneurship. A test of knowledge and wits to see who amongst the participants knows the most about entrepreneurship and has a clear set vision towards making a mark in the field.

E-TALKS:

A series of talks were hosted by a number of esteemed guests which saw immense participation. Speakers included distinguished personalities such as **Mr. Aman Dhattarwal** (Youtuber and Founder of Apni Kaksha and Hustlers Bay), **Ms. Malini Agarwal** (Founder of MissMalini and Creative Director of Malini's Girl Tribe), **Mr. Satish Ray** (Indian comedian and YouTube personality), **Mr. Farrhad Acidwalla** (Media and Technology Entrepreneur), **Ms. Ushoshi Sengupta** (Miss Universe India 2010), **Ms. Shramona Poddar** (Travel blogger), **Mr. Barry Howard Minkin** (Owner, Minkin Affiliates), **Mr. Vishnu Kaushal** (Instagram content creator) and HYPP Exclusive business head - **Mr. Ayush Guha**. The topics ranged from self-discovery, following "the road not taken" to the struggles of the young entrepreneur. **A panel discussion** (The Founders Forum) involving **Mr. Sandeep Jain**, (Founder of GeeksForGeeks), **Ms. Meera Shenoy** (Founder of Youth4Jobs), **Mr. Satanik Roy** (Founder of HyperXchange) and **Mr. Arvind Prakash** (Founder of Superbolter) was organized wherein the distinguished CEOs discussed the topic-'Behind the beauty and glamour, uncovering the reality of Indian entrepreneurial ecosystem'.

OUR SPONSORS AND PARTNERS:

■ Instade ■ 91.9 friendsFM ■ Geeks For Geeks
 ■ DU Express ■ TIME ■ Ambica Polymers
 ■ Intern Lane ■ Ideapreneur ■ Inmovidu
 ■ CertifyMe ■ StepSetGo ■ Lovelykee
 ■ PrepKare ■ Custkart ■ BookLustic



ENTERACT

Annual Report 2020-2021

Enteract, the official Dramatics club of NIT Durgapur, has been providing a platform to one and all in the college to showcase their talents in dramatics which gets somewhere lost amidst the monotonous online classes and has been succouring people develop their dramatic prowess. The club not only takes charge of the entertainment field but also spreads awareness among people through modes of street plays, stage plays, monoacts, mimes and short films.

The club as always began its journey right on Independence Day wherein the newly inducted members of the club prepared a new video titled – ‘That is why we are Indians’. Though sitting quarantined in their houses, the club members never saw it as a hurdle which stops them from doing what Enteract has always tried to do through any of its works – ‘spread awareness’. The video focussed on a lot of habits we tend to have because we are Indians, some good, some not so delightful to watch. The video and the club received immense love and appreciation in the form of likes and comments on YouTube from everyone watching that video.

When online classes had been newly introduced to our curriculum which was around October, we did not fail to see through a lot of its pros and cons and obviously we made the common people aware of it through a new video – ‘Problems in Online Classes’ and just like the previous video, this video too received a lot of appreciation on YouTube.

We as a club have always felt proud on the rich legacy we had. Completing 12 fun filled, dramatic years we decided to dedicate a video to the club’s legacy where we contacted members from all past batches, starting from those who conceptualized about this club all the way to the most recent batch and layered out how the club has evolved since its dawn 12 years ago. This video was released on

YouTube in the month of December titled- ‘12 Years down the Lane’.

As a part of our on-field events we used to represent our college at various cultural fests throughout the year but since the lockdown we had to restrict ourselves solely to online media. The lockdown may have stopped us from performing out in the field but we still managed to represent our college at various fests which were held through online means.

We participated in Krevia, IIIT Vadodra where we participated in the monoact competition-‘Abhinay’. Spanning over two rounds and multiple breathtaking performances, we succeeded in securing the 1st position at the competition. The monoact that received the recognition was one that involved sermons preached by Lord Krishna at the time of Mahabharata.

We also participated in Spring Fest, IIT Kharagpur in ‘I, Me, Myself’, the monoact competition of the fest. We performed 5 monoacts and managed to bag the 3rd position. The prize receiving monoact was that of a condom talking to the real world about people being so ashamed to talk about it in the open.

At Aarohan 2021, we performed 6 Mono Acts in front of our college audience which included both the prize winning performances. All performances received immense love from the audience of our college.

Enteract has been about cheerful faces singing and tapping their feet joyfully to the drum beat, their voices loud echoing through the walls of SAC making the surrounding reverberate with the same energy, thus cultivating dramatic skills in young technical minds. While the lockdown holds us from gathering together, we will never stop spreading social awareness wherever we can.





GNU/LINUX User's Group (GLUG)

Annual Report 2020-2021



GNU/LINUX Users' Group (GLUG)

Academic Year 2020-21

EVENTS DEDICATED TO FIRST YEARS :

14TH DECEMBER, 2020

ScreenCast Quiz:

ScreenCast Quiz is a quiz based on the screencast videos that we have previously uploaded in the form of a playlist on our YouTube channel. This playlist provides the first technical head-start, and makes them acquainted with different technologies and languages.

Participation: 320

20TH DECEMBER, 2020

Digital Fortress:

Digital Fortress was conducted as a first-year exclusive online quiz based on locations on a map to solve clues. Incredibly enthusiastic participation was received from the first years.

Participation: 480

14TH - 16TH JANUARY, 2021

Open Source Starter Pack:

Linux Bootcamp:

The first workshop that GLUG conducted was based on Open Source and Linux, where we targeted teaching the first years about the most popular and free OS, Linux. Considering the need for Linux in different departments during senior years and later in life. We conduct this workshop to guide them in the initial phase of their journey with Open Source.

Helping them install, we ensure that an immediate interest in learning something new is created in their young minds.

Participation: 2k+ cumulative views on Youtube over the course of two days.

Git/Github Workshop:

The demand for this Version Control System is ever-increasing. From the tiniest of personal projects to corporate level software, everything is dependent on the knowledge of Git today. Understanding its importance, GLUG organised a hands-on workshop on Git and GitHub.

Participation: 2k views on the YouTube video

20TH - 22ND JANUARY, 2021

Mentorship Program:

First years were mentored in various tech stacks, varying from the very basics of HTML, CSS, JS to web development frameworks and stacks like NodeJS, Django and React. Projects were built from scratch and participants successfully learnt through live coding and mentorship sessions and completed their first project in the web dev domain. Mentoring was done through Google Meet and doubt clearing on discord.

Participation: 381 students across four major projects

2ND FEB - 4TH FEB, 2021

Mini Capture The Flag(CTF):

Capture the Flag is a unique event that demonstrates the power of Linux, hacking and development. By organising the first-ever CTF for the first years in our college, we give them an opportunity to pique their brains and solve real-world problems using Linux terminal and commands. This event not only gives them a taste of the competition outside but also brings to lime-light the prospective hackers of our college.



Participation: 450+ students, 150+ teams

15TH FEBRUARY, 2021

Junior Code Cracker:

An event exclusive for the first years, JCC is the door opened for all the newbies, to a world where logic is the operating system and programming is the only comprehensive language. Keeping the

prelims mainly logic-based, we ensure equal opportunities for those unfamiliar with the same. Being one of the first events, JCC lays an empty plate for all the future code-chefs.

Participation: 400+ students for first round with 100 qualifying for the coding challenge

SEMESTER ACTIVITIES :

2ND -12TH OCTOBER, 2020

Ten Days of Code:

Inspired by the very successful 100 Days of Code, we organized a 10 day long guided tour on any of our 5 projects all set in various levels of difficulty. Projects ranged from Stock Prediction application to our own Version Control System. This gave aspiring developers an opportunity to learn, conceptualize and create their own finished products under the guidance of respective mentors assigned to them. Students also successfully completed their hacktober fest via the pull requests made during this coding period.

Participation: 300+ students from 50+ colleges across the country

8TH OCTOBER, 2020

Geektober Quiz:

An online audio-visual quiz that appealed to the inner geek inside the participants irrespective of their passion for literature, technology, science or art.

Participation: 250+ students

SEP 18 TO OCT 10, 2020

Ask Me Anything:

A series of AMA sessions with a panel of speakers comprising the alumni of our institute, currently

working in the best tech companies in the world.

Views: 4000+ on YouTube+Facebook

15TH OCTOBER, 2020

HacktoberFest Hack Day:

HacktoberFest Hack Day was an initiative to help students understand Pull Requests in Github and then contribute to clear the HacktoberFest challenge, an open-source global event organised by DigitalOcean Inc.

Statistics :-

Participation: 309

Total Pull Requests Made: 587

25TH JANUARY - 2ND FEBRUARY, 2021

GSoC Heat:

To promote Google Summer of Code, the most reputed internship across the globe, in our campus, GNU/Linux Users' Group annually organizes the only in-college GSoC guidance and simulation program, GSoC BarCamp. Members from our club who have previously cracked GSoC mentor students and guide them through the entire process. We also conduct GSoC Heat - a miniature version of GSoC in a reduced time frame.

Participation: 300+ live on Microsoft Teams

13TH - 14TH MARCH, 2021

HACK.ME:

A hands-on session that covered automating MS Teams using Selenium and Python.

Participation: 3000+ views on Youtube with 200+ live on MS Teams

26TH TO 27TH APRIL, 2021

MinderSnatch

An online event based on the concept of "Black Mirror: Bandersnatch". Participants need to

reach the end of a mission by choosing an option at every step. For every step they take, the story takes a different turn.

Participation: 665





12TH MAY, 2021

Amazon Talks

An online talk session addressed by a panel of 5 prominent speakers from the world of technology (software industry). The event saw enthusiastic participation from students of all spheres. All the way from New York, Menlo Park, Seattle, Bangalore and Hyderabad, these people talked about open source and technology and cleared students' doubts about jobs and higher studies in this field.

Participation: 3500 views on Facebook and Youtube Live sessions.

15TH TO 16TH MAY, 2021

System Design Workshop:

We conducted a workshop on System Design to inspire students to pursue further in this ever-growing field. A must for Software Developers, this workshop is a stepping stone to their future success.

Participation: 3k cumulative views over the course of two days with 300+ live attendees

Techbytes:

A weekly blog on the latest trends in technology is featured on all our social accounts under the series called "TechBytes". We hope to make our pages increasingly professional and engage the audience with fruitful content. The content mostly pertains to the latest headlines in the field of open source and technology in general.

How open-source changed the world:

A Youtube series to best showcase the impact of Open Source Software on the various technologies that we use today. This is a step taken to encourage viewers to contribute to FOSS and build a healthy open source community in and outside our college.

Views: 1000+ cumulative views on YouTube

DEV Blogs

We were the first institute club to make our

presence on DEV.to, one of the most popular blogging websites for Open Source and technical content. We have since posted several original articles, tutorials and tweaks providing the latest insights into upcoming and evolving technologies, along with better planning and unique execution methods on existing ones.

Statistics: 40,000+ views on our posts with two articles featuring in the "Top 7 Posts of the week" on DEV.to.

GLUG Mobile Application:

Launched on **1st January 2021**, The GLUG App is the one-stop access point for all NIT Durgapur students for GLUG activities and events, and even **college notices**. The app has Social Media OAuth and the ability to push custom notifications. The app also has an attendance tracker and also shows publicly available institute notices directly from the app to help students through their academic ventures in the institute. The app is available on the Google Play Store.

Statistics:

- 1) Downloads - 467**
- 2) Reviews - 5/5**

LINIT magazine

LINIT is the Official FOSS Magazine of the college. One of the few magazines published in the college, LINIT is the perfect platform to show off one's technical knowledge and channel one's love for everything geeky. Comprising articles about any technology under the sun, LINIT is one of the most prestigious magazines of our college and is GLUG's pride.

MAJOR ACTIVITIES:

1ST - 4TH APRIL, 2021

Aarohan, the Techno-Management Fest

The GNU/Linux Users' Group is a part of Team Aavishkar and thereby one of the organizing clubs of Aarohan, the annual techno-management fest of NIT Durgapur. From usually organising online and



offline events during the fest, to intricately planning the shift of the fest into an entirely online format due to the current pandemic, we helped with managerial work, and developed the website for the fest and also built the iOS and Android application for it. We also built our own form of digital currency for the fest named Eurekoin.

Individually we organised the following events: Capture The Flag, CodeCracker, Freemex, Online Treasure Hunt, Digital Fortress, Journo Detective (shared), Software Hackathon, Hardware hackathon (shared), Perplexity, Behind The Scenes, Explicate, Fantasy Football, Incanity (shared), Twin Attack (shared), Overnight Gaming (shared), Techmela (shared).

MAJOR ACTIVITIES:

1. FOOBAR CTF:

This was the expansion of mini Capture The Flag(CTF) which

witnessed immense participation from the students. CTF is a kind of computer security competition that very often ignites one's cybersecurity career due to its competitive nature and team-building aspect. The problems ranged from all sorts of topics such as cryptography, steganography, web and reverse engineering. Highly motivated students to explore and learn different techniques of cracking the codes and systems. We got a tremendous response domestically as well as internationally.

More than one thousand users participated with the leaderboard as:

1. INFOSEC -IITR
2. C0nt1n3nt4l
3. Onlyflags

Total Users: 1k+

Total Teams: 782

2. JOURNO DETECTIVE:

A location-based online treasure hunt wherein participants had to visit various parts of the map to activate hints and levels, baked right into the official Aarohan app.

Participation: 248

3. FREEMEX:

A real-time stock market simulation game where participants can trade real stocks with a dummy currency. The stock prices are fetched in real-time from NASDAQ for 20 companies.

Participation: 780

4. CODECRACKER:

A 2-hour long online coding contest hosted on our very own Online Judge

with original unique questions. A very well acclaimed competition both domestically and internationally.

Participation:

- Domestic: 200+ participants

- International: 50+ participants

With the top 3 at the end being the globally famous competitive coders :

1. Jay Leeds (Swarthmore College, United States)
2. Rahul Dugar (IIT Roorkee, India)
3. Piyush Sethia (IIT Roorkee, India)

5. SOFTWARE HACKATHON (HACKOVERFLOW):

We organise the only Hackathon of NIT Durgapur- "HackOverFlow". It includes both Software and IoT - Hackathon. This year 50+ teams from different colleges took part in the Hackathon. We look forward to expanding the scope of this competition.

Participation: 300+ teams

6. GLUG CORNER:

With the GLUG CORNER, we presented a visual representation of what Linux is all about, to the viewers. These projects showcased how Linux can enhance the visual, gaming, and technical experience manifolds.

Views: 1k+ on Youtube





7. TECHMELA

The annual science and technology exhibition of Aarohan, Techmela was a platform for over 50 exquisite exhibits covering various fields from robotics, IoT, Machine Learning and Natural Language Processing, through which we presented some of our projects to suit the current pandemic.

problems using innovative hardware solutions involving new technologies in the fields of microcontrollers, robotics, Internet of Things and embedded systems.

Participation: 150+ teams

Statistics of the Aarohan Mobile Application:

1) Downloads - 3210

2) Reviews - 4.7/5 (296 Reviews)

8. VIRTUAL HARDWARE HACKATHON

A 36 hour hackathon aimed at solving real life



IEEE SB NIT DURGAPUR

ACTIVITY REPORT 2020-2021

INTRODUCTION

The IEEE Student Branch, NIT Durgapur is a society of enthusiasts aimed at promoting research-related activities in the campus. Comprising bright researchers, developers, speakers, and other contributors we are a society that welcomes in the era of better research prospects, on the campus. When you join IEEE, you join a community of over 425,000 technology and engineering professionals

united by a common desire to continuously learn, interact, collaborate, and innovate. IEEE Membership provides you with the resources and opportunities you need to keep on top of changes in technology; get involved in standards development; network with other professionals in your local area or within a specific technical interest; mentor the next generation of engineers and technologists, and so much more.

EVENTS AT A GLANCE :

#	Name of the Event	Date	Event Code	No of Attendees
1.	Qriosity 2.0	12th and 13th September, 2020 Q-02	150+	
2.	Polaris	14th May and 19th June, 2020	PLRS	1000+ (views)
3.	IEEE DAY			
	6th October, 2020	IEEEED	500+ (views)	
4.	Internship Bootcamp 2.0	15th February, 2021	IBC2	
5.	Collaboration with the University of British Columbia, Canada		CUBC	
6.	MATLAB Mastery 2.0	10th – 17th April 2021	MLM2	300

EXECUTIVE MEMBERS

FINAL YEAR EXECUTIVES

#	Name	Email	Dept	Post
1.	Subhayan Akhuli	subhayan.akhuli@gmail.com	BT	Chair
2.	Rohan Choudhury	rohanchoudhury.ce@gmail.com	CE	Vice Chair
3.	Arka Bera	sonaiarka@gmail.com	MM	Treasurer
4.	Sugata Mondal	sugata.mondal@outlook.com	MM	Secretary
5.	Sutirtha Chowdhury	sutirthachow97@gmail.com	ME	Sponsorship Head
6.	Shantaneel Halder	haldershantaneel@gmail.com	CH	Webmaster
7.	Anurag Sarkar	anuragsarkar@gmail.com	EE	Convener
8.	Sourav Nag	souravnag08042000@gmail.com	CH	Creative Head
9.	Soumik Paul	soumikpaul1999@gmail.com	EE	Technical Head



**THIRD YEARS****SENIOR EXECUTIVES**

#	Name	Email	Cont. No.	Dept.
1.	Aman Agarwal	amanagarwal2423@gmail.com	8981494321	ME
2.	Atul Kumar Tiwari	atulcena123@gmail.com	9474219623	EC
3.	Dhrubajyoti Kumar	dhrubajyotifermat@gmail.com	6295526864	ME
4.	Gagan Prasad Gautam	gagangautamaa@gmail.com	9479307300	ME
5.	Khushi Bansal	Bansal.khushi2299@gmail.com	7891611159	EE
6..	Mohit Kumar Kochar	mohitkochar@ieee.com	6291159423	EE
7..	Pritish Singhal	pritishsinghal08@gmail.com	8529439173	EC
8..	Shubhangee	shubhangee.141@gmail.com	8986747045	ME
9..	Vimal Kumar Dubey	vimalkumardubey10@gmail.com	9531811405	CS

SECOND YEARS**JUNIOR EXECUTIVES**

#	Name	Email	Cont. No.	Dept.
1.	Abhishek Basu	iabhishekbasu@ieee.org	8348793053	CS
2	Aditi Sengupta	aditisengupta71@gmail.com	7001697895	BT
3.	Akshat Bhatnagar	akshatbhatnagar174@gmail.com	7300216359	EC
4	Aman Kumar	ak14aman2002@gmail.com	9002273768	CS
5	Arka Seth	arkaseth@gmail.com	9883040840	CS
6	Chetan Sheoran	chetan.sheoran.09.083.2001@gmail.com	9531854008	CH
7	Disha Sharma	kgpdishasharma@gmail.com	8617565729	BT
8	Ishaun Sinha	sinhaishaan46@gmail.com	7497966959	CH
9	Payel Bose	payelbose.official@gmail.com	7890826959	EE
10	Sagar Agarwal	sagaragarwal612@gmail.com	8400700448	CS
11	Santam Roy Choudhury	roychoudhuryasantam00@gmail.com	9123766252	BT
12	Sayan Mondal	sayan.mondal.tech@gmail.com	9564870544	EE
13	Vaishali Barua	vaishalibaruaofficial@gmail.com	7686938802	EC

ADMINISTRATIVE BODY**CHIEF PATRON:****Prof. ANUPAM BASU**

Director, NIT Durgapur
(+91)3432546397

FACULTY ADVISOR:**Dr. CHIRANJIB KOLEY**

Dept. of Electrical Engineering
(+91) 9434788130

COUNSELOR:**Prof. NIRMAL K. ROY**

Dept. of Electrical Engineering
(+91)9434788042

Dr. ANIRUDDHA CHANDRA

Dept. of Electronics and Communication Engineering
(+91)9434788106



QRIOSITY 2.0

ONLINE QUIZZING COMPETITION

The IEEE Student Branch NIT Durgapur brought out the hidden cryptographer in all, through Qriosity 2.0 - an intriguing quiz based on the theme of the Enigma. With a spectacular website design and some brain twisting questions, this event was a great success with a turn up of around 150 people. The event had two levels which spanned a duration of two days. People tried to decode their way through the two levels with great zeal.

The quiz website, which was built and hosted by the branch itself, had a real time leaderboard which unquestionably proliferated the ecstatic experience of the players. At the end, the winners were featured in our social media handles and most importantly, they got an achievement to brag about in college!

In all, the quiz was a whole new experience for all the players and their wholehearted response is what will motivate us to organize it in the coming years too!

Polaris

This event was conducted on the platform of Youtube. Polaris is a series of talks with different people who have made their careers from research and are moving forward in the vast field of research. This series was exclusively made so that audience could understand the various aspects of careers in research. We have till now interviewed, Dr. Goutam Chattopadhyay, a senior scientist at NASA and Dr. Tanmay Dutta, Marie Curie Postdoctoral Research fellow at Empa.

This series has helped us reach out to many people. This whole series has more than 1k Views.

IEEE DAY

IEEE day is conducted to celebrate and commemorate the day when for the first time in history engineers worldwide gathered together to share ideas and Innovations. This day was celebrated on 6th October 2020. We as a small part of this big organization did our bit to celebrate it. We had event to share the various benefits of being an IEEE member and spreading awareness of all the works and projects undertaken by the organization.

For this event we had two speakers Dr. Aniruddha Chandra, Associate professor at NIT Durgapur and Mr. Aniq Ur Rehman, MS student at KAUST. Dr. Aniruddha in his session explained about the benefits of getting a membership and how it can help in your career growth. He gives various examples of his students who had been benefitted through the memberships. Mr. Aniq on the other hand talked about another important aspect of having a student membership, i.e., Volunteering. He touched upon the topic of how the whole volunteering works and how it can help you build your own professional network. At last, we had a Q&A session with the speakers where the questions from the audiences were addressed. This event was altogether a successful one with 500+ views.

INTERNSHIP BOOTCAMP

GO GET SOME GOOD INTERNSHIPS!

IEEE SB NIT Durgapur conducted its annual flagship event Internship Bootcamp on February 15. The event was conducted by the senior members of the IEEE executive team and aimed to get the students of our college acquainted with the world of resumes, internships and, various other opportunities that come along with it. The first session was conducted by two of our second-year members who gave the list of all the prestigious internships-both Indian and foreign, paid and unpaid. The list ranged from the Indian ones that one gets at various educational institutes at IITs, IISc to the big foreign interns like DAAD, CERN and, so on. All the important information pertaining to these internships was shared by the speakers. The next session was conducted on the art of mailing professors. The speaker shared with us the dos and don'ts of mailing and also discussed the strategy of writing a perfect professional mail. The next session was conducted on the basics of SOP writing. The speaker talked about the importance of maintaining a positive tone throughout the SOP and being precise and to the point. The next session was about the art of resume writing. The event concluded with the final session in which people who secured prestigious internships like CERN, IAS, DAAD shared their experiences of their stint and guided the audience on what it takes to crack them. A QnA session was also conducted at the





end for the audience in which they asked all the questions troubling about resumes, SOPs, mailing and so on. Thus, the event successfully provided a platform for all the students to attain the necessary knowledge about the intricacies of securing big internships.

COLLABORATION WITH UBC

International Field Trip

IEEE Student Branch, NIT Durgapur, conducted a Virtual International Field Trip on 13th March 2021, collaborating with prestigious University of British Columbia, Canada, which comes under top 20 universities across the globe. The trip was led by our honourable faculty advisor, Dr. Aniruddha Chandra from Electronics and Communication Engineering (ECE) department and involved a virtual tour of the campus of NIT Durgapur. During the first half of the event, Dr. Chandra enumerated various ways in which India is emerging out as a global technological hub. He described how the country, with its immensely diverse cultural background, is presenting itself as a tech giant. He provided insight into various research-based activities undertaken in the institute laboratories, fitted with the latest equipment, and shared with the guests that a recent process has been initiated to introduce 5G technology within the campus. The second half of the event was devised by the members of IEEE SB, NITD. It involved an informative presentation, introducing the IEEE team and highlighting the scientific events organized by the club. Following this, various frequently asked questions (FAQs) of the inquisitive guests were addressed. During the entire event, Anindya Roy, an alumnus of NITD who is pursuing Ph.D. in UBC, made the tour more interactive.

Thus, the event successfully provided exposure to the multi-faceted technological scopes of the institute and proudly upheld the motto of the IEEE forum of inspiring a global community of scientifically inquisitive students, not with-standing any tethers in the process of learning.

MATLAB MASTERY 2.0

IEEE Student Branch NIT Durgapur, recently conducted its annual flagship event MATLAB

Mastery 2.0, which commenced from 10th April and went on till 17th April. It was a regular weekly session under the active guidance and mentoring by the senior members of the club meant to introduce the students to the fundamentals of the software, while addressing its various application in the present-day scenario. A brief and informative introductory speech by the second-year executive members of the club, and the first session was presented subsequently, getting the newbies acquainted to the fundamentals of MATLAB. A Q&A session was arranged to address the queries and doubts of the participants. The average number of participants in each session was around 200. The second tutorial session delved deeper into the intricacies of the software and the participants were introduced to the various commands, scripts, functions in MATLAB.

The third and final session involved the Senior Executive Members of the club showcasing the various projects they have worked on, using MATLAB as a tool, alongside the regular tutorial lectures. These projects were on topics ranging from Satellite Communication to critical Bio-Robotics Circuitry to applications of the Chaos Theory in real-life scenarios. Finally, an evaluation test was organized for the participants, based on the tutorial sessions, which enabled them to assess themselves.

Thus, the event successfully provided a platform to keep the students updated with the latest tools and developments of the technical industry, and served to propel forth the incessant quest to knowledge.

Highlights of the Year

- ❖ Collaborated with IEEE University of British Columbia to conduct a virtual tour of NIT Durgapur and also discussed about the various research opportunities available in NIT Durgapur and India.
- ❖ Conducted the first edition of the Polaris with experts and scientists from NASA and ISRO.
- ❖ Launched IEEEBytes, a series of short and crispy weekly news updates, related to Science, Research and Development from all across the world.



OUR COLLABORATIONS





NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR

ISTE STUDENTS' CHAPTER

NIT DURGAPUR

-ESTD 1995-

ANNUAL REPORT (2020-2021)



We take pleasure in presenting the annual report of ISTE Students' Chapter NIT Durgapur for the year 2020-2021. The Executive Committee of Chapter for the year 2020–2021 was constituted (by election) as follows:

Post	Name
Chairperson	Harshit Anand
Vice-Chairperson	Ankan Ghosh
General Secretary	M Aruna
Treasurer	Priyam Sinha
Additional Secretary	Rohan Biswas
Public Relations Head	Prashanna Sharma
Logistics Head	Deepa Kumari Sumit Singh
Graphics Design Head	Priyam Sinha
Sponsorship Head	Harshit Anand
Web Development Head	Ankan Ghosh
Other Executive Committee Members	Shivam Rajput Abhinav Prakash Shrutika Nigam Amit Dalai



COMMITTEE MEMBERS (2020-21)

CHIEF FACULTY ADVISOR

Dr. Anita Pal

Dept. of Mathematics, NIT Durgapur

Student Chairperson	Student Secretary	Treasurer
Harshit Anand	M Aruna	Priyam Sinha

TEAM REPRESENTATIVES

Ankan Ghosh	Rohan Biswas	Prashanna Sharma	Deepa Kumari
Sumit Singh	Shivam Rajput	Abhinav Prakash	Shrutika Nigam
Amit Dalai	Aman Verma	Ankit Adak	Ankita Mishra
B Aditi	Jugnu	Mithilesh Halder	Mukesh Gupta
Rahul Mohata	Rhythm Aich	Sanniva Bhattacharjee	Shashank Singh
Shivam	Snighda Chakraborty	Soumyajit Saha	Srijit Majumder
Subhasnata Chakraborty			

SENIOR COORDINATORS

Allu Kumara Sai Subrahmanyam	Anjali Kumari	Ashutosh Thakur
Atul Pooniya	Barnali Ghosh	Debolina Chowdhury
Harsh Bhushan Gupta	Harshit Surana	Koustav Sanyal
Lisa Saha	Prashant Kumar Singh	Rageshree Bhattacharjee
Rakhi Soren	Rishab Dugar	Ritabrata Ganguly
Saishree Mahakud	Saumadeep Sen	Shubham Goyal

JUNIOR COORDINATORS

Abhishek Krishna	Akash Raj	Ujwala Tripurana	Divyanshu Kumar
Inturi Jayakanth	Karan Kumar Shaw	Niladri Paul	Niloy Mahata
Om Prakash Yadav	Pralay Mondal	Pratiti Pradhan	Preetha Chakraborty
Sabyasachi Bose	Saurabh Singh		





SPECTRUM

Spectrum is an **all-India level online competition**, with various fun challenges ranging from technical skills to creative talents, to keep the quarantine slump at bay. The highlight was “Dream Codex”, a 4-round coding event over the span of a week. The event is a testament to our core qualities of teamwork and creativity. This event was jointly conducted by **ISTE Student Chapters of NIT Durgapur, NIT Calicut, Nirma University and GCET Gujarat.**

Date: **22 June 2020(Monday) – 28 June 2020(Sunday)**

A WEEK-LONG SERIES OF EVENTS

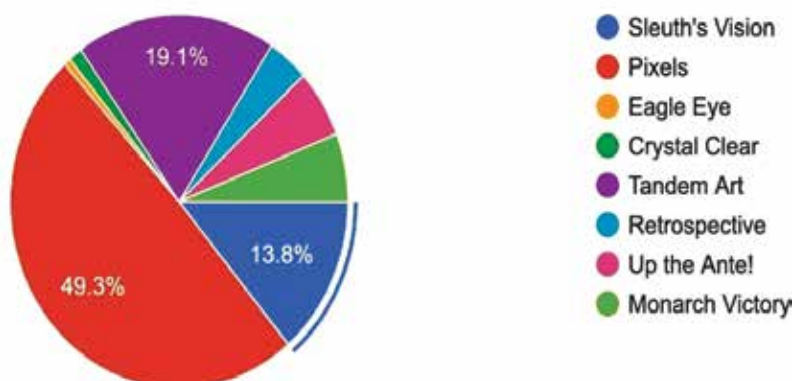
Rounds & Date	No. Of Participants	Results	Highlights
DREAM CODEX			
4 rounds (22nd, 24th, 26th and 28th June 2020)	Around 200 Participants	1st: Mangroliya Vishvas Dilipbhai 2nd: Nikhil Nair 3rd: Vasu Mavani	Prizes worth Rs. 1000, 600 and 400 to winners and participation certificates to all were distributed.
SLEUTH'S VISION			
DAY 1 (22nd June 2020)	21 Participants	1st: Praneetha Dinesh 2nd: Love Kush Pranu 3rd: Swathy Suresh B. & Chaitashi Pandya	Recognition at Official Blog Site of ISTE NITDGP http://blog.istenitdgp.com/
PIXELS			
DAY 2 (23rd June 2020)	75 Participants	1st: Meenakshi Reji 2nd: Jay Patel 3rd: Nisarg Panchal & Yash Sinha	Participants capture their hometown at its best and send in their creative entries.
CRYSTAL CLEAR			
DAY 3 (24th June 2020)	2 Participants	Winner: Khushboo Ramnani	Understanding of the science laws, Ingenuity of the experiment, Explanation, Skills portrayed.
TANDEM ART			
DAY 4 (25th June 2020)	29 Participants	1st: Swagata Singha 2nd: Dayeeta Pal & Devansshi Jhaveri 3rd: Shikha Bhagat	Creativity, Originality, Message conveyed in the drawn art by participants.



Rounds & Date	No. Of Participants	Results	Highlights
RETROSPECTIVE			
DAY 5 (26th June 2020)	6 Participants	1st: Pratiksha Patel 2nd: Arnab Ari	Posters/Digital Art that revolve solely around the lives, works or achievements of the scientist.
UP THE ANTE!			
DAY 6 (27th June 2020)	9 Participants	Winner: The team of Yashrajsinh Solanki, Maharsh Shah, Rudram Vyas, Aditya Mistry	Creative Marketing of a real or fictional product
MONARCH VICTORY			
DAY 7 (28th June 2020)	9 Participants	1st: Anmol Agarwal 2nd: Soumyadip Deb 3rd: Showmith Chowdhury	Blitz Chess hosted on Lichess platform

PARTICIPANTS DISTRIBUTION

152 responses



SUMMARY

ISTE NIT Durgapur wholeheartedly thanked other ISTE Student Chapters' for jointly organising this event. ISTE plans to continue collaborating in this event in the upcoming sessions.

A total of around 400 participants took part in one or more events according to their interests. Around 200 E-certificates were distributed with winners getting prizes worth Rs 2000 contributed by various sponsors. Overall, the whole team presented creative ideas to test participant minds and provide them a platform for fun, thinking logically and critically along with gaining knowledge.





RECADATHON

ReCADathon - **An All-India CAD Competition** from National Institute of Technology (NIT), Durgapur hosted on Dare2Complete platform.

CAD, elaborated as the **Computer Aided Design**, is an exquisite technical tool, in which computer assists the creation, modification and optimization in designs in the Engineering arena. To commemorate, the ecstasy of this magnanimous tool, ISTE NIT DURGAPUR CHAPTER, conducted "ReCADathon" an All-India Online CAD competition.

Date:

27 Sep 2020(Sunday) – 12 Oct 2020(Monday)

The aim of this event was to give opportunity to students who are willing to showcase their skills in CAD by designing their engineering model. There was no registration fee charged for this event. Participants needed to design a CAD on the mentioned theme of

a). Innovative medical devices for COVID-19 crisis;

b). Automobile or Aeronautics; and
c). Defence.

Overall, **66 students** registered across India and 42 submitted their models successfully on <https://dare2complete.com/o/wAzRrsF>. Merit E-Certificates to the winners were provided which can be verified at istenitdgp.com/verify

Winners:

1st: Maharshi Das (2nd year, NIT DGP) - RC/20/112555

2nd: Himadri Dutta (3rd year, NIT DGP) - RC/20/224678

3rd: Shayan Bera (RC/20/645477, 2nd year, NIT DGP) & Dilraj Singh (RC/20/111999, Arka Jain University)

The event was conducted successfully with full coordination of all the members from each year.

RUNTIME TERROR

ISTE NIT Durgapur organized "RUNTIME TERROR", **a two round programming competition comprising of Math, Aptitude, Programming, Data Structure, and Algorithm** providing everyone not only an opportunity to showcase their programming skills and test their capabilities on a competitive ground but also gain experience in these fields in order to prepare themselves for future interviews in these domains.

Date: **03 Oct 2020(Round 1) and 05 Oct 2020(Round 2)**

Both rounds were hosted on Hacker Rank platform. The aim of this event was to provide a simulation of online interviews taken by IT companies in this pandemic era along with improving coding and reasoning skills of students.

NIT Durgapur students got a chance to compete with other college students across India and improve themselves.

Overall, **38 students** in round 1 and **50 students**

in round 2 were participated in the event. Merit E-Certificates to the Top 3 performers of each round separately were provided which can be verified at istenitdgp.com/verify.

Winners

Round 1	Round 2
Neharika Shah (RT/20/120511)	Dibas Behera (RT/20/145625)
Rahul Gupta (RT/20/150601)	Ayush Tiwari (RT/20/123358)
Sai Jaswanth (RT/20/189955)	Ankit Maskara (RT/20/116548)

We will be continuing this event in future with more realistic feel and real-time interview sessions as this event helps students to point out their mistakes and do not repeat them in a real interview during placements.



Cognitive Intelligence Test 4.0

It is an online event where sets of questions are designed similar to that of a screening process in company. It's an exquisite episode to venture out one's adroitness in the subjects of the basic mathematical aptitude, verbal and logical reasoning and data interpretation. One of the most profound attributes of CIT, is that, it gives you an opportunity to experience the environment of screening procedure of the hiring companies and instils in you the ideas of CAT and associated aptitude. This special affair of ISTE NIT DURGAPUR has attracted thousands of aspiring from various colleges all over India, for the years.

Round	Date
1st Slot	17th Dec 2020
2nd Slot	18th Dec 2020
3rd Slot	19th Dec 2020
Final	20th Dec 2020

PRELIMINARY ROUNDS

Three preliminary rounds were held. Each round comprises **30 questions** to be solved in **45 minutes**. These questions covered basic mathematical aptitude, verbal and logical reasoning and data interpretation on an **online platform**: <http://cit4.pythonanywhere.com/> developed by **Web Development Team**, ISTE NIT DURGAPUR STUDENTS' CHAPTER.

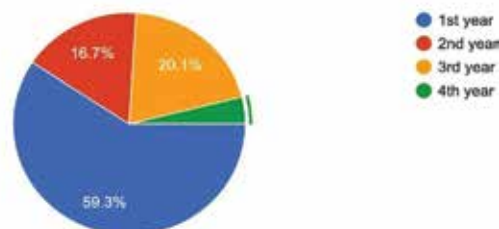
Around **400+ students participated** in this round covering different colleges in India.

FINAL ROUND

Participants who crossed the cut off score qualified for the final Round. The cut off score was 50. Around **130 Participants** qualified for the final round. The final round was held on an online site developed by **Web Development Team**, ISTE NIT DURGAPUR STUDENTS' CHAPTER, comprising 30 questions to be solved in 45 minutes.

PARTICIPANTS DISTRIBUTION

Year Of Study
408 responses



RESULTS AND PRIZES

Rank	Name	Prizes (Rs. 4000)
1st	Moinak Banerjee	Earbuds
2nd	Niloy Mahata	USB Type C
3rd	Prashasti Keshari	Optical Mouse

SPONSORS



Merit certificates and prizes to Winners and Participation certificates to all were distributed which can be verified at istenitdgp.com/verify by recipients.





Brain Blogger

ISTE NIT Durgapur had come up with an excellent solution to get over boring pandemic era and to put on your thinking caps through a one of its kind exciting event "BRAIN BLOGGER".

Brain Blogger was held in 2 rounds. Round 1 consists of identifying as many symbols and logos as possible, in the least possible time from posters provided. Round 2 consists of spotting differences between two pictures taken from different areas of the college with one image the real one and another one its duplicate.

Date: **13 Mar 2021 (Round 1 – 8:00 to 9:00 pm, Round 2 – 10:00 to 11:00pm)**

The aim of the event was to make audience know about the motivating personalities, research and it helps them to know the scientific symbols along the fun adventure to reduce pressure, anxiety, etc, in this pandemic period.

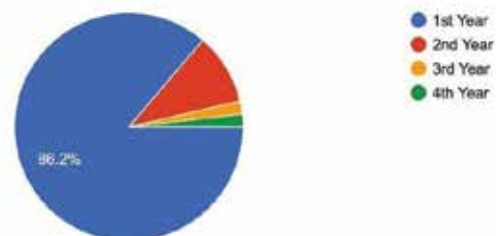
Round 1

This round was consisting of 5 different pictures made by combining various logos of famous institutions, brands, world bodies, scientific symbols etc. Students need to identify those symbols and submit answers in the google form created by us. This round improves knowledge of various important logos and symbols.

Around **110 students participated** in this round

covering different colleges in India.

Year Of Study
109 responses

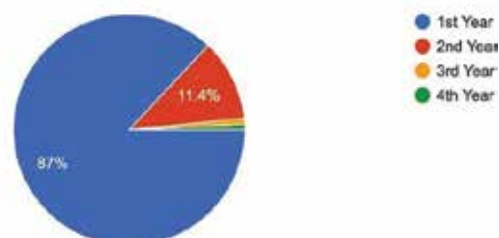


Round 2

This round was consisting of 5 questions containing two pictures each (One Original and One Edited). Students need to identify number of differences and submit answers in the google form created by us. This round improves ability to see and differentiate between two things precisely.

123 students participated in this round covering different colleges in India.

Year Of Study
123 responses



RESULTS AND PRIZES

Rank	Name	Prizes (Rs. 500)
1st	Sandeep Sahoo (1st Year, NIT Durgapur)	Rs. 250
2nd	Samhitha Kondeti (1st Year, NIT Durgapur)	Rs. 150
3rd	Harsh Jha (1st Year, IIT Kharagpur)	Rs. 100

EVENT HIGHLIGHTS





FEEDBACK

This is just amazing.. Very very interesting. So.. No suggestions. I just enjoyed this 🙌 🥳

Please see that answer should not be case sensitive

Increase no of questions 😊

Don't use Google form use a web server instead then it will be more easy for participating audience and for you to 🙌

It was quite interesting

This event was a huge success as all of the participants enjoyed this and for ISTE also it was a proud moment as this type of event was conducted first time by us.

EXPENSES FOR THE SESSION 20-21

🎧 **Domain Renewal Cost** = Rs 3500

🎧 **Event Cost:**

Event Name	Cost
Spectrum	NIL
Runtime Terror	NIL
Recadathon	NIL
Cognitive Intelligence Test 3.0 (to be disbursed next session)	Rs 4000/-
Brain Bloggers	Rs 500/-

Total Event Cost = Rs 4500/-

Grand Total = Rs 8000/-



Conclusion

Though a lot more events were planned to be organized in due time yet due to the COVID-19 pandemic we had to end our session. The executive committee of 2020- 2021 feels blessed to have a very supportive and considerate chief faculty advisor. The executive committee is also thankful to all the senior and junior coordinators. It was a total team effort that led to organizing a bunch of successful events.

ISTE Students' Chapter NIT Durgapur has marked its presence on various social media platforms. The followers of our page on Facebook and LinkedIn have increased exponentially in the past 1 year. For more details visit:

Website:	www.istenitdgp.com
Facebook page:	www.fb.com/istenitd
Instagram:	www.instagram.com/istenitdgp
LinkedIn:	www.linkedin.com/company/istenit-durgapur/

In this session we achieved huge followers on our social media pages. Along with this we also introduced our official Blog Page: blog.istenitdgp.com where we publish blogs of varying topics related to new innovations in field of science and technology. Also, we added a certificate verification site istenitdgp.com/verify to add more value and genuineness to the provided certificates in various events.

“With all endings their comes the new and powerful beginning”. With this thought we end this session and pass the baton to the next batch.

The Executive Committee of 2020-2021 decided to pass the baton to the next batch for taking ISTE Students' Chapter NIT Durgapur to greater heights. A virtual meeting was organized in which the committee for the session 2021-2022 was constituted (by election) in the presence of all the members of the society. The committee is as follows:

EXECUTIVE COMMITTEE FOR 2021-2022

Post	NAME
Chairperson	Mukesh Gupta
Vice-Chairperson	Shivam
General Secretary	Sanniva Bhattacharjee
Treasurer	Aman Verma
Additional Secretary	Shashank Singh
Public Relations Head	Subhrasnata Chakraborty Jugnu
Logistics Head	Ankit Adak
Soumyajit Saha	
Graphics Design Head	Jugnu
Sponsorship Head	Rhythm Aich
Web Development Head	Aman Verma
Other Executive Committee Members	Ankita Mishra Rahul Mohata B Aditi Sighda Chakraborty

The ISTE Student Chapter's official website www.istenitdgp.com and social media presence at www.fb.com/istenitd/ and various others is regularly updated. We welcome wholeheartedly all ambitious students of engineering, management and related areas to the portal of ISTE, the oldest and most reputed educational society of India.

We are certain that with the zeal and motivation that form the very paradigms of ISTE, our members shall be scaling newer heights in the future.

Harshit Anand

Signature:

(Chairperson)
Harshit Anand

(Chief Faculty Advisor)
Dr. Anita Pal

Remarks/Comment



LITERARY CIRCLE

ANNUAL REPORT 2020-2021

**NATIONAL INSTITUTE OF TECHNOLOGY,
DURGAPUR**

M.G. AVENUE DURGAPUR-713209, INDIA



Date: 25-05-2021

PATRON:

Prof. Anupam Basu

PRESIDENT:

Richik Ghosh
(7980551646)

GENERAL SECRETARY:

Tiyas Dey
(8697068141)

VICE PRESIDENT:

Partho Poddar
(7449662927)

TREASURER:

Chetan Gupta
(9874700937)

CONVENER:

Vaibhav Sharma
(8334052291)

FACULTY ADVISOR:

Dr. Joydeep Banerjee

CO ADVISOR:

Dr. Arjyajyoti Goswami
Dr. Sutanuka Banerjee

To
The Director
National Institute of Technology Durgapur

RE: Literary Circle Events 2020-21

THE EVENTS OF THE LITERARY CIRCLE

HUMANS OF NIT DURGAPUR: The official online collection of real stories as accounted by students of NIT Durgapur and transcript by the club members. This catalogue acts as a platform for students of the college to share their own experiences and learn from the experiences of other college individuals.

Date of earliest account: 13th October 2020.

FRESHER'S ORIENTATION: An orientation conducted for the first years in order to know more about the college and The Literary Circle

Date – 31st December 2020.

MUN WORKSHOP: Sessions to familiarize the participants with the official guidelines and procedures in a Model United Nations Conference

Participant Count - 200. Date – 19th January 2021

NITMUN - A mock simulation of a United Nations conference where participants come as delegates representing countries to discuss issues of global importance. It's a two-day conference. LC has been conducting MUN for 9 years now. The last edition of the MUN saw the simulation of four major committees:

United Nations General Assembly-DISEC: The United Nations General Assembly-Disarmament and International Security Committee of United Nations met to deliberate on the territorial disputes in the South China Sea with special emphasis on the recent military activities and involvement of private contractors, which resulted in the emergence of politically sound and research driven solutions by the participants.



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CO ADVISOR:

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Dr. Sutanuka Banerjee

All India Political Parties Meet: The representatives of the major Political parties of India met to discuss the impact of revoking Article 370 in the Union Territory of Jammu and Kashmir and the consequent unrest and to devise a strategy to solve the Kashmir Conundrum. The freeze date for this conference was set as 15th August 2021, approximately two years from the date of revocation.

United Nations Security Council: The UNSC is one of the most important multilateral institutions having the objective of shaping global governance. The agenda for this committee was to deliberate upon the Second Libyan Civil War with special emphasis on foreign interventions.

International Press: Students representing journalists from all major news agencies across the world covered the conference, scrutinizing each word and statement made in the committees. The final reports by each reporter accumulated for the 'MUN Today', the MUN's daily newsletter.

Dates - 30th – 31st January 2021.

Participant Count: 300 (100 Outhouse and 200 Inhouse)

VOCABULARY EVENT- A multiple round event challenging the vocabulary skills, played in teams of 2-3

Participant Count - 100 Date – 5th February 2021

OPEN MIC - A live contest of poetry, spoken word, or singing evaluated on the basis of several components.

Participant Count - 100. Date - 19th February 2021.

LITERATI - The annual essay writing contest.

Participant Count - 100. Date - 30th March 2021.

ONLINE TREASURE HUNT: A virtual treasure hunt conducted through a social media platform with a comprehensive storyline and various forms of clues. **Participant Count - 150 Date – 19 -20th December 2020.**

PUBLIC SPEAKING EVENT- A theme-based event in which the participants are given a topic and a stipulated time to speak on the topic.

Participant Count -100 Date – 3rd April 2021

WILD CARD EVENT: ANARCHADES

Wildcard events-Themed surprise events.

Literary tools to solve puzzles, fictional non-fictional elements included

Participant Count - 110 Date – 9th April 2021.



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Dr. Sutanuka Banerjee

LACONICA: 50 words online write up entries on a given set of words.

Participant Count - 150. Date - 6th February 2021.

CALLIOPE: Biannual book reading and movie discussion sessions.

Participant Count - 200. Date - 27th December 2020

STAR TALK: A talk session/workshop where a notable personality interacts with the students of our college. We have had the honour of hosting various eminent personalities such as Laxmi Agarwal, Sagar Reddy, Henna Jayanth, Harsh Vardhan, Christine Kaaloo, Tanvi Shah, Sapna Vyas, Renedy Singh, Chandan Roy, Aasif Khan, and Gulshan Devaiah in our past editions who have inspired students to take giant leaps in life based on their grit and perseverance.

Participant Count - 700. Date - 8th to 10th April 2021.

PICTURE PROMPT: An online contest. The contestants write articles on a set of pictures. The winners are given prizes and their articles get published in Déjà Vu.

Participant Count - 200. Date - 26th - 28th March 2021

VERBOTEEM: Group event where participants are to speak on a topic without using the forbidden words.

Participant Count - 200. Date - 9th April 2021.

REPARTEM: An online caption writing contest where the participants need to send in entries for various sets released.

Participant Count - 200. Date - 16th January 2021

INFIRMO: Online content creation contest based on various themes.

Participant Count - 200. Date - 12th - 14th March 2021

DEJA VU -The annual college magazine, a platform for students to showcase their creative work, prose, poetry, artwork, short stories, tiny tales, photographs, and many more.

DARKEST WHITE -The Darkest White is an online blog maintained by the Literary Circle, accepting entries round the year, including poems, perspectives, stories, and an array of writings coming out of the minds of our very students. It also gives students the opportunity to exhibit their photography skills. A blog series named "The Pandemic Pages" consisting of unique experiences of the quarantine and the shift in momentum from the daily lives of students in college is the newest addition to this blog.

END OF ACADEMIC SESSION.



Maths N Tech Club

Events and Activities

NIT Durgapur, 1 January 2021 - May 2021

ABOUT MATHS N TECH CLUB

Maths N Tech Club is the official knowledge club of NIT Durgapur. MNTC organizes several events and workshops based on Mathematics and the latest technologies. It publishes the Annual Technical Magazine, Anveshan. It conducts Aarohan - The Tech Festival along with SAE, GLUG, Recursion and CCA.

Our Faculty Advisors:

Dr. Anita Pal, Associate Professor

Dr. Seema Sarkar Mondal, Professor

Mr. Sarit Maitra, Associate Professor

Links to our Social Media accounts:

Facebook:	https://www.facebook.com/mathsntechclub
LinkedIn:	https://www.linkedin.com/company/14528759/admin/
Instagram:	https://www.instagram.com/maths_n_tech_club/?hl=en

EVENT LIST:

Eventually 3.0 -

A connection finding game. 4 images will be displayed to the participants which shall be describing a particular something. Participants have to decipher the images and DM us the answer.

Date- 11 April 2021

Venue- Facebook



Darwinia - A strategical football board game where you can use different tactics to fool other opponent players. The main thing is to score more goals than the opposition.

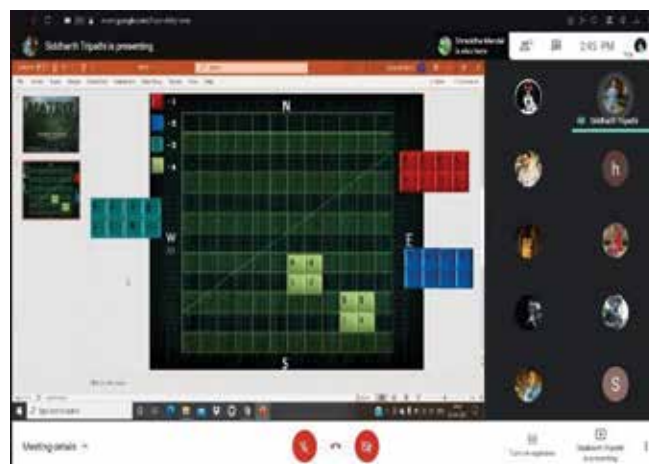
Date- 2 April 2021

Venue- GMeet

Matrix- To reach the battle of Matrix between all the detroits, participants have to cross the ridge of the unknown by solving some mysterious thoughts.

Date- 2 April 2021

Venue- GMeet



Brain Darts-

Date- 2 April 2021

Venue- GMeet



Kryptic-

An event where teams will have to bid for a cipher and subsequently crack it.

Date- 3 April 2021

Venue- GMeet



Call out Sherlock-

A game that calls upon the Sherlock inside you as you investigate lifelike crime scenes and evidences to make sure the guilty is punished.

Date- 3 April 2021

Venue- GMeet



Terrorist Takedown-

Official annual Treasure Hunt of MNTC. This time, it was conducted online and revolved around the Game of Thrones' topic. It involved the participants going around the map of India and finding out the relevant answer to the question.

Date- 3 April 2021

Venue- www.terraclues.com



Tech Charades-

A new and innovative technical twist to the good old game of Dumb Charades.

Date- 3 April 2021

Venue- Zoom

Knock Knock

A logical and reasoning game exclusive for the first-year students, invited from across the country.

Date- 3 April 2021

Venue- <https://knock-knock-cc1e8.web.app/>



Ankshala

The official flagship event of MNTC. Ankshala involves the participants coming from all across the country, to come and participate in a quiz based on logic and reasoning. For the first time ever, Ankshala was conducted online, which saw the participation increase thus making the event more competitive than ever.

Date- 18 April 2021

Venue- dare2compete





Tech Orbis

This game involves coordinates and clues revolving around it. The participants have to guess the company name with the given set of clues.

Date- 30 May 2021

Venue- yet to be released



MUSIC CLUB

ANNUAL REPORT 2020-2021

1. Cover Up

🕒 Date- 5th Feb to 20th Feb



The online event, Cover-up, was made to ease the freshers into the college and to the field of music, where you can choose a relatively popular song or any song of your choice, and record either an instrumental or vocal cover. It gained popularity among the first years who had a lot of hidden talent, and realised their undiscovered potential. The event was also used as a benchmark for the auditions of the club, providing those who won the event a direct pass to the final round of auditions.

2. Aarohan MUC PERFORMANCE

🕒 Date- 1st April



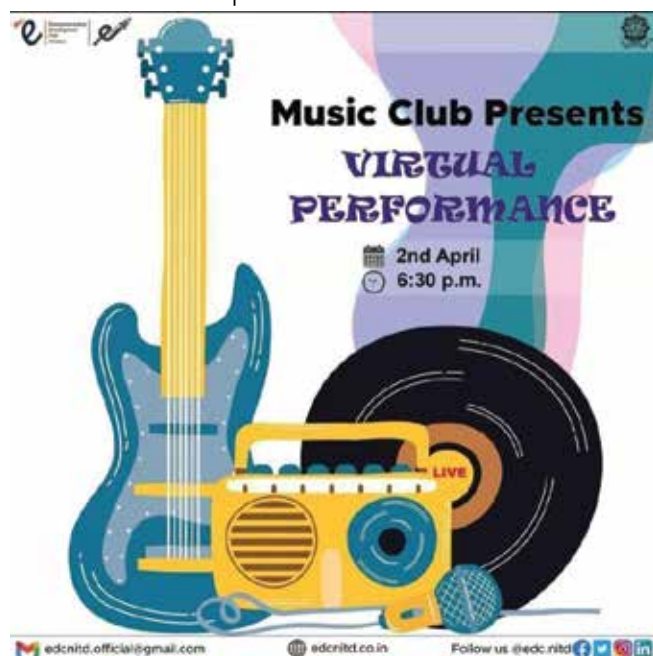
Music Club performed at the annual techno management fest of NIT Durgapur organised by team Aavishkar . Amidst all the technical events conducted by the clubs MuC tries to engage, the crowd with some captivating music. This year owing to the the pandemic situation, Aarohan was conducted online and hence were all the events. Everyone at MuC came together to perform beautiful, versatile melodies, by recording and mixing audios and videos, keeping the audience entertained amidst the technical events. MuC



performs in every edition Aarohan, being a hit ever since we were provided an opportunity to perform, among students and professors alike.

3. E-Summit MUC PERFORMANCE

🕒 Date -2nd April



Music club performed at ESummit or the annual Entrepreneurship Summit in the even semester, MuC offers an enthralling musical experience during the Esummit with their musical performances to break the monotonicity. Due to Covid we were unable to put up a live stage performance this year so we did an online performance on 2nd April which was much loved by the students of our college who attended it

4. Music club performance in collaboration with Literary Circle

🕒 Date - 10th April

▪ Music club in collaboration with Literary Circle of NIT Durgapur performed at the annual youth/Cultural fest of NIT Durgapur putting up a phenomenal performance each year to lift the spirits of the people and give them a reason to enjoy the fest with great enthusiasm. This year due to the pandemic we organized an online music club performance on 10th April which was much loved and appreciated by the students of our college



5. MUSIC UNITES US

🕒 Date – 11th April Onwards till 7th May

The online event which was organised by Mu-C amidst the situation of pandemic and crisis to unite people's hearts through music. #Musicunitesus, It was basically an online event where people challenged each other for a particular song and posted their videos as story on social media (Instagram) mentioning #musicunitesus. The event was pretty successful with a huge participation and the best entries were given a shoutout from MuC instagram page





PRAKRITI

ANNUAL REPORT 2020-2021

We, the People of PRAKRITI - The Environmental Club of NIT Durgapur, strive to make a difference and implant the seed of awareness and action in the minds of prospective engineers to make this environment a sustainable place for every living being.

We work on the motto to carry out sustainable development. We motivate, aware and educate people to resolve environmental concerns. We carry out events throughout the year, encouraging people regarding important movements and actions to be taken.

We come up with projects as well, for the betterment of nature.

Based on the prevailing pandemic condition, nothing can be made for visiting the college. So PRAKRITI - The Techno Environmental Club of NIT Durgapur, came forward with our first online event CONUNDRUM with all the cherished memories and the famous environmental occasions in the form of tricky and complicated picture clues and riddles. The event went live from 2nd - 3rd September 2020. Day 1 consisted of three rounds with questions based on locations in college, and Day 2 had two sessions with puzzles related to major environmental events in history. The event was a tremendous success with 165 participants.

PRAKRITI - The Techno Environmental Club of NIT Durgapur came up

with the first edition of GREEN SERMO, a virtual Etalk session by Dr.

Rajendra Singh, popularly known as The Waterman of India. The session went live on the official Facebook page of PRAKRITI. The club focused on his aspirations to revive the dried-up water bodies across the country. Ideas and thoughts were exchanged regarding conservation and sustainable use of water bodies.

SHRISHTI is a weekly journal that throws some spotlight on the mattering highlights akin to Mother

Nature which took place over the last few days.

We bring in stories from all over the world, providing a comprehensive

overview of the environmental news of the week. We published our first edition on 1st October 2020. We also included COVID BUZZ in our recent edition to provide information regarding COVID-19.

India is a land of varying diversity and cultures, making India a melting pot of many diversities. Keeping this in mind, PRAKRITI has conducted SAFARNAMA, a mini-tour of regions across India wherein we gave clues for the same, and participants had to identify them by their unique characteristics by solving crosswords and puzzles. The event saw enormous participation, particularly from the first years, making the event a huge success with 150+ participants.

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 of moments in the season of colors by capturing the essence in their cameras.

Nearly 150-160 participants participated via online mode, and results were made based on no. of likes, comments, and shares.

- We have a Facebook page with over 10000 Likes and Followers, on which we provided updates regarding all our events and occasions.
- We also have a Instagram Page with more than 500 Followers, a Twitter Handle and a YouTube Channel with 280+ subscribers.
- All over the year, we promote posters and certificates of different events.
- We own a website which displays entire information of the prakriti online.



QUIZINC

ANNUAL REPORT 2020-2021

Quarantine Quiz:

The Quarantine Quiz commenced with the lockdown, and was held every week on Sunday evenings. 5 questions were posted on our social media handles after 15-minute intervals. Participants were required to message the answer to the pages, and ultimately connect the 5 questions. With an average participation of around 40 each week, the Quarantine Quiz was a huge hit among bored netizens and went on for 7 weeks in a row.

India Quiz:

The first quiz of the new Academic Session, witnessed 200+ participation from colleges all across the country. It involved questions on a number of diverse fields centred around India. The prelims were held on 14th August and the selected teams qualified for the Finals, held on 15th August. The Finals were conducted by an alumnus of NIT Durgapur, Prakash Jha.

Qriosity Quiz:

This catered to the Freshmen of the college and garnered 50+ participation. Each team had a maximum of 2 members. The prelims were held on 19th December and the selected teams embarked upon a nail-biting final round the next day. The quiz also served as a sort of wild card for membership into the club.

Gone Viral Quiz:

The Gone Viral quiz was based on the growing internet culture and its idiosyncrasies, and thus the questions were centred around memes and jokes on incidents that have garnered much attention in the recent past. It saw 120 participants and the event consisted of the Prelims and the Finals, held on 17th and 18th February respectively.

The Screencast Quiz (OQF):

The Screencast quiz was conducted on 14th March, 2021 via the Dare2Compete online quizzing platform, as part of Online Quizzing Festival (OQF)

Season 6, and garnered a massive participation of around 10,000. The questions were based on movies and pop-culture references, and attracted cinephiles and bibliophiles all across the country.

Quizzitch Cup, 2021: The annual quizzing festival of the club was organised in a completely online mode from 9th to 11th April, owing to the pandemic situation. However, it was not short of enthusiasm and witnessed participation from colleges all across the country. The following events were included in this year's Quizzitch Cup:

1. Biztech Quiz (Quizzitch Cup):

This was the latest addition to the wide array of events of the Quizzitch Cup. It was based on business and technological innovations in the recent past. The event saw a participation of around 200. The prelims were conducted via D2C on 9th April, and the top 8 teams played the Finals the very next day.

2. Chakravayuh - The History & Politics Quiz (Quizzitch Cup):

Another addition to the list of quizzes of the Quizzitch Cup, it was based on Historical and Political events of the world. It garnered much interest among all history-enthusiasts and garnered a participation of around 200. The prelims were held on the Dare2Compete platform on 9th April and top 8 teams qualified for the Finals.

3. Sports Quiz (Quizzitch Cup):

One of the flagship events of the Quizzitch Cup, it consisted of questions based on the arena of sports and witnessed an intense neck-to-neck competition between the teams. The Prelims were held on 10th April and the top 8 teams battled it out in the Finals on 11th April. The event observed a participation of over 150.





4. **MELA Quiz (Quizzitch Cup):**

Another flagship quiz event of the Quizzitch Cup, it featured questions based on Music, Entertainment, Literature and Arts and witnessed much enthusiasm among all bibliophiles, cinephiles, and pop-culture nerds. The event saw a participation of over 150. The Prelims were held via the official website of QuizInc on 10th April and 8 top teams exhibited their prowess in the Finals.

5. **Nostalgia Quiz (Quizzitch Cup):**

This was yet another addition to the Quizzitch Cup, alongside the regular quizzes. It was centred around the theme of nostalgia and involved questions based on ads, games etc which are not much popular anymore, however, piqued interest among the people “back in their time”. It saw a participation of over 150.

6. **Conversation:**

This was another additional event of Quizzitch Cup 2021, and was much different from the regular quiz events. It involved an intimate interview of 4 notable speakers, namely, the distinguished Quizmasters Giri “Pickbrain” Balasubramanian and Rashmi Furtado, and the renowned musicians Tajdar Junaid and Avanti Nagral. Following the interview, a QnA session was also arranged where the inquisitive audience poured their heart out to the speakers. This event was conducted between 9th to 11th April, and with this, Quizzitch Cup 2021 was concluded.

School Quiz:

The School Quiz witnessed a thrilling clash between the budding quizzers across 20 schools. The event involved two rounds, both of which were conducted on 10th April. The questions were based on several themes and the event witnessed much enthusiasm from the future quizzers.

RADIO NITROZ

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THE OFFICIAL RADIO CLUB OF NIT DURGAPUR

WHO ARE WE?

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 - 2007 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. The basic intention of the formation of this club or better say family is to communicate with the “Aam Janta” of the college, be a college media and fill the campus with our bakar and fun.

WHAT WE DO?

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. Our JUKEBOX event during AAROHAN (Techno - Management Fest of NIT Durgapur) is so attractive among students. We also have a lot of events during RECSTACY (Cultural Fest of NIT Durgapur) in which Mr. & Ms. RECSTACY is most popular. We work as a team to make sure that every



event is a milestone. Our Social outreach has grown a lot for a variety of exciting events.



REPORT OF OUR CLUB IN 2020-21

RADIO NITROZ ONLINE EVENTS

Now let me tell you some more about the online events we organize this year at Radio NITroz.

MEME-RAN-TINE

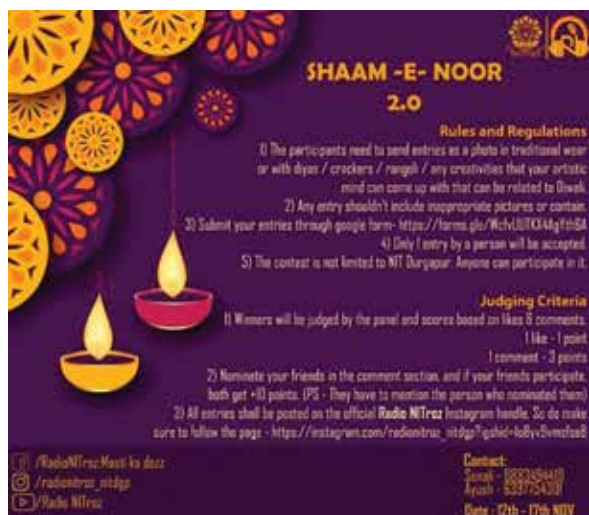
Memes are one of our most vital survival tools during this quarantine as they are hilarious and savage at the same time so Radio NITroz conduct an event MEME-RAN-TINE, where participants had a chance to show off their awesome sense of humour by making memes on given list of places in the college. The event was very successful with 80+ participation.



SHAAM-E-NOOR

Light is a symbol of unity, hope and power. This year's SHAAM-E-NOOR was on different hues of Diwali celebration. Flowers and rangolis, diyas and fairy-lights, crackers and fireworks, celebration and happiness all around. The festival of Deepak is here and we can't resist ourselves from filling our souls with the brightness hovered upon. Pictures, selfies, posts and uploading stories becomes an integral part around each decorated corner during Diwali so we posted participant's entries on our Instagram and FB page. SHAAM-E-NOOR is well received by the participants. A total of 130 Entries across 58 Institutions were made for 2nd edition of SHAAM-E-NOOR





SHAAM-E-NOOR 2.0



MOVIE MYSTICS

MOVIE MYSTICS is one of the fun events of NIT Durgapur which is held by our club where participants hunt for the correct film Or web series by solving the exciting and interesting challenging riddles as well as figuring out the connection between picture puzzles. It's an online event, which goes on for consecutive 2 days on our Facebook page and it's got a huge success with a marvellous entry of 100+ participants.



KHOL-E-DIL

KHOL-E-DIL gives everyone a platform where they can confess any feelings that was untold due to this stupid pandemic, any unsaid goodbyes, any unsaid sorry if they by chance hurt someone, just anything they want that person to know. This event is still going on our Official Facebook page of Radio NITroz with 450+ entries!



VOICE IT OUT

Human race is filled with passion.

VOICE IT OUT is a live poem recitation event which provides a striking rostrum to everyone where they can showcase their talents by recitation of poems, shayaries, short stories penned solely. This is a call to all the budding poets, shayars out there who have never got an opportunity to showcase their aptitude. The poem becomes another part of the vocabulary with which we can encounter and process our experiences in the world. We are in search for the poet or poetess that lives trapped in your heart.

Entries : - 34

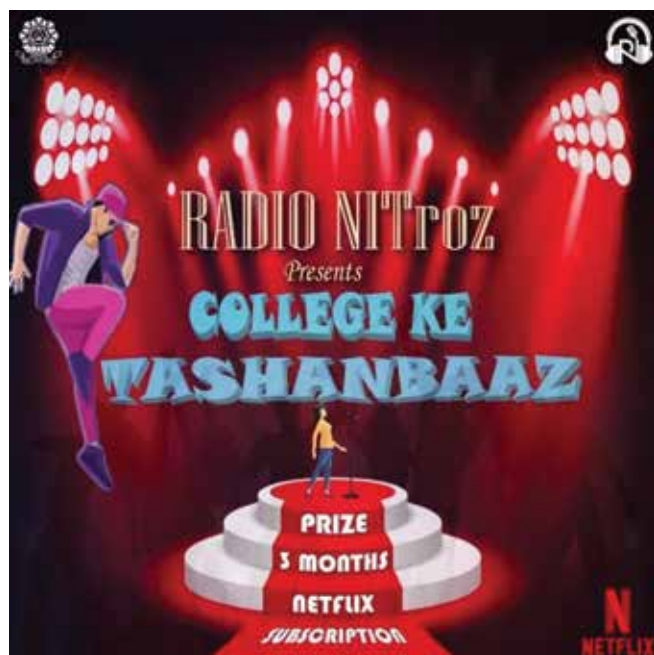




COLLEGE KE TASHANBAAZ SEASON-6

Everybody is talented because everyone has something to express. COLLEGE KE TASHANBAAZ SEASON-6 one of the craziest and peerless events of NIT Durgapur proffers students an eminent platform to showcase their veiled flairs and where they can flaunt their dexterity and virtuosity of either innate talent or a cultivated skill because talents are meant to be shared.

Entries : - 80+



FRESHERS' INTRODUCTION 2020-21

Heartiest congratulations to everyone of batch 2024 who survived the pandemic and endured the unbearable exam stress which made your way to one of the prestigious technical institutes of the country NIT Durgapur. We are grateful to the overwhelming response given by the students for THE FRESHERS INTRODUCTION 2020-2021 video who are still waiting for their beautiful campus to reopen. Released on 26 January watch their opinions on NIT Durgapur and online college life which enticed 8.3k+ views on YouTube.



THE RN POD

The RN Podcast a.k.a TRP is the brand-new mouth-watering series of Podcast brought to you by us where our brilliant RJs sit behind the mic and discuss topics ranging from riveting conspiracy to exciting hot gossips with a pinch of their own fun personal experiences right in front of your screens. Basically, a show which would get you hooked all day long. The very first Pilot episode of TRP was released on the 1st of April and had a staggering 800+ views on our YouTube channel.





TERRIBLY NITROZ TALES

The Terribly NITroz Tales , the new thriller which is brought to you by us where our overwhelming and talented RJs comes to you with thrilling and interested series of stories divided in multiple episodes. Basically, it's an astonishing story conveying broadcast which will make your day .The first thriller episode of TNT was released on 20 march which hit a eye opening views of 850+ on our You Tube channel.



SOCIAL OUTREACH

- We have a Facebook page with almost 7000 followers, which gets updates regarding all our events and occasions.
- We also have a Youtube channel with 800+ subscribers and a Instagram page with more than 500 followers.
- All over the year, we promote 80 posters, and 250 certificates of different events.
- We own a website which displays entire information of the Radio NITroz online.

RADIO NITROZ

The Official Radio Club of NIT Durgapur

Social Media Handles

Facebook	https://www.facebook.com/radio.nitroz.nitdgp/
Instagram	https://instagram.com/radionitroz_nitdgp?igshid=1v4qh3kn3ookb
YouTube	https://youtube.com/c/RadioNitroz



RECURSION

ANNUAL REPORT 2020-2021

CLUB ACTIVITIES OF RECURSION FOR THE SESSION 2020-2021

- Searching and Sorting
- Hashing
- Prefix Sum
- Bit Manipulation

ACADEMIC ACTIVITIES/EVENTS

I) CLASSES FOR FIRST YEAR STUDENTS:

REcursion on a regular basis (twice weekly) organised classes for the first year students to make them familiar with not only the basics of coding but further beyond with the goal to increase student's participation in inter-collegiate contest like ACM-ICPC and help them get better irrespective of their branches and backgrounds.

We have taken several classes on 10 topics during this session covering the following concepts :

- Introduction to C++
- Conditional and Iterative Statements
- Arrays
- Strings
- Functions
- Time Complexity

II) OPEN TO ALL CLASSES:

REcursion organised several classes open to all years so that we can help them brush up their problem solving skills. We helped them recover old concepts as well as learn advanced concepts.

Some of the important topics covered in classes are :

- Standard Template Library (STL)
- Merge Sort and Inversion Count
- Pointers and Linked Lists
- Trees
- Graph Theory and Graph Algorithms
- Disjoint Set Union (DSU)
- Segment and Fenwick Tree
- String Algorithms
- Dynamic Programming

Date	Platform	Topic
BATCH 2023		
09-09-2020	Google Meet	Standard Template Library (STL)
11-09-2020	Google Meet	Continuation on STL
17-09-2020	Google Meet	Merge Sort and Inversion Count
20-09-2020	Google Meet	Pointers and Linked Lists
24-09-2020	Google Meet	Trees
27-09-2020	Google Meet	Graph Theory
01-10-2020	Google Meet	Graph Algorithms
04-10-2020	Google Meet	Doubt Clearing Session
29-10-2020	Google Meet	Disjoint Set Union (DSU)
01-11-2020	Google Meet	Segment and Fenwick Tree





Date	Platform	Topic
05-12-2020	Google Meet	String Algorithm
20-12-2020	Google Meet	Dynamic Programming
13-05-2021	Google Meet	Recruitment Guidelines
BATCH 2024		
13-01-2021	Google Meet	Introduction to C++
17-01-2021	MS Teams	Introduction to C++ (Contd.) + Conditional Statements
20-01-2021	MS Teams	Conditional Statements
24-01-2021	MS Teams	Conditional(Contd.) + Iterative Statements
27-01-2021	MS Teams	Nested Loops + 1D Arrays
30-01-2021	MS Teams	2D Arrays + Introduction to Strings
03-03-2021	MS Teams	RECode 16.0 Discussion
07-03-2021	MS Teams	Strings (Contd.)
10-03-2021	MS Teams	Functions
13-03-2021	Google Meet	ICPC Orientation
14-03-2021	MS Teams	Time Complexity + Searching
17-03-2021	MS Teams	Searching(Contd.) + d Sorting
28-03-2021	MS Teams	RECode 17.0 Discussion
07-04-2021	MS Teams	Hashing and Prefix Sums
10-04-2021	MS Teams	Bit Manipulation

The average attendance during classes for first years has been around 60-70 students and during that for open to all years has been around 55-65 students.

III) MENTORSHIP PROGRAMME:

RECurion created Mentorship Groups to act as a medium for clearing students' doubts after the class as well as doubts related to general competitive programming. 15 groups with each group of 15 people along with two mentors enabled us to reach students more directly.

We undertook the programme for 233 registered first year students from 11th January, 2021

IV) CONTESTS:

Along with motivating our students to participate in programming contests on CodeChef and Codeforces regularly, we ourselves have organised various programming contests to give them an opportunity to compete with each other and evaluate their improvement through our weekly classes helping them ace in ACM-ICPC.

→ Closed Contests for College Students

We have organised 4 programming contests exclusive to NIT Durgapur students during this session with following being the list of contests along with their dates and participation count:

Date	Platform	Name of Contest	Participant Count
11-04-2020	Hackerrank	RECode 11.0	115
24-08-2020	Hackerrank	RECode 13.0	234
29-09-2020	Hackerrank	RECode 14.0	168
01-02-2021	Hackerrank	RECode 16.0	236
22-03-2021	Hackerrank	RECode 17.0	147



→Open Contests

We organised 2 online programming contests open to students from outside NIT Durgapur as well. We

saw participation from across the globe and had international winners as well.

Date	Platform	Name of Contest	Total Submissions	Participant Count
27-04-2020	Codechef	RECode 12.0(Rated)	4145	3589
16-12-2020	Codechef	RECode 15.0	2873	592

→Practice Contests (New):

Starting from April 2021, we created our Official Codeforces Group, where we introduced a new series of training contests - RECap Series which would serve as a mashup of Codeforces problems

based on the topics taught till that time in our regular classes. These would be organised frequently for precise revision and practice of Competitive Programming enthusiasts.

Date	Platform	Name of Contest	Total Submissions	Participant Count
09-04-2021	Codeforces	RECap 1.0	140	41

Alohomora

RECursion will be organising its annual flagship event - Alohomora - the ACM ICPC Style Team programming contest of our college which featured students from all parts of India.

Date	Name of Contest	Participant Count
TBA	Alohomora (Online Round)	-

V) ASK ME ANYTHING SESSION:

RECursion organised an online AMA (Ask Me Anything) session on 8th May, 2021 with Mr. Sagar Jain, an alumni of NIT Durgapur which proved to be a great window for those having any doubt related to competitive programming as well as the profession of software engineering in general.

Date	Platform	Avg. Live View Count	Current View Count
08-05-2021	Zoom	80	>569

Fest Events: part of the organising team, Team Aavishkaar in Aarohan (Technical Fest of NIT Durgapur), we performed our organising responsibilities in addition to hosting a few events and a tech conferefor the students of NIT Durgapur.

I) TECHNOVA:

A tech conference was organised on Machine Learning and Artificial Intelligence by Senior Professors and the projects which they were involved in. Discussions over various topics were conducted like Linear Regression, Gradient Descent Algorithm, Logistic Regression/Binary Classification, Deep Learning and applications.

Date: **2nd April 2021**

Participation Count: **100(approx.)**

II) Fest Contest Events:

RECursion organised 5 online events during Aarohan 2021 with following being the list of events along with their dates and participation count:

Date	Name of Event (ONLINE)	Participant Count
02-04-2021	Incanity (ACM-ICPC Style Contest) ONLINE Round	168
01-04-2021	Twin Attack (Debugging and Coding Contest) ONLINE + Round 2	38
04-04-2021	Mindsweepers (Project Euler Style Contest) ONLINE + Round 2	252





Date	Name of Event (ONLINE)	Participant Count
04-04-2021	REChase (ONLINE Treasure Hunt)	238
04-04-2021	DECATHLON (ONLINE Competitive Programming Round Codechef)	207

ACM-ICPC 2020-2021 REGISTRATIONS:

REcursion spent a significant amount of time conducting orientations and spreading awareness about ACM-ICPC - The International Collegiate Programming Contest especially among the first years. We conducted the initial steps in the registration process for ACM-ICPC 2021 and following were the stats:

ACM-ICPC 2020-2021 Participation Count:
85 x 3 = 255

WEBSITE ACTIVITIES:

- I) AskREC: We have been solving all doubts regarding competitive programming posted by our students on AskREC (Online Forum) as soon as possible. This forum has also been useful to them in interacting with each other and solving problems/doubts at one place.
- II) Interview Experiences: We have added a section exclusive for interview experiences to our website in this session. Students who have

been planning to be part of some interviews have been visiting this section and getting a fair idea of questions asked in over 250+ similar interviews.

- III) Get Started: We have added this section to provide a one-stop platform to map all the topics students need to cover from the beginner level to an advanced one! That too with practice problems. We have attached links to various good tutorials, articles, and other material so that you can get in-depth knowledge on each topic. Every topic is supported with pictures and illustrations for easy understanding and questions are also provided in every topic for practice.
- IV) Blog: Blog section has been added to the site, where anyone can post about any topic. Each post has its own comment section to facilitate further exchange of knowledge and information. With that we have also added the voting system for each post. We have been posting important notices as well as ICPC-experience-blogs through this section.



SAE INDIA COLLEGIATE CHAPTER NIT DURGAPUR

INTRODUCTION

SAE India Collegiate Chapter of NIT Durgapur was conceived in 2007 with an idea to integrate the students of the college into international fabric of automobile engineering. Presently 200 students are enjoying the benefits of SAE India membership. We organize a number of innovative events, workshops and lectures round the year and a competitive place where the sharpest minds battle in the quest to achieve distinction. SAE along with MNTC, GLUG

and CCA organises Aarohan 2021, which is the official techno management fest of NIT Durgapur. SAE NIT Durgapur also publishes its annual magazine called Autopia for automobile enthusiasts to know about latest technologies at one place.

BAJA Team NDORS is a part of SAE NIT Durgapur which takes part in mBAJA competition organised by SAE India. They represent NIT Durgapur at this national level competition under the team name NDORS.

OUR FACULTY ADVISORS



Prof.(Dr.) Apurba Layek
Faculty Advisor
Department of Mechanical Engineering



Prof.(Dr.) Nilotpal Banerjee
Faculty Advisor
Department of Mechanical Engineering



Prof.(Dr.) Tapas Kumar Saha
Faculty Advisor
Department of Electrical Engineering

OFFICE BEARERS



Utkarsh Chaurasia
President



Soumik Paul
Convener



Avinash Prasad
General Secretary



Jaideep Datta
Vice President



Suborno Gupta



EVENTS

DECRYPT DE HEIST

DATE- **31ST MAY 2020 - 2ND JUNE 2020**

PARTICIPANTS :- **120+**

It was a 3 day online event organised during the lockdown period. The theme of this event was inspired by the popular Netflix series Money Heist. 'The Professor has escaped with his crew after a

heist. However, intelligence suggests that he's still in the country.' Here the participants were provided with picture clues and riddles that were based on scientific technologies and discoveries, which in return gave them clues to help track down the Professor and his crew.



SAE INDIA Collegiate Chapter NIT DURGAPUR presents

DECRYPT DE HEIST

31ST MAY 2020

FOR FURTHER DETAILS CONTACT :
SUSHANSHU - 977802240
VISHESH - 829429495

LEADERBOARD

NAMES	SCORES
Anish Chatterjee	200
Ridam Hazra	200
Aditya Mitra	200
Pavan Porendia	200
Arka Seth	200
Swarnadeep Ghosh	190
Arka Dutta	190
Arkadeep Paul	190
Souradeep Dasgupta	190
Aman Sonkar	180

DECRYPT DE HEIST

IDENTIFY ME



Message- The University it was created in

CrypTech

DATE- **1ST NOVEMBER 2020 - PRESENT**

CrypTech is a protracted project where the latest technologies and innovations are exhibited in the form of a short video every Sunday.

Till now we have published 24+ videos which has gathered 10k+ views across all social media platforms.





QFIESTA

DATE - **6TH FEBRUARY 2021 - 7TH FEBRUARY 2021**

PARTICIPANTS - **550+**

Q-Fiesta is an online quiz event which was conducted

on a website developed by us. The participants had to answer several questions ranging from logical reasoning to current affairs.



WEBINAR

DATE - **22ND APRIL 2021**

PARTICIPANTS- **200+**

A Webinar on “Current trends and future scope in the field of

aeronautics and aerospace in India” was conducted where two speakers- Mr. Ankit Bhateja and Mr. Mir Shaz Ali from the

concerned field were invited as the guest speakers. The webinar consisted of mainly two sessions-

1. Presentation- The speakers explained the trends and shared their experiences.
2. Interactive Q&A session- Audience got an opportunity to interact with the speakers to ask their queries .



AUTOPIA

AUTOPIA our very own annual automotive magazine was prepared and it consists of several informative articles about the trending

topics and technologies in the field of automotive technology. The magazine is available on our website and as of now, we have

registered 1000+ downloads on our website.





BAJA COMPETITION

Team NDORS (NIT Durgapur Off-Road Sports) is the official SAE BAJA team of NIT Durgapur representing the institute in mBAJA SAE INDIA.

competed with 200 teams to secure overall 33rd and 4th rank among all IITs, NITs and IIST in the preliminary round.

The team involves a group of 25 auto-enthusiasts across different streams who share a common passion towards automobile engineering and racing. The team designs, fabricates and competes against other All-Terrain Vehicles at an event popularly called as BAJA SAE which is held annually every year.

This year's BAJA SAE India 2021 was held virtually where Team NDORS designed an All-Terrain Vehicle and



The team then went on to compete in several static and dynamic events such as CAE event, manufacturing event, go-green event, design event, cost and sales event, acceleration test, braking test, maneuverability test, suspension and traction test and endurance test. After overcoming all the obstacles the team was finally able to achieve an overall rank of 48th among 200 teams which is till date the best rank achieved by our team.



OUR TEAM



BAJA INTRODUCTORY WORKSHOP

DATE -**9TH MARCH 2021**

PARTICIPANTS- **100 +**

The workshop was conducted by Team NDORS where the students were given insights about the BAJA event along with various aspects of automobile and vehicle dynamics that would help the students to stimulate an interest within and pursue the field of automobile engineering.





OUR EVENTS IN AAROHAN 2021

CONQUESTO

DATE-**2ND APRIL 2021**

PARTICIPANTS- **50+**

A business cum auction strategy event that tested the management skills between participants and the corporate world.



ELECTRA

DATE-**1ST APRIL 2021**

PARTICIPANTS- **80+**

The event is based on basic electronic devices and logic gates where participants have to design different circuits in any Simulator using their knowledge and instincts.



TRANSMISSION

DATE-**2ND APRIL 2021**

PARTICIPANTS- **50+**

The event is mainly a brain teaser and makes one get acquainted with various Transmission Mechanisms including gears, belt drives, and many more. The Transmission mainly challenges the logical capability and technical perception of the participants in deciphering the challenges.



MAZEMERIZE

DATE-**4TH APRIL 2021**

PARTICIPANTS- **200+**

The event consisted of randomly generated maze that the participants had to complete within a given time to score points.





JUNKYARD

DATE-**2ND APRIL 2021**

PARTICIPANTS- **20+**

In this event the participants were given a problem statement and they were asked to prepare models accordingly using scrap materials.



AUTOSHARKS

DATE-**1ST APRIL 2021**

PARTICIPANTS- **100+**

In this event the participants were asked to pitch car models which they thought were suitable for the locations that were allotted to them.

They had to analyze both the technical aspects as well economic aspects whilst asking for investment to grow their automobile company.



INGENUITUS

DATE-**2ND APRIL 2021**

PARTICIPANTS- **20+**

The event provided an astounding platform for the participants to put forward their innovative and economical solutions to real-life industrial challenges by confronting their research skills before the world.



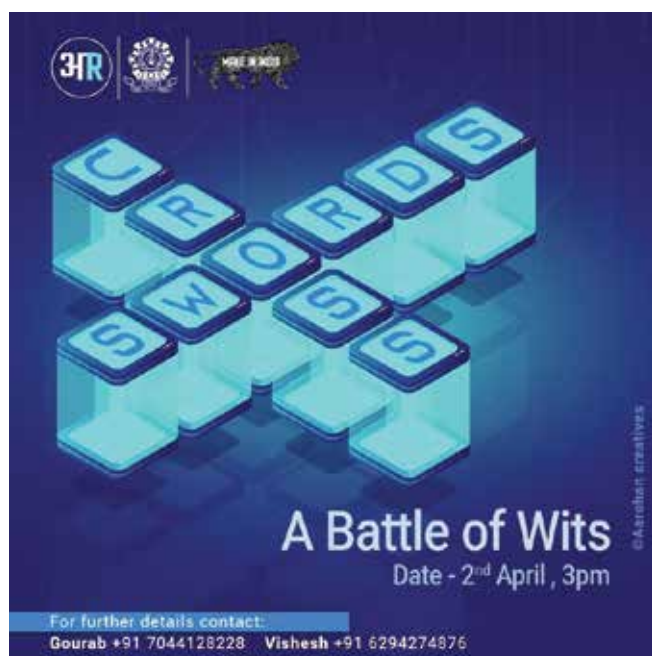
CROSS SWORDS

DATE-**2ND APRIL 2021**

PARTICIPANTS- **100+**

The event was a combination of crossword and bingo but with a twist as the participants required sound technical knowledge to compete in this event.





OUR PROJECTS IN TECHMELA

Project Name: **Swachh Description:**

The idea is to clean the waterbody without actually jumping into the water and taking out something from the water.

Currently its a small prototype which is capable of pulling out light objects out of any water-body. The bot can be controlled by a small mobile app by the Bluetooth connection. For now the bot is not automated, but automation can be implemented with the help of machine learning by identification of objects, this opens a plethora of scope of improvement which we would want to bring in the model in near future.



Project Name: **Automatic Hand Sanitizer**
Description:

In this project, an automatic hand sanitizer is made. An automatic hand sanitizer dispenser is a device dispensing a controlled amount of hand sanitizer (or a similar liquid such as soap solution). During this pandemic, sanitizer has become an essential commodity of every household as it prevents the virus and germs from getting spread over our body.



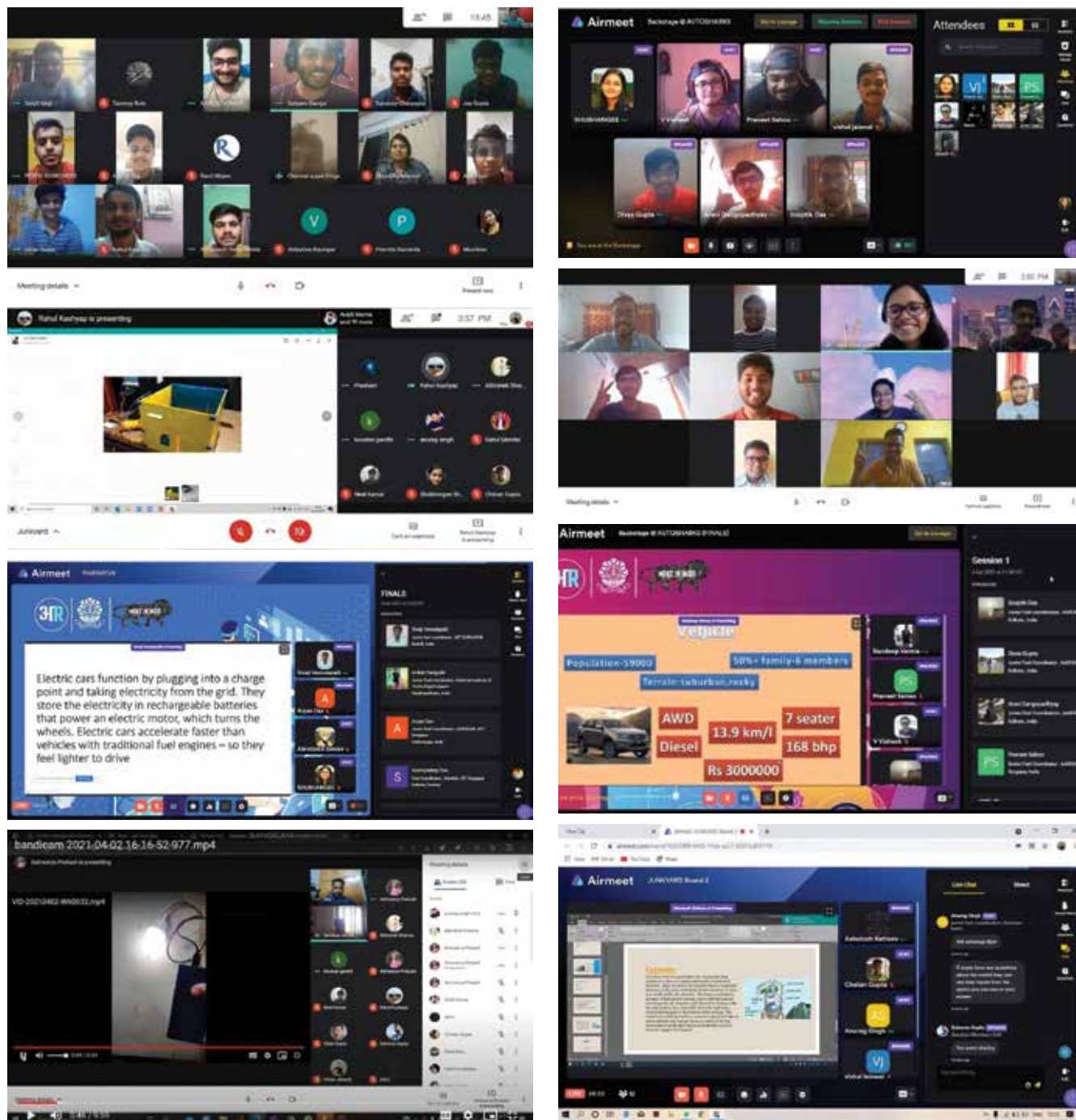
Project Name: **Floor Cleaning Machine**

Description: In this project, a prototype of a floor cleaning machine is made. When provided with soap water and switched on it can clean the part of the floor where it is placed.





AAROHAN GALLERY



VOTE OF THANKS

This year the club saw a lot of changes in the way it has been operating due to ongoing pandemic. The transition from an offline environment to a virtual world was indeed a difficult one but we didn't let it affect our morale and determination to work for the welfare of this club and the people associated with it. We have tried our best to overcome any challenges that were put in front of us but this wouldn't have

been possible without the guidance and support of our Faculty Advisors.

As we bid adieu yet another year, SAE INDIA NIT DURGAPUR COLLEGIATE CHAPTER would like to thank our Faculty Advisors A.Layek Sir, N.Banerjee Sir and T.K Saha Sir for their cooperative efforts in making the club reach the pedestal it has reached today.





SPIC MACAY

ANNUAL REPORT 2020-21

SPIC MACAY NIT Durgapur Chapter remains committed to its mission of making students more aware about Indian and world heritage by organizing programs of classical music and dance, folk arts, crafts, yoga, classic cinema screenings, heritage walks, etc. inside NIT Durgapur. While the COVID-19 pandemic has thwarted our conventional activities, we intend to make the education system more holistic and meaningful and conduct a variety of online events throughout the year to achieve that purpose.

Following are some of the events conducted during the academic session of 2020-21 by SPIC MACAY NIT Durgapur Chapter:

EVENTS

1. ABHIVYAKTI (15TH-31ST JANUARY):

SPIC MACAY NIT Durgapur Chapter organized an online talent competition to explore the imbibition of the spirit of art among the youth. All classical and indigenous forms including classical and folk dance, vocals, instrumentals and Indian folk art was the focus of this exhibition. The event witnessed extensive participation from various institutions of India. It was an enthralling experience to witness the prismatic talents of the young blood of our nation and once again instilled our belief in the rich cultural assets that our country possess.

2. ANWESHTA (14TH-25TH DECEMBER):

The culture of India has a kaleidoscopic beauty of its own. To share the breath-taking richness of Indian culture in an interactive manner with our audience, SPIC MACAY NIT Durgapur Chapter organized an online quiz event, Anweshta. Witnessing a massive participation from diverse parts of India, this two-week long contest promised a trove of priceless knowledge and exhilarating competition.

3. UTTARAYAN (14TH JANUARY):

SPIC MACAY NIT Durgapur Chapter marks Uttarayan on the day of Makar Sankranti with a vibrant display of kites and stunning performances by our volunteers. This year, one of the leading lights of Indian Classical Music, Vidushi Suranjana Bose graced us with her presence in a virtual classical concert. The event, organized by SPIC MACAY in

collaboration with SPIC MACAY NIT Durgapur Chapter witnessed an audience base of more than 150 people including our honourable Director Sir, faculty advisors and professors. Vidushi Bose, an exponent of the Patiala Gharana enraptured us with her mellifluous voice. The session came to a close with the maestro having an elaborate heart-to-heart conversation on classical music and her journey with the curious crowd.

ONLINE SERIES

4. INDIKA (JUNE 2020-APRIL 2021):

A weekly series, Indika is SPIC MACAY NIT Durgapur Chapter's own quest to rediscover the past. A comprehensive compilation of topics ranging from ancient Indian architecture, Indian civilization, literature and science, Indika aims to expand the horizon of our knowledge of our motherland and all that it beholds. With over thirty stories in this series spanning for over six months, Indika is a testament that India and glorious history has so much to muse on than what meets the plain eye.

5. CLASSICAL DEMONSTRATION SERIES:

Through eons, Indian classical music and dance has been regarded as a deeply spiritual and enriching experience. Affirming to this belief, our Classical Demonstration Series was curated to enthuse the youth to delve into and discover the ethereal elements of our culture. This truly one of a kind online demonstration series includes renditions of famous ragas like Bihaag, Bhairavi, Bhimpalashi, Rageshree and performances of all major classical dance forms like Kathak, Manipuri, Odissi, Kuchipudi, Bharatanatyam and Mohiniattam. Our demonstration series also throws light on the perennial relevance of the classical and indigenous art forms on modern music and dance.

WELFARE SERVICES

6. SERVICES FOR BMEP:

We at SPIC MACAY NIT Durgapur Chapter aim to bring some ray of hope and light of happiness into the lives of underprivileged children. Joining hands with Bihari More Education Project (BMEP), every year, we organize "Anubhav", an art workshop where our volunteers teach art and origami skills



to children ranging from 7-15 years in age and spend an evening of creativity and laughter with them. However, this year due to the world-wide pandemic and its adverse effects, especially on the underprivileged, we contributed to the BMEP fundraiser to help these children and their families combat this dire situation.

SPIC MACAY, INDIA:

As an extension of the SPIC MACAY, India we have participated and encouraged the denizens to participate actively in the different series and events of the India Chapter. The various events include movie screenings, Rendezvous Series, Great Master Series, Craft/Talk/Folk Series, Rasraj Smaran, Parichay, Parampara Utsav, Anubhav and Global Connect Series.

7. CINEMA CLASSICS:

While the COVID-19 pandemic has enforced a nationwide lockdown, SPIC MACAY aims to quell the effects of social isolation. Organized every Friday, Cinema Classics is a virtual film screening series that encompasses movies from a wide range of genres, in different languages. SPIC MACAY NIT Durgapur Chapter's enthusiastic participation in this event elevates filmmaking to one of the greatest forms of art and attests to our mutual reverence for cultures of different communities in India and abroad.

8. THE PARAMPARA SERIES

Wholly dedicated to the youth and their continuing efforts in keeping the Indian culture alive, The Paramapara Series focusses on the sheer talent and erudition that young and budding artists bring to the table. SPIC MACAY NIT Durgapur Chapter is humbled to be a part of this virtual series and witness how young performers are breaking the stereotypes to uphold the glory of Indian Heritage and Classical art forms.

9. THE ANUBHAV SERIES

Prior to the COVID-19 pandemic, SPIC MACAY organized conventions to bring together under one umbrella, artists, gurus and the audience. While the 8TH International Convention at IIT Kanpur was put to hold, SPIC MACAY NIT Durgapur Chapter was able to attend its virtual analogue, The Anubhav Series. It was an enriching experience to witness maestros from all over India cater to the cultural and spiritual zeal of a diversified audience.

10. THE RENDEZVOUS SERIES

A set of phenomenal performances organized under the virtual banner of The Rendezvous Series, it is an opportunity for people across the country to be marvelled by the greatest stalwarts and masters of Indian classical art forms. Volunteers of SPIC MACAY NIT Durgapur Chapter revelled in the eclectic assortment of events that this series encompasses, including film screenings, performances by great artists, talks by gurus and much more.

11. RASRAJ SMARAN

Sangeet Martand Pandit Jasraj's demise left a void in the world of Indian Classical music. To commemorate the life and legacy of this legend, SPIC MACAY brought together doyens of Indian Classical music and dance like Pt. Hariprasad Chaurasia, Pt. Birju Maharaj, Vid. Sonal Mansingh, Vid. Madhavi Mudgal and many more in this virtual event titled, Rasraj Smaran. Volunteers of SPIC MACAY NIT Durgapur Chapter joined to pay their humble tributes to this unforgettable master vocalist.

12. GLOBAL CONNECT SERIES

Believing in empowerment through knowledge, SPIC MACAY organizes the Global Connect Series to enable culture enthusiasts benefit from the pool of knowledge of the revered gurus of India. With eminent personalities like Nobel Laureate Kailash Satyarthi having graced this virtual lecture-demonstration series, SPIC MACAY NIT Durgapur Chapter and our volunteers are gratified to be a part of such an interactive event.

Other than the aforementioned events, online series and welfare services we have been publishing art works which include painting, pencil sketches and even digital artworks on our SPIC MACAY NIT Durgapur Chapter page on yearly highlights like birth anniversary of Ustad Alla Rakha, National Technology Day, World Red Cross Day and all other significant days of national and international importance. Though we could not perform offline due to the pandemic situation, we have posted our music and dance performances in our social media pages, on the important occasions like Independence Day, Matribhasa Diwas, International Dance Day, Rabindra Jayanti and all other major events in this span of 2020-2021.





STROKES



3. INTRODUCTION

Strokes is the official Art and Photography Club of NIT Durgapur. It is among the youngest clubs of NIT Durgapur and is one of its kind.

Founded in 2015 by a bunch of enthusiasts from second year, the club endeavors to broaden the perspective towards art and photography to unleash the sense of creativity not only among the students of NIT Durgapur but also to the public through social media platforms.

We organize the biggest art and photography exhibition of the college-KALAKRITI. Apart from exhibitions we dabble in a lot of activities all round the year like photo walks, live session with eminent photographers and artists of the country, photography workshops. The walls of the college campus are a testament to the beautiful wall arts and murals done by team Strokes. We also beautify our college campus with street paintings and cover each and every event organized in the college premises.



4 EVENT LIST

CLICKANTINE	9th -14th JULY,2020
QUARANTONES	20th-28th JULY,2020
KOLKATA EN COLORES	1st - 6th AUGUST,2020
LENSEMBLE	14th – 16th AUGUST,2020
FRAMESHIFT	21st – 26th SEPTEMBER, 2020
THE VINCENT PALETTES	15th – 23rd NOVEMBER, 2020
DOTS & DASHES	21st DECEMBER-22nd JANUARY, 2021
RITRATTO	24th JANUARY – 10th FEBRUARY, 2021
SNAPSHADE	27th MARCH – 6th APRIL,2021
KALAKRITI 7.0	17th – 18th APRIL, 2021
LENSEMBLE 2.0	30th APRIL – 2nd MAY, 2021
OTHER NOTABLE ACTIVITIES	N/A

5. EXECUTIVE MEMBER LIST:

FOURTH YEAR MEMBERS:

Aneek Biswas	ab.17u10631@btech.nitdgp.ac.in
Rohan Choudhury	rc.17u10575@btech.nitdgp.ac.in
Sudeshna Gun	sg.17u10638@btech.nitdgp.ac.in
Mahima Kriti	mk.17u10126@btech.nitdgp.ac.in
Anik Saha	as.17u10616@btech.nitdgp.ac.in
Dayeeta Pal	dp.17u10610@btech.nitdgp.ac.in
Purnima	p.17u10417@btech.nitdgp.ac.in
Aman Deep Sandhu	ads.17u10695@btech.nitdgp.ac.in
Md. Kavid Tassin	mkt.17u10721@btech.nitdgp.ac.in
Suchi Subhra Mahato	ssm.17u10705@btech.nitdgp.ac.in
Rishav Dutta	rd.17u10607@btech.nitdgp.ac.in





Radhika Agarwal	ra.17u10338@btech.nitdgp.ac.in
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6. THIRD YEAR MEMBERS:

Annasha Dey	ad.18u10151@btech.nitdgp.ac.in
Sankhomala Hansda	sh.18u10177@btech.nitdgp.ac.in
Amit Bose	ab.18u10473@btech.nitdgp.ac.in
Ambika Biswas Neela	abn.18u10673@btech.nitdgp.ac.in
Joyeeta Mandal	jm.18u10190@btech.nitdgp.ac.in
Rangeet Hait	rh.18u10526@btech.nitdgp.ac.in
Pratiksha Patel	pp.18u10639@btech.nitdgp.ac.in
Snigdha Behera	sb.18u10745@btech.nitdgp.ac.in
Disha De	dd.18u10124@btech.nitdgp.ac.in
Nikita Bhowmik	nb.18u10738@btech.nitdgp.ac.in
Aniruddha Das	ad.18p30178@mca.nitdgp.ac.in

7 SECOND YEAR MEMBERS:

Sarthak Bhar	sb.19u10028@btech.nitdgp.ac.in
Sankhadeep Ghosh	sg.19u10732@btech.nitdgp.ac.in
Ramyanil Raha	rr.19u10517@btech.nitdgp.ac.in
Vedang Pancholi	vp.19u10233@btech.nitdgp.ac.in
Yash Sinha	ys.19u10613@btech.nitdgp.ac.in
Supriyo Karmakar	sk.19u10493@btech.nitdgp.ac.in
Vipin Bohra	vb.19u10348@btech.nitdgp.ac.in
Oliva Majumdar	om.19u10766@btech.nitdgp.ac.in

Gaikamble Sumedh Anil Rao	gsar.19u10797@btech.nitdgp.ac.in
Disha Sharma	ds.19u10546@btech.nitdgp.ac.in
Allu Kumara Sai	aks.19u10468@btech.nitdgp.ac.in
Prabhat Rathod	bpr.19u10329@btech.nitdgp.ac.in
Pranav Bajpai	pb.19u10599@btech.nitdgp.ac.in
Srijita Ghosh	sg.19u10686@btech.nitdgp.ac.in
Diksha Senapati	ds.19u10621@btech.nitdgp.ac.in

8 FIRST YEAR MEMBERS:

Shubhronil Mondal	sm.20u10082@btech.nitdgp.ac.in
Sourajit Pal	sp.20U10790@btech.nitdgp.ac.in
Kushagra Pratap Singh	kps.20u10492@btech.nitdgp.ac.in
Arindam Mandal	am.20u10450@btech.nitdgp.ac.in
Sompranshu Karak	sk.20u10356@btech.nitdgp.ac.in
Udayan Mukherjee	um.20u10076@btech.nitdgp.ac.in
Sushmita Nandi	sn.20u10343@btech.nitdgp.ac.in
Satyam Yogendra	sy.20u10625@btech.nitdgp.ac.in
Sandip Goldar	sg20u10496@btech.nitdgp.ac.in
Debasmita Das	dd.20U10272@btech.nitdgp.ac.in
Marshal Mardi	mm.20U10046@btech.nitdgp.ac.in
Nikita Roy	nr.20U10412@btech.nitdgp.ac.in
Neeladri Dhar	nd.20u10862@btech.nitdgp.ac.in



9 ADMINISTRATIVE BODY:

DIRECTOR

ANUPAM BASU

EMAIL ID.: director@admin.nitdgp.ac.in

PH.NO: +91-3432546397

FACULTY ADVISOR:

SUVAMOY CHANGDER

EMAIL ID.: suvamoy.nitdgp@gmail.com

Ph.NO: +91-9434788094

ADMINISTRATIVE STUDENT BODY:

PRESIDENT

ANEEL BISWAS

ab.17u10631@btech.nitdgp.ac.in

VICE PRESIDENT

ROHAN CHOWDHURY

rc.17u10575@btech.nitdgp.ac.in

CONVENER

SUDESHNA GUN

sg.17u10638@btech.nitdgp.ac.in

GENERAL SECRETARY

MAHIMA KRITI

mk.17u10126@btech.nitdgp.ac.in

dp.17u10610@btech.nitdgp.ac.in

p.17u10417@btech.nitdgp.ac.in

as.17u10616@btech.nitdgp.ac.in

ads.17u10695@btech.nitdgp.ac.in

ad.18p30178@mca.nitdgp.ac.in

rd.17u10607@btech.nitdgp.ac.in

ssm.17u10705@btech.nitdgp.ac.in

mkt.17u10721@btech.nitdgp.ac.in

ra.17u10338@btech.nitdgp.ac.in

TREASURER

DAYEETA PAL;

PURNIMA

9903381500

PHOTOGRAPHY CELL HEAD

ART CELL HEAD

OPERATIONS & SENIOR CO-ORDINATION HEAD

DESIGN HEAD

EVENT HEAD

PUBLICITY HEAD

SPONSORSHIP HEAD

ANIK SAHA

AMAN DEEP SANDHU

ANIRUDDHA DAS

RISHAV DUTTA

SUCHI SUBHRA MAHATO

MD KAVID TASSIN

RADHIKA AGARWAL

10 CLICKANTINE:

CLICKANTINE was a new photography series of aesthetic perspectives and unleashing our creativity to next-level by producing magnificent clicks from our homes. Quarantine did not stop Strokes from marveling the public by introducing the series when the world was in isolation . The series spanned from 9th to 14th July and was well appreciated by the people.



11 QUARANTONES:

QUARANTONES was a series carried out in month

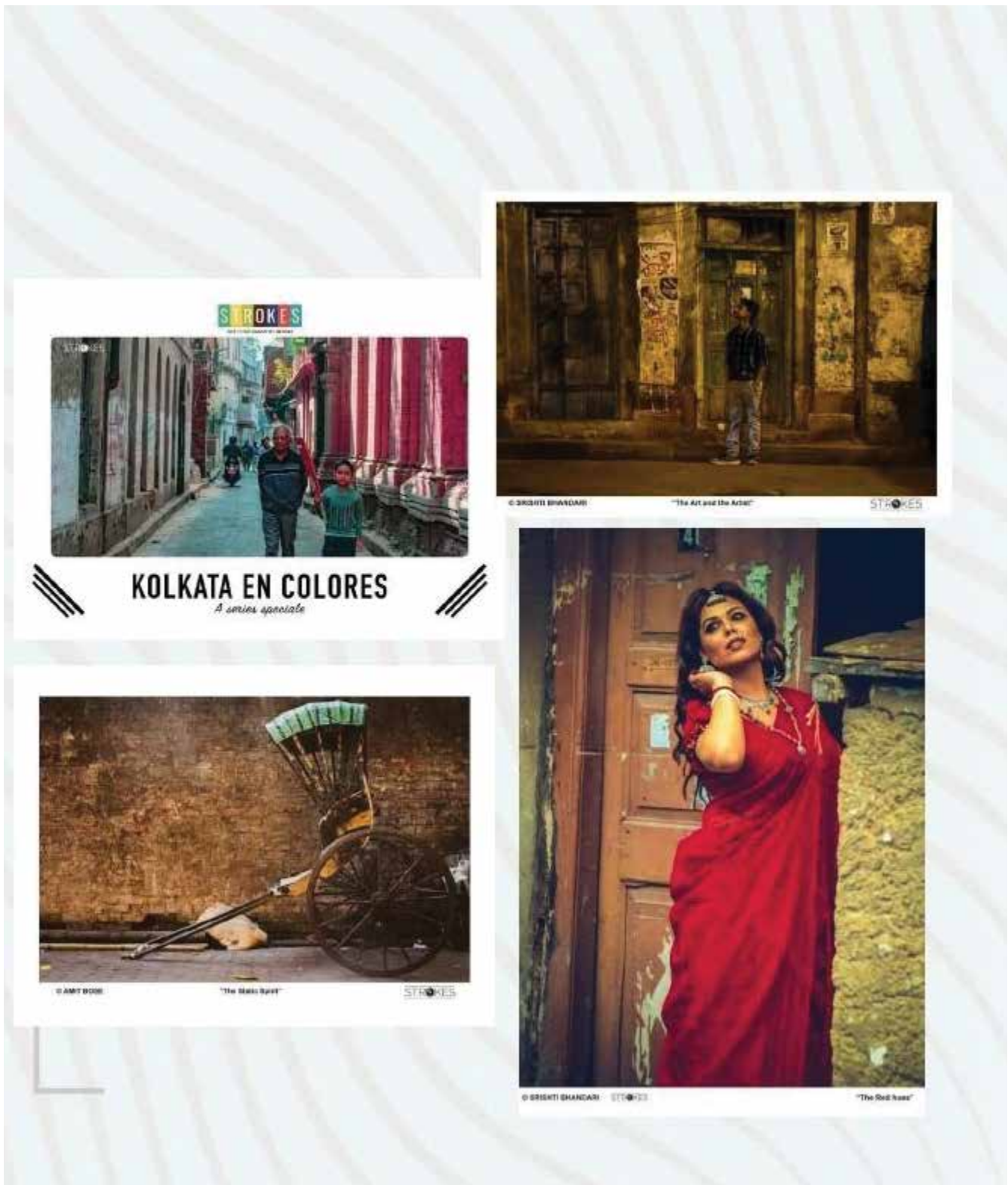
of July, in which the artworks by our own members were posted on a daily basis from 21 July. And a total of 5 artworks were posted.



12 KOLKATA EN COLORES:

KOLKATA EN COLORES, a photography series special conducted by Strokes NIT DURGAPUR that made us fall in love with Kolkata, the city whose magic knows no limit, all over again. It's

beauty increases infinitely and remains evergreen and always a mystery for us to solve. The aesthetic photographs, just like the city showed the perfect blend of modernity and vintage charm. The series was loved and very well received by everyone.



13 LENSEMBLE:

LENSEMBLE was a 3 day webinar organized by Strokes in which we had eminent Photographers from around the country on Instagram Live Session with our members , taking us through their journey as a photographer and sharing their invaluable

experiences and more. It was conducted on 14th,15th and 16th August,2020. LENSEMBLE was a new venture by our club and it was a sure shot success attracting many budding photographers , learning from the famous photographers and improving their skill sets.



14 FRAMESHIFT:

Frameshift was a series carried out in the month of September, in which artworks and illustrations

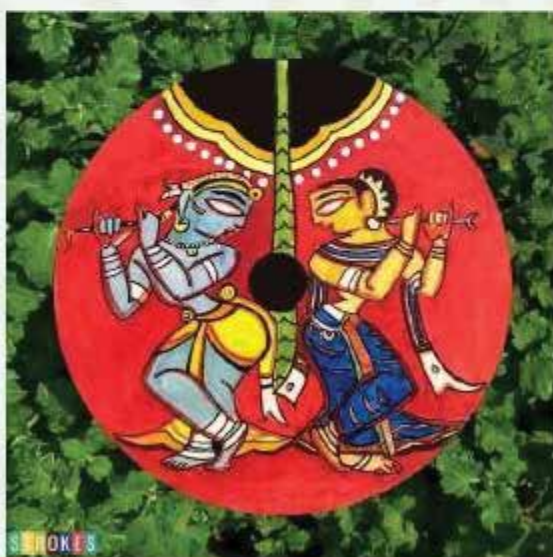
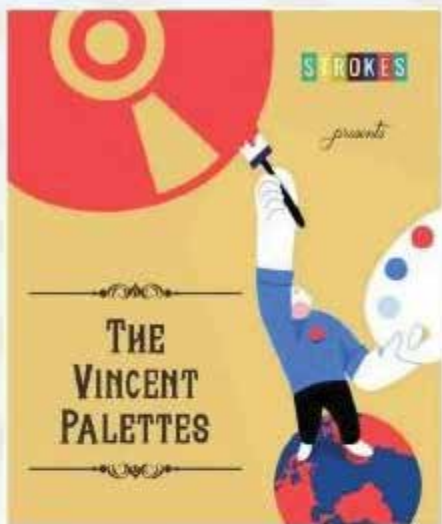
were combined in a cinematic manner through short videos. In all 5 videos were released on a daily basis from 21 September, the series received lot appreciation from professors as well as students.



15 THE VINCENT PALETTES:

To escape the current monotony of being locked up in home all day and dive into the plethora of creativity, Strokes NIT DURGAPUR conducted a amazing art series The Vincent Palettes, where the

members of the club recreated some magnificent and renowned artworks that the world has ever perceived. The artworks were much appreciated and the series was very well received by everyone.



16 DOTS & DASHES:

Dots and Dashes was an online art competition held in the month of January 2021. The event gave the artists a platform to paint their creative ideas on a piece of paper and get it presented on our facebook

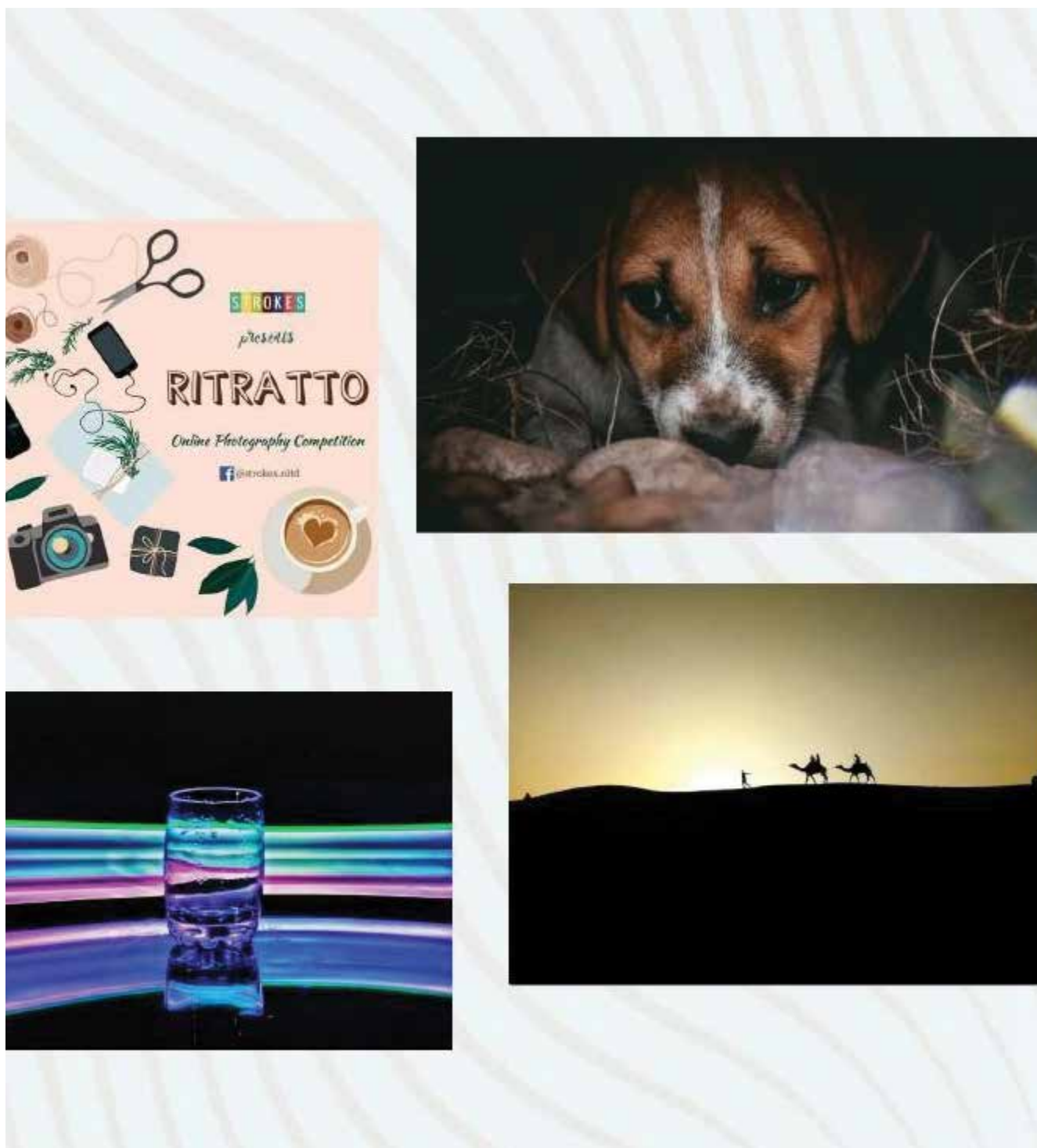
page. Artists could give their entries under various categories of art such as doodle art, DIY craft, mandala art, tattoo art, meme strip etc. The event had been a great success with a good number of entries.



17 RITRATTO:

Strokes, NIT Durgapur has various events with it that mark crowning jewel in its repertoire .One of them is Ritratto, annual photography competition. Team Stokes had conducted the third edition of Ritratto in the month of January and February .

The competition enabled the participants to send their entries for three different categories of photography which were -street, landscape and indoor. The competition was a huge success with a large number of entries.



18 SNAPSHADE:

SNAPSHADE was a colorful photography competition from 27th March to 6th April on the auspicious occasion of Holi. People were to submit

their photographs to let everyone know the way they celebrated Holi with their closed ones and express it through lenses. There were some beautiful entries by participants and they surely enjoyed it.



19 KALAKRITI 7.0:

Kalakriti is the annual arts and photography exhibition of Strokes, NIT Durgapur. This time, team strokes brought the seventh and virtual rendition of Kalakriti in an unique unseen sense that no one had ever experienced before. The exhibition was

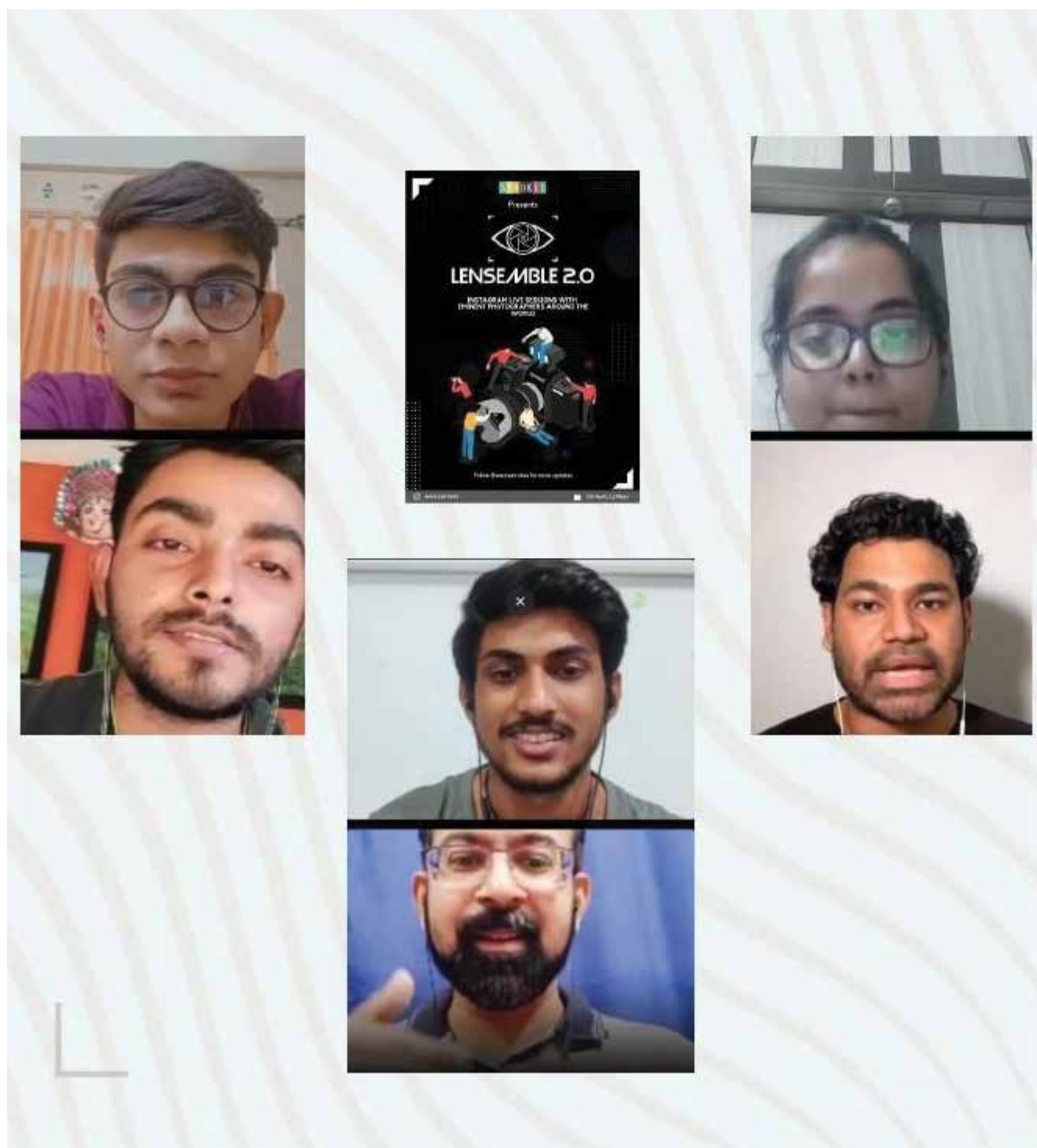
held on 17th and 18th April in Mozilla Hubs. Since the very beginning, Kalakriti had been a platform of showcase of creative paintings, arts, and photography of our team and by this virtual edition of Kalakriti, team Strokes maintained its dignity.



20 LENSEMBLE 2.0:

Lensemble 2.0 was the second edition of Lensemble, which was initiated by Strokes in August 2020. In this edition of Lensemble, we had prominent photographers on our Instagram

LIVE from across the world. It was a three-day event conducted on 30th April, 1st and 2nd May. The event was a great success in which many photography lovers joined to know the secrets of skills of the renowned photographers and to know their valuable experience and knowledge.



21 OTHER NOTABLE ACTIVITIES:

Strokes curated a story telling series encompassing different genres of photography varying from street

to travel. Each album depicted a short story showing how a series of photographs have a strong appeal towards the audience.



NSS

NSS NIT Durgapur is 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 to develop the appreciation to other person's point of view and also show consideration to other living beings.

In the academic year 2020-21, apart from the regular activities of NSS, the volunteers participated in the Vigilance Awareness Week, National Unity Week, Swachhata Pakhwada, Matribhasha Diwas, Communal Harmony Week, and Unnat Bharat Abhiyaan activities. In this session Plastic Free Campaigns were organized in the villages named Bansgora and Pratappur of Durgapur Faridpur Block. The volunteers spread the awareness of the disadvantages of plastic as well as distributed jute bags to the villagers to reduce the use of plastics in daily life. Along with awareness camps at villages, several drives for the same cause were organised on campus. In this endeavor, NSS received the full support from TEQIP cell of the institute. Like every year the Parades on Independence Day and Republic Day by NSS volunteers were appreciated by everyone.

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 like Independence Day celebration, Republic Day celebration, NCC Day celebration, Sports Day celebration etc. This unit also observed and participated various important days like environment Day, Voters Day, organized rallies, Swachhta programme, tree plantation etc.

2.9 EXAMINATION & EVALUATION

The Institute follows semester system of examination. The under-graduate courses are of eight semester (four year) duration. The Institute has been upgraded to National Institute

of Technology, Durgapur with Institute of National Importance status and grade system of evaluation has been adopted for the under-graduate students who have been admitted in the year 2003 and onwards. The students are graded with Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA). The SGPA of a semester indicates the academic performance of the student in that semester and CGPA indicates the academic performance of the student from the beginning till the current semester. They are conferred with the degree of Bachelor of Technology (B. Tech.) at the completion of the course.

The PG course in engineering and technology are of four semester duration for the full time students and six semester duration for the part time students and lead to degree of Master of Technology (M. Tech). The Master of Computer Applications (MCA) course is of six semester duration and the Master of Business Administration (MBA) course is of four semester duration and the students are evaluated by Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA). The Master of Science (M. Sc.) course is of four semester duration and All the students of these post-graduate programmes are evaluated by Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA).

2.10 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. 382 UG students have been placed in the session 2020-2021. Apart from that few students have opted for higher studies in various IITs and IISc. 115 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.

Annexure-I & Annexure-II provides the UG & PG statistics for placement respectively.

39 companies visited the campus for M.Tech courses and 32 no of students have been placed in the academic session 2020-2021. Rest of the students have gone for higher studies.

22 companies visited for MCA and 17 students have been placed out of total eligible strength of 26.



4 companies visited for MBA and 6 students have been placed out of total eligible strength of 22.

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 students go for Internship in CERN (European Council for Nuclear Research, Switzerland). Foreign universities like ANUS, Singapore also allows NIT students for internship.

2.11 GAMES AND SPORTS:

2.12 STAFF POSITION

The Staff position (both teaching and non-teaching) on date of the Institute is given in detail in items 11.5 (a), 11.6 (a) & 11.6 (c).

2.13 RAJBHASHA SAMITI

As per the directives of the Department of Official Language, Ministry of Home Affairs, Government of India, Rajbhasha Samiti of the institute is committed for the implementation of Official Language at the institute. Through out the year the committee tries to achieve the targets set by the Department of Official Language, Gol, in its Annual Programme. The Samiti is also active at the town level in coordination with Town Official Language Implementation Committee (TOLIC). The institute was represented in all the regular meetings of TOLIC. Hindi Pakhwada was the mega event of Rajbhasha Samiti in this session. Several activities were organised during this fortnight.

Matribhasha Diwas: 21 February: was also celebrated at the institute. As per the initiative of the Director, Prof Anupam Basu, the day was observed with full fervour and gaiety. In this event the focus was not only on Hindi but also on languages like Bengali and Telgu. Students not only participated in the programmes in full fervour but also attended the classes that day in their traditional attire and put up stalls of their respective State Food, as a part of EK BHARAT SHRESTHA BHARAT initiative.

2.14 NOTABLE ACHIEVEMENTS SHOWN IN GRAPHS AND PICTURES:

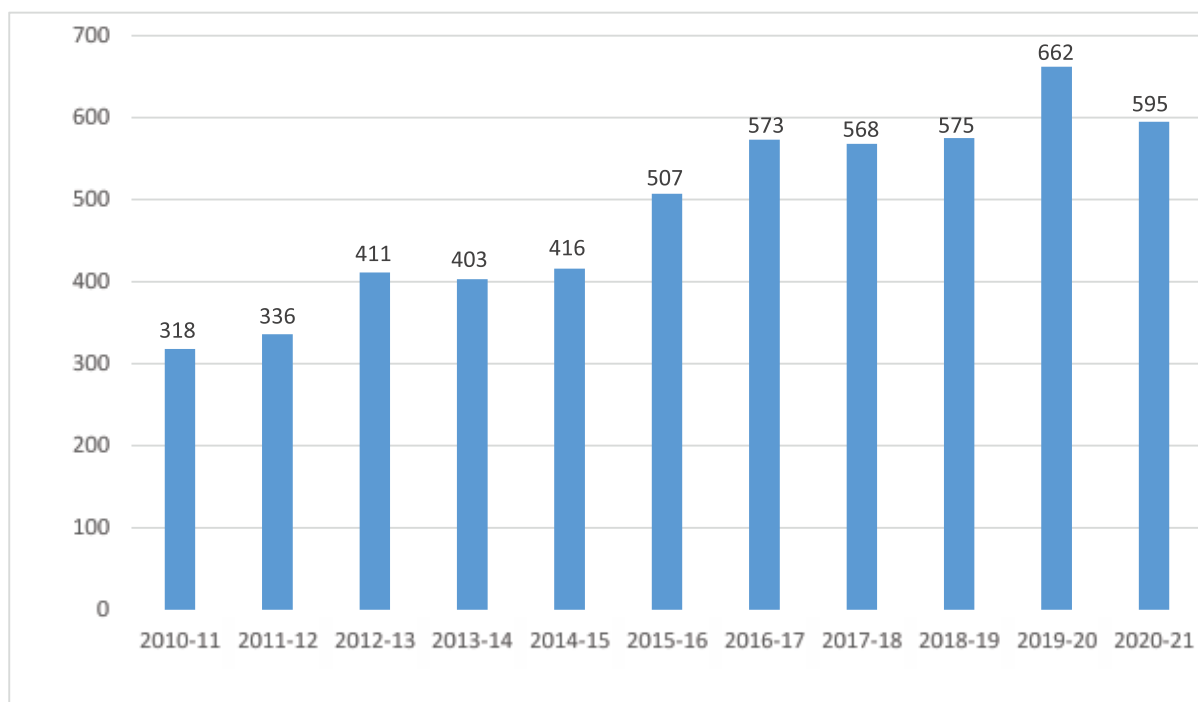


Fig. 1. Publication in journals in the last few years

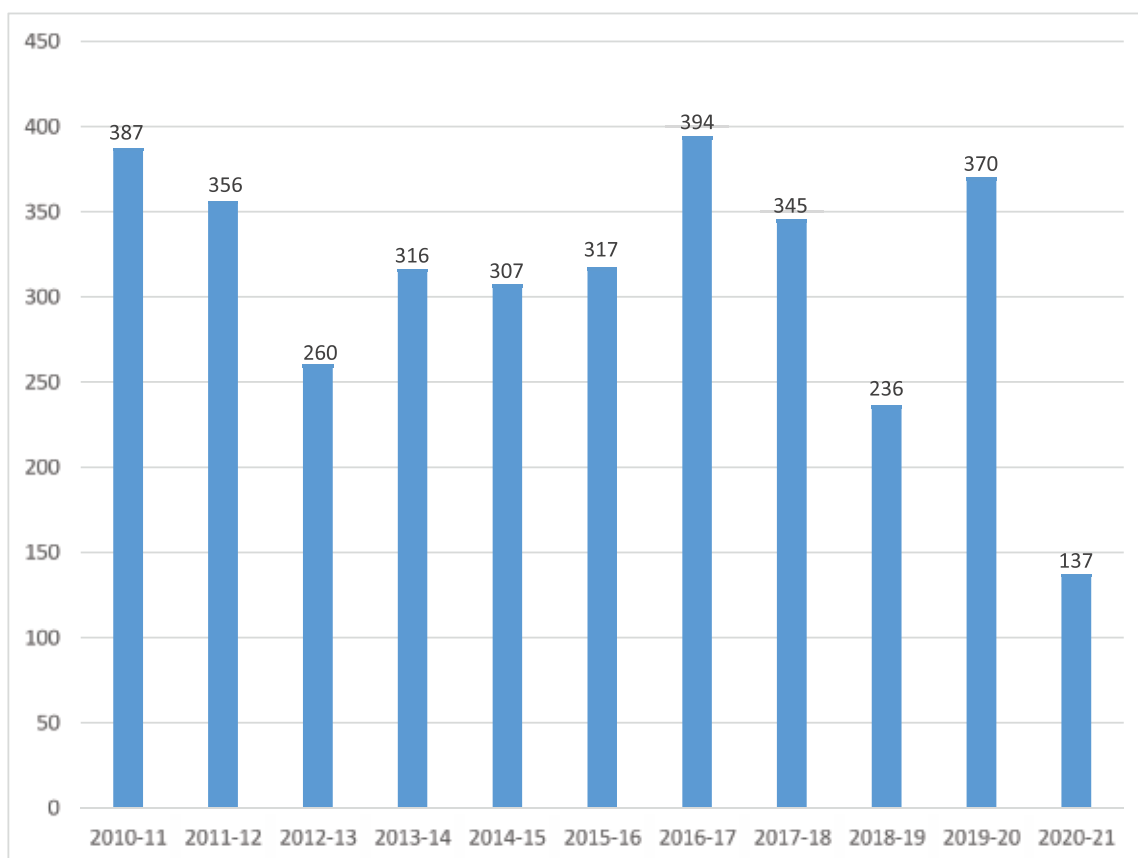


Fig. 2. Presentation in conferences/symposiums in the last few years

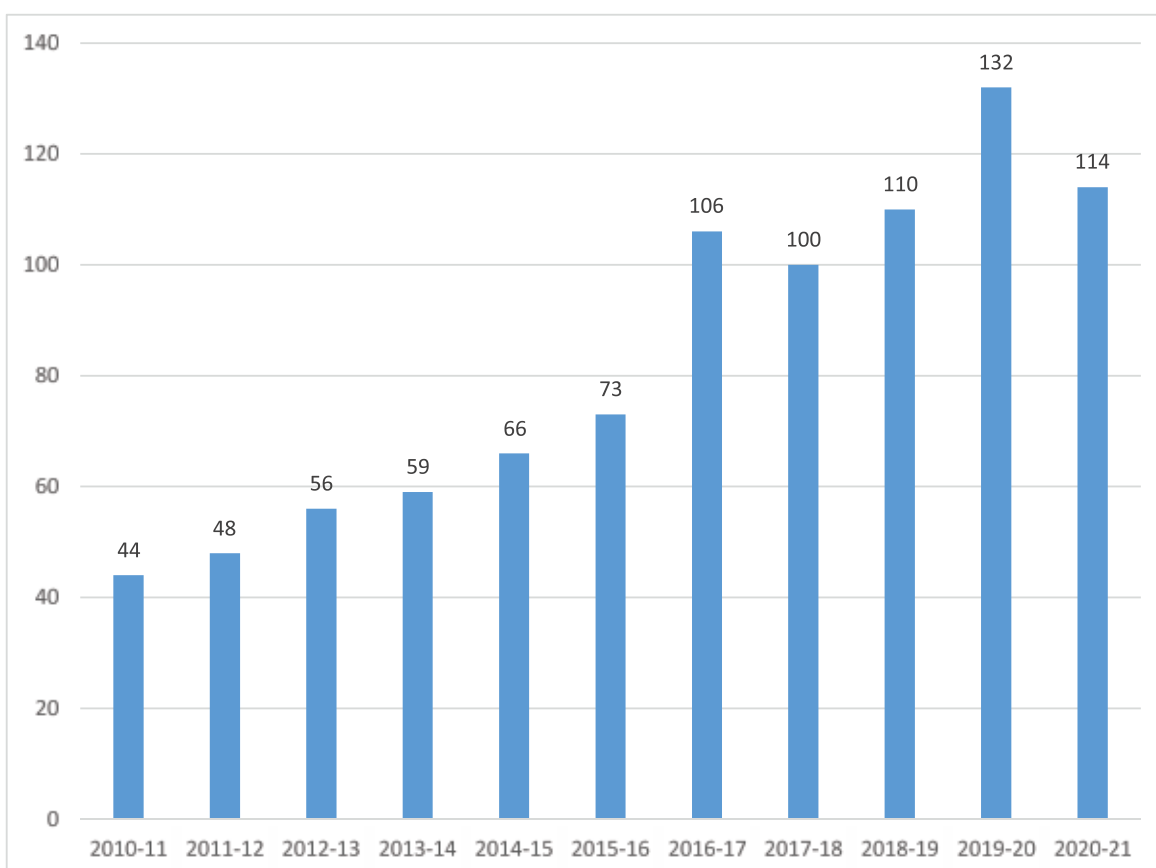


Fig. 3. Number of sponsored projects during the last few years

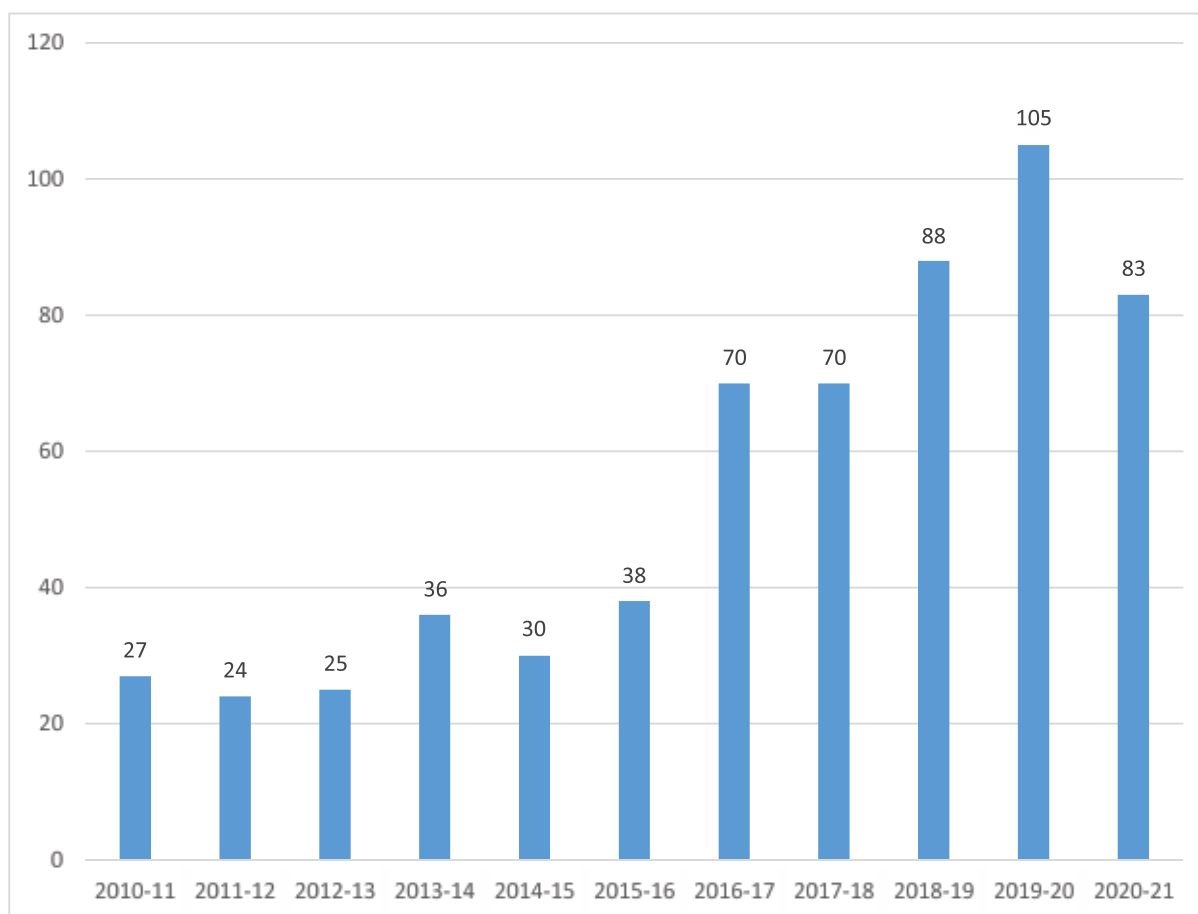


Fig. 4. Number of PhD degrees awarded during the last few years

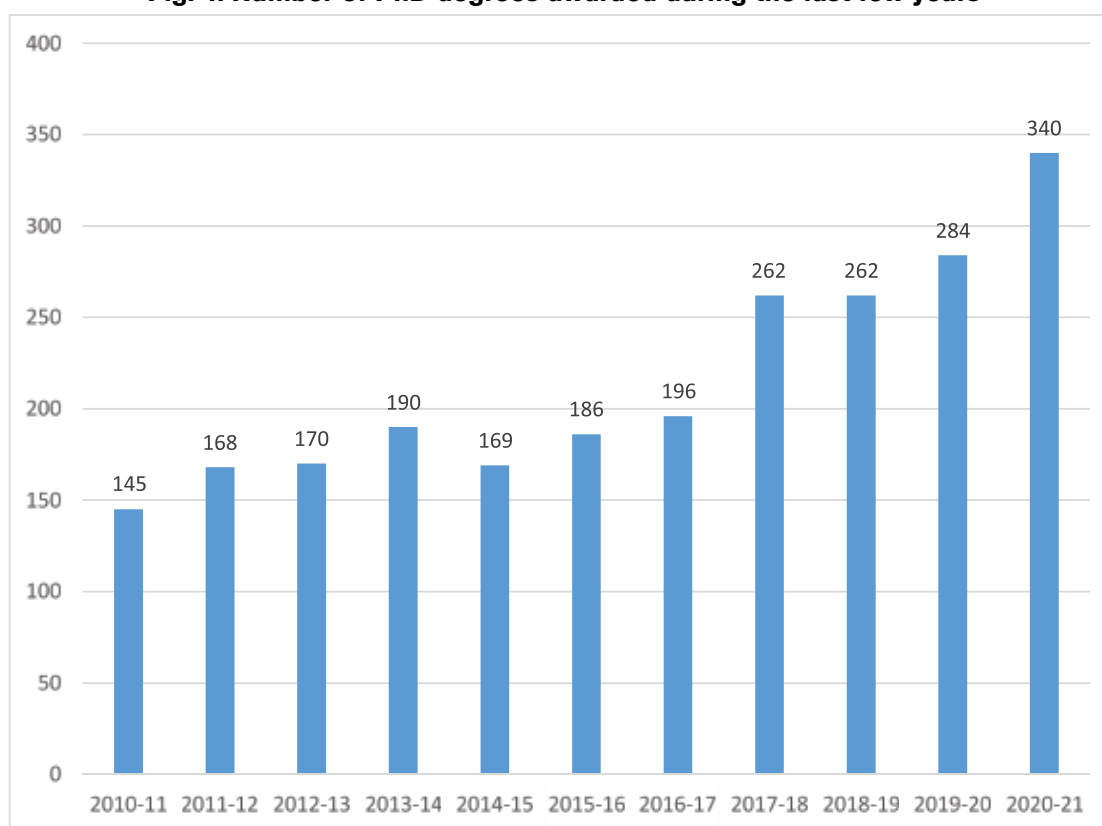


Fig. 5. Reviewers of journals/books during the last few years



Fig. 6. Swachhata Pakhwada with I&B Ministry



Fig. 7. The 16th Convocation



Fig. 7. The 16th Convocation



Fig. 8. Republic day Celebrations 2021



Fig. 9. Independence day Celebrations 2020



Fig. 10. Matribhsha Diwas 2021



Fig. 11. Utkarsha Bhavan: Foundation Stone Programme



Fig 12. Fit India Movement



3.0 THE STAFF



3.1 ACADEMIC STAFF (TEACHING)

DEPARTMENT OF BIOTECHNOLOGY		
Sl. No	Name of the post	Name
01	Professor	Aikat Kaustav, PhD
		Chattopadhyay Sudip, PhD
		Chaudhuri Surabhi, PhD
		Dasgupta(Mandal) Dalia, PhD
		Dey Apurba, PhD
		Mukhopadhyay Sudit Sekhar, PhD

02	Associate Professor	Bhattacharjee Ashish Kr, PhD
		Dutta Debjani, PhD
		Ghosh Monidipa, PhD
		Khannam Kazy Sufia, PhD
		Roy Barman Subhankar, PhD

03	Assistant Professor Gr-I	Mahata Nibedita, PhD
		Mukherjee Oindrilla, PhD
		Saha Sougata, PhD

04	Assistant Professor Gr-II	De Debojyoti, PhD
		Mondal Sudipta, PhD
		Barik Amita, PhD

DEPARTMENT OF CHEMICAL ENGINEERING		
Sl. No	Name of the post	Name
01	Professor	Dutta (Halder) Susmita, PhD
		Ghanta Kartik Ch., PhD
		Gupta Parthapratim, PhD
		Halder Gopinath, PhD
		Mondal Tamal, PhD

	Professor	Pal Parimal, PhD
		Sadhukhan Anup Kr., PhD

02	Associate Professor	Mandal Mrinal Kanti, PhD
		Sikder Jaya, PhD
		Lahiri Sandip Kr., PhD

03	Assistant Professor Gr.-I	Das Bimal, PhD
		Hens Abhiram, PhD
		Paruya Swapan, PhD

04	Assistant Professor Gr-II	Chaudhuri Rajib Ghosh, PhD
		Mondal Bikash Kr. PhD

DEPARTMENT OF CHEMISTRY		
Sl. No	Name of the post	Name
01	Professor	Majhi Milan, PhD
		Moi Sankar Ch., PhD
		Patra Apurba Kr, PhD
		Sukul Dipankar, PhD
		Saha Rajnarayan, PhD

02	Associate Professor	Chakraborty Jitamanyu, PhD
		Panja Sujit Sankar, PhD

03	Assistant Professor Gr-I	Adhikari Utpal, PhD
		Ghosal Subhas, PhD
		Saha Tanmoy Kr., PhD

04	Assistant Professor Gr-II	Banerjee Deb Ranjan, PhD
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DEPARTMENT OF CIVIL ENGINEERING

Sl. No	Name of the post	Name
01	Professor	Bhattacharjee Kamal, PhD
		Bhattacharyya Soumya, PhD
		Banik Atul Krishna, PhD
		Das. Amlan, PhD
		Dwivedi. Vijay Kr., PhD
		Roy Purnendu, PhD
		Saha Showmen , PhD
		Singha Roy Dilip Kr., PhD
		Samanta Amiya Kr. PhD

02	Associate Professor	Das Diptesh, PhD
		Datta Alope Kr, PhD
		Nanda Radhikesh Prasad, PhD
		Pal Supriya ,PhD
		Topdar Pijush, PhD

03	Assistant Professor Gr-I	Roy Pronab , PhD
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04	Assistant Professor Gr-II	Karmakar Somnath, PhD
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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Sl. No	Name of the post	Name
01	Professor	Choudhury Subhrabrata, PhD
		Nandi Debasish, PhD
		Nandi Subrata, PhD
		Pal Tandra, PhD
		Roy Suchismita, PhD

02	Associate Professor	Chakraborty Baisakhi, PhD
		Das Suvrojit, PhD

	Associate Professor	De Tanmay, PhD
		Dutta Animesh, PhD
		Kisku Dakshina Ranjan, PhD
		Mitra Debasis, PhD
		Mukhopadhyay Sajal, PhD
		Sarkar Anirban, PhD
		Sarkar Goutam, PhD
		Sen Bibhas , PhD
		Saravanan C. ,PhD

03	Assistant Professor Gr-I	Bhattacharjee Sanghita, PhD
		Changder Subhamoy, PhD
		Choudhury Prasensjit, PhD
		Chatterjee Rajib Kr.
		Dalui Mamta, PhD
		Das Dipanwita PhD
		Howlader Joydeep, PhD
		Jana Nandadulal , PhD
		Saha Mousumi, PhD
		Saha Sujoy, PhD
		Sharma Abhijit, PhD

4	Assistant Professor Gr-II	Guha Thakurta Parag Kr. PhD
		Karmakar Sandip, PhD
		Majhi Subhankar
		Sadhu Sanjib

DEPARTMENT OF ELECTRICAL ENGINEERING

Sl. No	Name of the post	Name
01	Professor	Acherjee Parimal , PhD
		Banerjee Subrata, PhD
		Ghosh Saradindu, PhD
		Koley Chiranjib, PhD
		Mahato Sankar Narayan , PhD
		Ray Nirmal Kumar, PhD
		Saha Tapas Kr., PhD
		Thakur Sidhartha Sankar, PhD



02	Associate Professor	Bhowmik Partha Sarathee, PhD
		De Jayati, PhD

03	Assistant Professor Gr-I	Mandal Sujit Kr., PhD
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03	Assistant Professor Gr-I	Barman Jitesh Ch.
		Bera Tushar Kanti, PhD
		Bhattacharya Aniruddha, PhD
		Halder Suman, PhD
		Saha Ray Biman Kr., PhD
		Sarkar Supriya, PhD

04	Assistant Professor Gr-II	Chattaraj Nilanjan, PhD
		Majumder Aurpan
		Mondal Hemanta Kr., PhD
		Ranwa Sapana, PhD

DEPARTMENT OF EARTH & ENVIRONMENTAL STUDIES

Sl. No	Name of the post	Name
01	Professor	Adhikary Kalyan, PhD

04	Assistant Professor Gr-II	Bohre Aashish Kr., PhD
		Das Avinandan
		Dey Aritro, PhD
		Dhara Ashis Kr., PhD
		Mohd. Falul Ahmed Irfan, PhD

02	Assistant Professor Gr-I	Mondal Sandip, PhD
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05	Trainee Teacher	Dey Rajiv
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03	Assistant Professor Gr-II	Ozha Manoj Kr., PhD
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Sl. No	Name of the post	Name
01	Professor	Bhattacharjee Anup Kr., PhD
		Ghatak Rowdra, PhD
		Kundu Sumit, PhD
		Mahanty Goutam Kr., PhD
		Mahapatra Rajat, PhD
		Maji Bansibadan, PhD
		Mal Ashis Kr., PhD

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

Sl. No	Name of the post	Name
01	Professor	Sengupta Partha Pratim, PhD

02	Associate Professor	Chandra Aniruddha, PhD
		Dhar Roy Sanjoy, PhD
		Kar Rajib, PhD
		Mandal Durbadal, PhD
		Sadhukhan Tapas, PhD

02	Associate Professor	Banerjee Joydeep, PhD
		Modak Arindam, PhD
		Rai Srikrishan, PhD

03	Assistant Professor Gr-I	Chakraborty Debasis, PhD
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04	Assistant Professor Gr-II	Banerjee Sutanuka, PhD
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DEPARTMENT OF MANAGEMENT STUDIES

Sl. No	Name of the post	Name
01	Professor	Dutta Avijan, PhD
		Roy Mousumi, PhD

02	Associate Professor	Bandyopadhyay Gautam, PhD
		Banerjee Neelotpaul, PhD
		De Anupam, PhD
		Mandal Kaushik, PhD
		Pal Durba, PhD
		Ghosh Amlan, PhD

03	Assistant Professor Gr-II	Paul Ujjwal Kanti, PhD
		Sarkar Subhadip

DEPARTMENT OF MATHEMATICS

Sl. No	Name of the post	Name
01	Professor	Basu Kajla, PhD
		Sarkar (Mondal)) Seema, PhD
		Kar Samarjit, PhD

02	Associate Professor	Bagchi Satya, PhD
		Dey Lakshmikanta, PhD
		Maitra Sarit, PhD
		Pal Anita, PhD
		Pal Pinaki, PhD

03	Assistant Professor Gr-I	Panigrahi Goutam, PhD
		Gopmandal Partha Pratim, PhD

04	Assistant Professor Gr-II	Ali Md. Firoz, PhD
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DEPARTMENT OF MECHANICAL ENGINEERING

Sl. No	Name of the post	Name
01	Professor	Basak Indrajit, PhD
		Banerjee Nilotpaul, PhD
		Halder Biswajit, PhD
		Mullick Amar Nath, PhD
		Hui Nirmal Baran, PhD
		Layek Apurba, PhD
		Puri Asitbaran, PhD
		Roy Shibendu Shekhar, PhD

02	Associate Professor	Biswas Arup Kr., PhD
		Khan Kallol, PhD
		Mitra Ambuj Kr., PhD
		Mukhopadhyay Sumit, PhD
		Pramanik Achinta Kr, PhD
		Rana Subhash Ch., PhD

03	Assistant Professor Gr-I	Bera Biswajit, PhD
		Barman Rabindra Nath, PhD
		Das Asim Kr.
		De Jagannath, PhD
		Karmakar Sujit, PhD
		Mitra Ranjan Kr., PhD
		Pramanik Shantanu, PhD

04	Assistant Professor Gr-II	Datta Aparesh, PhD
		Goswami Arjyayoti, PhD
		Jana Kuntal, PhD
		Mondal Sirshendu, PhD
		Mishra Chintamani, PhD
		Patari Animesh
05	Trainee Teacher	Akram Wasim
		Kumar Deepak



DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING		
Sl. No	Name of the post	Name
01	Professor	Ghosh. Karuna Sindhu, PhD
		Maity Joydeep, PhD

02	Associate Professor	Bera Supriya, PhD
		Ghorai Satadal, PhD
		Ghosh Madan Mohan, PhD
		Mondal Manas Kr., PhD
		Pramanik Susanta, PhD
		Show Bijay Kr, PhD

03	Assistant Professor Gr-I	Mallik Manab, PhD
		Mandal Arup Kr., PhD
		Mandal Durbadal, PhD

04	Assistant Professor Gr-II	Maji Barnali, PhD
		Yagati Krishna Priya, PhD

DEPARTMENT OF PHYSICS		
Sl. No	Name of the post	Name
01	Professor	Chakraborty Amit Kr, PhD
		Kumbhakar Pathik, PhD
		Meikap Ajeet Kr., PhD

02	Associate Professor	Basu Soumen, PhD
		Chaudhuri Hirok, PhD
		Mandal Mrinal Kanti, PhD.
		Mondal Aniruddha, PhD
		Sahoo Sukdev, PhD

03	Assistant Professor Gr-II	Das Soumik, PhD
		Ghosh Abhijit, PhD
		Ghosh Sayantari, PhD
		Subramanian Hemachander, PhD

Further detail of faculty positions are given in Annexure 11.5(a) to 11.5(d).

3.2 NON-ACADEMIC STAFF (NON-TEACHING)

The non-academic Staff (non-teaching) of the Institute consists of competent officers, technical and administrative persons. The details of the non-academic staff position are given in Annexure 11.6(a) to 11.6(e).

3.3 TRAINING STATUS

The Institute provides ample opportunities to the Faculty to attend Seminars, Conferences, Short-Term Programmes etc. in India and abroad. Details are given in Annexure 11.7(a) & 11.7(b).

3.4 PLACEMENT OF STAFF FOR ACADEMIC EXCELLENCE

To encourage teaching and non-teaching staff, the Institute provides opportunities in the form of leave for higher studies/research and taking up research projects from outside agencies. Faculty members and staff of the Institute are also encouraged to attend summer and winter schools, seminar, workshops etc. on the emerging areas. Research papers are regularly published in national and international journals. The details of publications, doctoral programmes, research projects, etc. are given in Annexure 11.4(a) to 11.4(i).



4.0 TEACHING PROGRAMMES



4.1 Programmes Offered

The programmes offered by the Institute have already been mentioned in item number 2.6. For further elaborations item numbers 11.8 (a) and 11.8 (b) may kindly be referred to.

4.2 Programme-wise Enrolment with Gender, Caste Break-up

4.2 A1. Enrolment in B. Tech. Programmes during 2020-2021. (Genderwise):

Vide Annexure 11.8(b) 1.

4.2 A2. Enrolment in B. Tech. Programmes during 2020-2021 (Castewise):

Vide Annexure 11.8(b) 2.

4.2 B1. Enrolment in M. Tech. & M. Sc. Programmes during 2020-2021 (Gender wise):

Vide Annexure 11.8(b) 3.

4.2 B2. Enrolment in M. Tech. & M. Sc. Programmes during 2020-2021 (Caste wise):

Vide Annexure 11.8(b) 4.

4.2 C1. Enrolment in MCA Programme during 2020-2021 (Gender wise):

Vide Annexure 11.8(b) 5.

4.2 C2. Enrolment in MCA Programme during 2020-2021 (Caste wise):

Vide Annexure 11.8(b) 6.

4.2 D1. Enrolment in MBA during 2020-2021 (Gender wise):

Vide Annexure 11.8(b) 7.

4.2 D2. Enrolment in MBA Programme during 2020-2021 (Caste wise):

Vide Annexure 11.8(b) 8.

4.2 E1. Enrolment in MSW during 2020-2021 (Gender wise):

Vide Annexure 11.8(b) 9.

4.2 E2. Enrolment in MSW Programme during 2020-2021 (Caste wise):

Vide Annexure 11.8(b) 10.

4.2 F. Enrolment of Research Scholars for PhD work during 2020-2021 (Full time & Part time):

Vide Annexure 11.8(b) 11.

4.3 Admission Statistics – UG/PG Programmes

The details of the admission statistics is given in Annexure – 11.8(c)1. to 11.8(c)5.

4.4 Students' Total Strength

Sl. No.	Name of the programme	Total Number of Students
1	Bachelor of Technology	3041
2	B. Tech & M. Tech Dual Degree	37
3	5 Years Integrated M. Sc. Programme	46
4	Master of Technology	546
6	Master of Business Administration	56
7	Master of Computer Application	27
8	Master of Science	144
9	Master of Social Work	02
10	PhD	641
TOTAL		4540



4.5 The Hostels

Staying in hostels is mandatory for all undergraduate students of the Institute. Accommodations are provided to GATE-qualified M Tech students, too. The Institute has seven halls of residence for the male students of which five halls are of 250 seats capacity each, one is of 360 seats capacity and the other can accommodate 120 students. Three of these halls have single-seated rooms for senior students. The Institute has also several halls of residence and the details are given below :

Hostels	Boys/ Girls	Actual student Capacity	Number of students accommodated
Hall-1	Boys	650	636
Hall-2	Boys	252	316
Hall-3	Boys	336	320
Hall-4	Boys	252	252
Hall-5	Boys	380	380
Hall-6	Girls	119	172
Hall-7	Girls	194	166
Hall-8	Girls	125	125
Hall-9	Boys	548	462
Hall-10	Girls	332	332
Hall-11	Boys	702	592
Hall-12	Boys	170	97
A & B Type Qr.	Girls	73	62

4.6 Scholarships/Assistance

The Department of TPSW helps the students to avail several scholarships under various schemes which are listed in the annexure 11.9(a). Moreover, the Institute provides merit-cum-means scholarship to some of the needy students of the Institute.

4.7. Games and Sports

4.8 Awards

The details of the awards received by the students and the faculty are given in Annexure 11.9(b).

4.9 Examination Details

Written examinations are held at the end of every semester (generally of 3 hours duration) for the theory papers. B. Tech. examinations are arranged

centrally by the Academic Section while the postgraduate examinations are being conducted by the respective departments from the academic year 2008-09, with partial support from the Academic Section, whenever necessary. The students are also continuously assessed through class tests, viva-voce and the class attendance. For the laboratory and sessional classes, the assessments are continuous and supported by viva-voce /examination at the end of the semester. The methods of the evaluation systems on such assessments are given below.

SGPA- CGPA System

All the subjects in a semester carry credit units depending on the contact hours per week and nature (lecture/ tutorial/ sessional/ laboratory) of the class. The full marks for all the subjects both theoretical and sessional/laboratory are 100. The percentage mark of a theoretical subject consists of 30% by continuous assessment, and 70% through end semester examination. The total mark obtained in a subject is converted to appropriate letter grade by the subject teacher(s) and dispatched for result compilation. In general, the number to grade conversion and the corresponding grade value is as follows:

90 and above: **Ex**(10); 80-89: **A** (9); 70-79: **B** (8); 60-69: **C** (7); 50-59: **D** (6); 40-49: **P** (5). Below 40 in theory subject or below 50 in sessional/ laboratory: **F** (0). Failure in Sessional / laboratory is required to repeat the semester through readmission. In case of absent in end-semester examination: **X** (0).

The product of the grade value and the credit unit of that particular subject is the grade point earned by the student in that subject. The total grade point (TGP) is the summation of all such grade points. Semester grade point average (**SGPA**) = **(TGP) / Total credit unit** of the semester, rounded up to second place of decimal. If a candidate cleared all the subjects, he is declared as passed in the grade sheet, otherwise supplementary. Supplementary candidate(s) will be allowed to appear in the supplementary examinations for the subject(s) in which he/she was failed. Fresh grade sheet is issued for such candidates with improved SGPA. The grade obtained by the candidates in the subject(s) for which he/she had appeared for the



supplementary examinations are decreased by one step at the time of compilation of the supplementary examination results. Unsuccessful candidates in the supplementary examination are required to repeat the semester through readmission. Two such readmissions are permitted in the whole undergraduate studentship. The CGPA is also indicated in the grade sheet, which is the indicator of the student's continuing performance given by the ratio of **the total grade point scored** by the student up to the current semester and **the total credit unit of all the subjects** up to the current semester. Based on the CGPA at the end of the final semester the classes are awarded as follows: **CGPA \geq 8.00** *First class with Distinction*; **8.00 > CGPA \geq 6.50** *First class*; the rest of the passed candidates get Second class.

Similar system is followed for the M. Tech., M. Sc., MBA and MCA programmes. In some project based courses in MBA, the 70/30 ratio as indicated above is changed according to need as a special case.

The results of the end semester examinations (both Undergraduate and Postgraduate) are compiled centrally by the Examination Cell.

4.10 Training and Placement

The Institute provides industrial training and placement to the students through the Department of Training, Placement, and Students' Welfare. The students are given an insight of the corporate industry via various vocational training programmes facilitated by the department. The department believes that such an insight is quite crucial and helps the students in understanding the professional aspects along with the technical details of their probable future jobs. Along with training sessions (ranging between 3 to 5 weeks), the department also organises plant visits to various organizations in and around Durgapur. Apart from providing industrial training, the department also helps the students in preparing for campus recruitment drives by developing their communication and interpersonal skills through certain development programmes, which include conducting mock group interviews. It also takes care of inviting reputed firms from all over to hire students through their campus recruitment drives.



5.0 RESEARCH AND DEVELOPMENT ACTIVITIES

5.1 Proposed Plan for Research

Proposed Plan for Research

Vide Annexure – 11.4(g) 1

5.2 Details of PhDs done so far

Vide Annexure - 11.4(h)

1

5.3 Institute-Industry Collaboration during 2020-21

DEPARTMENT OF BIOTECHNOLOGY		
Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
Royal Care Hospital (Ghosh, M.)	Provide Patients sample	Sensor mediated disease detection and validation

DEPARTMENT OF CHEMICAL ENGINEERING		
Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
Bell energy Ltd, UAE	Application of artificial intelligence in chemical industry	Development of artificial intelligent based software
Scientific design company, USA	Application of artificial intelligence in chemical industry	Development of artificial intelligent based software for real time deployment in chemical industry
Scientific Design	AI based modelling and simulation of industrial reactor	Industry sponsored project
Thermax Ltd., Pune	CFD modelling of reactors	Thermax-Sampark-Professor Fellowship Programme
Thermax Ltd., Pune	Defluoridation of Industrial Wastewater	Thermax-Sampark-Professor Fellowship Programme

DEPARTMENT OF CHEMISTRY			
Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Dr. Reddy's lab Hyderabad	Computational analysis	Ghosal S and Dey Archan	Research and development

DEPARTMENT OF CIVIL ENGINEERING		
Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
CPWD	Consultancy	Quality Control





DEPARTMENT OF CIVIL ENGINEERING		
Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
Eastern Coalfields Ltd.	Scientific study on OC mines workings	Scientific studies of OC mines pit slopes, dump slopes and monitoring of slopes, layout of haul road etc.
Essar Oil	Research	Subsidence monitoring (vertical control) at the subsidence monitoring stations established at RG(E)-CBM-2001/1 block in the Raniganj Coalfield, W.B
HIT Haldia	Research	Joint PhD Supervision
IIT Bhubaneswar	Consultancy	Road design
Indian Railway	Consultancy	Bridge design

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING		
Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
TCS	D2D Communication	Joint research
ARM	Arm University Program	Education Kit in a range of core subjects
Semiconductor Laboratory(SCL), Department of Space, Gol, S. A. S. Nagar, Punjab	Academic and Research;	Fabrication and Characterization

DEPARTMENT OF ELECTRICAL ENGINEERING		
Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
M/S Nevitas Control, Kolkata	PD Sensors for High Voltage Power Apparatus	Design & Development of PD Sensors for HV Power Apparatus

DEPARTMENT OF MATHEMATICS		
Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities

DEPARTMENT OF MECHANICAL ENGINEERING		
Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
Advanced Systems Laboratory, Hyderabad	Control system	Research and Development



DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING		
Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
Alloy Steel Plant, Durgapur	Recycling of EAF Dust	Research and Development
CSIR-CMERI, Durgapur	Materials Processing and Wear Behaviour	Research and Development
CSIR-NML, Jamshedpur	Metallurgy	Research and Development
Durgapur Steel Plant, Durgapur	Metallurgy	Research and Development
IEST, Shibpur, WB	Metallurgy	Research and Development
TATA Steel Jamshedpur	Metallurgy	Research and Development

DEPARTMENT OF PHYSICS		
Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
IMEC, Belgium	Resistive Random Access Memory	Visit and seminar by industry faculty, planning of joint research.

5.4. Innovations and Technology Transfer

Patent filed during 2020-21

DEPARTMENT OF BIOTECHNOLOGY			
Title	Inventors	Application No.	Date of filing
Sequential ultraviolet mediated mutagenesis for enhanced production of Rapamycin	Subhasish Dutta, Apurba Dey, Bikram Basak, Ankan Sinha	201631036780 PUBLISHED ON 29.03.2019	October 26, 2016
Recombinant Cellobiohydrolases	Sudit Sekhar Mukhopadhyay, Subba Reddy Doda, Nibedita Sarkar, Kaustav Aikat	201731045312	December 17, 2017 (published on June 21, 2019)
Amorphous silicon monoxide based nanowire electrode biosensor	Aniruddha Mondal; Monidipa Ghosh; Shyam Murli Manohar Dhar Dwivedi, Chiranjib Ghosh; Sagarika Deepthy, Rini Lahiri.	201931007981	February 28, 2019
A system for measurement of Vitamin D level in serum samples.	Monidipa Ghosh, Chiranjib Koley, Doel Pal, Moumita Maji, Sourav Dhara	201931051578	December 12, 2019
An Electrode based system for analysis of Biomarkers\Biological specimens. (Full filing)	Monidipa Ghosh, Chiranjib Koley	201931047203	November 20, 2020



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING			
Title	Inventors	Application No.	Date of filing
AN END-TO-END SYSTEM FOR OFFLINE LOCALIZED CRISIS MAPPING AND METHOD OF OPERATION THEREOF	Subrata Nandi, Sujoy Saha, Partha Sarathi Paul, Kingshuk De, Prithviraj Pramanik, Bishakh Chandra Ghosh, Hriday Dutta, Naman Mehta, Indrajit Bhattachaya, Sandip Chakraborty	201931050685	9.12.2019

DEPARTMENT OF PHYSICS			
Title	Inventors	Application No.	Date of filing
Low-cost Counter Electrode for Platinum-free Dye Sensitized Solar Cell (DSSC) comprising Cobalt Nickel Disulfide (CoNi ₂ S ₄) and Reduced Graphene Oxide (RGO) Nanohybrid	A. K. Chakraborty, A. Sarkar and S. Bera	Indian Patent Ref. no. 202031030914	20.07.2020

DEPARTMENT OF ELECTRICAL ENGINEERING			
Patent awarded			
Title	Inventors	Application No.	Date of filing
System and method of Stable rotation of a magnetically levitated ferromagnetic cylindrical body	Subrata Banerjee	No:320921	20.09.2020

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING			
Title	Inventors	Application No.	Date of filing
Automatically pressurised AMBU bag system	Chattaraj N, Hui N. B., Rajyaguru H.	202031017748	10-09-2020



DEPARTMENT OF CHEMICAL ENGINEERING			
Patent awarded			
Title	Inventors	Application No.	Date of filing
A green process for continuous and direct production of L-glutamic acid	Pal, P. and Kumar, R. Kumar	962/KOL/2014 Granted right Patent No. 321961	29/9/19
A high flux low energy osmotic system for arsenic removal at low cost	Pal, P. and Chakraborty, S.	1003/KOL/2014 No. 333616	29.2.20

5.5 Workshops/Seminars Organised by the Institute (2020-21)

DEPARTMENT OF BIOTECHNOLOGY			
Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1.	Dr. Sandip Kumar Lahiri, Department of Chemical Engineering, NIT Durgapur	Webinar on "How to Prepare Yourself for a Great Career"	14.07.2020
2.	Mr. Jaydeep Chatterjee, Senior Application Specialist, Du Pont, Thailand	Webinar on "Sustainable Beer Brewing Post Covid-19"	20.07.2020
3.	Nikhil Gampa, Co-Founder, Green Wave; Kanika Satnaliwala, Executive Director/Chief Strategy Officer, The LYNQ Group	Webinar on "Amalgamation of Technology & Innovation of Sustainable Development"	01.08.2020
4.	Dr. Shourjya Sanyal, CEO, Think Biosolution Limited, NY, USA.	An inspirational webinar on "How to be Good at Failing"	04.08.2020
5.	Dr. Guru Vignesh John Innes Centre (JIC), Norwich, UK	Invited Alumni Talk on Career Planning In Biotechnology	10.08.2020
6.	Sombeet Sahu, Principal Scientist, Bioinformatics, Nkarta Therapeutics, Inc	Webinar on "Applications on Genomics and Single Cell Bioinformatics in Immunology"	18.08.2020
7.	Mr. Partivila Jagan Mohan, Head, R & D and Operations, Suri Agro Fresh Pvt. Ltd.	Invited Alumni Talk on Career Planning In Biotechnology	23.08.2020
8.	Dr. Swapan Kr. Ghosh, Associate Professor, Post Graduate Department of Botany, Ramakrishna Mission Vivekananda Centenary College, Rahara	Webinar on "Covid-19, from Research to Practice"	27.08.2020
9.	Revered Swami Ishatmananda-ji Maharaj President-in-Charge, Vivekananda Vedanta Society of Chicago, USA	An inspirational talk	29.08.2020
10.	Dr. Indranil Adhya, R & D Scientist, PMC Isochem, Vert Le Petit, France	Invited Alumni Talk on Career Planning In Biotechnology	05.09.2020



DEPARTMENT OF BIOTECHNOLOGY			
Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
11.	Dr. Nitin Damle, Sr. Vice President & Chief Innovation Officer, Sun Pharma Advanced Research Company	Industry-Institute interaction	19.09.2020
12.	Dr. Rusha Chakraborty, Senior Research Investigator, Syngene International Limited	Invited Alumni Talk on Career Planning In Biotechnology	26.09.2020
13.	Prof. Nicholas J. Talbot & Dr. Miriam Oses-Ruiz (The Sainsbury Laboratory Norwich Research Park, UK); Dr. Yong-Hwan Lee (Seoul National university); Dr. Shen Qing (Temasek Life Sciences Laboratory Singapore); Dr. Thomas Kroj (CIRAD, France); Dr. Richard A. Wilson (University of Nebraska-Lincoln USA); Dr. Martin Egan (University of Arkansas); Prof. Zonghua Wang (Fujian Agr. & Forestry Univ., Fuzhou); Prof. Ryohei Terauchi (Kyoto University, Japan); Dr. Rajesh Patkar (Ahmedabad University, Ahmedabad)	International conference named "Current Advances in Rice Blast Research" (CARBR 2020)	01.12.2020-05.12.2020

DEPARTMENT OF CHEMICAL ENGINEERING			
Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Chaudhuri, H. Pal, S. Mrinal, M.K., Roy, P	International Conference on Sustainable Water Resources Management under Climate Change Scenario. TEQIP-III and DST-BRICS project and RUSA-2.0 funded, NRDMS, DST funded, Jadavpur University	March 13-15, 2020
2	Basu, S., Chandra, S., Ghosh, A.K., Basu, A.,	Two-day national conference on "Frontier Technologies for 21st Century's Process Industries" on the occasion of 36th National Convention of Chemical Engineers organized by Institute of Engineers India (Durgapur Local Centre) and Department of Chemical Engineering, NIT Durgapur	March 6-7, 2021
3	Das, S.	8-Day Online Industrial Workshop on Bridging the Gap between the Chemical Industrial Process Challenges and Chemical Engineering Curriculum	July 17-August 08, 2020.
4	Bhattachariya, S.,	3-Day Online Workshop on Basic Oil and Gas Field Development Lifecycle	August 24-26, 2020



DEPARTMENT OF CHEMISTRY			
Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Dr. S. C. Moi (Secretary) Dr. S Ghosal (Secretary) Dr. D. R. Banerjee (Secretary)	3-days International Conference on Recent Development of Chemistry (RDC 2021)	03.03.2021-05.03.2021

DEPARTMENT OF CIVIL ENGINEERING			
Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING			
Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Dr. Bibhash Sen	AICTE – Training & Learning (ATAL) Academy Sponsored Program on IoT	5-9 Feb, 2021

DEPARTMENT OF ELECTRICAL ENGINEERING			
Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1.	Prof. D Pratihari IITKGP, Prof. N.K. Roy, NITD Dr. S. R. Samantaray, IIT Bhubaneswar Dr. S. A. Soman, IIT Bombay etc.	INNOVATION AND INTELLIGENCE (FDPII 2020)	06.10.2020 to 10.10.2020

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING			
Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Henrik Asplund (Ericsson), Dr. Taro Eichler (Rohde & Schwarz), Dr. Mohamed Hany (NIST, USA), Thomas Kürner (TU Braunschweig)	IEEE VTC Fall 2020 - 4th Workshop on Millimeter-Wave Channels and Systems	Nov. 25, 2020
2	A. Chandra (IEEE SB NITD)	Seminar on 'IEEE Day'	Oct. 06, 2020
3	Prof. Lance Fung, Director (IEEE)	Webinar on IEEE & Emerging Technologies	Dec. 27, 2020



DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1.	Dr. Nandini Ghosh, Assistant Professor, IDSK Dr. Chandni Basu, Visiting Faculty IDSK and Associated Researcher University of Freiburg, Germany	Researching Life at the Margins	June 15

DEPARTMENT OF MANAGEMENT STUDIES

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1.	Prof. Mukul Asher (NUS)	A special live webinar on "Post Covid19 Public Policy: India"	May 13, 2020

DEPARTMENT OF MATHEMATICS

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Dr. Ranjita Biswas, Psychiatrist by professional training.	Webinar on Gender Bias and Stereo Typing, Gender Equality and Women's Right Sub title: Gender Based Violence: Surviving the Covid 19 Situation	June 26, 2020
2	Nilanjana Sengupta, Technical Specialist II International Center for Research on Women (ICRW).	Webinar on Gender Bias and Stereo Typing, Gender Equality and Women's Right Sub title: The impact of COVID 19 and its policy response on informal women workers in the Indian Economy	July 03, 2020
3	Prof. G. Bandopadhyay, NIT Durgapur Prof. K. Roy, BC Roy Engineering College, Durgapur	Two Day Webinar on Application of Data Science and Soft Skill (WADSSS-2020)	September 26-27, 2020

DEPARTMENT OF MECHANICAL ENGINEERING

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Anupam Basu, N. Chattaraj, S. Das, B. Sen and N. B. Hui of NIT Durgapur, Akila Surendran, NISH Trivandrum, Swati Chakraborty, IICP Kolkata, Sumanta Mukherjee, BIT Sindri, Manjira Sinha, IIT Kharagpur, S. K. Saha, IIT Delhi, S. Nandy, CMERI; V. Pandu Ranga, IIT Bhubaneswar, T. Dasgupta, TCS Kolkata, P. Lenka, NILD Kolkata	ATAL Program on Robotics and Assistive Technology, Sponsored by AICTE, New Delhi	November 24-28, 2020



DEPARTMENT OF MATHEMATICS			
Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Prof. Manish Chhowala (Cambridge), Prof. Goki Ida (NUS) and Dr. Deep Jariwala (UPenn)	International Webinar Series on 2D Materials & Devices	July15-16, 2020
2	Prof. Dr. Jean-Michel Nunzi Queen's University, Canada; Prof. Dr. Aleksei Tameev, Higher School of Economics (National Research University), Russia	International Webinar On "Sustainable Materials For Optoelectronics & Bio-Sensors"	August 26-28, 2020

5.6 Collaboration with Academic and Research Institutions

DEPARTMENT OF BIOTECHNOLOGY			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Bath University, Department of Electronics and Electrical	Research on sensor mediated disease detection	Ghosh, M., NIT DGP, Estrela,P., Bath University	Joint project
Bihar Agricultural College, BAU, Sabour	Research on rice – blast pathosystem	Roy-Barman, S., NITD; Prasad,B.D., BAU, Sabour	Joint Research
Bose Institute, Kolkata	Research on Cellular Signaling, Inflammation mediated Cancer	Bhattacharjee, A., NIT Durgapur Biswas, K., Molecular Medicine, Bose Inst. Pal, M, Molecular Medicine, Bose Inst.	Joint Research
Broad Institute at Massachusetts Institute of Technology, USA	Research collaboration on Computational Biology	De. D., NIT Durgapur and Natoli,T., MIT	Joint research
Central Ground Water Board, Kolkata	Research on arsenic contaminated groundwater microbiology	Kazy, S.K, NIT Durgapur; Sar P., IIT Kharagpur; Kar A, CGWB, Kolkata	Sample Collection and Research for sponsored project
Central Manufacturing Technology Institute (CMTI)	Biosensor Development	Ghosh, M., NIT DGP, Agarwal, M., CMTI	Joint project
Central Mechanical Engineering Research Institute (C.M.E.R.I), Durgapur	Research on Ethanol Production from Water Hyacinth	Dey, A., NIT Durgapur and Chatterjee, P.K.,C.M.E.R.I Durgapur	Joint Research



DEPARTMENT OF BIOTECHNOLOGY			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Central Mechanical Engineering Research Institute (C.M.E.R.I.), Durgapur	Research on Environmental Biotechnology/Tissue Engineering applications	Dey, A., NIT Durgapur and Mondal, B.N., C.M.E.R.I., Durgapur	Joint Research
Central Mechanical Engineering Research Institute, Durgapur	Biomimetics	Mukhopadhyay, S., NIT, Durgapur and Chatterjee D., CEMRI, Durgapur	Research
Central Mechanical Engineering Research Institute, Durgapur	Biosensor Development	Ghosh, M., NIT DGP, Mistry, K., CSIR-CMERI DGP.	Research
Central Mechanical Engineering Research Institute, Durgapur	on Biopolymer Development and its Applications	Mahata, N., NIT DGP, Chanda, N., CSIR-CMERI DGP.	Research
Dr. Rajendra Prasad Central Agricultural University, Pusa	Research on rice – blast pathosystem	Roy-Barman, S., NITD; Sahni, S., RPCAU, Pusa	Joint Research
Geological Survey of India, Kolkata	Research projects on subsurface sediment/ groundwater microbiology	Kazy, S.K, NIT Durgapur; Sar P., IIT Kharagpur; Pal T., GSI, Kolkata	Research Project
Indian Agricultural Research Institute, New Delhi	Research on Production of Novel Enzymes	Dutta, D., NIT Durgapur, Lata, IARI, New Delhi	Joint research
International Centre for Genetic Engineering and Biotechnology, New Delhi	Signal transduction	Chattopadhyay S. and Sopory, S.K.	Joint research project
Indian Institute of Technology Kanpur	Nanotechnology for drug delivery	Chaudhuri, S., Dutta D, NIT Durgapur; Sivakumar, S., IIT Kanpur	Research
Indian Institute of Technology Kharagpur, Department of Chemical Engineering	Research on sensor mediated disease detection	Ghosh, M., NIT DGP, Mukherjee, R., IIT KGP	Joint project
Indian Institute of Technology Kharagpur, Department of SMST	Joint book publication	Ghosh M, NIT DGP.	Joint book publication
Indian Institute of Technology Kharagpur	Research on subsurface environment/ groundwater microbiology	Kazy, S.K, NIT Durgapur; Sar, P., IIT Kharagpur, Pal T, GSI; Mukherjee, A., IIT Kharagpur	Research Project
Institute of Post-Graduate Medical Education and Research, Department of Pharmacology	Research on the role of AMPK activators in Reducing cancer cell aggressiveness	Bhattacharjee, A., NIT Durgapur Chatterjee, S., Professor, IPGMER Kolkata	Research Project/Joint Research



DEPARTMENT OF BIOTECHNOLOGY			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
MoES-Borehole Geophysical Research Laboratory, Karad, Maharashtra	Research on microbiology of deep subsurface continental crust at Koyna region, Western India	Kazy, S.K, NIT Durgapur; Sar, P., IIT Kharagpur, Roy S, MoES-BGRL, Karad, Maharashtra	Research Project
NIPGR, New Delhi	Signal Transduction	Chattopadhyay S. and Sinha, A.K.	Joint research project
Rajiv Gandhi centre for Biotechnology	Research on Nutraceuticals	Dutta, D., Kumar, H.	Research
Samsung Biomedical Research Institute, SKKU, South Korea	Research Collaboration on Stem Cell Biology	De,D., NIT Durgapur and Prof. Kyeong Kyu, K.,SKKU	Joint Research
The University of Transdisciplinary Health Sciences and Technology	Research on rice – blast pathosystem	Roy-Barman, S.,NITD; Gowda, M.,TDU, Bangalore	Joint Reseach
Tripura University, Tripura	Biosensor Development	Ghosh, M., NIT DGP, Bhattacharjee, S., Tripura University	Research
Tezpur University	Proteomics	Sougata Saha, NIT Durgapur, Prof. Robin Doley, Tezpur University	Joint research
University of Hyderabad	Signal Transduction	Chattopadhyay S. and Sharma, R.P.	Joint research project
Visva-Bharati University	Research on seed-borne mycoflora	Aikat, K., NIT Durgapur & Biswas, M.K., Visva-Bharati University	Joint guidance of the Ph.D work of part-time Ph.D scholar

DEPARTMENT OF CHEMICAL ENGINEERING			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Burdwan University	Membrane-based biofuel production	Pal,P.	Research & publication
Central Mechanical Engineering Research Institute-CSIR, Durgapur	Catalyst development	Pal,P.	Research & Publication
Lappeenranta University of Technology, Finland	Sustainable Technology development	Pal,P.& Roy .M. (MS)	Research & publication
IIT BHU	Membrane-based Gas separation	Mrinal Kanti Mandal	Research & publication
Indian Institute of Technology (IIT) Kanpur	CFD and Molecular Dynamics based simulations	Hens, A	Research & publication



DEPARTMENT OF CHEMICAL ENGINEERING			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
CSIR-CMERI, Durgapur	Microfluidics and Nanotechnology	Hens, A	Research & publication (joint PhD guidance)
Calcutta University	CFD based simulations	Hens, A	Research & publication
CMERI, Durgapur	Removal of pollutants	Dutta S. and B. Ruj	Joint Publication
Department of Environmental Protection and Water Engineering Institute of Environmental Protection Vilnius Gediminas Technical University, Lithuania	Removal of pollutants	Dutta S. and Edita Baltrėnaitė	Joint Research and publication
National University of Science and Technology, Oman	Nanomaterials	M. Geetha Devi	Joint Research and Publication
State Key Laboratory of Pollution Control and Resources Reuse, College of Environmental Science and Engineering, Tongji University, Shanghai, P.R.China 200092	Removal of pollutants	Dutta S. and Tang Y.	Joint Publication
GMR Institute of Technology, Rajam	Lube oil, Bio-polymer production,	Das, B.	Research & publication
CSIR-Central Institute of Mining and Fuel Research Barwa Road, Dhanbad	Current Trend of Fugitive Greenhouse Gas Emissions for Underground and Surface Mining and Coal Exploration Boreholes	Halder, G. N., Mandal, T., Chowdhury, H.	Project proposal submission, research, publication and consultancy

DEPARTMENT OF CHEMISTRY			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
BITS Pilani Hyderabad	Computational support	Dr. Chakraborty Manab, Dr. Chatterjee Tanmay, Prof. Dinda Srikanta and Dr. Ghosal S	DFT calculation of experimental work



DEPARTMENT OF CHEMISTRY			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Central Institute of Mining & Fuel Research, Dhanbad	Molecular Complex Formation Between Coal Asphaltene and different acceptor molecules	Panja S.S and Ghosh A. K.	Spectroscopic study of Molecular Complex Formation Between Coal Asphaltene and different acceptor molecules.
Civil Engineering Department North Dakota State University, USA.	Water and Wastewater Treatment	Bezbaruah A. N. Saha R.N.	Research on "Synthesis of Advanced Nano-materials and their Application for the Reduction of Environmental Contaminants"
Colloids and Materials Chemistry Department, CSIR-IMMT, Bhubaneswar, Odisha	Environmental Application of Nano Materials	Chatterjee Sriparna, Saha R. N.	Joint Supervisor for Ph.D Work, Paper publication
CSIR-CMERI	Designing of Sensors	Banerjee, P., and Chakrabarty J.	Joint Supervisor for Ph.D Work, Paper publication
CSIR-CMERI	Designing and investigating the effect of benzothiazole corrosion inhibitors	Sukul, D. and Banerjee, P.	Joint Project under WB-DSTBT and Publication of papers
CSIR-CMERI	Designing and investigating the effect of organic corrosion inhibitors	Banerjee, P., and Sukul, D	Publication of papers
CSIR-CMERI	Arsenic removal	Ruj Biswajit Debbarma Swarup Ranjan & Saha R. N.	Joint Supervisor for Ph.D Work, Paper publication
CSIR-CMERI	Designing of Sensors	Banerjee, P., and Chakrabarty J.	Joint Supervisor for Ph.D Work, Paper publication
Department of Chemical Engineering, BITS Hyderabad	Instrumental analysis	Dinda, S. and Chakrabarty, J. Ghosal, S.	Joint paper publication
Department of Chemistry University of California, Davis, CA 95616, USA	Single Crystal X-ray Crystallography	Prof. Marilyn M. Olmstead Patra A.K.	Single crystal X-ray Diffraction studies on the metal complexes with supporting Schiff base, Amide ligand



DEPARTMENT OF CHEMISTRY			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
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
Department of Inorganic Chemistry, Indian Association for the Cultivation of Science, Kolkata, India	Crystal structure determination	Partha Mitra Patra A.K.	Single crystal X-ray Diffraction studies on the metal complexes with supporting tridentate Schiff base ligand
Dept. of Chemistry, Cotton College, Assam	Development of natural fibre reinforced polyester composite material	Choudhury S. Panja S. S.	Jointly supervising Ph.D student
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
Dept of Zoology, Cancer research Laboratory Calcutta University, WB since 2018		Prof. Urmi Chatterji and Prof. S. C. Moi	Research Collaboration
Dept of Zoology, Visva-Vharati University, Santinekatan, WB		Prof. Sudipta Moietra and Prof S. C. Moi	Research Collaboration
Gaya College of Engineering	Quantum Computing	Dr. Goswami Biplab and Dr. S. Ghosal	Collaborative project work
IISc Bangalore	Development of Microwave absorber	Dr. Suryasarathi Bose and Dr. S. S. Panja	Collaborative research
IIT Gandhinagar	Computational support of experimental work	Dr. S. Ghosal and Sriram Kanvah	DFT calculation and Paper publication
IIT Kharagpur	Collaborative Research	Dr. Anoop A Dr. Subhas Ghosal	Joint research project on High Performance Computing
IIT(ISM) Dhanbad	Instrumental Analysis and Chemistry of Transition Metal complexes	Saha. T. K. and Halder C.	Collaboration work and instrumental support towards the synthesized molecules



DEPARTMENT OF CHEMISTRY			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Institut des Matériaux Jean Rouxel, Université de Nantes, UMR CNRS 6502, 2 rue de la Houssinière, BP 32229, 44322 Nantes, France	Use of DFT Calculation in our research area	Dr. S. C. Moi & Prof. Xavier Rocquefelte Institut des Matériaux Jean Rouxel, France	collaboration for DFT calculation using different Software
Institute of Chemical Technologies and Analytics, Vienna University of Technology, Getreidemarkt, 9/4. 1060 Vienna, Austria, Europe	X-ray structures were determined	Dr. S. C. Moi & Prof. Frank Kubel, Institute of Chemical Technologies and Analytics, Vienna University of Technology	X-ray structures were determined from his Lab. One research has been published in SCI Journal
IIT (ISM) Dhanbad	Instrumental analysis and application of metal complexes	Dr. T. K. Saha Dr. Chanchal Halder	Instrumental support and collaborative research work
Kaji Najrul University Asansol	Organic Synthesis	Dr. U. Adhikari and Dr. U. Roy	Joint Supervision of PhD
Microbiology Research Unit, Parasitology Research Laboratory, Department of Zoology, The University of Burdwan, Burdwan-713104, West Bengal, India	Biological activities of the synthesized metal complexes	Chandra Goutam	Antibacterial and other biological studies on synthesized metal complexes of various Schiff base and amide ligands
NISER, Bhubaneshwar, Orissa	Single X-ray crystallography	Dr. T.K Saha Dr. Jogendra Nath Behera	Collaboration work, instrumental support of research work
North Bengal University	synthesis and characterisation of complex compound	Dr. B. Biswas and Dr. M. Maji	Research Collaboration
Raghunathpur College	Synthesis and characterisation of Coordination compounds	Bhaskar Biswas	Paper publication and guiding Ph.D. students
Texas A&M University	Chemical Biology	Dr. Jonathan Sczepanski Dr. Deb Ranjan Banerjee	Research collaboration and paper publication (Two papers published in 2019)
Vienna University of Technology, Applied Synthetic Chemistry Dept. Vienna, Getreidmarkt 9/163, Vienna Austria, Europe	Kinetics and mechanism of substitution reaction on d8 metal ion systems	Prof. Wolfgang Linert, Dept of Applied synthetic Chemistry	8 research papers has been published in SCI Journals



DEPARTMENT OF CIVIL ENGINEERING			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
B.C. Roy Engineering College, Durgapur	Application of AE techniques in research for damage investigation of structures, characterization of rigid pavements through research.	Datta, A.K., Topdar, P.	Research
CSIR-CMERI, Durgapur	Structural Health Monitoring	Datta, A.K., Topdar, P.	Research
CSIR-CMERI, Durgapur	Vibration of asymmetric structures	Das, D., Topdar, P.	Research
DUT, South Africa	Water Resources and Pollution Treatment	Pal, S.	Research
ECUT, China	Water Resources and Pollution Treatment	Pal, S.	Research
Federal University of Rio de Janeiro, Brazil	Water Resources and Pollution Treatment	Pal, S.	Research
Hohai Univ., China	Water Resources and Pollution Treatment	Pal, S.	Research
IEST Shibpur	Vibration Control of Structures under Multi-hazard Scenario	Das, D.	Research
IIT Kharagpur	FEM-SPH Coupling	Karmakar S	Research
Jadavpur Univ.	Groundwater pollution	Pal, S., Chaudhuri, H, Mandal, MK.	Research
TPU, Russia	Water Resources and Pollution Treatment	Pal, S., Chaudhuri, H, Mandal, MK	Research

DEPARTMENT OF ELECTRICAL ENGINEERING			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Claude Bernard University of Lyon 1, France	Multi Agent System	Samir Aknine, Animesh Dutta	Academic Research & Development, Joint PhD supervision
Department of Applied Computer Science, Riyadh, Saudi Arabia	Recommender System	Esam M Othman, Rafeeq Ahmed, PARAsenjit Choudhury	Research
Graduate School, Da Nang, Vietnam	Mobile Crowd Aaa Computing	Anand Nayyar, Prasenjit Choudhury	Research



Departament de Ciències de la Computació, Universitat Politècnica de Catalunya Barcelona, Spain	Game Theory and its Applications Cloud, Fog, Healthcare, Crowdsourcing, surplus food distribution etc.	Fatos Xhafa and Sajal Mukhopadhyay	Research
Department of Computer Science and Engineering, University of Surrey	Game Theory and its Applications to Crowdsourcing	Paul John Krause, Sajal Mukhopadhyay	Research
IIT Kharagpur	Computer Networks, IoT,	Sandip Chakraborty, Subrata Nandi, Sujoy Saha, Mousumi Saha	Academic Research & Development
Indian Statistical Institute Bangalore	Semantic Web, Big Data and Social Network Analysis	Biswanath Dutta, Animesh Dutta	Academic Research & Development
SCAP Polytechnic of Porto, Portugal	Semantic Web, Social Network Analysis	Mariana Curado Malta, Animesh Dutta	Academic Research & Development, Joint PhD supervision
University of Minho, Portugal	Semantic Web, Social Network Analysis	Ana Alice Baptista, Animesh Dutta	Academic Research & Development
Virginia Tech	Computer Networks	Vijay K Shah, Subrata Nandi, Sujoy Saha	Academic Research & Development

DEPARTMENT OF ELECTRICAL ENGINEERING

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Central Mechanical Engineering Research Institute, Durgapur	Control Systems, Power Electronics	Banerjee S (NIT), Giri S (CME RI)	Joint Research
Central Power Research Institute, Bangalore	High Voltage Engineering & Liquid Insulation	N K Roy (NIT) Dr Thomas (CPRI)	Joint Research
IIT Delhi	Control Systems, Electromagnetic Levitation	Banerjee S (NIT) Nabi M (IIT)	Joint Project & Research
IIT Kharagpur	Power Electronics, Multilevel Converters	Banerjee S (NIT) Chakraborty C (IIT)	Joint Research
Uppsala University (UU), Sweden	Biomedical image analysis	A K Dhara (NIT) R. Strand (UU)	Joint Research



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
National Institute of Standards and Technology (NIST), USA	Millimetre wave channel sounding	Chandra, A.	Developing a joint IEEE standard
Lab-STICC, University of Southern Brittany (UBS), Lorient, France.	Wireless Network-on-Chip	Mondal, H. K.	Visiting Professor
University of Parma, Italy	IoT Networks	S.Kundu	Writing Joint research papers
University of Liverpool, UK	GaN Devices and Resistive Memory Devices	Mahapatra R	Joint Research Works and Publications
Institute of Communications Systems, Military University of Technology, Warsaw, Poland	Geometry based stochastic (GBS) channel modelling	Chandra, A.	Joint Research, Joint Guest Editor

DEPARTMENT OF EARTH AND ENVIRONMENTAL STUDIES			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Bidhan Chandra Krishi Viswavidyalaya	Environment and agricultural pollution	Brahmachari Koushik (BCKV) Adhikari Kalyan (NIT)	Jointly supervising Ph.D student and publication
ICAR-Central Inland Fisheries Research Institute	Surface water Quality	Nag Subir Kumar (CIFRI) Mondal Sandip (NIT)	Joint Research and publication
IIT Kharagpur	Geochemistry of uranium bearing ores: proxy to understand U-mineralization	Mishra Biswajit (IIT), Ozha M K (NIT)	Joint Research and publication
IIT Bombay	Metamorphic and Geochronological studies	Pandalai H. P (IIT Bombay), Ozha M K (NIT)	Joint Research and publication
Gauhati University	Fluid induced alteration of allanite	Bhagabati B (GU) Ozha M K (NIT)	Joint publication

DEPARTMENT OF MATHEMATICS			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Babes-Bolyai University Cluj-Napoca, Romania	Topology	Dey L.K. and Petrusel, Adrian	Joint Research



DEPARTMENT OF MATHEMATICS			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
DR. SPM IIIT, Naya Raipur, India	Codes over rings	Bagchi, S, NIT Durgapur and Ramakrishna Bandi, IIIT, Naya Raipur	Joint Research
Hiralal Bhakat College, Naihati, Birbhum, WB	Mathematical modelling for the control of infectious diseases	Sarkar (Mondal), S., NIT Durgapur, Sahoo, B., Hiralal Bhakat College, Naihati, Birbhum, W.B.	Joint Research
ICBM, Carl von Ossietzky University, Germany	Nonlinear Dynamics	Pal, P, NIT Durgapur and Feudel, U. of ICBM, Germany	Joint Research
IIT Bhubaneswar	Geometric Function Theory	Ali, M. F., Vasudevarao, A.	Joint Research
ISI Bangalore	Geometric Function Theory	Ali, M. F., Ghosh, N.	Joint Research
ISI Kolkata	Nonlinear Dynamics	Pal P. and Hens C.	Joint Research
ISI Kolkata	Nonlinear Dynamics	Pal P. and Ghosh D.	Joint Research
Jadavpur University, Kolkata	Functional Analysis	Dey L.K. and Das, Pratulananda	Joint Research
Nankai University, Tianjin, China	Financial Modelling	Kar S. and Xiaowei Chen	Joint Research
Saroj Mohan Institute of Technology, Hooghly, India	Fuzzy Graph	Pal. A. and Dey, A.	Joint Research
Tehatta Sadananda Mahavidyalaya, Purba Burdwan, India	Chemical Graph Theory	Pal. A. and De, N.	Joint Research
The George Washington University, USA	Functional Analysis	Dey L.K. and Basu, Sudeshna	Joint Research
University of Belgrade, Serbia	Functional Analysis	Dey L.K., Damjanovic B., and Radenovic S.	Joint Research
Yamaguchi University	Geometric Function Theory	Ali, M. F., Yanagihara, H.	Joint Research
Yunnan Normal University, China	Chemical Graph Theory	Pal. A. and Gao, W.	Joint Research

DEPARTMENT OF MECHANICAL ENGINEERING			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
CMERI, Durgapur, India	Heat Transfer	Pramanick, A. K., NIT Durgapur, Karmakar, M. K., CMERI Durgapur	Joint research
Duke University, USA	Thermodynamics	Pramanick, A. K., NIT Durgapur, Bejan, A., Duke University	Pedagogy



DEPARTMENT OF MECHANICAL ENGINEERING			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
IIT Kharagpur, India	Droplet Dynamics	Pramanick, A. K., NIT Durgapur, Bandyopadhyay, P. P., IIT Kharagpur	Joint research
IIT Kharagpur	Fluid dynamics	Prof. A. Guha, IIT Kharagpur, S. Sengupta, NIT Durgapur	Joint Research
IIT Bombay	Computational Multi-fluid Dynamics	Dr. Shantanu Pramanik, NIT Durgapur, Prof. Atul Sharma, IIT Bombay	Joint research
IIT Guwahati	Linear Stability analysis of bluff body flows	Deepak Kumar, NIT Durgapur, Dr. Bhaskar Kumar, IIT Guwahati	PhD Research work
Jadavpur University, India	Heat Transfer	Pramanick, A. K., NIT Durgapur, Chattopadhyay, H., Jadavpur University	Pedagogy
Jadavpur University	LBO prediction	Dr S Mondal, NITD, Prof A Mukhopadhyay and Prof. S Sen, JU	Joint Research
NIT Silchar, India	Heat Transfer	Dr. D. Bhanja, NIT Silchar Dr. S. Sengupta, NIT Durgapur	Joint Research
Shiv Nadar University	Aeroelastic instability	Dr. S. Mondal, NITD, Dr J Venkatramani, SNU	Joint Research
University of Stuttgart, Germany	Aerospace Thermodynamics	Pramanick, A. K., NIT Durgapur, Weigand, B., University of Stuttgart	Student & Faculty Exchange
Universidade Do Vale Do Rio Dos Sinos, Brazil	Thermodynamics	Pramanick, A. K., NIT Durgapur, Rocha, L. A. O., Universidade Do Vale Do Rio Dos Sinos	Pedagogy
University of Lorraine, France	Thermodynamics	Pramanick, A. K., NIT Durgapur, Feidt, M., University of Lorraine	Pedagogy

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
BARC Mumbai	“Design and Development of Nanostructured Zr–Nb-based Alloy with Enhanced Irradiation Tolerance”	Dr. M.M. GHOSH and Dr. A. Arya	Joint research
CSIR-National Metallurgical Laboratory, Jamshedpur	Oxidation of Chromite Ore	Dr. S. Ghorai and Dr. S. Agarwal	Joint MTech Project work



DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
CSIR-CGCRI Kolkata	Material Engineering and Mechanical Behaviour	Prof. Ghosh K.S & Acharya, Saikat Dev CGCRI, Kolkata	Joint Research, Work
CSIR- CGCRI, Kolkata	Biomaterials	Dr. S. Bera, Dr. D. Mandal & Dr. M. Das	Joint Ph.D. student
CSIR-CMERI	Development of self lubricating nano-composite for wear-resistant applications	Dr. B.K.Show Dr. Nilrudra mandal (PI) (CSIR-CMERI) Dr. Himadri roy (CSIR-CMERI) Dr. Kalisadhan Mukherjee (CSIR-CMERI)	Joint Project by DST
CSIR-CMERI Durgapur	Metal casting & Characterisation	Dr. Maji B. & Dr. Roy Himadri (CSIR-CMERI)	Research, Joint M.Tech student
CSIR-CMERI	Al alloy	Dr. M.K.Mondal & Dr. Himadri Roy (CSIR-CMERI)	Joint Research, Work, Publication
CSIR-National Metallurgical Laboratory, Jamshedpur	Metal casting and Forming, Semi solid processing	Dr. Mandal D. & Dr. Sahoo K.L (CSIR-NML, Jamshedpur)	Research, Joint M.Tech. Student
CSIR-National Metallurgical Laboratory, Jamshedpur	Mechanical Metallurgy, Low cycle Fatigue	Dr. Mandal .D & Dr. Bar H.N (CSIR-NML, Jamshedpur)	Research, Joint M.Tech student
CSIR-National Metallurgical Laboratory, Jamshedpur	Utilization of steel plant waste	Dr. Mandal A. K. & Dr. Nath S. (CSIR-NML, Jamshedpur)	Research, Joint M.Tech. Student
CSIR-National Metallurgical Laboratory, Jamshedpur	Utilization of steel plant waste	Dr. Mandal A. K. & Dr. Nath S. (CIR-NML, Jamshedpur)	Research, Joint M.Tech. Project Work
CSIRO, Australia	Life Cycle Assessment of Iron and Steel Industry	Dr. Mandal A. K. & Dr Dr. Haque Nawshad (CSIRO, Australia)	Joint Research work
Erich Schimdt Institute, Leoben, Austria	Al alloys, Biomaterials	Dr. S. Bera, Dr. P. Ramaswamy	Joint Research Work, Publications
IIST Shibpur	Material Science	Dr. S. Bera & Dr. A. Sinha (IIST Shibpur)	Research
Indian Institute of Technology, Gandhinagar	Al alloy	Dr. Mondal M.K.& Dr. Paliwal Manas (IIT Gandhinagar)	Joint Research, Work, Publication





DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Indian Institute of Technology Kharagpur	Al alloy	Dr. Mondal M. K. & Dr. Tiwary Chandra Sekhar (IIT kharagpur)	Joint Research, Work, Publication
IIT(BHU), Varanasi	Iron and Steel making	Dr. Mandal A. K. & Prof. Sinha O.P. (IIT-BHU, Varanasi).	Research, Joint publication
IIT, Kharagpur	Ultra high temperature ceramics	Dr. M. Mallik and Prof. R. Mitra	Joint Research Work, Publications
Indus University, Ahmedabad-382115	Alloy Development	Dr. Mandal D & Dr. Chaudhury S.K	Joint Research work
IFW, Dresden	Biomaterials	Dr. Bera S. and Prof. Calin M.	Joint Research Work, Publications
Rensselaer Polytechnic Institute, Troy, NY, USA	"Molecular Modeling and Simulation of the Dynamics of a Nano-droplet Embedded into its Own Vapor"	Dr. M.M. GHOSH and Prof. Pawel Keblinski, Prof. Ganpati Ramanath of Materials Science and Engineering Dept. and Prof. Theodorean Borca-Tasciuc of the Dept. of Mechanical, Aerospace and Nuclear Engg.	Joint research
School of New Energy and Materials, Southwest Petroleum University, China	Nitrogen bearing stainless steel	Dr. A. K. Mandal & Dr M. Talha (SPU, China)	Joint Research work

DEPARTMENT OF MANAGEMENT STUDIES			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
NIT Silchar	Research	Dr. Ujjwal Kanti Paul	Joint PhD supervision

DEPARTMENT OF PHYSICS			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
CSIR-CMERI Durgapur	Polymer Nanocomposites	Meikap A. K.	Joint Research/ Joint PhD Guidance
Technology Center of Nagasaki, Japan	Polymer Nanocomposites	Meikap A. K.	Joint Research
University of Ottawa, Canada	Polymer Nanocomposites	Meikap A. K.	Joint Research
Burdwan University	Nanomaterials	Meikap A. K.	Joint Research/ Joint PhD Guidance



DEPARTMENT OF PHYSICS			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Pondichary University	Ferroelectric Composites	Meikap A. K.	Joint Research
Burdwan University	Nonlinear Optics	Kumbhakar P.	Joint Research/ publication of paper
IIT Kharagpur	Nanotechnology	Kumbhakar P.	Joint Research/ Publication of paper
RK University Rajkot	Nanotechnology	Kumbhakar P.	Joint Research/ Publication of paper
Jadavpur University	Nanotechnology	Kumbhakar P.	Joint Research/ Publication of paper
University of Hyderabad	Photonics	Kumbhakar P.	Joint Research
Assam University	Nanotechnology & Photonics	Kumbhakar P.	Joint Research/ Publication of paper
University of Calcutta	VOC sensor	Chakraborty A.K.	Joint research and publication
Visva-Bharati University, Shantiniketan	Photophysical properties	Chakraborty A.K.	Joint Research project and publication
Anhui University of Technology, Ma'anshan, Anhui, PR China	VOC sensor	Chakraborty, A. K.	Joint research and publication
Bose Institute, Kolkata	Carbon nanomaterial characterization	Chakraborty A.K.	Collaborative research
National University of Singapore	Energy storage materials	Chakraborty A.K.	Joint research
Jagadish Bose National Science Talent Search (JBNSTS), Kolkata	Lead free solder joint interface	Chakraborty A.K.	Joint PhD student and publication
CSIR-Central Electrochemical Research Institute (CECRI), Karaikudi	Electrochemistry	Chakraborty A.K.	collaboration through PhD student exchange
The Open University, Milton Keynes, UK	Graphene based solar cells and supercapacitors	Chakraborty A.K.	Several PhD student exchanges and joint research
University of Liverpool, United Kingdom	Electron spectroscopy	Chakraborty A.K.	Joint research, student and staff exchange
National Institute of Technology, Raipur	Condensed Matter Physics	Sahoo S.	Joint Research
KIIT University, Bhubaneswar	Condensed Matter Physics	Sahoo S.	Joint Research
TDB College, Raniganj	Nuclear Physics	Sahoo S.	Joint Research
Regional Institute of Education, Bhubaneswar (NCERT)	Nuclear Physics, Physics Education & General Physics	Sahoo S.	Joint Research
CSIR-CMERI, Durgapur	Multiferroics materials	Basu S.	Joint Research



DEPARTMENT OF PHYSICS			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
IACS, Kolkata	Nanomaterials, Multiferroics	Basu S.	Joint Research
Burdwan University	Electronics and Communication	Mandal M.K.	Joint Research
Women's College, Burdwan	Optics	Mandal M.K.	Joint Research/ publication of paper
Federal University of São Carlos, Brazil	Nanoelectronics	Mondal A	Sample Characterisation, joint research
IIT Bombay, INDIA	Characterization of InN NWs	Mondal A	Joint Research
National Institute of Technology, Nagaland	Nanotechnology	Mondal A	Joint Research
Saha Institute of Nuclear Physics	Nanotechnology	Mondal A.	Joint Research
University of Nottingham, UK	Nanoelectronics	Mondal A.	Sample characterization, joint research
The University of Petroleum and Energy Studies, INDIA	Characterization	Mondal A.	Sample Characterisation, Joint Research
Jadavpur University, INDIA	Characterization	Mondal A.	Sample Characterisation, Joint Research
Calcutta University, INDIA	Characterization	Mondal A.	Sample Characterisation, Joint Research
U R Rao Satellite Centre- ISRO, INDIA	Characterization	Mondal A.	Sample Characterisation, Joint Research
Queen's University, Kingston, Ontario K7L 3N6, Canada	Nanotechnology	Mondal A.	Joint Research
Higher School of Economics (National Research University), Russia	Nanotechnology	Mondal A.	Joint Research
Saha Institute of Nuclear Physics, Kolkata, India.	Nonlinear Analysis (Power Spectrum and Wavelet Analysis) of Geochemical Precursory Signals	Chaudhuri H.	Joint Research
Atomic Mineral Directorates, Department of Atomic Energy	Helium Exploration	Chaudhuri H.	Joint Research
Far Eastern Federal University, Vladivostok, Russia	Extraction of metals from fly ash	Chaudhuri H.	Joint Research



DEPARTMENT OF PHYSICS			
Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Engineering School of Natural Resources, National Research Tomsk Polytechnic University	Environmental geochemistry and treatment of organic pollutants in aquatic systems	Chaudhuri H.	Joint Research
East China University of Technology (ECUT), School of Water Resources and Environmental Engineering	Environmental geochemistry and treatment of organic pollutants in aquatic systems	Chaudhuri H.	Joint Research
Federal University of Rio de Janeiro, Brazil	Water management and wastewater treatment	Chaudhuri H.	Joint Research
Hohai University, China	Water management and wastewater treatment	Chaudhuri H.	Joint Research
IIT(ISM) Dhanbad	Optics	Ghosh A.	Collaborative Research and Joint Publication
Moffitt Cancer Center and Research Institute, Tampa, FL, U.S.A	Evolution-based understanding of properties of DNA	Subramanian H.	Collaborative Research and Joint Publication
Jadavpur University	Machine Learning	Ghosh S.	Joint Research
Bose Institute, Kolkata	Early warning signatures, Statistical Physics and Complex Systems	Ghosh S.	Joint Research
Indian Institute of Technology, Kanpur	Network science	Ghosh S.	Collaborative Research and Joint Publication
Indian Institute of Technology Kharagpur	Soft computing and epidemiological flow	Ghosh S.	Collaborative Research and Joint Publication
Jawaharlal Nehru University	Behavioral modeling	Ghosh S.	Joint Research





6.0 THE COUNCIL, BOG AND OTHER COMMITTEES

6.1 Institute's Council

Vide Annexure - 11.1

6.2 Board of Governors

Vide Annexure - 11.2

6.3 Finance Committee

Vide Annexure - 11.3 (a)

6.4 Building and Works Committee

Vide Annexure - 11.3(b)

6.5 Other Committees

Senate

Vide Annexure - 11.3(c)



7.0 CONCESSIONS FOR SC, ST AND DIFFERENTLY ABLED STUDENTS

7.1 Concessions Provided for Students

The Department of Training, Placement, and Students' Welfare helps the students get Railway

Concessions during their vacations.

Tuition fee waiver is given as per Govt. Rule.

8.0 FINANCIAL STATUS



8.1 Analysis of Plan and Non-Plan Grants (2020-2021)

Entire Recurring and Non-Recurring Grants are borne by Govt. of India

8.2 Sources of Funds

8.3 Expenditure Position for Last Few Years

8.4

(Rupees in Lakhs)

Plan head Expenditure		Non-Plan head Expenditure	
2012-13	4050.00	2012-13	6101.14
2013-14	5058.03	2013-14	7296.61
2014-15	2495.36	2014-15	7573.72
2015-16	4750.82	2015-16	8092.35
2016-17	2570.46	2016-17	11188.98
2017-18	1425.36	2017-18	12423.47
2018-19	1409.89	2018-19	14814.37
2019-20	3286.52	2019-20	15130.18
2020-21	1905.16	2020-21	14813.00



9.0 CENTRAL FACILITIES AND SERVICES

9.1 Computer Centre

Sl. No.	Name of the Lab	Area of the Lab
1.	Lab-1	24' X 40'
2.	Lab-2	34' X 24'
3.	Lab-3	34' X 24'
4.	Lab-4	34' X 24'
5.	Lab-5	23' X 15'
6.	Server Room	11' X 24'
7.	Class Room	28' X 16'

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. HPEliteDesk800G – 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)	HPEliteDesk800G – 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	32 Nos. (32 nos. running)	Acer Veriton - Intel core i5-8500; 3.0 GHz; 1TB HDD; 16GB RAM--- 28Nos. Acer Veriton - Intel core i5-8500; 3.0 GHz; 1TB HDD; 8GB RAM--- 4Nos.	Windows 10 pro, Ubuntu -18.04.0, Mysql, Codeblocks, eclipse, NetBeans, StarUML, Dev C++, Auto CAD (Free).
4.	Lab-4	32 Nos. (32 nos. running)	Acer Veriton - Intel core i5-8500; 3.0 GHz; 1TB HDD, 16GB RAM---32 Nos.	Windows 10 pro, MS Office 2016, NetBeans, Dev C++, MatLab-2016a, Auto CAD (Free version).
5.	Lab-5	19 Nos. (19 Nos. running)	Acer Veriton - Intel core i5-8500; 3.0 GHz; 1TB HDD; 8GB RAM--- 19 Nos.	Windows 10 pro, NetBeans.
7.	Server Room	3 Nos. Server (All are running)	GPU Based Server --- 2 Nos. Intel Based Server --- 1 No.	Linux OS, Ubuntu 18.04.3 Canonical OS.

9.2 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.



Workshop CNC Machine

9.3 LIBRARY

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. mtrs. The library has a collection of 190280 volumes, which includes text books, reference books & bound volumes of Journals, Standards etc. The library subscribes to about 112 current Journals (Subscribed & Gifted). Library operations have been automated with the help of an integrated library management software package, LIBSYS-4. 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).

Facilities & Teaching and Learning Resources

The Central Library is fully AC and equipped with Wi-Fi facility in the reading halls to access e-resources and several Computer systems installed so that students can use

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.

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/>

Studio (Lecture Recording System)

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.


E-Journals/Databases through e-ShodhSindhu (2020) are as follows:

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 Journals 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	Web of Science Lease Access
8	JGate Plus (JCCC)	16	Ouriginal (Urkund) Plagiarism detection software

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.

1. E-JOURNALS

Sl. No.	Name of Resource	Sl. No.	Name of 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) Level-2	11	SAE Journal
4	ASTM Standards	12	Taylor and Francis (4 Subject Collection)
5	Emerald 310 Journals Collection	13	Wiley Online (27 Journals)
6	Elsevier -Science Direct (11 Subject Collection)	14	American Concrete Institute (ACI)
7	Indian Standards (BIS Code)	15	Journal of Pension Economics & Finance
8	PNAS Tier – 3		

2. DATABASES & TOOLS

Sl. No.	Name of Database/Tools
1	SCOPUS
2	PROWESS Database (CMIE)
3	SciFinder
4	IEEE SWEBOK Course Content
5	iThenticate (Anti-plagiarism/ Similarity measure tool)
6	Grammarly (Writing support tool)

3. 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.

- Elsevier Backfiles Collection: Engineering & Technology (164 titles) and Chemical Engineering (36 titles)
- Royal Society of Chemistry (RSC Gold): Archive 1841-2007
- Emerald Backfiles Collections:
 - Accounting and Economics – 1974-2006 (27 Journals)
 - Marketing -1967-2006 (18 Journals)
 - HR Learning and Organisational Studies -1952-2006 (28 Journals)



- iv. Operational Logistics and Quality – 1971-2006 (22 Journals)
- v. Public Policy and Environment -1899-2006 (10 Journals)

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

PRINT COLLECTIONS:

The Central Library has a good collection of print resources consists of books, standards, journals etc. collection are as below (up to 31.03.2020):

(i) Collection (Books)	General Book	124481
	Book Bank	41261
	Bound Vol. of Journals	7744
	SC/ST	934
	BIS Code	5072
	Gift	5059
	Misc.	1485
	TEQIP Books	4244
	Total Collection	190280
(ii) Print Journals	Subscribed Journal	34
	Gifted	78
	Total	112

LIBRARY HOURS:

8:30 A.M to 12:00 Midnight (Weekdays)

9:00 AM to 5:00 P.M. (Weekends)

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.

9.4 LABORATORIES

All departments have well equipped laboratories which cater to the hands on training to the under graduate as well as postgraduate students. The laboratories are also regularly used for carrying out projects and research works. List of the laboratories of various departments are given in Annexure–11.13.

9.5 HOSPITAL, POST OFFICE AND SHOPPING CENTRE

The Institute has a Medical Unit with Outdoor and Indoor (20 beds) facilities including Isolation wards for Chicken Pox, Measles Etc. One Isolation Ward had been started in Old Guest House for mild COVID-19 Positive patients of NIT community. The Medical Unit runs 24×7 Medical Emergency services and Morning and Evening Outdoor on all days except Sundays and Holidays. Patients will be referred to empanelled hospitals in case of need. The Medical Unit is served by three Permanent General Physicians, three Contractual Doctors and supported by part-time specialists physicians: one Cardiologist (thrice a week), one General Medicine Specialist (once a week), one Obstetrician and Gynaecologist (once a week), one ENT specialist (once a week), one Ophthalmologist (once a week), one Psychiatrist (once fortnightly) and one Dentist (thrice a week). The Medical Unit also has a Counselling Centre for wellbeing with one Part-time Psychiatrist and two Part-time Clinical Psychologists who take care of the mental health of the beneficiaries. All faculty members, staff members and their families as well as the students are benefited from the Medical Unit and Counselling Centre. Moreover, Medical Unit and Counselling Centre has conducted a number of webinars focussing on Mental Health in view of COVID-19 pandemic. Medical Unit took part in Pulse Polio Immunization done by State Government. The Medical Unit has two Ambulances at its disposal for providing 24 Hrs services.

9.6 PHYSICAL FACILITIES

The Institute has branches of State Bank of India,



Canara Bank and SBI ATM in the campus. The Institute also has two canteens and one cafeteria near the students' hostels. Three playgrounds and gymnasium are used regularly by the students and residents of the campus. For the recreational facilities of the faculties and staff there are two clubs namely, Faculty Club and Staff Club. The clubs regularly organise cultural programmes, games and sports for the members. A higher secondary school is also located in the campus.

9.7 GAMES & SPORTS FACILITIES

The Student Activity Centre has excellent Infrastructure facilities for both outdoor and indoor games. The Centre has one central gymnasium equipped with sufficient number of equipment's with different time slots for its users. The Institute play grounds (Oval & Lords) always bubble with outdoor activities like football, handball, cricket, athletics, kabaddi, hockey etc. Turf and concrete courts with flood light facilities are also available in the events of volleyball, basketball, lawn tennis and badminton. Beside central sports facilities, most of the halls of residence equipped with Volleyball and concrete badminton courts including Table Tennis, Chess and Carom board facilities.

9.8 STUDENT ACTIVITY CENTRE (SAC)

The student activity Centre is one of the Central facilities of the Institute organized students choice based Co- Curricular Credit Course in Physical Education and its allied dimensions as a compulsory subject 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 and sports of the Institute. The Centre has been sincerely guiding both UG/ PG students and employees of the Institute in different areas of games and sports activities. The Centre organized various sporting events throughout the year, be Intra NIT or the Inter NIT and Inter University tournaments. Regular practice in every major game is carried out under the guidance and supervision of the Centre. Institute teams are picked, trained and exposed to various levels of tournaments.

9.9 UTKARSHA BHAVAN

National Institute of Technology, Durgapur an "Institute of National Importance" has been a major transformation in the research ambience in NIT Durgapur since its transformation from REC to NIT by the Govt. of India, vide NIT Act 2007 (29 of 2007). Quantum jump is observed in publication in premier peer-reviewed journals over the years with commensurate increase in PhD degree awardees.

To further encourage enhanced research activities among faculty and students and also to enhance collaborative research, four cutting-edge areas have been decided to be set up as centres of excellence first to optimize the usage of high-valued sophisticated instruments and secondly, to provide service to the other academic and research institutions and the industries which shall help in internal resource generation through sponsored research and consultancy and testing.

To realizing this objective by way of setting up such a centralized facility ("**Utkarsha Bhavan**") the Institute has received a sanction of Rs. 97 crore thorough **HEFA loan**.

The approved **DPR of HEFA** to set up "**Utkarsha Bhavan**" includes the following.

(A) Building:

G+10 Storied Central Research & Academic Laboratory Building (Utkarsha Bhavan)

(B) Equipments

- ▣ Central Research Facility (**CRF**)
- ▣ Centralized Laboratory Facility (**CLF**)
- ▣ Centre for Research on Environment and Water (**CREW**)
- ▣ Centre for Biomedical Engineering & Assistive Technology (**BEAT**)
- ▣ Centre for Advanced Research on Energy (**CARE**)
- ▣ Centre of Excellence on IoT and Intelligent Systems (**IoTIS**)
- ▣ Central Research Facility (**CRF**)

These include

- (i) Physical Characterization Facility,
- (ii) Chemical Characterization Facility,
- (iii) Mechanical Characterization Facility,



- (iv) High Performance Computing and Storage, and
- (v) Electrical and Electronics fabrication and characterization facility.





Centralized Laboratory Facility (CLF)

The following laboratories will be included in Centralized Laboratory Facility:

- (i) Physics Lab,
- (ii) Chemistry Lab,
- (iii) Basic Electrical Engg. Lab,
- (iv) Basic, Analog and Digital Electronics Laboratory,
- (v) Computation Lab,
- (vi) Process Control Lab, and
- (vii) Communication Lab.

9.10 ESTATE SECTION

LIST OF MAJOR WORKS IN FY 2020-21:

INSTALLATION OF LED STREET LIGHTS:	
Agreement signed between NIT Durgapur and M/s Energy Efficiency Services Limited (EESL) for implementation of energy efficiency measures in the Institute. Under the said project total 445 nos. of LED street lights of different wattages have been installed.	
INSTALLATION OF AIR CONDITIONING MACHINES:	
Agreement signed between NIT Durgapur and M/s Energy Efficiency Services Limited (EESL) for implementation of energy efficiency measures in the Institute. Under the said project total 40 nos. 1.5 TON capacity and 20 nos. 2.0 TON capacity Air Conditioning Machine have been installed in first phase at different Departments / Sections of the Institute. In addition to above 82 nos. 1.5 TON capacity AC Machines have been procured in first phase by the Institute and installed at different locations as per requisitions.	
CENTRAL RESEARCH LABORATORY (G+10) (UTKARSH BHAVAN):	
Construction of a G+10 Central Research Laboratory wick named as "UTKARSH BHAVAN" is under progress under HEFA Project. To faciliate all the research activities centrally in the Institute the building had been proposed and expected to be completed by June 2022.	 



INSTALLATION OF CENTRALIZED AC MACHINE AND FALSE CEILING IN NEW ACADEMIC BUILDING:

Installation of Centralized Air Conditioning Machine and False Ceiling of the New Academic Block is under progress and likely to be completed by August 2021.



DISPOSAL OF OLD & OBSOLETE ITEMS OF THE INSTITUTE:

Long pending Institute Old & Obsolete items have been disposed through e-auction process. Agreement signed between NIT Durgapur and M/s MSTC and all the e-tendering formalities have been carried out by M/s MSTC Ltd. Lots of spaces have been cleared under Green Campus project. Institute has earned revenue of Rs. 3485999.00 through this entire process.



INTERNAL REVENUE GENERATION (IRG) BY THE ESTATE SECTION:

During the FY 2021-22 Estate Section earned revenue of Rs. 67.00 Lac (approx.). The resources came from different heads like License Fee, Electricity Charges, Water Charges from residents and other vendors.

RAMP, TOILETS & LIFTS FOR PHYSICALLY CHALLENGED STUDENTS

Construction of Toilets & Ramp and installation of Lifts for the physically impaired students is under progress and likely to be completed by the end of September 2021.



MECHANIZATION OF KITCHEN AND MODERNIZATION OF DINING HALLS WITH FURNITURE IN HALL-1 TO 13

Under EWS Institute proposed for mechanization of kitchens and modernization of dining halls with furniture in Hall-1 to 13. Once fund is received from the Ministry, the work shall start immediately.

Under process, Fund Awaited.



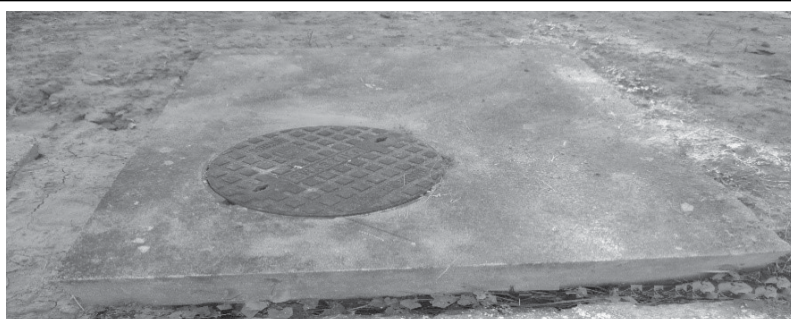
RENOVATION OF CENTRAL LIBRARY

Civil and Electrical renovation works in the existing triple storied Central Library Building are in progress and will be completed soon. Passenger lift is also being installed for the students especially for physically challenged students. The work for centralized Air Conditioning system is completed.



RELAYING & RENOVATION OF SEWER LINE IN NIT CAMPUS

Construction of separate Sewer Line of the Institute has been completed. Institute overall sewer line has been changed with adequate Inspection Pits and Septic Tanks.



CONSTRUCTION OF CONFERENCE ROOM & FACULTY ROOM ON EXISTING 2ND FLOOR OF MECHANICAL ENGINEERING DEPARTMENT

In view of increased intake and appointment of more faculty members, construction of conference room & faculty chambers on existing 2nd floor ME Department building is almost completed.



VERTICAL EXTENSION OF ELECTRICAL ENGG. MEASUREMENT LAB.

To enhance the space requirement vertical extension of electrical engineering measurement lab is under progress.





EXTERIOR PAINTING OF QUARTERS

There are different categories of staff quarters in the Campus premises accommodated as per the eligibility criteria of teaching & non-teaching employees. The exterior painting of residential quarters completed.



VERTICAL EXTENSION OF CSE & CHEMISTRY DEPT.

To facilitate the adequate space to the students as well as newly appointed faculty members vertical extension of CSE & Chemistry Department is under progress.



1500 SEATED AUDITORIUM

Construction of a 1500 seated auditorium with smart screen, audio visual systems, electrical appliances, seating arrangements etc. is likely to be completed in the year 2021.



INSTALLATION OF CHAIN LINK FENCING AND IRON GRILL IN THE BALCONIES OF 1250 SEATED BOYS HOSTEL (HALL-14)

A Building G+12 consisting of 1250 seated capacity boys hostel has been constructed in the year of 2017 to facilitate the adequate accommodation of Students. Total area of the hostel is 35260 sqmtr.

For safety & security of the building as well as the boarders (i) Building is surrounded with Chain linked fencing, (ii) iron grill installed in the balconies, (iii) 24 hrs. security deployment made.





10. NOTABLE PAST ACHIEVEMENTS

- ❖ The Institute, since starting off in 1960 with only four branches of Engineering for UG studies and a handful of buildings and quarters, has made tremendous overall development and achieved the status of Institute of National Importance. Some major achievements are listed below:
- ❖ In all, 9 B. Tech. programmes in Engineering, 21 M. Tech. programmes, 3 M. Sc. programmes, MCA and MBA programmes are running successfully.
- ❖ Many students have won national and international recognition as teachers, industrialists and entrepreneurs in various leading organisations.
- ❖ A large number of new laboratories have come up over the years for UG and PG students, Research Scholars and the faculty members of the Institute.
- ❖ The Institute was elevated to the National Institute of Technology with Deemed University status.
- ❖ NIT Durgapur was declared “Institute of National Importance” by the Government of India.
- ❖ The Institute successfully participated in the World Bank assisted TEQIP phase I and II as lead institution,
- ❖ Many faculty members have achieved distinction in the field of research by way of publishing papers in peer-reviewed journals and also received best paper awards. Many of them also have the honour of acting as reviewers of international journals.
- ❖ The Institute is a QIP Centre for M Tech programmes for faculty members of the polytechnic institutes and PhD programmes for all faculty.
- ❖ Under the Centre of Excellence Scheme of the MHRD, Govt. of India, state-of-the-art research laboratories have been set up with modern equipment.
- ❖ Many faculty members have served outside organisations and Institutes in the capacity of advisors, consultants and experts of various technical committees.
- ❖ NIT Durgapur implemented reservation for OBC students (27%) completely.
- ❖ Collaborative activities are in progress with CERN Geneva, NUS Singapore, Caledonian College of Engineering Muscat and a number of premier universities abroad. Faculty exchange, visits of delegation, students’ internship and collaborative research have been taken up.
- ❖ The Ministry of Steel, GOI, has instituted a Ministry of Steel Chair Professor and has been sponsoring five scholarships to UG students.
- ❖ NIT Durgapur mentored NIT Arunachal Pradesh and GKCIT, Maldah.
- ❖ The B Tech and M. Tech programmes of various departments are accredited by NBA committee.
- ❖ A patent cell has been formed to look after the potential patentable data generated in various departments of the institute.
- ❖ S N Roy Memorial building, New Guest house and New Academic building have been inaugurated. Six students’ hostels are renovated.



- ❖ As a part of the lecture series “Beyond the Walls” organized by NIT Durgapur Alumni Association, seven distinguished alumni members delivered lectures on various topics in the institute. The alumni members acted as resource persons in various workshops and short term courses organized by the Institute.
- ❖ The projects namely, 1250-seated Boys’ Hostel and Auditorium are in progress. The New Guest House and 500-seated Girls’ Hostel have recently been completed.
- ❖ 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

ACHIEVEMENTS IN 2019 -2020

Physical Instructor

1. Yoga (Men) Secured Third Position in All India Inter NIT Meet held at NIT Silchar.
2. One Silver Medal in All India Inter NIT Track & Field Meet at NIT Rourkela.

- ❖ 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)

ANNEXURE –11.1 INSTITUTE’S COUNCIL

NIT COUNCIL (as per statute)

- ❖ The Minister in charge of the Ministry or Department of the Central Government having administrative control of the technical education, ex officio-Chairman
- ❖ 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
- ❖ 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
- ❖ Financial Advisor, dealing with the Human Resource Development Ministry or Department of the Central Government, ex officio
- ❖ The Chairperson of every Board, 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
- ❖ The Director of every Institute, ex officio
- ❖ The Chairman, University Grants Commission,



Annexure-11.2 Board of Governors (as per NIT Act, 2007 (29 of 2007))

Sl. No.	Nomination Under	Name and Designation of nominated Member	Serve as
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)	Shri Madan Mohan ADG(HE) Deptt. of Higher Education, Ministry of Education, Shastri Bhawan, New Delhi- 110 001	Member
04.	(c)	Mrs. Darshana M Dabral JS & FA (IFD) Deptt. of Higher Education, Ministry of Education, Shastri Bhawan, New Delhi-110 001	Member
05.	(d)	Mr. Sanjay Jhunjunwala Chief Executive Officer, Mani Group Kolkata	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, Senior Principal Scientist CSIR, IGIB, New Delhi.	Member
08.	(e)	Dr. Jyotsna Dhawan, Chief Scientist, CCMB, Hyderabad	Member
09.	(f)	Prof. Parthapratim Gupta Professor, Department of Chemical Engineering, National Institute of Technology Durgapur	Member
10.	(f)	Prof. Suchismita Roy, Professor Department of Computer Science and Engineering NIT Durgapur, Pin – 713209	Member



Sl. No.	Nomination Under	Name and Designation of nominated Member	Serve as
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

Annexure-11.3(a) Finance committee

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.	Shri Madan Mohan ADG(HE) Deptt. of Higher Education, Ministry of Education, Shastri Bhawan, New Delhi- 110 001	Member
4.	Mrs. Darshana M Dabral JS & FA (IFD) Deptt. of Higher Education, Ministry of Education, Shastri Bhawan, New Delhi-110 001	Member
5.	Prof. Parthapratim Gupta Professor, Department of Chemical Engineering, National Institute of Technology Durgapur	Member
6.	Shri Soumya Sen Sharma Registrar, National Institute of Technology, Durgapur Durgapur-713209	Member Secretary





Annexure-11.3(b) Member of Building and Works committees

Sl. No.	Name of the Member	Server as
1	Prof. Anupam Basu, Director, National Institute of Technology Durgapur Durgapur – 713 209	Chairman
2.	Shri Madan Mohan ADG (HE) Deptt. of Higher Education, Ministry of Education, Shastri Bhawan, New Delhi- 110 001	Member
3.	Shri Anil Kumar, Director (Finance), Department of Higher Education, Ministry of Human Resource Development, Shastri Bhawan, New Delhi-110001.	Member
4	Shri Satyaki Sen, Nominee of BOG, NIT Durgapur CJ 84, Sector – 2, Salt Lake City, Kolkata – 700 091	Member
5	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
6	Shri C. P. Sharma, (Nominee of CPWD, Civil Wing) Superintendent Engineer (Civil), NIT Durgapur,	Member
7	Prof. S. Bhattacharya Department of Civil Engineering Chairman Construction	Member
8	Prof. N. K. Roy Department of Electrical Engineering. Chairman Planning	Member
9	Prof. S. Saha Department of Civil Engineering, Chairman Maintenance & Campus Facility	Member



Sl. No.	Name of the Member	Server as
10	Prof. Atul Krishna Banik Department of Civil Engineering Chairman & Convenor PMQCC	Member
11	Shri Soumya Sen Sharma Registrar, National Institute of Technology Durgapur, Durgapur – 713209.	Member Secretary

Annexure-11.3(c) 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



Sl. No	NAME	E-MAIL ADDRESS	TELEPHONE
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			
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



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



Sl. No	NAME	E-MAIL ADDRESS	TELEPHONE
58	Prof. Parimal Acharjee,	parimal.acharjee@ee.nitdgp.ac.in	9434788064
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	kalyan.adhikari@ees.nitdgp.ac.in	9434788091
HUMANITIES AND SOCIAL SCIENCES			
63	Prof. P. P. Sengupta	parthaprati.sengupta@hu.nitdgp.ac.in	9434788045
64	Dr. Joydeep Banerjee Associate Professor, HoD	joydeep.banerjee@hu.nitdgp.ac.in	9434788054
MATHEMATICS			
65	Prof (Mrs.) Kajla Basu,	kajla.basu@maths.nitdgp.ac.in	9434788132
66	Prof. Samarjit Kar,	samarjit.kar@maths.nitdgp.ac.in	9434453186
67	Dr.(Mrs) Seema Sarkar (Mondal)	seema.sarkar@maths.nitdgp.ac.in	9434788131
68	Dr. Pinaki Pal Associate Professor, HoD	pinaki.pal@maths.nitdgp.ac.in	9434788193
MECHANICAL ENGINEERING			
69	Prof. I. Basak	indrajit.basak@me.nitdgp.ac.in	9434788109
70	Prof. B. Halder, Dean (SW)	biswajit.halder@me.nitdgp.ac.in	9434788027
71	Prof. Nilotpal Banerjee Dean (AAO)	nilotpal.banerjee@me.nitdgp.ac.in	9434788009
72	Prof. Amar Nath Mullick	amarnath.mullick@me.nitdgp.ac.in	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
METALLURGICAL AND MATERIALS ENGINEERING			
78	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



Sl. No	NAME	E-MAIL ADDRESS	TELEPHONE
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

Annexure - 11.4(a)Ongoing sponsored projects

Department of Biotechnology

Name of the Department	Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Biotechnology	Microbial production of Lactic Acid using wastes (dairy waste & rice straw) as substrates, for the production of bioplastic	Aikat, K.	Department of Science & Technology and Biotechnology, Govt. Of West Bengal	13.7 lakhs	2019
Biotechnology	Structural and functional analysis of disordered regions in unbound and bound protein-protein and protein-nucleic acid complexes	Barik A	DST-SERB	21.16 lakhs	2021
Biotechnology	Role of Adenosine Monophosphate Activated Protein Kinase (AMPK) activators in reducing cancer cell aggressiveness	Bhattacharjee,A., Chaudhuri S and Chatterjee S	Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal	20.76 lakhs	2019
Biotechnology	Regulation of MCP-1-induced calcium-independent phospholipase A ₂ (iPLA ₂)-dependent monocyte migration	Bhattacharjee, A., Ghosh M.	DBT-Govt. of India	57.07 lakhs	2019



Name of the Department	Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Biotechnology	Investigation of functional interrelations of bZIP transcription factors: ZBF2/GBF1, HY5 and HYH of light signalling pathways in <i>Arabidopsis thaliana</i>	Chattopadhyay, S.	JC Bose National Fellowship (DST)	68 lakhs	2016
Biotechnology	Program support on genome engineering of tomato (Cloning and functional characterization of GBF1/ZBF2 in tomato)	Chattopadhyay, S. and Sharma, R.P. (University of Hyderabad)	DBT	98 lakhs	2016
Biotechnology	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	Chaudhuri S, Sen Maiti S (CIT Kokrajhar)	DBT-Govt. of India	23.71 lakhs	2019
Biotechnology	Molecular characterization of a small-molecule based reprogramming of non-adipocyte cells to brown adipocytes for its potential use as anti-obesity drug	De, D.	DST-SERB	31.67 lakhs	2019
Biotechnology	FIST program, DST	Head, Biotechnology Department	DST-FIST	1crore 50 lakhs	2017
Biotechnology	Exploring lithautotrophic microbial communities in terrestrial biosphere underneath the Deccan Traps at Koyna region, India	Kazy, S.K.	14 th phase of Census of Deep Life (CoDL) Project, Deep Carbon Observatory (DCO), Carnegie Institution for Science, USA	DNA sequencing project	2018



Name of the Department	Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Biotechnology	Microbiology of arsenic contaminated groundwater of Bengal delta plain: deciphering the role of subsurface microorganisms in As release and prospect for in situ remediation –	Kazy, S.K., and Sar, P., IIT Kharagpur	Department of Science and Technology (DST), Govt. of India	~41 Lakhs	2016
Biotechnology	Enteropathogens dampen innate immune response through inhibition of macrophage functions	Mahata, N.	NIT Durgapur (RIG)	10 lakhs	2016
Biotechnology	Design of novel short helical peptide based biosurfactant	Mondal, S.	NIT Durgapur (RIG)	5 lakhs	2019
Biotechnology	Design of modular peptide nanotubes platforms by the self-assembly of shortest helical building blocks for application as ion channel mimic	Mondal, S.	DST-SERB	27 lakhs	2019
Biotechnology	Determining the role of the gastric microbiota in <i>Helicobacter pylori</i> infection to utilize it for the development of a probiotic therapy	Mukherjee, O	DST-SERB	31.05 lakhs	2019
Biotechnology	Deciphering the metabolic and Microbial diversity signature in the fecal microbiota of obese patients to find their correlation with brown versus white adipogenesis pathway	Mukherjee, O. ; De, D.	ICMR	Technically approved- Amt yet to be sanctioned	2020
Biotechnology	MCM3AP: A novel S Phase replication checkpoint protein and its relation with Fanconi anemia protein.	Mukhopadhyay, S.S.	DST-SERB project	42.16 lakhs	2018
Biotechnology	Engineering of cellulase enzymes of <i>Aspergillus fumigatus</i> NITDGPKA3 for enhancing their activity	Mukhopadhyay, S.S., Aikat, K.; Bagchi, A. (University of Kalyani)	DBT-Govt. of India	37.63 lakhs	2017



Name of the Department	Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Biotechnology	Investigation of functional connection between cAMP-dependent signaling pathway and <i>MoWISH</i> , a gene encoding a novel GPCR in rice blast fungus	Roy-Barman, S.	DST-SERB	50 lakhs	2018
Biotechnology	Screening of phytochemicals against metabolic, chronic inflammation and degenerative disorders	Saha, S.; Mukherjee, O. De, D.	NIT Durgapur RIG	15 lakhs	2019

Department of Chemical Engineering

Name of the Department	Title of the Project	Investigator (s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Chemical Engineering	Hybrid Optimization Model of ethylene oxide reactor	Lahiri, S.K., <i>Hens, A.,</i>	Scientific Design company Inc, USA	21,38,640	2020
Chemical Engineering	Ethylene oxide reactor online optimization module	Lahiri, S.K.,	Scientific Design company Inc, USA	16,42,500	2021
Chemical Engineering	Environmental geochemistry and treatment of organic pollutants in aquatic systems in the selected areas of China, India and Russia	Mandal, M.K., <i>Pal S.,</i> <i>Choudhuri H.</i>	DST- Govt. of India, under <i>BRICS Calls</i>	44 lakhs	2019
Chemical Engineering	Reclamation of Steel Industry Waste water through Phycoremediation Technique Using Microalgae and Assessment of Biofuel Production from Algal Biomass	Dutta, S. and Chakraborty, J.	IMPRINT (Impacting Research Innovation and Technology) scheme of Ministry of Human Resources Development, Government of India	45.1152 lakh	2017



Name of the Department	Title of the Project	Investigator (s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Chemical Engineering	Next-generation Sodium-ion Battery for portable electronic Devices	Sarkar, A	DST- Govt. of India, under DST INSPIRE Faculty	35 lakhs	July 2020

Department of Chemistry

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
DST-FIST	All Faculty members	DST, GOI	117 lakhs	2016
Inhibition of Corrosion Inhibition properties of newly synthesized green corrosion inhibitors against mild steel in acidic medium	Adhikari U. (PI) Sukul S. (Co-PI)	SERB, Govt. of India	68.02 lakh	2019
Fish fat transformation during processing, preservation, braising and its nutritional consequences in terms of food value	Chakrabarty J.	DST, Govt. Of West Bengal	33.62 lakhs (revised)	2017
Reclamation of steel industry wastewater through phycoremediation technique using microalgae and assessment of biofuel production from algal biomass	Chakrabarty J. Dutta S., PI; (Chem. Engg.), Bhattacharya P, (HIT, Kolkata),	IMPRINT, MHRD, Govt. of India	43.2 lakhs	2017
Ultracold Chemistry of molecular ions	Ghosal Subhas	SERB, GoI	24 lakhs	2019
To explore the new physics on magnetic interaction for the application in quantum technology	Ghosal S (Co-PI) Goswami B (PI)	TEQIP III	3 lakh	2019
Structure elucidation of simple hydrocarbons through Global Optimization using Density Functional Theory and post HF methods	Ghosal S and Anoop A (IIT Kgp)	DST under NSM	25.52 Lakhs	2021
Spatial Distribution of Uranium in Three Districts (South 24 Pargana, Purba Medinipur and Pashim Medinipur) of West Bengal	Gupta S (B.U.) & Saha R N (Co-PI)	BRNS, DAE, GOI	27.52 lakhs	2018
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	Moi S. C.	SERB-DST, Govt. of India	44.66 Lakh	2017



Title of the Project	Investigator(s)	Sponsoring Organisation	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	Moi S. C.	DST-DHESTBT, Govt. of West Bengal	24.991 Lakh	2018
Searching of less toxic and more effective Cis-platin based new Pt(II) anticancer agents: Kinetics, DNA binding, bio-activity and DFT study	Moi S. C	CSIR, Government of India	10.30 lacs	2018
Development of highly efficient microwave absorber through controlled fluorescent nanoparticle localization in an immiscible polymer blend	Panja S.S.	SERB, Govt. of India	55 lakhs	2017
Synthesis of Pharmacologically Active Heterocyclic Compounds via One Pot Three-Component Coupling Reaction Catalyzed by Bio-Inspired Nanoparticles	Saha T. K.	SERB, Govt. of India	31.22 lakhs	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	Saha R. N. And Chakroborty J.	Department of Higher Education, Science & Technology and Biotechnology, Govt. of West Benga	3.15 lakhs	2018
Emerging Contaminants and their accumulation in ecosystem of lower stretch of Hooghly River	Saha R N (Co-PI) and Gupta (PI, BU)	Department of Higher Education, Science & Technology and Biotechnology, Govt. of West Bengal	5.98 Lakhs	2018
Emerging Contaminants and their accumulation in ecosystem of lower stretch of Hooghly River	Saha R N (Co-PI) and Mondal S (PI, NITD)	Department of Higher Education, Science & Technology and Biotechnology, Govt. of West Bengal	9.978	2018
Search for effective corrosion inhibitors based on benzothiazole derivatives: combined experimental and theoretical approach to establish structure-reactivity relationship	Sukul D and Banerjee P (CSIR-CMERI)	DST, WB	13.85 Lakhs	2018



Department of Civil Engineering

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Prospects and study of floating offshore wind turbine (FOWT) platforms for wind energy harnessing	Banik A. K.	Department of Science & Technology, Higher Education, Govt. of WB	8.5 Lakhs	2017
Blast protection	Karmakar S	RIG, NIT Durgapur	5 Lakhs	2019
Environmental geochemistry and treatment of organic pollutants in aquatic systems in the selected areas of China, India and Russia.	Pal, S, Chaudhuri, H (Phys), Mandal M.K. (Chem. Engg.)	DST-Govt. of India under BRICS STI Framework Programme	44.0 Lakhs	2018
Design and development of crack detection system in steel bridges using acoustic emission technique	Topdar P. and Datta A.K.	DST-TSDP, Govt. of India	59.45 Lakhs	2017

Department of Computer Science and Engineering

Name of the Department	Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Computer Science and Engineering	ADKit: Smartphone Based Artificial Intelligence Enabled Portable Low-cost Anemia Detection Kit based on Observation of Nail and Palm Pallor	Mamata Dalui, Anupam Basu, Dipankar Chakraborty, Suchismita Roy, Bibhash Sen, Dakshina Ranjan Kisku	Meity, Govt of India	28.94 Lakhs	2019
CSE	Developing ICT-based kiosks for post disaster situational information management using opportunistic networking framework	Subrata Nandi. Sujoy Saha	West Bengal DST	15L (Approx.)	2018
CSE	Design of light weight and cost effective PUF-Enabled secure architecture for authentication and FPGA based application	Bibhash Sen, Suchismita Roy	WB-DST	8 Lakhs	2018



Name of the Department	Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Computer Science and Engineering	Empower SSE: A Linked Open Data Framework for the Empowerment of Social and Solidarity Economy Agents	Animesh Dutta	DST, Govt of India	10.6 Lakhs	2018
CSE	IntAirSense: Intelligent Air Pollution Monitoring	Suojoy Saha, Mousumi Saha, Jaydeep Howlader	West Bengal DST	12L (Approx.)	2019
CSE	Neurocomputing and Cognitive Intelligence	Tarun Gandhi (IIT Delhi), Bibhash Sen, Suchismita Roy, Suvrojit Das, Anupam Basu.	Meity, Govt of India	49.50 Lakhs	2019
CSE	Secure Architecture for FPGA based IoT Applications with enhanced physically unclonable function	Bibhash Sen, Suchismita Roy	DST-SERB (Core Research/ EMR scheme)	16.24 Lakhs	2018

Department of Electrical Engineering

Name of the Department	Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Electrical Engineering	Modeling and Control of Electromagnetic Levitation Devices	Banerjee. S. Dr. (Co-PI) with IIT Delhi	SERB-DST	41.64 Lakh	2019
Electrical Engineering	Electrical Impedance Spectroscopy (EIS) Assisted Electrical Impedance Tomography (EIT) System for Biological Tissue Imaging with Optimum Frequency Scanning	Bera T.K. Dr.	RIG, NIT Durgapur	4.9950895 Lakhs	2019
Electrical Engineering	Development of Advanced Power Quality Monitoring System Utilizing Signal and Data Processing Techniques	Bhowmik P. S. Dr.	NIT Durgapur	9.68	2016
Electrical Engineering	Smart EV-charging solution to improve grid resiliency	Bhattacharya A. Dr.	RIG, NIT Durgapur	4.94187 Lakhs	2019



Name of the Department	Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Electrical Engineering	Improvement of Smart Microgrid Flexibility And Power Quality Using Phasor Measurement Unit	Bhowmik P. S. Dr.	SERB-DST	26.4 lakhs	2017
Electrical Engineering	Protection and Transient Analysis of Distribution System with Renewables Integration using DIgSILENT Power Factory	Bohre A. K.Dr., Saha Roy B.K. Dr.	NIT Durgapur	10.00 Lakh	2019
Electrical Engineering	Fault Diagnosis and Fault Tolerant Flight Control of Unmanned Quadrotor	Dey A. Dr.	RIG, NIT Durgapur	3.2043 Lakhs	2019
Electrical Engineering	Cardiovascular Disease Risk Assessment Based on the Analysis of Retinal Fundus Images	Dhara A. K. Dr.	RIG, NIT Durgapur	5.0 Lakhs	2019
Electrical Engineering	Improved Energy Management and Control of a Hybrid UGV for Combat Use	Dey J Dr. Co. PI: Saha T. K. Dr.	DRDO	Rs. 70.34 Lakhs	2020
Electrical Engineering	An Early Warning System for Electrical Power System Utility using Ultra-High Frequency Sensors	Koley C. Dr.	SERB, Gov. of India	38.63 lakhs	2017
Electrical Engineering	Artificial Intelligence (AI) in Education Focus: Children with learning Disability	Koley C. Dr., Halder S.Dr., Bera T. K. Dr.(Co-PI)	MeiTY	81.37 Lacs	2020
Electrical Engineering	Technological awareness development of Maduli Cluster, Bell and Brass Metal Cluster and Fishing, Hook Cluster under Directorate of Micro, Small, and Medium Enterprises, Government of West Bengal	Roy. N.K. Dr. (PI)	MSME, Govt of West Bengal	Rs 34 Lakhs	2017
Electrical Engineering	ANALYSIS OF DIFFERENT ASPECTS FOR THE CONNECTION OF DISTRIBUTED GENERATIONS TO THE POWER SYSTEM NETWORK	Sarkar. S. Dr.	NIT Durgapur	9.5 lakhs	2018



Department of Electronics and Communication Engineering

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
28 GHz mmWave for 5G wireless in tropical region: short-range propagation and channel modeling	Chandra A.	SERB, DST	20 lakhs	2019
Development of Flexible Environmental Gas Sensor based on 2D MoS ₂ Nanosheets	Ranwa S.	SERB, DST	26.06 Lakhs	2019

Department of Earth and Environmental Studies

Name of the Department	Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Department of Earth and Environmental Studies	Emerging Contaminants and their accumulations in Ecosystem of lower stretch of Hooghly River	Dr. Sandip Mondal	WB-DST	9,97,800	2018
Department of Earth and Environmental Studies + Civil Engineering	Land subsidence study	Dr. K. Adhikari Dr. S. Pal	Essar Oil Ltd.	8,00,000	2016
Department of Earth and Environmental Studies	Remobilization of arsenic enriched sulphides from anomalous base-metal mineralized zones from the Arunachal Himalaya, India: implications for potential source for arsenic contamination in Holocene aquifers	Dr. Manoj Kumar Ozha	Research Initiation Grand, Institute (NITD)	5,00,000	2019



Department of Mathematics

Name of the Department	Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Mathematics	Development of hybrid numerical tools to study the electrokinetic transport of bio-colloids	P. P. Gopmandal	SERB, India	6.6 lakh	2019
Mathematics	Dual Hamming codes from trace codes over a chain ring	S. Bagchi & L. K. Dey	NBHM, India	3.735 lakh	2019
Mathematics	Extreme events in networks of dynamical Systems	Indian PI – P. Pal, German PI - U. Feudel	DST, India and DAAD, Germany	11.80 lakh (Indian Side)	2019
Mathematics	Nonlinear waves in dusty and quantum plasma	S. Maitra	CSIR, India	441833 (for the starting eleven months)	2019
Mathematics	Overstability in Rotating Magnetoconvection	P. Pal	SERB, India	6.6 lakh	2018
Mathematics	Study on metric fixed point results with possible applications	L.K. Dey	CSIR, India	12.97 lakh (up to second year except overhead)	2018

Department of Management Studies

Title of the Project	Investigator(s)	Sponsoring Organisation	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	Dr. De, A.	Indian Council of Social Science Research (ICSSR)	Rs.9,45,000/-	2019
Understanding the old age financial stress and retirement planning of workers in the unorganised sector in India	Dr. Ghosh, A.	Indian Council of Social Science Research (ICSSR)	Rs.8,40,000/-	2019



Department of Mechanical Engineering

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Study of Heat Transfer Enhancement with the application of Various Nanofluids in a Differentially heated cavity	Barman R. N.	The Institution of Engineers (India)	75000/-	August,2019
Template based fabrication for development of various micro nano structured surfaces and their characterization	Goswami A	Mechanical Engineering	23.93 lakhs	December 2019
Development of Assembly Auto Alignment Methodology	Hui N. B, Mitra R. K,	Advanced System Laboratory (ASL), Hyderabad, DRDO	19.435 lakhs	2020
Controlled assembly of main frame of the ballistic missile.	Hui N. B, Mitra R. K, De T. N.	Research Centre Imarat (RCI), Hyderabad, DRDO	22 lakhs	2019
Investigation of thermo-hydraulic performance of artificially Roughened Solar air heater Using Infrared Thermography Technique	Layek A.	SERB, DST, Govt of India	39.25 lakhs	Feb 2019
A universal advanced low-cost nano-hybrid platform for air pollution, water, and bio-fluids	Mondal A. and Barman R. N.	Scheme for Promotion of Academic and Research Collaboration (SPARC), MHRD, Gol	58,46065/-	June, 2019
Design of a Smart Material Based Soft Lower Limb Exoskeleton to Assist Soldier	Roy S.S., Mukhopadhyay, Chattaraj N.	DRDO, New Delhi	84.46 Lakhs	2019
Design and Development of Force Reflecting Hand Exoskeleton (Haptic Device) for Application in Remote Handling in Defence	Roy S.S.	DRDO, New Delhi	16.95 Lakhs	2019
Heat Conduction in a Semi-infinite Solid	Weigand B., Pramanick A. K.	DAAD, Germany	2.6 lakh	May 2018

**Department of Metallurgical and Materials Engineering**

Name of the Dept	Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
MME	Development of self-lubricating nano-composite for wear-resistant applications	Dr. Show B.K and Dr. Mandal N., Dr. Roy H., Dr. Mukherjee K. (CSIR-CMERI)	DST Nanomission	4,55,000/-	2017
MME	Technological awareness and development of Bell and Brass Metal Cluster at Lalbazar, Bankura, through Soft Intervention	Dr. Mondal M. K., Dr. Mallik M., Dr. Roy S. S., Dr. Khan K. & Dr. Bhowmik P. S.	District Industries Centre (DIC), Bankura, Directorate of MSME, Govt. of West Bengal	8,20,000/-	2017
MME	Technological awareness and development of Fishing Hook Cluster at Lalbazar, Bankura through Soft Intervention	Dr. M.Mallik, Dr. S.S.Roy, Dr. K.Khan, Dr. M.K.Mondal, Dr. S. Mondal	DIC, Bankura, Directorate of MSME, Govt. of West Bengal	4,50,000/-	2017
MME	Technological awareness and development of Bell and Brass Metal Cluster at Suklai, Bankura, through Soft Intervention	Dr. K.Khan, Dr. M.Mallik, Dr. M.K.Mondal, Dr. S.S.Roy, Dr. J. Howlader	DIC, Bankura, Directorate of MSME, Govt. of West Bengal	8,40,000/-	2017
MME	Technological awareness and development of Maduli Cluster at Birshing, Bankura, through Soft Intervention	Dr. Roy S.S., Dr. Mondal M.K., Dr. Khan K., Dr. Mallik M., Dr. Saha S.	DIC, Bankura, Directorate of MSME, Govt. of West Bengal	10,30,000/-	2017
MME	Development of Al-Mg ₂ Si Composite through Novel Equal Channel Angular Squeeze Casting (ECASC) Technique	Dr. Mondal M. K.	Science & Engineering Research Board (SERB)	30,45,000/-	February 2019
MME	Tailoring the architecture of microstructure in Al-based Al-Cu-Ni alloys to improve the mechanical properties	Dr. Bera S., Dr. Show B.K. and Dr. Das S.	DST	44,19,900/-	February 2020
MME	Development of Al-Si alloys with and without grain refiner or eutectic modifier by strain induced melt activation process	Dr. Mandal D	EEQ/SERB-DST, Govt of Ind	24,05,400/-	Dec-2019



Name of the Dept	Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
MME	DST-FIST Program 2018	HOD, and All faculty members, MME	Ministry of Sci and Tech, DST-R&D Div, Govt of India	1,47,00,000/-	June 2019
MME	Effect of Y_2O_3 Addition on Oxidation Behavior of Pressure-less Sintered ZrB_2 -SiC Composite	Dr. Mallik M.	DST-SERB-CRG	34,98,959/-	2020

Department of Physics

Title of the Project	Investigator(s)	Sponsoring Organization	Amount (in Rs)	Starting Year
Development of noble metal free electro catalyst for direct oxidation of ethylene glycol in direct ethylene glycol fuel cell (DEGFC)	Basu S. (PI)	SERB	Rs. 4305109.00	2017
Developing module with teaching learning materials for mathematics, physics, chemistry and biology for school level.	Chaudhuri H. (Project Coordinator, Implementing Institution: NIT Durgapur)	Paschim Banga Sarvasiksha Mission, Govt. of W.B. and Govt. of India, MHRD	5.00 lakh	2018
Investigation on radioactive profile of geothermal areas	Chaudhuri H. (Implementing Institution: NIT Durgapur)	NIT Durgapur, Govt. of India, MHRD	10.00 lakh	2017
Environmental geochemistry and treatment of organic pollutants in aquatic systems in the selected areas of China, India and Russia	Chaudhuri H., Pal S., Mandal M. K., Dubey K., Savichev O., Sun Z.	DST (BRICS)	44.08 lakh	2019
Environmental geochemistry and treatment of organic pollutants in aquatic systems in the selected areas of China, India and Russia	Chaudhuri H., Pal S., Mandal M. K., Dubey K., Savichev O., Sun Z.	DST (BRICS)	44.08 lakh	2019
Center for Research on Environment and Water	Chaudhuri H., NIT Durgapur (Working as coordinator)	HEFA, MHRD, Govt. of India	400.00 lakh	2019



Title of the Project	Investigator(s)	Sponsoring Organization	Amount (in Rs)	Starting Year
Unnat Bharat Abhiyan 2.0	Chaudhuri H., NIT Durgapur (Working as coordinator)	UBA (MHRD)	7.50 lakh	2019
Optical studies of polyaniline based nanocomposites by steady state and time-resolved techniques	Chakraborty A. K. (Co-PI) & Sinha S (PI). Implementing institute Visva Bharati University	CSIR	Rs. 7 Lakhs	2016
Centre of Excellence in Advanced Materials	Chakraborty A. K. (PI & coordinator)	MHRD (TEQIP-III)	Rs. 3 crores	2018
Understanding Host-Circuit Interaction and Resource Sharing in Synthetic Biology	Ghosh S. (PI)	DST	Rs 35 Lakhs	2019
Development of some 2D transition metal dichalcogenide semiconductor nanostructures and nanocomposites for photocatalytic dye degradation, light energy harvesting and hydrogen production	Kumbhakar P. (PI)	CSIR	19.04 Lakh	2019
Synthesis of semiconductor and metal Nanostructures and the investigation of their Role as active or passive scatterer in random Laser generation	Kumbhakar P. (PI)	DSTBT Govt. of West Bengal	14.5 Lakh	2019
Development and characterization of functionalized carbon nanotubes-polymer nanocomposite having enhanced dielectric properties for Charge storage device	Meikap A. K. (PI)	DST-WB	14.46 lakhs	2019





Title of the Project	Investigator(s)	Sponsoring Organization	Amount (in Rs)	Starting Year
Universal advanced low cost nano-hybrid platform for air pollution, water and bio-fluids	Mondal A. (Indian PI) Indian Co-PI: Barman R. N. Foreign PI: Nunzi J. M. Foreign Co-PI: Tameev A.	SPARC (IIT KGP), MHRD	Rs. 58.46065 lakhs	2019
To develop and fabricate an efficient TiO ₂ nanowire array based UV detector using plasmonic nanoparticles array	Mondal A. (PI)	CSIR	Rs. 17.9 lakhs	2016
Evaluation of the role of vitamin D in obesity cardiovascular disease and diabetes using SiO _x /TiO ₂ nanowire based sensor	Mondal A. (PI) & Ghosh M. (Co- PI)	SERB, DST Govt. of India	Rs. 48.64 lakhs	2017

Annexure - 11.4(b) Projects completed during 2020-21

Department of Biotechnology

Title of the Project	Investigator(s)	Sponsoring authority
Fish fat transformation during processing, preservation, braising and its nutritional consequences in terms of food value	Chakrabarty, J. and Bhattacharjee, A.	Department of Science and Technology, Government of West Bengal
Microbiology of deep granitic subsurface of Koyna-Warna region	Kazy, S.K., NIT Durgapur and Sar, P., IIT Kharagpur	Ministry of Earth Sciences (MoES), Govt. of India
Role of protein arginylation in cellular stress responses: A study using heat stress and oxidative stress models in arginylation deficient cell culture system	Saha, S.	SERB

Department of Chemical Engineering

Title of the Project	Investigator(s)	Sponsoring authority
Hetero-Structured nanocomposite Photo Catalyst with enhanced capability for the selective conversion of CO ₂ to Methanol under Visible Light	Mandal, M.K., Chakraborty, S.,	UGC-DAE Consortium for Scientific Research (UGC-DAE CSR) Kalpakam Node
Process Intensification of Biodiesel Synthesis from Non-edible Oil via Superheated Propanol Injection Technique	Halder G.N.	Department of Science and Technology, Government of India



Department of Chemistry

Title of the Project	Investigator(s)	Sponsoring Organisation
Investigation on the extracts of Swertia chirata, Butea monosperma, Tradescantia pallid and Madhica indica as green corrosion inhibitor for mild steel in acidic medium	Adhikari, U.	DST, Govt of West Bengal
A study on the water molecular dynamics of human Monoamine oxidase (hMAO): An attempt for Inhibitor Design	Mukhopadhyay, B. P.	ICMR

Department of Computer Science and Engineering

Title of the Project	Investigator(s)	Sponsoring authority
City Probe: City Scale Pervasive Sensing System:	Subrata Nandi, Suojy Saha, Mousumi Saha	IMPRINT-I
Heterogeneous Face Recognition for Law-enforcement	Kisku, D.R.	RIG, NIT Durgapur

Department of Civil Engineering

Title of the Project	Investigator(s)	Sponsoring authority
Seismic Protection of Masonry Buildings by Geosynthetic	Nanda R.P.	RIG, NIT Durgapur

Department of Electrical Engineering

Title of the Project	Investigator(s)	Sponsoring authority
Main Phase of Project titled "Developing Suitable Pedagogical Methods for Various Classes, Intellectual Calibres and Research in E-Learning" under National ICT Mission (MAIN PHASE)	Roy N.K. Dr.	MHRD Govt of India
Development of Personalized and Performance based E- Learning tool for existing E-resources	Roy N.K. Dr.	DieTY, Govt of India

Department of Electronics and Communication Engineering

Title of the Project	Investigator(s)	Sponsoring authority
Design and Implementation of Time Modulated Antenna Arrays with Optimal Radiation Pattern in Both Transmission and Reception	Durbadal Mandal	SERB, GOI
Resistive Random Access Memory using HfO ₂ based Hetero-Structures for Flexible Electronics	Mahapatra, R.	SERB DST, GoI





Title of the Project	Investigator(s)	Sponsoring authority
Dielectric Engineering on GaN for Sustainable Energy Applications	Mahapatra R	UGC UKIERI
Development of Novel Time Modulated Antenna Arrays for the Present Communication Systems	Mandal S. K.	DST-SERB, GoI

Department of Humanities and Social Sciences

Title of the Project	Investigator(s)	Sponsoring authority
Demographic and Socio-Economic Survey of Siduli (UG+OCP)	Prof. P. P. Sengupta and Dr. Debasis Chakraborty	ECL (Kenda Area)

Department of Mechanical Engineering

Title of the Project	Investigator(s)	Sponsoring authority
Forward and Reverse Modelling of Flow Forming Process: Comparison between FE-based and soft computing-based modelling	Hui N. B.	DRDL, Hyderabad
Investigation of heat transfer and fluid flow phenomenon of artificially roughened duct using liquid crystal thermography system	Layek A.	SERB, DST, Govt of India
Heat transfer in self-similar boundary layers	Weigand B., Pramanick A. K.	DAAD, Germany

Department of Mathematics

Title of the Project	Investigator(s)	Sponsoring authority
Development of doubly-even self-dual binary codes of length 24k	S. Bagchi	SERB, DST, India

Department of Metallurgical and Materials Engineering

Title of the Project	Investigator(s)	Sponsoring authority
Strengthening of PG & Research Facility of MME Dept"	Ghosh K.S. & Other Faculty members of MMED	DST-FIST
IN-Vitro and IN-Vivo Electrochemical Study of Dental Amalgams of Various States in Oral Environments	Ghosh K.S. (Mentor)	DST
"MD-Stochastic Model Based Design and Development of Nanofluids for Advanced Thermal Applications"	Ghosh M.M.	DST, India
Application of Automation/Robotics/ Simulation studies in steel plant process development.	Ganguly A.	Ministry of Steel Scholarship Scheme (2016-17)
Low grade material exploitation and waste utilisation for better steel plant economics.	Ganguly A.	Ministry of Steel Scholarship Scheme (2016-17)



Title of the Project	Investigator(s)	Sponsoring authority
An investigation on accelerated spheroidization and mechanical property evaluation of high carbon steel under cyclic forced air cooling	Maity J. & Show B. K.	SERB-DST
Study on Structure Property Correlation of Pressureless Sintered ZrB ₂ -Based Ultrahigh Temperature Ceramic Composites	Mallik M.	SERB-DST
Wear Behaviour of Al-Si Alloys at Room Temperature and at Elevated Temperature	Show B.K.	SERB-DST (Start Up Research Grant (Young Scientist))

Department of Management Studies

Title of the Project	Investigator(s)	Sponsoring authority
Unleashing the trade potential of pineapple between India's NER and ASEAN	Ujjwal Kanti Paul	ASC, MEA

Department of Physics

Title of the Project	Investigator(s)	Sponsoring authority
Investigation on radioactive profile of geothermal areas	Chaudhuri H. (Implementing Institution: NIT Durgapur)	NIT Durgapur, Govt. of India, MHRD
Evaluation of the role of vitamin D in obesity cardiovascular disease and diabetes using SiO _x /TiO ₂ nanowire based sensor	Mondal A. (PI) & Ghosh M. (Co- PI)	SERB, DST Govt. of India

Annexure–11.4(c)i. Research papers published in SCI / SCOPUS / Web of Science journals during 2020-2021

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6. Narayan Changder, Samir Aknine, and Animesh Dutta. "Improving Coalition Structure Search with an Imperfect Algorithm : Analysis and Evaluation Results". In: *Artificial Intelligence Review*, Springer 54.1 (2021), pp. 397–425. doi:DOI: <https://doi.org/10.1007/s10462-020-09850-5>.

Annexure–11.4(c) ii. Research papers accepted for publication in SCI / SCOPUS / Web of Science

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

1. Abhijit Adhikari, Biswanath Dutta, Animesh Dutta and Deepjyoti Mondal "Semantic similarity measurement: an intrinsic information content model". In: *International Journal of Metadata, Semantics and Ontologies* 14.3 (2020), pp. 218–233. doi:10.1504/ijmso.2020.10035205
2. Amrita Namtirtha, Animesh Dutta, Biswanath Dutta, Amrita Sundararajan and Yogesh Simhan et al. "Best influential spreaders identification using network global structural properties". In: *Scientific reports* 11.1 (2021), pp. 1–15. doi:10.1038/s41598-021-81614-9.
7. Prafullit Tripathi, Prasenjit Mukherjee, Manik Hendre, Manish Godse, Baisakhi Chakraborty, "Word Sense Disambiguation in Hindi Language Using Score Based Modified Lesk Algorithm", Accepted in *International Journal of Computing and Digital Systems (IJCDs)*, University of Bahrain, Bahrain, 2020.
8. Prasenjit Mukherjee, Atanu Chattopadhyay, Baisakhi Chakraborty, Debashis Nandi, "Natural Language Query Handling using Extended Knowledge Provider System", Accepted in *International Journal of Knowledge-Based and Intelligent Engineering Systems*, KES, December, 2020 DOI: 10.3233/KES-210049



9. Rangaballav Pradhan and Tanmay De, "A Multi-criteria Route Selection Method for Vehicles Using Genetic Algorithms Based on Driver's Preference", accepted in Wireless Personal Communications (2021).
10. Sangeeta Sen, Devashish Katoriya, Animesh Dutta and Biswanath Dutta "RDFM: An Alternative Approach for Representing, Storing, and Maintaining Meta-knowledge in Web of Data". In: Expert Systems with Applications (2021), p. 115043 .issn :0957-4174. doi:https://doi.org/10.1016/j.eswa.2021.115043.
- nanoparticle for oil-water separation. Journal of Water Process Engineering, March 09, 2021
2. Mondal Bibhas; Adhikari Utpal; Hajra Partha; ROY UJJAL. Allylation and Propargylation of Aldehydes mediated by in situ generated Zinc from the redox couple of Al and ZnCl₂ in 2N HCl. New Journal of Chemistry, 09-Mar-2021.
3. Soumita Mukherjee , Subrata Dasgupta , Utpal Adhikari, Sujit Sankar Panja. Molecular modeling and molecular dynamics simulation studies on thyroid hormone receptor from Rattus norvegicus: role of conserved water molecules. Journal of Molecular Modeling. March 15, 2021.

DEPARTMENT OF CHEMICAL ENGINEERING

1. Datta, D., Dutta, P. and Das, B. Extraction and characterization of cellulosic nanofibers from agricultural wastes of allium cepal skin, Journal of Environmental Treatment Techniques, 2020, Accepted.
2. Karmakar, B., Mishra, J. R., Datta, A., Muthangi, K.R., Tiwari, O. N., Halder, G., 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, 2021, Accepted
3. Karmakar, B., Mukherjee, S., Sengupta, S.L., Halder, G., Recirculating used cooking oil and Nagkesar seed shells in dual-stage catalytic biodiesel synthesis with C1-C3 alcohols, Environmental Science and Pollution Research, 2021, Accepted
4. Prabhakar A., Sadhukhan A.K., Mallick A., Gupta P., Experimental and modelling studies on combined pyrolysis and gasification of large coal particle in steam and CO₂ ambience. Chem. Pap. 75, 2907–2927 (2021).

DEPARTMENT OF CHEMISTRY

1. Joyeeta Bose, Jhilly Dasgupta, Utpal Adhikari, JayaSikder. Tuning permeation characteristics of cellulose acetate membrane embedded with raw and amine-functionalized silicon carbide

DEPARTMENT OF CIVIL ENGINEERING

1. Ahmad M.A., Kumar S.S. and Nanda R.P., 2020. Development of geopolymer concrete mixes with ambient air curing, J of IOP Conf. Series: Materials Science and Engineering. Accepted on Oct 3, 2020.
2. Haldar P. and Karmakar S. An Experimental Study on Fatigue Property of alccofine based Crumb Rubber Concrete", International Journal of Engineering Sustainability. Accepted on March 26, 2021.
3. Ray A., Nanda R.P. and Roy P. Rutting performance of road using construction and demolished waste materials, Journal of Key Engg. Materials. Accepted on Dec 18, 2020.
4. Ray A., Nanda R.P. and Roy P., 2020. Use of C&D waste in road construction-a critical review, J of IOP Conf. Series: Materials Science and Engineering. Accepted on Oct 3, 2020.
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DEPARTMENT OF ELECTRICAL ENGINEERING

1. Dey A., September, 2020. Adaptive cubature quadrature filter for nonlinear state estimation. Accepted for publication in International Journal of Modelling, Identification and Control.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

1. Bitan Misra and G.K.Mahanti,"Meta-heuristic optimization algorithms for synthesis of reconfigurable hexagonal array antenna in two principle vertical planes", which is acceptable for publication in the International Journal of Microwave and Wireless Technologies, SCI, February 2021
2. Arnab De, Bappaditya Roy, Ankan Bhattacharya and Anup Kumar Bhattacharjee, "Investigations on a circular UWB antenna with Archimedean spiral slot for WLAN /Wi-MAX and X-band filtering feature", International Journal of Microwave and Wireless Technologies, Cambridge Press, May 2021 [SCIE Indexed Journal]
3. H. Singh, S. Azhar, S. Mandal S. K. Mandal, P. R. Teja Naidu. An On-chip Circular Sierpinski Shaped Fractal Antenna with Defected Ground Structure for Ku-Band Applications. Frequenz, DE Gruyter. 2021.
4. S.Patra, S.K.Mandal, G.K.Mahanti, N.N.Pathak. Non-linear to Linear Synthesis of Unequally Spaced Time-Modulated Linear Arrays using Evolutionary Algorithms. Radio Engineering

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

1. Howlader, A., Laha, S. S., Modak, A. Theater and Health Education: Representation in Select Plays of Mahesh Dattani. Psychology and Education.
2. Roy, O., Banerjee, J., Khaledi Hosseini's And The Mountain Echoed: An Expose of the

Hegemonic Power Relation between the Genders in the Legitimise of Social Structure of Hierarchy. The IUP Journal of English Studies.

DEPARTMENT OF MANAGEMENT STUDIES

1. Mukherjee, A., & Ghosh, A. (2020). Role of economic factors in property liability insurance consumption: empirically examining the Indian market. Studies in Business and Economics, 17(1). (Accepted) January, 2021
2. Mukherjee, A., & Ghosh, A. (2020). Does economic factors improves Property Liability Insurance consumption in India: an empirical assessment. International Journal of Business and Globalisation. (Accepted) January, 2021

DEPARTMENT OF MATHEMATICS

1. Basu, S, Dey, L.K., and Som, S., 2021. Farthest point problem and partial statistical continuity in normed linear spaces, Quaest. Math. (February 2021)
2. Garai, H., Karapinar, E., and Dey, L.K., 2021. Best proximity point results for contractive and cyclic contractive type mappings, Numer. Funct. Anal. Optim. (March 2021)
3. Mondal, P., Garai H., and Dey, L.K., 2021. On proximal contractions via implicit relations and best proximity points, Miskolc Math. Notes (March 2021)
4. Mondal, P., Garai, H., and Dey, L.K., 2021. On contractive mappings in $b_v(s)$ -metric spaces, Fixed Point Theory (February 2021)
5. Mondal, S., De, N., and Pal, A., 2020. A Note on Some Novel Graph Energies, MATCH Communications in Mathematical and in Computer Chemistry (June 2020).
6. Roy, S., Bagchi, S., 2021. Orthogonality of sesquilinear forms and spaces of operators, Linear and Multilinear Algebra (January 2021)



7. Som, S., Sintunavarat, W. and Dey, L.K., 2021. Cantor's intersection theorem in the setting of F-metric spaces, Fixed Point Theory (March 2021)

DEPARTMENT OF MECHANICAL ENGINEERING

1. Gupta D., Dhar A.R., & Roy S.S., A Partition cum Unification based Genetic- Firefly Algorithm for Single Objective Optimization, Sadhana, Accepted on 19/04/2021.

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

1. 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 (Accepted 24th Dec 2020)
2. Kumar R., Mandal A.K., Dishwar Raj K., Sinha O.P., "Utilization of iron ore slime and bottom ash: An overview", Materials Today: Proceedings (Accepted 13th Feb 2021)
3. Mallik M., Saha M. (2021) Carbon-Based Nanocomposites: Processing, Electronic Properties and Applications. In: Hazra A., Goswami R. (eds) Carbon Nanomaterial Electronics: Devices and Applications. Advances in Sustainability Science and Technology. Springer, Singapore. https://doi.org/10.1007/978-981-16-1052-3_5 (Accepted on 12th December 2020)
4. Mandal D, Panigrahi S.C, Chaudhary, "Microstructure and Physical properties of short steel fiber reinforced composites", Canadian Metallurgical Quarterly, (Published online 21st April 2021)
5. Basak Surajit, Biswas Prosanta, Patra Surajit, Roy Himadri and Mondal Manas Kumar, "Effect of TiB₂ and Al₃Ti on Microstructure, Mechanical Properties and Fracture Behaviour of Near Eutectic Al-12.6Si Alloy, (Available online 16 April 2020),

Annexure – 11.4(c).iii Research papers published in other peer-reviewed journals

DEPARTMENT OF CHEMICAL ENGINEERING

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2. Sarkar, B; Sharma, U; Adhikari, K; Kumar, S.K., Baltrėnaitė, E; Baltrėnas, P; Dutta, S. 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, 2021, Volume 98, Issue 3, Pages 1000397

DEPARTMENT OF CIVIL ENGINEERING

1. Khan H.A., Behera B. and Nanda R.P., 2020. Retrofitting of Heritage Masonry Buildings with Splint Bandage Technique Using Geosynthetic, Technology, ISET Journal of Earthquake technology, 57(1), 17-26.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

1. S. Reddy Vamshidhar Reddy, S. Dhar Roy, "Analysis of Trajectory Path Impacts on VHO Algorithms in Integrated Heterogeneous Networks," August 2020, International Journal of Energy, Information and Communications, 11(2), 1-10.

DEPARTMENT OF MECHANICAL ENGINEERING

1. Maharana, S., Khan K., Experimental Dynamic Analysis of laminated Composite Beams, ISME Journal of Mechanics and Design, Vol 3, No 2, 2019, pp 1-16.

DEPARTMENT OF MANAGEMENT STUDIES

1. Bhattacharya JC, Mandal K and Chouhan P



(2020). In Quest for a Health Index for the North Eastern States of India. Shodh Sanchar Bulletin, 10(40): October-December, pp-14-17 (UGC CARE LISTED JOURNAL)

2. Ghosh, A (2020). Post Covid19 strategy to survive the Tourism industry: Indian Perspective, MPRA Paper 102808, University Library of Munich, Germany.
3. Ghosh, A & Mukherjee, A (2020). "COVID-19 and Property-Liability Insurance in India: Impact and Prospect," MPRA Paper 103357, University Library of Munich, Germany.

DEPARTMENT OF MATHEMATICS

1. Mondal, S., De, N., Pal, A. 2019. On Some New Neighborhood Degree-Based Indices for Some Oxide and Silicate Networks, J — Multidisciplinary Scientific Journal 2, 384-409.
2. Sarkar, P., Mondal, S., De, N., Pal, A. 2019. On topological properties of probabilistic neural networks, Malaya Journal of Matematik 7, 612-617.
3. Verma, A., Mondal, S., De, N., Pal, A. 2019. Topological Properties of Bismuth tri-iodide Using Neighborhood M-Polynomial, International Journal of Mathematics Trends and Technology 65, 2104-2116.

Annexure – 11.4(c).iv Research Papers Accepted For Publication In other Peer-Reviewed Journals

DEPARTMENT OF MECHANICAL ENGINEERING

1. Dheeraj Kumar, Swarup Deshmukh, Apurba Layek, Experimental Investigation of Effect of the Process Parameters for Single Slope Solar Still Using Taguchi's Design Approach. 2nd International Conference on Future Learning Aspects of Mechanical Engineering. (FLAME 2020), Amity Univ., 5 –7 Aug 2020.

Annexure – 11.4(d) Research papers presented in conferences and published in proceedings

DEPARTMENT OF BIOTECHNOLOGY

1. Dasgupta Mandal D., Majumdar, S., Dey S., Dutta, S., Mandal, T. * (2021). Utilization of low-cost fatty acid sources by bacterial isolate for improved production of valuable prodigiosin. Advances in bioprocess engineering and technology, 21-27. Springer Singapore.
2. Kumar C. and Dutta D. "Beta-Cryptoxanthin for Iron Metabolism." "INNOVATIONS AND ADVANCEMENTS IN BIOTECHNOLOGY AND NANOTECHNOLOGY"- SciCon 2020 Sri-Lanka (Virtual Mode) 25th September, 2020.
3. Jaiswal, N., Mahata, N., Chanda, N., AuNP@ protein nano-composites for targeted delivery of therapeutic proteins to cancer cells, 22nd EMBL PhD Symposium: The Roaring 20s: A New Decade for Life Sciences, Organized by: European Molecular Biology Laboratory (EMBL), 2 days, 27 - 28 November 2020.
4. Sarkar, P., Dey, A. (2020). Effect of physicochemical parameters on biodegradation of 4-Nitrophenol by an isolated indigenous bacterial consortium' in Proceedings of the 10th International Conference on Sustainable Waste Management towards Circular Economy-2020 (10th ICON-SWM-CE), Resource Efficiency through Circular Economy (Abstract book), pp:171, held in Jadavpur University, 2-4th December, 2020.

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DEPARTMENT OF CHEMICAL ENGINEERING

1. Mukherjee, S., Chaudhuri, H., Mandal, M. K., Pal, S., Synthesis of UV-VIS enabled photocatalyst for degradation of Organic Pollutants of Damodar river water, International conference on Sustainable Water Resources Management under Changed Climate, Jadavpur University, Kolkata; March 13-15, 2020.
2. Datta, D., Raut, P. and Das, B., Biodegradability and Property assessment of different categorized polymeric films, International Conference on Advanced Materials Behaviour and Characterization (ICAMBC_2020) 18-23, July 2020 at Mattest Research Academy, Chennai under IOP Publication Conference Series and Elsevier Materials Today Proceedings.
3. Datta, D., Behera, D. Das, B., Modification and Optimization of Hydrophobic PVDF Membrane by Chitosan extracted from Fish scale, International Conference on Advanced Materials Behaviour & Characterization (ICAMBC_2020), 18-23, July 2020 at Mattest Research Academy, Chennai under IOP Publication Conference Series and Elsevier Materials Today Proceedings.
4. Datta, D., Sarkar, A. and Das, B., Role of extracted nanosilica from rice rusk on the structure, property and biodegradability of LDPE/starch biodegradable film, International Conference on Sustainable Infrastructure with Smart Technology for Energy and Environmental Management (FIC-SISTEEM-2020), September 03-04, 2020 organised by Civil Engineering Department, Bannari Amman Institute of Technology, Sathyamangalam.
5. Sarkar, S., Datta, D., and Das, B., Reclamation of Spent Lubricating Oil by Environment-Friendly Extraction-Flocculation Technique: Optimization through Central Composite Design Approach, First Online International Conference on "Continuity, Consistency and Innovation in Applied Sciences and Humanities" (ICCIASH-2020) organized by Department of Science and Humanities, St. Martin's Engineering College, Dhulapally, Secunderabad, T.S, India on 13th & 14th August 2020.
6. Datta, D., Dash, S. N. and Das, B., Optimization study of the effect of synthesized biodegradable polymer films in comparison with LDPE films on municipal solid waste by response surface methodology, International Conference on Trends in Material Science and Inventive Materials, AIP Conf. Proc. 2259, 020015-1-020015-8; <https://doi.org/10.1063/5.0015769>, 2020.
7. Datta, D., Rout, A. P. Das, B., Effect of different quantity and types of polymer films on kitchen waste", 10th International Conference on Sustainable Waste Management towards Circular Economy (IconSWM-CE 2020) held from 02 – 04th December 2020, in Jadavpur University West Bengal.
8. Deepak, K. S., Datta, D. and Das, B., Green synthesis of gold nanoparticles using Oldenlandia corymbosa plant extract, 10th International Conference on Sustainable Waste Management towards Circular Economy (IconSWM-CE 2020) held from 02 – 04th December 2020, in Jadavpur University West Bengal.
9. Sarkar, S., Datta, D. Das, B., Parametric optimization for regeneration of waste lubricating oil by CCD approach", 10th International Conference on Sustainable Waste Management towards Circular Economy (IconSWM-CE 2020) held from 02 – 04th December 2020, in Jadavpur University West Bengal.
10. Sarkar, S., Datta, D. Das, B., Re-generation of base oil from waste lubricating oil by the re-refining process of Solvent Extraction using two different solvent, CHEMCON 2020 organised by Indian Institute of Chemical Engineers, Headquarters & Hyderabad Regional Centre, IChE from 27th to 30th Dec 2020.



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12. Datta, D., Banerjee, C., Halder, G., Dhawane, S. H., Elucidating enhanced biodegradability of starch blended polyolefinic sheet by physico-mechanical and thermal property assessment, *Materials Today: Proceedings*, 2021, <https://doi.org/10.1016/j.matpr.2021.02.546>.
5. S. Mandal, S. Mahata and S. C. Moi*, DNA and BSA binding activity of N,N-Dimethyl-N'-ethylethylenediamine coordinated Pt(II) complexes: their pharmacokinetics with bioactive thiol and anticancer property; ChemSci2020: Leaders in the Field Symposium IISER Kolkata during 7th – 10th December, 2020
6. Tarun Roy, Venkatesan S. Thimmakondur and Subhas Ghosal, Thermal Rearrangement of 1-Azulenylcarbene on C₁₁H₈ Potential Energy Surface, RDC 2021

DEPARTMENT OF CHEMISTRY

1. A.Jana,DRBanerjee.targeting Chromodomain Readers: A Computational Approach , RDC 2021, 03-05 March 2021
2. R. Bhaduri, S. Mahata, S. Mukherjee, S. C. Moi* Synthesis and characterization of Pt(II) complexes with σ -donor ligand; their bioactivity, DNA and BSA binding and theoretical study,, International Conference on "Molecules to Materials (MTM – 2020)" organized by Department of Applied Chemistry, S. V. National Institute of Technology (SVNIT), Surat, Gujarat on 17-18th December 2020.
3. S. Mabhai, D. R. Banerjee. Azo-based molecular probe for multiple metal sensing. International conference RDC2021 at NIT Durgapur on March 4, 2021.
4. S. Mandal, I.Mitra and S. C. Moi*, Synthesis and characterisation of the cis-platin analogous complex: Kinetic aspect, DFT study, DNA binding property and anti-cancer property,, International Conference on "Molecules to Materials (MTM – 2020)" organized by Department of Applied Chemistry, S. V. National Institute of Technology (SVNIT), Surat, Gujarat on 17-18th December 2020.
1. Ahmad M.A., Kumar S.S. and Nanda R.P., Oct. 3, 2020. Development of geopolymer concrete mixes with ambient air curing. Int. Conf in Advance Material Sc (ICAMS), Ahmednagar, India.
2. Bhadra C., Pal S. and Adhikari K., 2020. Assesment of The Migratory Behaviour Of Contaminant Originating From Tannery Waste Water Through Amended Clay Liner Using Hydrus-3D Solute Transport Model . 2nd International Conference on Advanced Technologies for Industrial Pollution Control (ATIPC-2020).
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4. Ray A, Nanda R.P. and Roy P., Oct. 3, 2020. Use of C&D waste in road construction-a critical review, Int. Conf in Advance Material Sc (ICAMS), Ahmednagar, India

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

1. Arindam Chowdhury, Rohit Agarwal, Alloy Das, Debashis Nandi,"U-Net Based Optic Cup and Disc Segmentation from Retinal Fundus



- Images via Entropy Sampling”, International Conference on Advanced Computational and Communication Paradigms-2021(ICACCP-2021),Sikkim Manipal Institute of Technology, Sikkim, India,22-24 March, 2021
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 3. [8] Deepa Naik,Nikita, Tanmay De, “Dynamic Traffic grooming in hybrid elastic optical and WiMAX networks,” in Journal of Physics: Conference Series, Volume 1712, International Conference On Computational Physics in Emerging Technologies (ICCPET) August, 2020, Mangalore, India.
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 5. Hazra, S., Avinash, B. and Dalui, M. “Design, Threat Analysis and Countermeasure for a Cache Performance Affecting Hardware Trojan” in 24th International Symposium on VLSI Design and Test (VDAT 2020), July 23-25, 2020, Bhubaneswar, Orissa
 6. Kesarwani, A., Purohit, K., Kisku, D.R. and Dalui, M. “Measuring the Degree of Suitability of Edge Detection Operators Prior to an Application”, 2nd IEEE International Conference on Applied Signal Processing (ASPCON'20), Jadavpur University, Kolkata, India, pp. 128-133, IEEE Press, October 7-9, 2020.
 7. Kshitiza Vasudeva, Saravanan Chandran, A Comprehensive Study on Facial Expression Recognition Techniques using Convolution Neural Network, International Conference on Communication and Signal Processing ICCSP'20, pp.1431-1436, Chennai, 9-11 April 2020. SCOPUS
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 10. Manas Kumar Mohanty and Parag Kumar Guha Thakurta, “Reducing error in localization of sensor nodes in precision agriculture: An AOA based approach”, 2nd International Conference on Data Science and Applications (ICDSA 2021), Jadavpur University, Kolkata, April 10-11, 2021.
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 12. Moutan Mukhopadhyay, Saurabh Pal, Anand Nayyar, Pijush Kanti Dutta Pramanik, Niloy Dasgupta, and Prasenjit Choudhury, “Facial Emotion Detection to Assess Learner's State of Mind in an Online Learning System.” In Proceedings of the 2020 5th International Conference on Intelligent Information Technology, pp. 107-115. 2020. DOI: <https://doi.org/10.1145/3385209.3385231>
 13. Munshi Yusuf Alam , Harshit Anurag, Md. Shahrukh Imam, Sujoy Saha, Mousumi Saha, Subrata Nandi, Sandip Chakraborty,



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15. Mukhopadhyay, J., Singh, V.K., Mukhopadhyay, S. and Pal, A., 2020, October. A Balanced Dissemination of Time Constraint Tasks in Mobile Crowdsourcing: A Double Auction Perspective. In International Conference on P2P, Parallel, Grid, Cloud and Internet Computing (pp. 74-85). Springer, Cham.
16. PARTHA SARATHI PAUL (NIT Durgapur), BISHAKH CHANDRAGHOSH (IIT Kharagpur), ANKAN GHOSH (NIT Durgapur), SUJOY SAHA (NIT DURGAPUR), SUBRATA NANDI (NIT DURGAPUR), SANDIP CHAKRABORTY (IIT Kharagpur), "Aco-Wi : Acoustic Initiated Wi-Fi Peer-group Communication for Opportunistic Messaging", Mobile HCI 2020
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19. Pradeep Kumar Singh, Pijush Kanti Dutta Pramanik, Samriddhi Mishra, Anand Nayyar, Divyanshu Shukla and Prasenjit Choudhury, "Improving Recommendation Accuracy using Cross-domain Similarity," 2020 7th NAFOSTED Conference on Information and Computer Science (NICS), 2020, pp. 280-285, doi: 10.1109/NICS51282.2020.9335913.
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23. Ranadeep Dey and Parag Kumar Guha Thakurta, "Efficient Data Aggregation in WSN for Air Pollution monitoring: A PCA based approach", 2nd International Conference on Data Science and Applications (ICDSA 2021), Jadavpur University, Kolkata, April 10-11, 2021.
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25. Samriddhi Sarkar, Mariana Curado Malta, and Animesh Dutta. "A Coalition Formation Framework for Virtual Cooperatives of Smallholder Farmers". In: 5th International Workshop on Application of Big Data for Computational Social Science, WI-IAT '20, Melbourne, Australia, December 14-17, IEEE, 2020.
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DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

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8. Chatterjee SG, Chakraborty AK, 2020. Facile Synthesis of ZnO Nanoflowers for Formaldehyde Sensing, International

DEPARTMENT OF PHYSICS

1. Atta, S., Halder, M., Meikap, A.K., 2020. Investigation of Enhanced Dielectric and Electrical properties of Terbium Doped Nickel Ferrite Nanoparticles, AIP Conference Proceedings, 2265, 030436(1-4).



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 18. Mondal K, Biswas S, Kumbhakar P, 2021, Nonlinear optical multiphoton absorption in chemically synthesized colloidal dispersion of Au nanoclusters, National Photonics Symposium (NPS), 2021, International School of Photonics, Cochin University of Science and Technology, Cochin, India.
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Oxide Film, International Conference on Advances in Material Science and Chemistry (ICAMSC-2020), Amrita School of Arts and Sciences, Amrita Vishwa Vidyapeetham, Amritapuri Campus, Kerala, August 10 -12, 2020

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Annexure - 11.4(e) Visits abroad during 2020-21

DEPARTMENT OF BIOTECHNOLOGY

Name	Name of the Programme	Organized by	Date of the programme
Barik, A	Advances in Computational Biology Conference, Fostering Collaboration among Women Scientists, Barcelona	Barcelona Supercomputing Center	November 28-29, 2019
Dey, A	PARIS International Conference on Agriculture, Biological and Environmental Sciences	International Forum on Food, Agriculture and Biological Sciences	September 5-7, 2019
Dey, A	ICSD 2020 : 8th International Conference on Sustainable Development, 9 - 10 September 2020 Rome, Italy	European Centre for Sustainable Development	September 9-10, 2019
Ghosh, M	Laboratory Visit	Department of Electronic & Electrical Engineering, University Bath	May 11-25, 2019
Kazy, S.K.	International Conference "Deep Carbon 2019: Launching the Next Decade of Deep Carbon Science"	Deep Carbon Observatory (DCO), USA Washington DC, USA	October 24-26, 2019
Roy-Barman, S.	8 th International Rice Blast Conference	Sichuan Agricultural University, Chengdu, China	May 27-31, 2019

DEPARTMENT OF CHEMISTRY

Name	Name of the Programme	Organized by	Date of the programme
Saha Rajnarayan	Presented a Paper in 2019 International Conference on Green Energy and Environmental Technology (GEET 19)	Université Paris 8, Paris, France	24-26 July, 2019



Name	Name of the Programme	Organized by	Date of the programme
Sujit S Panja	Presented a Paper in 2019 International Conference on Green Energy and Environmental Technology (GEET 19)	Université Paris 8, Paris, France	24-26 July, 2019
Sukul Dipankar	Presented a Paper in 2019 International Conference on Green Energy and Environmental Technology (GEET 19)	Université Paris 8, Paris, France	24-26 July, 2019
Moi SC	Presented a paper in 2019 at Sixth International Conference, Indian Council of Chemists	Paris (France) and Brussels (Belgium)	6th -8th June, 2019 Page-12-14

DEPARTMENT OF CIVIL ENGINEERING

Name	Name of the Programme	Organized by	Date of the programme
Pal, S	6th International Symposium on Soil and Groundwater (SG2019)	China Environmental Science Society, Shenzhen, China	October 26-28, 2019
Roy, P	13 th International Conference on Applications of Statistics and Probability in Civil Engineering (ICASP13- 2019)	Seoul National University, Seoul, South Korea	May 26-30, 2019

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Name	Name of the Programme	Organized by	Date of the programme
Animesh Dutta	Thirty-fourth AAAI Conference on Artificial Intelligence (AAAI-20) in New York, USA, February 7-12, 2020.	Advancement of Associate for Artificial Intelligence (AAAI)	February 7-12, 2020.
Chandran Saravanan	11th International Conference on Neural Computation Theory and Applications (NCTA), Vienna, Austria	11th International Conference on Neural Computation Theory and Applications (NCTA)	17-19, September 2019

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Name	Name of the Programme	Organized by	Date of the programme
Chandra, A.	National Scholarship Program (NSP), Slovak Republic	Slovak Academic Information Agency (SAIA)	10.06.2019 to 09.07.2019
Chandra, A.	European Signal Processing Conference (EUSIPCO), A Coruna, Spain	EURASIP and IEEE	02.09.2019 to 06.09.2019





Name	Name of the Programme	Organized by	Date of the programme
Mondal, H. K.	Visiting Professor	Lab-STICC, University of Southern Brittany, Lorient, France	22.06.2019 to 29.06.2019
Mahapatra R	Joint Research Project, University of Liverpool, UK	UGC-UKIERI	15.09.2019-21.09.2020

DEPARTMENT OF ELECTRICAL ENGINEERING

Name	Name of the Programme	Organized by	Date of the programme
Chiranjib Koley	ICHVEPS, Bali, Indonesia	IEEE	October 1 -4, 2019
Partha Sarathee Bhowmik	ICHVEPS, Bali, Indonesia	IEEE	October 1 -4, 2019

DEPARTMENT OF MANAGEMENT STUDIES

Name	Name of the Programme	Organized by	Date of the programme
Ghosh, A	World Finance & Banking Symposium - Riga Latvia (virtual)	University of Latvia, Riga, Latvia	December 05-06, 2020

DEPARTMENT OF MATHEMATICS

Name	Name of the Programme	Organized by	Date of the programme
Kar, S.	Collaborative Research	College of Management and Economics, Tianjin University, China	May 21 – June 08, 2019
Pal, A.	International Conference on Computer Applications in Industry and Engineering (CAINE 2019), San diego	ISCA, USA	Sep 30- Oct 02, 2019
Pal, P.	9 th International Scientific Conference on Physics and Control	Innopolis University, Russia	September 8-11, 2019
Sarkar (Mondal), S.	2 nd Conference of the Arabian Journal of Geosciences (CAJG 2019)	Springer and the Saudi Society of Geosciences (SSG), Tunisia, North Africa	Nov. 25-28, 2019

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Name	Name of the Programme	Organized by	Date of the programme
Ghosh M M.	Nanotech France 2019	SETCOR	26-29 June, 2019

DEPARTMENT OF PHYSICS

Name	Name of the Programme	Organized by	Date of the programme
Chakraborty AK	10 th International Conference on Materials for Advanced Technologies (ICMAT-2019)	MRS-Singapore, NUS and NTU	June 23-28, 2019



Name	Name of the Programme	Organized by	Date of the programme
Chaudhuri H	6th International Symposium on Soil and Groundwater (SG-2019) at Shenzhen, China, Shenzhen, China	Chinese society for environmental sciences	October 26-28, 2019
Chaudhuri H	BRICS Meeting	East China University of Technology, Nanchang, China,	October 29, 2019 November 4, 2019

Annexure - 11.4(f) Ph.D. degree awarded during 2020-21 session

DEPARTMENT OF BIOTECHNOLOGY

Topic	Investigator	Supervisor(s)
Cloning and Functional analysis of <i>Leishmania donovani</i> Amastin- like surface Protein	Biswas Bapi	Dr. M.Ghosh
STAT-dependent expression and function of Monoamine Oxidase A (MAO-A) in IL-13-activated A549 cells	Dhabal Sukhamoy	Dr. A. Bhattacharjee & Dr. S.S. Mukhopadhyay

DEPARTMENT OF CHEMISTRY

Topic	Investigator	Supervisor(s)
Engineering nanostructured polymer blends for efficient electromagnetic wave suppression	Biswas Sourav	Panja S. S.
Kinetics and mechanism of Pt(II) complexes and speciation study of Cu(II) & Ni(II) labile systems with bio relevant molecules: their bioactivity and theoretical investigation'	Mahata Sujay	Moi, S. C.
Carbon-Carbon bond formation via Redox reactions: Green Chemistry Exercise and Role of Naniarchitecture	Mondal Bibhas	Adhikari U and Roy U
Enhancement of the fuel properties of biodiesel produced from waste cooking oil by catalytic upgradation & fatty acid modulation: Optimization and assessment	Singh Sunita	Chakrabarty J.

DEPARTMENT OF CHEMICAL ENGINEERING

Title	Investigator	Supervisors
Sustainable Strategy Development towards Low Carbon Economy	Basu, S.	Prof.P.Pal (ChE) & Prof.M.Roy (DMS)
Studies on rotating fluidized bed for intensifying drying performance	Dutta, S.	Sadhukhan, A. K., Gupta, P., Chatterjee P. K
Thermo-Chemical Treatment of Polymeric Waste for the Recovery of Fuels and Value Added Products	Singh R.K.	Gupta, P, Sadhukhan, A. K., Ruj B.
Investigation on Methane Sorption Characteristics of Coal Seams from Raniganj Coalfield, India	Chattaraj, S.	Halder G. N.



Title	Investigator	Supervisors
Experimental Study of Polymer Grafting towards Enhancement of Flame Retardancy and Durability of Rice Straw	Mukherjee, A.	Halder, G. N.

DEPARTMENT OF CIVIL ENGINEERING

Topic	Investigator	Supervisor(s)
A study of progressive collapse of steel-concrete composite buildings under blast loading	Mohamed Ahmed Galal	Dr A K Banik
Biological treatment of effluents from bulk drug industries	Mukhopadhyay, Miriganka Sekhar	Dwivedi, V.K., Bhattacharya, S., Mukhopadhyay, S.S.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Topic	Investigator	Supervisor(s)
Identifying Influential Spreaders: A Graph Analytics Approach	Amrita Namtirtha	Animesh Dutta
Novel Algorithms for Multi-Agents Coalition Structure Generation	Narayan Changder	Animesh Dutta
Multicast Traffic Grooming Routing and Spectrum Allocation in Elastic Optical Networks with survivability	Panchali Datta Choudhury	Tanmay De
Studies on Dynamic Traffic Grooming in Elastic Optical Networks	Prasanta Majumdar	Tanmay De
On Some Network Optimization Problems through Evolutionary Algorithms	Joydeep Dutta	Tanmay De
NLP based Knowledge Management Systems	Prasenjit Mukherjee	Baisakhi Chakraborty
Natural language Information Interpretation and Representation Systems	Partha Sarathy Banerjee	Baisakhi Chakraborty
On Fault-Tolerant Design of Logic Circuits in Quantum-Dot Cellular Automata	Dharmendra Kumar	Debasis Mitra
Experimental Investigation and Computational Modeling of the Electrohydrodynamic Inkjet Printing System	Amit Kumar Ball	Dakshina Ranjan Kisku
Design of Low Cost, Low Resolution Single Camera based Stereo Vision	Narayan Murmu	Debashis nandi
Super-resolution Reconstruction and Segmentation of B-mode Ultrasound Images	Dipannita Ghosh	Debashis Nandi
Statistical analysis and enhancement of ultrasound image	Suchismita Maiti	Debashis Nandi
Deep Neural Networks for Screening of Interstitial Lung Diseases and Lung Cancer	Sunita Agarwala	Debashis Nandi

**DEPARTMENT OF ELECTRICAL ENGINEERING**

Topic	Investigator	Supervisor(s)
Fractional Order Compensation Of Continuous Time Plants	Reetam Mondal	Dey J & Halder S.
Different Approaches For Optimum Planning Of Active Distribution System Considering Technical, Economic, And Environmental Aspects	Surajit Sannigrahi	Parimal Acharjee
Control and Modulation Strategies of Neutral Point Clamped Inverters for Electric Vehicle Applications	Sarbani Mukherjee	Banerjee S. & Giri S.K
On Some Aspects of Decoupling Control of MIMO systems	Sumit Kumar Pandey	Dey J & Banerjee S.
Design of Full Mode, Half Mode, Corrugated Substrate Integrated Waveguide and Microstrip Band Pass Filters in Microwave Bands	Sourav Moitra	Bhowmik P. S.
Topic	Investigator	Supervisor(s)
Design of Phase Only Reconfigurable Array Antennas Using Evolutionary Algorithms	D Jamunaa	Dr.G.K.Mahanti
Antenna Array Optimization Considering the Mutual Coupling Effect Using Evolutionary Optimization Techniques	Avishek Das	D. Mandal, R. Kar
Multi-hop Cognitive Radio Networks with RF Energy Harvesting	Soumen Mondal	S. Kundu & S. Dhar Roy
Physical Layer Security with Energy Harvesting Relays in Cognitive Radio Networks.	Pranabesh Maji	S. Kundu & S. Dhar Roy
Cognitive Radio Networks with Efficient Spectrum Sensing and Energy Harvesting under Malicious Attackers	Kuldeep Yadav	S. Dhar Roy & S. Kundu
A statistical signal processing approach To investigate the dynamics of indian weather	Rajdeep Ray	A.K Bhattacharjee
Use of Soft Computing Techniques in Lesion Detection in MR images	Tapas Si	A.K Bhattacharjee (with .Arunava De Professor, K.L.E.F , Hyderabad, Telangana)
Studies on multiband operations of microstrip antennas	Aritra Bhowmik	A.K Bhattacharjee
Design and analysis of compact slotted Antennas for wireless applications	Ankan Bhattacharya	A.K Bhattacharjee
Characterization of Some Defected Ground Structures and their Applications to Planar Antenna Design	Juin acharjee	Mandal S. K. Mandal K.
Studies on Planar Ultra-wideband and Superwideband Antennas for Emerging Wireless Systems Applicability	Abhik Gorai	R Ghatak



Topic	Investigator	Supervisor(s)
Optimal Design of CMOS Analog and RF Circuits Using Evolutionary Techniques	Sumalya Ghosh	A.K. Mal

DEPARTMENT OF EARTH AND ENVIRONMENTAL STUDIES

Topic	Investigator	Supervisor(s)
A Comprehensive Study on Environmental Management System (EMS) as Practiced in Selected Industries in West Bengal, India and Its Impact on Society	Dr. Bipasha Mridha Ghosh	Aniruddha Gangopadhyay & Sandip Mondal
Impact of Chemical Pesticides and Fertilizers on the Environment as a Whole – A Case Study	Dr. Mayukh Adhikary	Aniruddha Gangopadhyay, Koushik Brahmachari & Sandip Mondal
Analysis of potential impacts of open cast coal mine on hydrogeological dynamics in Barjora area, West Bengal, India	Dr. Ujjal Mal	Kalyan Adhikari

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

Topic	Investigator	Supervisor(s)
DISCERNING THE FAMILIAR- An insight into the condition of women during the Taliban Regime	Mukherjee, M	Banerjee, J.
Survival as Triumph in Paul Auster's Fiction: A Logotherapeutic Study	Pramanik, A.	Modak, A.
The Fictions of Amit Chaudhuri: Creation of a Tradition	Roy, A	Banerjee, J.
The Altar and the Word: Significance of Sacrifice in the Representation of Vedic and Hindu Mythology in Roberto Calasso's Ka and Ardor	Bhattacharyya, S.	Rai, S.K
Macroeconomic Impact of Remittance Inflows in Asia	Dutta, Ujjal Pratim	Sengupta, P.P.
Sustainable Rural Development and Impact of Behavioural Factors on Decision Making Process of Farmers: A Study of Burdwan District of West Bengal, India	Mukhopadhyay, Partha	Sengupta, P.P.
Socio-cultural Attitudes towards Infertility and Assisted Reproductive Technology (ART) in Kolkata.	Lall, Seema	Sengupta, P.P.
FDI and Economic Performances in Developing Countries	Sinha, Madhabendra	Sengupta, P.P.
ICT and Technical Higher Education in India	Mukherjee, U.C.	Sengupta, P.P.

DEPARTMENT OF MANAGEMENT STUDIES

Topic	Investigator	Supervisor(s)
Sustainable Strategy Development towards Low Carbon Economy	Basu S	Prof Mousumi Roy & Prof Parimal Pal
Sustainable Development in Higher Education Institutes	Chakraborty A	Prof. Mousumi Roy



Topic	Investigator	Supervisor(s)
In Search of nature of Relationship Between Internal Marketing and Financial Performance of the Company: A Study of Hotels, Hospitals and Banks operating in Kolkata	Chattopadhyay R	Dr. Mondal K.
A study on various aspect of consumer behavior in context to different products and services–A comparison between consumers in India and USA.	Samanta, J.	Banerjee, N.

DEPARTMENT OF MATHEMATICS

Topic	Investigator	Supervisor(s)
Lattice Based Signatures:New Constructions and Proofs	Das, Dipayan	Basu,K & Saraswast,V
Transitions near the onset of rotating magnetoconvection	Ghosh, Manojit	Pal, P.
Graph Labelling and its applications	Ghosh, Sumonta	Pal, A.
Models on Dynamical System in Different Environments	Khatua D.	Kar, S. and Maity, K.
Train Platform Allocation Problem for a Terminal Railway Station	Kumar R.	Kar, S. and Tiwari M. K.
Some Inventory Models for deteriorating/Breakable Items In Different Environment	Kundu, Anindita	Panigrahi G, Das B, Maiti M
Data Mining Techniques for social network analysis	Mandal, Shrabanti	Pal, A.
Some Theoretical Models of Earthquake Processes due to Finite and Long Faults	Mondal, Debabrata	Sarkar (Mondal), S.
On Some NP hard problems Using Heuristic Method	Mukherjee, Anupam	Panigrahi G, Maiti Manoranjan
A Mathematical Study of Eco-epidemiological Model with Special Emphasis on Chaotic Dynamics and its Controllization	Roy, Prodip	Sarkar (Mondal), S., Das, K.P. and Karmakar, P.

DEPARTMENT OF MECHANICAL ENGINEERING

Topic	Investigator	Supervisor(s)
Studies on the Gasification of Waste Coal in a Circulating Fluidized Bed	Dwivedi K K	Pramanick A K, Karmakar M K, Chatterjee P K
Modeling And Control of a Multi-Echelon Inventory System	Das Debabrata	Dr. N. B. Hui
Development of a tool for grading and diagnosis of depression patients	Kumar Asish	Dr. N. B, Hui, Dr. S. Chattopadhyay
A STUDY OF MICRO AERIAL VEHICLE (MAV) DYNAMICS FOR A SCALABLE DESIGN	Patkar Umesh	Dr. Nilotpal Banerjee & Dr.M.C. Majumder
Investigation on Machining Characteristics of Amorphous Bulk Metallic Glass in Mechanical Micro Milling	Ray Debajyoti	A.B. Puri Dr.Nagahanumaiah
Dynamic Analysis, Model Development and Control of a Multi-functional Flexible Manipulator	Sarkhel Prasenjit	Dr. N. B, Hui,& Dr. Nilotpal Banerjee
Experimental Investigative Studies of Chatter in High Speed	Uke Kamalkishor	Dr. Nilotpal Banerjee & Dr.M.C. Majumder



DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Topic	Investigator	Supervisor(s)
Microstructure-property correlation and wear behaviour of hypereutectic Al-Si alloy after microstructural modification	Dr. Biplab Hazra	Dr. B.K. Show Dr. S. Bera
Development of Al-Cu-Ni alloys with novel microstructures	Dr. Shubhadeep Maity	Dr. S. Bera Dr. B.K. Show

DEPARTMENT OF PHYSICS

Topic	Investigator	Supervisor(s)
Phenomenological study of rare decays of <i>b</i> -flavour hadrons in beyond standard model	Nayek P	Sahoo S
Studies on Synthesis, Optical properties and Catalytic Activities of Some Metal oxide and Metal sulfide Nanostructures Materials	Karmakar S	Kumbhakar P
Studies on Dynamics of the localized modes of ferroelectric materials with defects	Giri P	Mandal MK & Biswas A
Studies on Generation and Synchronization of Chaos in Discrete Systems and Applications	Das AK	Mandal MK
Studies on Electrical and Optical Properties of Polymer-Multiferroic Nanocomposites	Halder, M.	Meikap A.K.
A unique technique of InN nanowire for optical sensor application	Dwivedi SMMD	Mondal A
Low dimensional thin film and its porous structure for optoelectronic device application	Ghosh A	Mondal A

Annexure - 11.4(g)Ongoing doctoral Programme

DEPARTMENT OF BIOTECHNOLOGY

Topic	Investigator	Supervisor(s)
Production of biofuel and other value-added products from oleaginous microorganisms in a biorefinery approach	Barik, Sudhir K.	Aikat, K.
Identification and functional characterization of CAM7 protein complex in <i>Arabidopsis thaliana</i>	Basu, Riya	Chattopadhyay, S.
Development of novel therapeutics against <i>Helicobacter pylori</i> mediated gastric ulcer and cancer	Bhattacharjee, A	Mukherjee, O.
Development of computational tools for protein-RNA interactions	Bhattacharya, Anirban	Barik, A.
Cloning and Functional analysis <i>Leishmania donovani</i> Amastin-like surface Protein	Biswas, Bapi	Ghosh, M.
Dependence of MoWISH on cAMP-dependent signalling pathway	Biswas, Mousumi	Roy-Barman, S.



Topic	Investigator	Supervisor(s)
Activation of monocytes and cancer cells by interleukin 13 (IL-13) and its effects on cellular function	Biswas, Pritam	Bhattacharjee, A. and Mukhopadhyay, S.S.
Exploration and Exploitation of Microalgae for Sustainable Biofuel Production (thesis submitted in October 2020; defence due)	Bobde, Kiran Ashok	Aikat, K and Bhattacharjee, A.
Potential of β -cryptoxanthin as a cosmeceutical	Brahma, D.	Dutta, D.
Deciphering the signalling axes interphase between gut microbiome and host exome in obese patients.	Chanda, Deep	De, D.
Prediction and data analysis of bacterial small noncoding RNAs	De, Debanjan	Barik, A.
Study of functional polymeric nanoparticles for biomedical application	Chatterjee, Manosree	Mahata, N, Chanda N.
Role of Adenosine 5'-Monophosphate (AMP)-activated protein kinase [AMPK] in controlling the expression and function of Monoamine Oxidase A (MAO-A) in response to Th2 cytokines	Das, Payel	Bhattacharjee, A.
Role of Src kinase and Pyk2 in Monocyte migration	Das, Pradip	Bhattacharjee, A. and Mukhopadhyay, S.S.
Production of Biosurfactant	Dasgupta, Arpan	Chaudhuri, S.
Introducing protein folding paradigm in misfolding diseases: An attempt to redefine the structural understanding of amyloid aggregation following nucleated conformational conversion pathway	Dasgupta. Bodhisattwa	Mondal. S
Stat-dependent expression and function of Monoamine Oxidase-A (MAO-A) in IL-13-activated A549 cells	Dhabal, Sukhamoy	Bhattacharjee, A. and Mukhopadhyay, S.S.
Production and characterization of nanostructures containing beta-cryptoxanthin for food fortification	Dutta, Debasmita	Dutta, D
Computational study on conformational changes of intrinsic disordered regions in macromolecular complexes	Dutta, Som Subhra	Barik, A.
Network medicine based drug development for metabolic disorder.	Dutta, Subhajit	De, D.
Application of bimetallic nanoparticles as antibiofouling agent	Ganguly, Parna	Chaudhuri, S.
Extraction, purification and characterization of bioactive compounds from food waste	Gehlot, Sameep	Chaudhuri, S. and Bhattacharjee, A.



Topic	Investigator	Supervisor(s)
Studies on seed borne mycoflora associated with oilseed (mustard) and cereal crop (rice) of Indo-Gangetic area and their eco-friendly management (<i>thesis submitted in Jan 2021</i>)	Ghosh, Tanmay	Aikat, K. and Biswas, M.K.
Design and exploration of functional self-assembling peptide building block	Ghosh, Nandita	Mondal, S.
Role of metabolites in <i>Helicobacter pylori</i> mediated gastric ulceration and cancer	Halder, Arpita	Mukherjee, O.
Dampening of macrophage function in innate immunity through the involvement of pattern recognition receptors (PRRs)	Halder, Sudeshna	Mahata, N.
Fermentative Production of Xylitol from Water Hyacinth	Jadhav, Rohan	Dey, A.
MCM3AP: A novel S phases replication checkpoint protein and its relation to Fanconi anemia protein.	Jain Khatur, Sneha	Mukhopadhyay, S.S.
Nanoscale Delivery Systems for improved Immuno-Therapy in Cancer Management	Jaiswal, Namita	Mahata, N, Chanda N.
Bioremediation & Biosorption of Heavy metals from tannery Effluent	Kumar, Prakash	Aikat, K.
Microalgal biofuels	Mahato, Sandip	Aikat, K.
Molecular and functional characterization of a Pt(IV) based pro- drug for targeted anti-nonsmall cell lung carcinoma immunotherapy	Maji, Moumita	Ghosh, M.
Studies on valuable Bioactive compounds characterization, extraction and application.	Majumdar, Shubhasree	Dasgupta Mandal, D.
Exploring microbial communities and metabolic processes in deep subsurface continental crust at Koyna region, Western India	Mandal, Sunanda	Kazy, S. K.
Role of protein arginylation in oxidative stress response	Naga, Rahul	Saha, S.
Investigation of the function of mitogen activated protein kinase in Arabidopsis seedling development	Ojha, Madhusmita	Chattopadhyay, S.
Investigation of the function of MYB4 in Arabidopsis seedling development	Pal, Abhideep	Chattopadhyay, S.
Assessment of biomarker for early stage disease detection and therapeutic analysis	Pal Doel	Ghosh, M.
Diversity and metabolic potential of indigenous bacteria in petroleum contaminated sludge from oil field: prospects for bioremediation	Pal, Siddhartha	Kazy, S. K.
Elucidating the role and deciphering the molecular mechanism of fatty- acid induced monoamine oxidase A expression in cancer cells	Pal, Suchandra	Bhattacharjee, A
Identification and characterization of interacting partner of CAM7/ZBF3 in Arabidopsis seedling development	Parvez, S.W.	Chattopadhyay, S. and Mandal, N.C.



Topic	Investigator	Supervisor(s)
Studies on role of biosurfactant on bacterial delignification	Paul, Indrani	Dasgupta Mandal, D.
Systems biological approach for therapeutic intervention in polycystic ovary syndrome	Rajavelu, Sindhuja	De, D.
Studies on hazardous impact of pollutants on host and its biological remediation.	Ranjan, Jyoti	Dasgupta Mandal, D.
Genetic engineering of rice for enhanced blast disease resistance	Raut, Ravindra	Roy Barman, S.
Transposable elements and blast resistance in rice	Raut, Ravindra	Roy-Barman, S.
Engineering of cellulase enzymes of <i>Aspergillus fumigatus</i> NITDGPKA3 for enhancing their activity and development of recombinant cellulosic <i>Saccharomyces cerevisiae</i> for bioethanol production from rice straw.	Reddy, Subba Dodda	Mukhopadhyay, S.S. and Aikat, K.
LaeA - Its role in molecular pathogenesis of <i>Magnaporthe oryzae</i>	Saha, Pallabi	Roy-Barman, S.
Exploring the chemolithoautotrophic microorganisms of deep biosphere for CO ₂ sequestration and conversion to valuable products	Saha, Plaban K	Kazy. S.K.
Production of beta-cryptoxanthin under stress condition	Saha, Sanhita	Dutta, D.
Production of bacteriocin from probiotic sources	Sourav Saha	Chaudhuri S
Novel drug candidate development for profilactic and therapeutic approach.	Saha, Suvodip	Ghosh, M.
Biodegradation of organochlorine pesticides	Sahoo, Banishree	Chaudhuri, S.
Antimicrobials from natural sources	Saini, Swamini	Chaudhuri, S., Ghosh S and Dutta, D.
RNAi-based resistance to rice blast fungus	Sarkar, Atrayee	Roy-Barman, S.
Studies on biodegradation of 4-Nitro phenol by indigenous microbial consortium isolated from agricultural soil	Sarkar, Priyanka	Dey, A.
Bacterial and Enzymatic bioconversion of Lignin from Lignocellulosic biomass into value added products	Singh, Gaurav	Dasgupta Mandal, D.
Mitochondrial role of FA protein FANCD2	Singh Kapur, Bishwajit	Mukhopadhyay, S.S.
Role of non-coding RNAs in <i>Helicobacter pylori</i> mediated gastritis and cancer	Sinha, Bivash	Mukherjee O.
Studies on Biotransformation of waste to wealth and -its ecotoxicological impact	Verma Abhishek	Dasgupta Mandal, D.
Regulation of 15-lipoxygenase expression and function	Swaroop, Surbhi	Bhattacharjee, A.
Delivery of anticancer phytochemicals and drugs via PDMS nanoparticles	Verma, Madhu	Chaudhuri S, Sivakumar S and Dutta, D



Topic	Investigator	Supervisor(s)
Fermentative production of Pectinase enzyme by <i>Aspergillus</i> spp	Verma, Heena	Dey, A. and Goswami, S.
Microbial production of lactic acid for the production of bioplastic	Verma, Reshmi	Aikat, K.

DEPARTMENT OF CHEMICAL ENGINEERING

Topic	Investigator	Supervisor(s)
Selenium Removal by Nanofiltration	Malhotra, M.	Pal P
Modeling and Experimental Investigation on Pyrolysis and Gasification of Biomass	Kamila B.	Gupta P. Sadhukhan A K
Studies on the design and development of plasma Torch for disposal of Municipal Solid Waste	Manna S.	Gupta. P., Chatterjee P. K. Sadhukhan A.K.
Ethanol Production from Waste Starchy Biomass and its Utilization in Ethanol Stoves	Mondal P.	Sadhukhan A.K. Gupta. P. and Ganguli A.
Thermal Treatment of Plastic Wastes and Recovery of Value-Added Products	Mukherjee A.	Gupta P., Ruj B. Sadhukhan A. K.
Investigations on the efficacy of nitrogen fixing <i>cyanobacterium azolla</i> as a bio-fertilizer	Sarkhel R.	Gupta P., Mandal. T
Studies on the treatment of industrial wastewater by adsorption techniques using palm seed charcoal as adsorbent in an inverse fluidized bed	Karunya S	Sarkar J. P., Gupta P., Feroze S
Application of Artificial Intelligence in chemical process industry	Choudhury, S	Lahiri, S.K., Hens, A.,
Process modeling and optimization in chemical process industry	Saha, S	Lahiri, S.K., Hens, A.,
Application of Artificial intelligence in insurance sector	Sarkar, N.,	Lahiri, S.K.,
Synthesis, characterization and application of graphene based nano-composite membranes in purification of contaminated aqueous solutions	Pal, M	Mandal, M.K., Paine, T.K.,
An Integrated Membrane System for Destruction of Antineoplastic Drugs in Hospital Waste Water	Pandey, S.K.	Mandal, M.K., Pal, P., Dubey, K.
Study of degradation and ecotoxicity of anti-neoplastic (parent and degraded) compounds from urine sample of cancer patients/hospital aqueous waste using Fungi	Yadav, A.	Mandal, M.K., Dubey, K.
Synthesis of heterogeneous photocatalyst for degradation of organic contaminants in waste water	Seal, K.	Mandal, M.K., Basu, S.
Hybrid catalytic membrane reactor for wastewater treatment	Mukherjee, S.	Mandal, M.K., Chudhuri, H.
H ₂ Production using Catalytic thin film reactor	Sayantan Adak	Mandal, M.K., Ghosh Chaudhary, R.



Topic	Investigator	Supervisor(s)
Numerical investigation of multiphase flow	Kumar, I	Hens, A., Lahiri, S.K.
Study of bubble and droplets using MD and CFD based simulations	Chatterjee, S	Hens, A., Ghanta K.C.
Phycoremediation of pollutants from wastewater using marine algae	Anjali K. P.	Dutta, S. and Geetha Devi M., (National University of Science and Technology, Oman)
Treatment of Coke Oven Waste Water Using Hybrid Technology	Pramanik, S.	Dutta S. and Ghanta, K. C.
Treatment of Saline Water Pollutants by Solar Nano Photo Catalysis	Varghese, M.J.	Dutta, S. and S. Feroz
Removal of fluoride from groundwater using naturally available low cost materials	Bishayee., B.	Dutta S. and Ruj, B., (CMERI, Durgapur)
Bioremoval of heavy metals from Industrial Effluent using algae and cyanobacteria	Seragadam, P.	Dutta S. and Ghanta, K. C., B. Srinivas,(Gayathri Vidya Parisad College of Engg, Vishakapatnam)
Treatment of industrial wastewater using nanomaterials	Sangeetha, B.M.	Dutta, S. and Geetha Devi M., (National University of Science and Technology, Oman)
Phycoremediation of heavy metals from simulated ash pond water	Sarkar, B.,	Dutta S.
Bioremediation of pollutants from cokeoven wastewater	Rai, A.	Dutta, S., Dr. Jitamayu Chakrabarty,J., (NIT Durgapur)
Effect of Waste Plastics on the Physical Structure and Subsequent Anaerobic Digestion of Vegetable Waste Landfill Bed.	Ghosh A.	Das, B. and Sarkar J. P.
Re-refining of waste lubricating oil by an environment-friendly and non-acidic extraction-flocculation method	Sarkar S.	Das, B., Mondal, B. K. and Datta, D.
Post Combustion CO ₂ capture from thermal power plant	Banerjee, S.	Mondal, B. K. and Das, B.
Experimental Study of Pressure Swing Adsorption Refrigeration System based on Activated Carbon-Gas towards replacement of Halogenated Refrigerants	Roy, Z.	Halder, G. N.



Topic	Investigator	Supervisor(s)
Enhancing biodegradability of LDPE dispersing organic nano-structured biofiller	Banerjee, C.	Halder, G.N.
Sorptive removal of anti-inflammatory drug	Show, S.	Halder, G.N.
Removal of enrofloxacin from aqueous solution	Sharma, D. D.	Halder, G.N.
Treatment of Organic-compounds containing wastewater for biogas generation	Rahaman, W. U.	Halder, G.N.
Biodiesel production through superheated propanol injection technique	Karmakar, B.	Halder, G.N.
Application of Nanotechnology in environmental remediation.	Banerjee, P.	Ghosh Chaudhary, R.

DEPARTMENT OF CHEMISTRY

Topic	Investigator	Supervisor(s)
Protein and other biochemical components of fish and their nutritional effect	Banerjee Indrani	Chakrabarty J. and Bhattacharjee, A. (BT)
Three component coupling using nanocatalyst	Bera, Partha Sarathi	Saha, T. K.
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.	Bhaduri, Rituparna	Moi, S. C.
Development of an Advanced Treatment Scheme for the Degradation of the Toxic Organics Associated with Pharmaceutical Wastewater	Chakraborty Sucharita	Saha R. N.
Synthesis and characterisation of Pt(II) & Pt(IV)/Pd(II) complexes as anticancer agents to reduce the toxicity: their kinetics & mechanism, bio-activity and theoretical aspects.	Chandra Krishnendu	Moi, S. C.
Chemistry of various p- and d-block metal complexes having different N,O donor sites: catalytic and sensor applications	Chatterjee Sourav	Sukul D., Banerjee P. AND Chattopadhyay T.
Carbon-monoxide dehydrogenase (CODH) activity of Nickel-thiolates	Das Aniruddha	Patra, A. K.
Synthesis & catalytic aspects of a few transition metal complexes towards different organic transformations	Garai Mamoni	Maji M., Biswas B. (Rahunathpur College)
Ground Water Remediation by Nanoscale Zero Valent Iron	Ghosh Ananya	Saha R. N.
Photo catalytic degradation of toxic organic compounds	Halder Jyotirmoy	Saha R N & Ghosal S
Isolation, Purification and Structural Characterization of Polysaccharides from Some Indian Fruits	Hazra Surajit	Adhikari U.
Computational investigation of biomolecules	Jana Abhisek	Banerjee DR
Small molecule activation using Copper complexes relevant to biological Cu site	Kumar Shibaditya	Maji, M. M & Patra, A. K.
Small molecule sensor of metal	Mabhai S	Banerjee DR
Biological Cu Sites Modelling	Mishra, Saikat	Patra, A. K.



Topic	Investigator	Supervisor(s)
Design and synthesis of chromogenic and fluorogenic chemoreceptors for selective sensing of anions	Mondal Amita	Chakrabarty J. and Banerjee, P. (CSIR-CMERI)
Removal of Arsenic by modified Adsorbent	Mondal Prasanta	Saha R. N., Ruj B.(CMERI Durgapur) and Debbarma S.R.(CMERI Durgapur)
Synthesis and photophysical investigation of aggregation induced emission (aie) active molecules and its potential application	Mondal Tapashree	Panja S S
Synthesis, characterization and modification of Pt(II) and Pd(II) complexes as anticancer agent based on cis-platin: their kinetics, bio-activity and DFT investigation.	Mondal Saikat	Moi, S. C.
Metal Complexes of Schiff Base Ligand Having Different Functionalities: Synthesis, Characterization and Biological Studies	Mondal Shyam Sundar	Saha T. K.
Synthesis of Fe, Co oxide/carbonate using urea as neutralizing agent and evaluation of their electrochemical sensing properties	Mukherjee Priyanka	Adhikari U.
The molecular dynamics simulation studies on Thyroid hormone receptor	Mukherjee Soumita	Panja S S
Investigation on the extracts of Tradescantia pallida, Swertia chirata, Butea monosperma and Amaranthus gigasticus as green corrosion inhibitors for mild steel in hydrochloric acid medium.	Mukhopadhyay Shipra	Adhikari U.
Synthesis and characterisation of Pt(II) & Pt(IV)/Pd(II) complexes as anticancer agents: their kinetics & mechanism, bio-activity and theoretical aspects.	Pan, Angana	Moi, S. C.
Bioremediation of pollutants from cokeoven wastewater	Rai Abhilasha	Chakrabarty J. and Dutta, S. (CH)
Growth Mechanism of Polycyclic Aromatic Hydrocarbon (PAHs) in the Interstellar Medium (ISM)	Tarun Roy	Ghosal S
Nutritional and biochemical importance of changes in fish lipids during preservation and cooking	Sadhu Tithli	Chakrabarty J. and Bhattacharjee, A. (BT)
Anti-corrosive activity of certain bio-relevant molecules: study of synergistic effect	Satpati Sanjoy	Sukul D. and Banerjee P.
Intermediate identification during photocatalytic oxidation Of organic compound	Som, Ipsita	Saha, R. N.
Corrosion Inhibition of Mild Steel and Copper in Acid Medium By Benzothiazole Derivatives: Structure reactivity correlation study.	Suhasaria, Aditya	Sukul D.
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	Tarai Swarup	Moi, S. C.



DEPARTMENT OF CIVIL ENGINEERING

Topic	Investigator	Supervisor(s)
Performance assessment of efficacy of hybrid constructed wetland for removal of antibiotics and polyaromatic hydrocarbons in wastewater	Adhikari, A	Pal, S
Investigation on characteristic strength and behaviour of concrete confined with UPVC tube.	Bandyopadhyay, Atrayee	Samanta A.K., Singha Roy D.K.
Numerical Modelling of highway pavements under dynamic conditions	Banerjee, Arijit	Topdar P., Datta, A.K.
Vibration Control of Structures	Banerjee, Tathagata	Das, D.
Strengthening of brickmasonry building with Geogrid reinforcement	Behera, B.	Nanda R. P
Efficacy Evaluation of Azadiracta Indica (Neem) and Moringaoleifera (Drumstick) seed shell blended clay soil as liner material in Chromium (VI) laden waste containment structures	Bhadra, Chandrima	Pal S., & Adhikari K
Reliability-Based Design of Earth Retaining Structures	Bhattacharya, Koundrik	Roy, P.
Investigation of structural damage in framed buildings using AE Technique	Biswas, Anupam K.	Datta A K., Topdar P.
Forecasting and monitoring of flood of Mayurakshi river reach at Tilpara barrage, Suri, Birbhum-W.B., India	Biswas, R	Pal S., Bhattacharya, S.
Optimization of Sustainable integrated municipal solid waste management system through case studies	Chattopadhyay, Arpan	Adhikari, K. & Pal, S
Bridge health monitoring using fuzzy based soft computing technique.	Das Khan, Sudha	Topdar P, Datta A K.
Performance Study of Asymmetric Structures under Static & Dynamic Loads	Das, Debiprasad	Das, D., Topdar, P.
Characterization of Pavements Using Acoustic Emission Technique	Das, Soumyodip	Datta, A.K.& Topdar P.
A study of stability designs of the different types of Floating Offshore Wind Turbine (FOWT) system by integrated-coupled analysis under environmental loadings	Dey, Swarnadip	Banik, A.K. & Roy P.
Evaluation of the compacted lateritic soil amended with bentonite and fly ash used as composite liner material for ash pond sites of thermal power plants	Dutta Mazumdar, Shyamal Kumar	Pal, S
Earthquake response of pile foundation in liquefiable soil	Dutta, S.	Nanda, R.P.
Man-machine based constructions in the developing country	Ghosh, Bittu	Karmakar S.
Experimental analysis for plan form development and erosion around an island in a natural stream	Ghosh, Snigdhadip	Dwivedi, V.K.
Effect of wind induced vibrations on highway bridge	Halder Puja	Karmakar S
Strengthening of Brick masonry panels with Geosynthetic	Khan, H.A.	Nanda, R.P., Das, D.



Topic	Investigator	Supervisor(s)
Modelling of reservoir sedimentation using remote sensed technique	Kumar, Ritesh	Dwivedi, V.K.
Health monitoring of Indian rail track using AE technique	Kundu, Tamal K.	Datta A K., Topdar P
Effect of protective barrier under blast loading	Kutti Goutam	Karmakar S
Strengthening of RC beam by using Geosynthetics	Majumdar, S.	Saha, S.
Active and passive vibration control of nonlinear flexible systems	Mandal, Saikat	Banik, A.K. & Mitra R. K.
Evaluation of the Compacted Laterite Soil Amended with Bentonite and Fly Ash used as Composite Liner Material for Ash Pond Sites of Thermal power Plant	Mazumdar, S.K.D	Pal S
Experimental Investigation on the Strength and Behaviour of Plate Reinforced Concrete Beam	Mondal, Prakash	Singha Roy D.K., Samanta A.K.
An investigation on the wind-structure interaction of cylindrical shells for storage purpose.	Mukherjee S.	Singha Roy D.K.
Development of vibration based structural damage detection, localization and assessment strategy	Paral, Animesh	Singha Roy, D.K & Samanta, A. K.
Role of additives on remediation and improvement of geotechnical properties of heavy metal contaminated soils by solidification/stabilization technique	Raja, Ramiz	Pal S
Machine Learning-Based Reliability Analysis of Structures	Rajak, Pijush	Roy, P.
Rutting Analysis By Using Construction And Demolished Waste For Low Volume Roads	Ray, Arpan	Nanda R. P & Roy, P.
Acoustic Emission Technique for Damage Localisation	Roy, Parikshit	Topdar P.& Datta, A.K.
Modeling Beam-Column Joint	Roy, Pranoy	Samanta A.K.
Coupled Nonlinear Analysis of Floating Offshore Structures	Roy, Shovan	Banik, A.K.
Modelling for avulsion of river Kosi System lying in India and Nepal	Saha, Dripta	Dwivedi, V.K.
Effect of blast on highway bridge	Saha, Shuvra	Karmakar S
Flutter induced vibration on bridge	Saha, Tania	Karmakar S.
Thermo-mechanical effects on sustainable concrete containing industrial waste	Sahani, Ashok Kr.	Samanta, A.K., Singha Roy, D.K
Analytical and Numerical Analysis of Free Spanning Offshore Pipelines Emphasising Different Geotechnical Aspects	Sarkar, Goutam	Roy, P.
Vibration Control of Structures under Multi-hazard Scenario	Sen, A.	Das, D., Chakraborty S. (IIST Shibpur)
Vibration Control of Offshore Structures	Som, A.	Das, D.
Inelastic analysis of non-prismatic Continuous beams	Yadav, K.P.	Samanta A.K.
Effect of landuse /landcover dynamics on the spatio-temporal changes of urban heat islands and its effect on the environment	Yadav, Naval Kishor	Samanta A.K., Santra A.



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Topic	Investigator	Supervisor(s)
OCR in Bangla script	Amit Mukhopadhyay	Chakraborty, B., Nani D, Pal, U (ISI, Kolkata)
Analysis of language and cognitive abilities of the reading disabled children using statistical measures	Jaya Banerjee	Chakraborty, B., Prof. Basu, A.
NLP based Knowledge Management Systems in Bengali Language.	Kailash Pati Mondal	Chakraborty, B.
Knowledge Management System for Fault Detection and Diagnosis.	Sumana De	Chakraborty, B.
A Novel Secured Routing Protocol for MANET	Subrata Joardar	Dr Prasenjit Choudhury
A Cross Domain Group Recommender for Conf , Research Article & Books	Avick Kumar Dey	Dr Prasenjit Choudhury
A Novel Cross Platform Context Aware Recommender System for Online Commercial Stores (Thesis Submitted)	Pradeep Kumar Singh	Dr Prasenjit Choudhury
Some Aspects of Community Structures in Real Networks and its Applications	Dhananjay Kumar Singh	Dr Prasenjit Choudhury
Designing a Computing Infrastructure for Processing In-Campus IOT-Data Using Smartphone Crowd Computing	Pijush Kanti Dutta Pramanik	Dr Prasenjit Choudhury
Dynamic Pricing Strategies for Selling Agricultural Produce in Electronic Retails	Tumpa Banerjee	Dr Prasenjit Choudhury
Design of Personalized Recommendation System for Ubiquitous Learning	Saurabh Pal	Dr Prasenjit Choudhury
Social Media Mining from Twitter Data: A Subject Oriented and Time Variant Perspective	Manob Roy	Dr Prasenjit Choudhury
Pest Identification and Plant Disease Detection in Agricultural Crops	Monalisha Mishra	Dr Prasenjit Choudhury
Multi-agent Based Job Scheduling and On-demand Rescheduling	Krishnendu Kundu	Animesh Dutta
Coalition Formation in Multi-agent System	Samriddhi Sarkar	Animesh Dutta
Location Prediction in Social Media using Hybrid Modelling	Amit Paul	Animesh Dutta
Information Retrieval from Biomedical Images for Early Detection of Neuro Diseases	Amish Kumar	Nandi, D.
Brain MR Image Segmentation and Early Detection of Neurodegenerative Diseases Using Machine Learning Techniques	Palash Ghosal	Nandi, D., Chakraborty, J.
Novel evolutionary algorithms for multilevel image thresholding	Falguni Chakraborty	Nandi, D., Roy, P.K.



Topic	Investigator	Supervisor(s)
OCR in Bangla script	Amit Mukhopadhyay	Chakraborty, B., Nandi D, Pal, U (ISI, Kolkata)
Deep Neural Network for Medical Image Registration and Segmentation	Sanjib Saha	Nandi D.
Design of Computer Aided Diagnostic System for Glaucoma Detection	Arindam Chowdhury	Nandi D.
Machine Learning Approach for CT Image Analysis in cancer detection.	Tiyasa Chakraborty	Nandi D.
Microwave System Design for Biomedical Applications	M Moutusi Mondal	Nandi D
Pattern approaches in different lungs airways diseases using CT/HRCT images.	Samiran Kumar Banik	Nandi D
Efficient Communication between Optical and Wireless Hybrid Networks	Deepa Naik	Tanmay De
Some Studies on Data Communication and Applications in VANETs	Rangaballav Pradhan	Tanmay De
IoT Based Indoor Environment Data Modelling & Prediction	Praveen kumar Sharma	Sujoy Saha & Tanmay De
Studies on 5G Device to Device Communications	Poulomi Mukherjee	Tanmay De
Implementation and Synthesis of Efficient Computing Reversible Arithmetic and Logical Circuits to design a reversible ALU, under revision	Biswajit Das	Saravanan Chandran
Investigation and Development of Steganography Schemes	Sunil Kumar Patel	Saravanan Chandran
Analysis and Design of Image Compression Techniques	Raj Kumar Paul	Saravanan Chandran
Facial Features Extraction for Various Applications using Neural Network	Kshitiza Vasudeva	Saravanan Chandran
Pattern Matching	Deep Suman Dev	Dakshina Ranjan Kisku
Face Identification	Rinku Datta Rakshit	Dakshina Ranjan Kisku
Manipuri Offline Signature Verification	Teressa Longjam	Dakshina Ranjan Kisku
Unconstrained Face Recognition	Srinibas Rana	Dakshina Ranjan Kisku
Constrained and Unconstrained Face Identification	Dipak Kumar	Dakshina Ranjan Kisku
Novel Techniques and Analysis for Tourism and Spectrum Trading	Anil Bikash Chowdhury	Sajal Mukhopadhyay
Cloud Computing: A Mechanism Design Perspective	Anjan Bandyopadhyay	Sajal Mukhopadhyay



DEPARTMENT OF ELECTRICAL ENGINEERING

Topic	Investigator	Supervisor(s)
Fibre Optic based Partial Discharge detector for High Voltage Power Apparatus	Adhikari Krishanlal	Roy N. K.
Application of Signal Processing and Machine Learning Tool in Micro Grid for Detection and Classification of Transient Events	Banerjee Sannistha	Bhowmik P. S.
Power Electronics And Machine Drives	Barman J.C.	Saha T. K.
Time Delay Estimation Techniques for Localization of Partial Discharge Sources using Radiated UHF Signals	Bhukya Anitha	Koley C
Optimal Allocation of EV charging Stations and Power Quality improvement devices in Distribution Network.	Brahmachary Rupali	Bhattacharya A.
Power System optimization using soft-computing technique	Chandra Subhadip	Acharjee P.
Some Studies on Analysis and Control of Self-excited Induction Generator	Chatterjee Himadri Sekhar	Mahato S. N.
Control System	Chatterjee Poulomi	Dey J.
Bio-Medical Engg.	Choudhary Sunil Kumar	Bera T.K.
Investigation on the modulations of autonomic nervous System based on metabolic syndrome risk factors	Das Ashis Kumar	Halder S.
On-board charging of Electric Vehicles	Das Rana	Ahmed I.
Power System	Das Sandip Kumar	Sarkar S
Electric Vehicle Charging Scheduling and Expansion Planning of Distribution Network	Das Sourav	Acharjee P., Bhattacharya A.
Design optimization of Electrical Machines	Das Pratyush Prasanna	Mahato S. N.
Power Electronics and Machine Drives	Das Rana	Ahmed I.
Application of Advanced Controllers in Maglev System	Dey Soham	Banerjee S Dey J
A Partial Discharge Monitoring System for Electrical Power System Utility using Ultra-High Frequency Sensors	Dhara Sourav	Koley C.
Power Electronics And Machine Drives	Ganesh Reddi	Saha T. K.
Some Studies on Analysis and Control of Six-Phase Induction Generator	Ghosh Saikat	Mahato S. N.
Standalone PV Application in Electric Drives for Different Applications	Ghosh Sourav	Saha T. K.
Development of Internet of Things (IoT) enabled Tool for Condition Monitoring of Transformers and High Voltage Test Facilities	Jasper D	Roy N K
Optical Microphone based Partial Discharge detector for High Voltage Power Apparatus	Khaandai Sujit	Roy N. K.
Optimal Design of Dye Sensitized Solar Cell using Evolutionary Computation	Mandal Biswajit	Bhowmik P. S.



Topic	Investigator	Supervisor(s)
Investigation of Cardio-Pulmonary Data Based on Various Body Postures and Physical Conditions	Kumar Prashant	Halder S.
Insulation Management System of Electric Vehicles	Kumar Abhisek	Roy N. K.
Optimal placement of Phasor Measurement Unit for State Estimation of Power Systems	Kundu Shubhrajoti	Thakur S S
Design & Implementation of Modified Selective Harmonic Elimination (SHE) & Selective Harmonic Minimization (SHM) PWM Techniques for improving Performance of Multilevel Inverters	Kundu Sourabh	Banerjee S
Power System	Manoj Saha	Thakur S. S.
Enhancement of available transfer capability incorporating FACTS devices for large scale power systems by using meta-heuristic algorithms.	Mazumder Kingshuk	Banerjee S Roy P
Novel Algorithms of Line Outage Detection Using Synchro-Phasor Measurements	Mehebab Alam	Thakur S. S.
Control and Analysis of Distributed Generation Systems	Mishra Rupa	Saha T. K.
Power System	Mishra Biswaranjan	Thakur S. S.
Instrumentation	Mitra Sukanya	Koley C.
Development and Design of Fractional Order Compensator	Mondal Reetam	Dey J., Halder S.
Power System	Mukherjee Manas	Saha Roy B. K.
Power System	Niti Rani	Bhattacharya A., Bohre A.K.
Power Electronics and Machine Drives	Pandey Anuj Kumar	Ahmed I.
Biomedical	Pranab Hazra	Bera T.K., Dhara A. K.
Active learning	Mondal Subhadip	Dhara A. K.
Identification, Analysis And Location Of Power System Transients Using Signal Processing And Artificial Intelligence	Pullabhatla Srikanth	Koley C
Analysis and Control of Isolated Induction Generators	Ray Sambaran	Mahato S. N. Roy N. K.
Design, Fabrication & testing of some advanced dc-dc switch mode power converters.	Rana Kumar Niroj	Banerjee S
Some Studies on Analysis and Control of Stand-Alone Induction Generator	Samajapati Dipanjan	Mahato S. N.
Power System	Saw Bikash Kumar	Bohre A. K.
Application of soft computing techniques in constrained compensated power systems	Sen Deepro	Acharjee P.
Control and Analysis of Multi-Input Converter for Hybrid Wind-Solar-Battery based System	Sen Dibyendu	Dey J., Saha T. K. .
Power Electronics And Machine Drives	Sur Debasish	Saha T. K.



Topic	Investigator	Supervisor(s)
Nonlinear State Estimation for Dynamic Systems (Control Systems)	Sri Mannarayana Poluri	Dey A.
Magnetic Induction Spectroscopy (MIS)	Toushik Maity	Bera T.K.
Power Electronics	Umesh Saket	Ahmed I.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Topic	Investigator	Supervisor(s)
Statistical signal processing based reconnaissance to explore the kinematics of coronal mass ejection & its impact on Earth	Chattopadhyay Anirban	Chandra, A.
Millimeter wave for 5G	Bhunia Nilkamal	Chandra, A.
Recurrence based nonlinear analysis of heart rate variability	Sarkar Sudhangshu	Chandra, A.
Performance of relayed hybrid free space optical communication over turbulent channels	Bag Banibrata	Chandra, A. (with C. Bose, JU)
Performance analysis of free space optical communication channel with transmit and receive diversity	Das Akinchan	Chandra, A. (with C. Bose, JU)
Mobility Management in Integrated Heterogeneous Networks	REDDY S R V	Dhar Roy, S.
Device to Device Communication for Disaster Management	Ghosh, S	Dhar Roy, S.
NOMA-SWIPT Enabled Communication in Cellular IoT Network	Baranwal, A	Dhar Roy, S & Kundu, S.
Scalable NoC-based SNN Architectures towards Neuromorphic Computing	Patra Ramapati	Mondal, H. K.
3D Network-on-Chip for High Performance Computing	Das Debabrata	Mondal, H. K.
An Intelligent ECG Device for Smart Healthcare	Maji Prasenjit	Mondal, H. K.
Energy harvesting NOMA with Full Duplex Relay	Priyanka Ghosh	Kundu Sumit
Design and Development of Reversible Logic Circuits for VLSI Application	Maity Heranmoy (Submitted)	Bhattacharjee A.K, Biswas . A and Pal.A
Statistical signal processing based reconnaissance to explore the kinematics of Coronal Mass Ejection & its impact on Earth.	Chattopadhyay Anirban	Bhattacharjee A.K , Chandra, A.& Dhar Roy, S.
Development and Performance Analysis of slotted antennas for various Wireless applications	De Arnab	Bhattacharjee A.K (with Bappaditya Roy,Vellore Institute of Technology-AP University, Andhra Pradesh).
Effect of Magnetic Field on the Large-scale-Characteristics of Millimeter wave IMPATT Sources	Banerjee Partha	Bhattacharjee A.K (with Arindam Biswas,Kazi Nazrul University, Asansol,WB,India)



Topic	Investigator	Supervisor(s)
Design and development of Spectrum Sharing in an overlay Cognitive Radio Network	Mondal Sukanta	Bhattacharjee A.K (with Arindam Biswas, Kazi Nazrul University, Asansol, WB, India)
Estimation of Different Parameters for an ARQ Protocol in a Fading Network through Various Codes.	Paul Prajit	Bhattacharjee A.K
Elimination of Harmonics/Higher order modes in Microstrip Antenna using Stub and / or Defected Ground Structure (DGS)	Deb Roy Subhadra	Bhattacharjee A.K
Some Studies on Wearable Multiband Antennas	Batabyal Surajit	Bhattacharjee A.K
HfO _x Based Resistive Switching Devices for Non-Volatile Memory Applications	Maji S (Submitted)	Mahapatra R
Adiabatic logic circuits	Samanta S	Mahapatra & A K Mal
Graphene based materials for sensing application	Pal H	Mahapatra R & S Chatterjee
Dummy Gate and Buried Oxide Engineering of Power MOSFETs for sub-200 V Applications	Sahoo J (Submitted)	R Mahapatra
Dielectric Engineering for GaN HEMT Devices	Das P	Mahapatra R & Chakraborty A K
Gas Sensors	Tiwary P	Mahapatra R & Chakraborty A K
Doping effect on Resistive Memory Devices	Paul, A. D	Mahapatra, R
Effect of Stack Oxide Layers on Resistive Memory Devices	Biswas S	Mahapatra R
Design of On-Chip Antennas in Silicon ICs for Short Range Communication	Mandal S.	Mandal S. K., Mal A.K., Mahapatra R.
Design of a VCO-based ADC for Audio Codec Applications and Modelling its Performance	Panda M.	Mal A.K. Patnaik S.
CMOS Time-Mode Temperature Sensor Circuits using delta-sigma Time-to-Digital Converters	RSSM Krishna	Mal A.K., Mahapatra R
Design of Analog Circuits for Neuromorphic Computing	Sundram S. S.	Mal A. K.
VLSI Circuit Design optimization using evolutionary optimization techniques	Kanchan Baran Maji	R Kar D. Mandal S P Ghoshal
Study of mutual coupling and scan blindness in antenna arrays	Susmita Biswas (Submitted)	D. Mandal Chandan Kumar Ghosh
Radiation Pattern Synthesis of Time Modulation Antenna Arrays	Madhab Dhali	D. Mandal
Optimal design and implementation of Fractional Order analog and digital filters	Shibendu Mahata (Submitted)	R Kar D. Mandal
Analysis and Performance Optimization of Innovative Nanowire Tunnel FET for Low Power Sensors Design	Navaneet Kumar Singh	R Kar D. Mandal



Topic	Investigator	Supervisor(s)
Radiation Pattern Synthesis of Conformal Antenna Array using Different Optimisation Tools	Shashank Kumar Singh	D. Mandal
Performance Optimization of Double-Gate MOSFETs for Nano-Electronics Circuit Design Using Evolutionary Techniques	Dibyendu Chowdhury	R Kar
Synthesis of Different Antenna Array Geometries using Evolutionary Algorithms and Time Modulation Strategies	Mukherjee A.	Mandal, S.K. Ghatak, R.
Some Studies on Synthesizing Power Patterns in Time-Modulated Antenna Arrays using Evolutionary Algorithms	Patra S.	Mandal, S. K. Mahanti, G. K.
Study on Design of Multiband Microstrip-Patch Antennas for Wireless Devices	Goswami S.	Mandal, S. K.
Studies on Improving Radiation Characteristics of Time-Modulated Antenna Array	Mandal, S	Mandal, S. K.
2D materials (MoS ₂ and WS ₂) based energy-efficient gas sensors	Biswas, S.	Ranwa, S.
Implementation of some Quantum Optical Logic systems using the switches made of Photonic Band-gap crystal	De, P.	Ranwa, S.
Synthesis of Different Antenna Array Geometries using Evolutionary Algorithms and Time Modulation Strategies	Ananya Mukherjee	Rowdra Ghatak jointly with S K Mandal
Studies on Substrate Integrated Waveguide based Wideband and Multiband Antennas	Deblina Chowdhury	Rowdra Ghatak
Studies on Broadband and Multiband Planar Antennas Based on Reactive Impedance Surface and Composite Right/Left-Handed Transmission Line	Shyam Sundar Jash	Rowdra Ghatak
Some Studies on Compact UWB MIMO Antenna Systems for Wireless Devices	Jeet Banerjee	Rowdra Ghatak
Studies on Reconfigurable Multiband and Wideband Microwave Bandpass Filters	Anjan Bandyopadhyay	Rowdra Ghatak And Tapas Mondal, ECE Dept., Dr. B C College of Engineering
Studies on Multi-GNSS Signal Environment from India Towards Test Range Applications	Mrinal Goswami	Rowdra Ghatak and Dr. Anindya Bose (Univ. of Burdwan)
Studies on Multi Mode Filters and Filter Integrated Antennas for Wireless Transceivers	Riya Chakraborty	Rowdra Ghatak
Air-Pollutant Gas Emission from Vehicle-tailpipe and Cyber Physical Monitoring	Bej Debabrata	Chattaraj Nilanjan

DEPARTMENT OF EARTH AND ENVIRONMENTAL STUDIES

Topic	Investigator	Supervisor(s)
Optimisation of Sustainable Integrated Municipal Solid Waste Management System through Case Studies.	Arpan Chattopadhyay	K. Adhikari S. Pal
Investigation of Emerging Contaminants effect on Hooghly River Ecosystem at Kolkata Stretch, West Bengal	Lokenath Chakraborty	Sandip Mondal Subir Kumar Nag



Topic	Investigator	Supervisor(s)
Pesticide contamination of groundwater from agricultural site of Nadia District (WB) – Transport and remediation	Nilesh Kr. Meshram	K. Adhikari
Registration not completed	Om Prakash Sudhanku	S. Mondal
Registration not completed	Sneha Das	S. Mondal
Registration not completed	Reeya Ghosh	M. K. Ozha
Hydrochemical and Mineralogical Evaluation of the shallow (<80m) aquifer of Murshidabad District, West Bengal, India	Rhitwik Chatterjee	K. Adhikari
Development of Quantitative Tool for Assessment of Regional Sustainability of Coal Mining Area	Vineeta Prasad	K. Adhikari

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

Topic	Investigator	Supervisor(s)
Risk Management in Industries	Nandi, Anita	Sengupta, P.P.
Human Resource Policies and Its Impact on Employees' Performance in Hospitality Industry: A Study of Selected Star Hotels in Kolkata, India	Hazra, Krishnendu	Sengupta, P.P.
Impact Assessment of Rural Microenterprises under SVEP (NRLM)	Mazumdar, Gautam	Sengupta, P.P.
FDI and India's Economic Development	Ponjwani, Veena	Sengupta, P.P.
Mapping Socio-Cultural Milieu of Parsi Immigrants: A Study of Select Texts of Parsi Litterateurs	Biswas, Ujjwal	Banerjee J.
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	Roy, Oliva	Banerjee J.
Foregrounding Social, Moral and Psychodynamic Perspectives of Empathy: A Study of Indian Graphic Novels	Mondal, Kavita	Banerjee J.
Voices of the Margin: A feminist reading of the diasporic demarcation and minority discourse in the works of Chitra Banerjee Divakaruni	Sengupta, Debalina	Banerjee J.
Digital Visual Effect in Movies: Beyond Spectacle and Illusion	Bandyopadhyay, M.	Modak, A.
Global Concerns in Select Plays of Mahesh Dattani	Howlader, A.	Modak, A.
Healing the Trauma of Sexual Abuse: the Health Humanities Approach	Maji, P.	Modak, A.
From Sight to Insight: Psychopathological Interpretations of Abnormality of Shakespeare's Characters	Ali, Md. A. B.	Modak, A.
The Yellow Book and the Alternative Literature at the Turn-of-the-Century by New Women Writers and Poets of the Periodical	Ghosh Das, S.	Modak, A.
Indian English Non Fiction	Das, A	Rai, S.K
Gerontology and Bengali Cinema: A Critical Study	Mandal, A	Rai, S.K
Post 9/11 Novels and Islam	Paul, S	Rai, S.K
Postcolonial Writings	Panda, S.	Rai, S.K.





Topic	Investigator	Supervisor(s)
Performance, Identity and Colonial Modernity in Select Autobiographies of Indian Female Stars	Rana, Raju	Banerjee, S.
The Insignia of Modernity: Untangling the Complex Local-Global Intersection in Women's (Re)Presentation in Late Colonial Bengal	Kankaria, Lipika	Banerjee, S.
Negotiating Normative Spaces: Reading Transgressive Bodies in Select Contemporary Indian Narratives in English	Chatterjee, Ankita	Banerjee, S.
Unmasking Masculinities in Urban Spaces: A Study on Select Hindi Web Series	Mitra, Amrita	Banerjee, S.
A Life of Her Own: Representations of Single Women in Contemporary Indian English Fiction	Mohanta, Subhasnata	Banerjee, S. and Das, Rumpa
Theatre and Gender Studies	Halder, Somjit	Banerjee, S.
Impact of Sustainability Issues on Consumer Purchase Decision Making: Special Emphasis on Indian Middle-Class Consumers	Banerjee, Amit Kumar	Chakraborty, D.
Efficiency and Productivity Analysis of India's Iron & Steel Industry: A Comparative Study	Kumar, Dhiraj	Chakraborty, D.
Sustainable Development and Energy Economics	Das, Titiksha	Chakraborty, D.

DEPARTMENT OF MANAGEMENT STUDIES

Topic	Investigator	Supervisor(s)
Factors Affecting Investment Behaviour In Mutual Fund Industry-An Indian Perspective	Banerjee S	Bandyopadhyay, G. and Ghosh A.
Investor behavior in Durgapur and Asansol Region	Bhattacharya, A	Dutta, A.
Empirical Inference of Investment Decision Making from Operations Research Context: An Insight of FMCG and Consumer Durable Sectors in India.	Biswas, S	Bandyopadhyay, G.
Registration pending	Bose, S	Ghosh, A.
A Study on Workplace Adaptability: An Indian Perspective.	Bose, S	Pal D.
Harnessing The Association Between Inherent Interests Of Employees With Key Leadership Competencies For Organisational Development In Indian Industries.	Chaki, M R	Bandyopadhyay, G.
A study on effective management of national economic planning and budgeting using soft computing based techniques.	Chanda, M. M.	Bandyopadhyay, G., & Banerjee, N.
Analyzing the long term performance OF IPO and Developing IPO indexing	Chatterjee S	Dutta, A.
A quest for relationship among socio demographic variables and various facets of sales promotion	Chel, S	Mandal K.
A Study on Corporate Social Responsibility and its Impact on the Performance of Indian Corporate Sector	Deb, D.	De, A.
Registration pending	Dey, B	Das G (NIT Silchar) & Paul U K.
Digital Learning & Its Impact	Ghosh, P	Roy, M.



Topic	Investigator	Supervisor(s)
Frauds in Public Sector Banks of India: A Study to Find out the Factors and Impact	Ghosh, S. K.	De, A.
An Approach for Efficient Portfolio Selection Strategy in Indian Capital Market Using Soft-Computing Techniques	Gupta S	Bandyopadhyay, G.
Estimation of systemic risk and identification of systemically important firms in India	Karmakar, S.	Bandyopadhyay, G.
Registration pending	Mitra, A.	De, A.
A Study in Business Risk Assessment Methodologies under Multi-Criteria Fuzzy Environment having Applications in Integrated Steel Plant	Mukherjee, S.	De, A.
Determinants of Property Liability Insurance market in post-reform era and its relationship with economic growth in India (Submitted)	Mukherjee, A	Ghosh, A.
A Study on the Determinants of Sports Leadership of a Group of Physical Educators in the Academic Institutions of West Bengal.	Mukherjee, H	Pal, D.
Registration pending	Prasad, K. K	Ghosh, A.
Registration pending	Roy, K	Paul U K.
A study on consumer buying decision in the time of pandemic.	Sahoo,P.	Banerjee,N., & Mandal,K.
Strategy for dairy development in West Bengal, India	Sarkar, A	Dutta, A.
Comparative analysis of listed banks using financial Indicators and stock returns in Indian scenario.	Shaw.K.V.	Bandyopadhyay, G.
Registration pending	Singh, D	Paul U K.
Adoption of digital Payments- Issues and challenges	Singh, P	Dutta, A.

DEPARTMENT OF MATHEMATICS

Topic	Investigator	Supervisor(s)
Newsvendor Problems in uncertain environments	Adhikary, K.	Kar, S.
Overstability in rotating magnetoconvection of electrically conducting fluids	Banerjee, Ankan	Pal, P.
Some fuzzy inference techniques and their applications to different fields	Basak, Sanghamitra	Panigrahi, G., Jana D, Maiti M
Non-linear analysis	Bera, Ashis	Dey, L.K.
Mathematical models of some decision making problems in uncertain environments	Bera, S	Basu, K. and Maiti M and Jana D K
Some Mathematical Models On Inventory And Supply Chain Management	Bhattacharya, Sandipa (submitted)	Sarkar (Mondal), S.
Codes over rings	Bhowmick, Sanjit	Bagchi, S.&Bandi, R.
Some Transportation Problems in Different Imprecise Environments	Bhowmik, Sarbari	PanigrahiG , Jana D, Maiti M
Electrokinetics through narrow confinements	Chowdhury, Sourav	Gopmandal, P.P.
Some Inventory Models with Transportation in Supply Chain	Debnath, Sudeshna	Sarkar (Mondal), S. &Maiti, M.



Topic	Investigator	Supervisor(s)
Robust optimization in network optimization problems	Dey Sarkar, Debapriya	Basu, K.
Complex networks	Dutta, Sangita	Pal, P.
Topological fixed point theory	Garai, Hiranmoy	Dey, L.K.
Nonlinear Differential equations	Ghosh, Arindam	Maitra, S
Light weight cryptography	Ghosh, Haradhan	Bagchi, S.
Inventory Problems with Imperfect Production in Supply Chain Management	Ghosh, Prasanta	Kar S. & Dey, J. K.
Inventory Management	Kar, S.	Basu, K. and Sarkar B
Topological fixed point theory	Karmakar, Surajit	Dey, L.K.
Interplay of structure and dynamics in multilayer networks	Khanra, Pitambar	Pal, P.
Modelling of Some Earthquake Processes in Different Media during Aseismic Period	Kundu, Piu	Sarkar (Mondal), S
Topology and Functional Analysis	Laha, Supriti	Dey, L.K.
Electrokinetics of composite soft particles	Mahapatra, Paramita	Gopmandal, PP
Geophysics	Mahato, Pabita	Sarkar (Mondal), S
Various Kind of Approximation in Rough Set Theory and Applications	Majumder, Sandip	Kar, S.
Oscillatory magnetoconvection	Mandal, Sutapa	Pal, P.
Study of some neutrosophic graphs with applications	Mohanta, Kartick	Pal, A.
Study on some graph invariants and their applications	Mondal, Sourav	Pal, A.
Locally repairable codes	Mukhopadhyay, Deep	Bagchi, S.
Auction Adaptive participatory Sensing	Mukhopadhyay, Jaya	Pal, A.
Geometry of Hyperbolic Metric	Nurezamman, Md	Ali, M. F.
Pre-Schwarzian and Schwarzian derivative for analytic functions	Pal, Sanjit	Ali, M. F.
Functional Analysis	Pal, Subhadip	Dey, L.K.
Pre-Schwarzian and Schwarzian derivative for harmonic mappings	Pandit, Sushil	Ali, M.F.
Development of effective estimation strategies for Population parameters in sample surveys	Parichha, Partha	Basu, K. and Bandyapadhyay A
Mathematical Modelling for the Control of Infectious diseases	Roy, Argha	Sarkar (Mondal), S., & Sahoo, B.
A Generalization of Toeplitz-Hausdorff Theorem and Birkhoff-James Orthogonality	Roy, Saikat	Bagchi, S.
Electroviscous effect of suspension of colloids	Samanta, Susmita	Gopmandal, P. P.
Study of Some Mathematical Behavior of Topological Indices	Sarkar, Prosanta	Pal, A.
Convective Instabilities	Sarkar, Snehashish	Pal, P.



Topic	Investigator	Supervisor(s)
Rotating magnetoconvection	Sharma, Lekha	Pal, P.
Codes over rings	Shaw, Ankan	Bagchi, S.
Study of topological indices in drug manufacturing	Some, Biswajit	Pal, A.

DEPARTMENT OF MECHANICAL ENGINEERING

Topic	Investigator	Supervisor(s)
Design and control of Soft Lower Limb Exoskeleton	Arora Aman	Roy S.S.
Supply Chain Management	Bera Pravanjan	Hui N. B.
FE-based Modeling of Backward Flow Forming Process	Banerjee Prabas	Hui N. B.
Characterization of secondary flows for nonNewtonian fluids	Banerjee Arka	Sengupta S., Pramanik S.
Thermodynamic Analysis of Oxy-Coal fired Thermal Power Plants	Chatterjee Soumya Jyoti	Karmakar Sujit
Modelling and Optimization of Electrohydrodynamic Inkjet Based Microfabrication System	Das Raju	Roy S.S.
Computational and experimental study of performances of S-shaped defuser	Asim Kr Das	Rana S. C.
Condition Monitoring of Industrial Fans using Soft Computing	Dutta Anup	Hui N. B.
Manufacturing Analytics	De Tarak Nath	Hui N. B.
Interaction of Rigid bodies and point vortices in Potential flow	Deb Sudipta	Banerjee Nilotpal
Design of expert system in manufacturing processes	Dhar Ananda Rabi	Roy S.S.
Power Generation from Municipality Waste	Dwivedi Krishna Kant	Pramanick, A. K., Chatterjee, P. K., Karmakar, M.
Investigation On Fluid Flow And Heat Transfer Of Solar Air Heater Having Artificially Roughened Absorber Plate	Gharai Shibendra	Apurba Layek
Design and Control Of Smart Material Based Actuators For Robotic Assembly	Ghosh Bhaskar	S. Mukhopadhyay, Roy S.S., Jain R.K
Optimization Of Design Parameters Of An Internal Combustion Engine Running On Alternate Fuel	Huirem Neerajan	Apurba Layek
Analysis Of Bimodular Material Laminated Beam Using Equivalent Stiffness Method	Hasan Nasir Sk	Kallol Khan
Performance, Emission And Combustion Characteristics Of A Variable Compression Ratio Engine Using Blends Of Diesel And Waste Cooking Oil Methyl Esters With Ethanol As Additive	Kathirvel S.	Apurba Layek
Analysis Of Bimodular Material Laminated Curved Beam Using Equivalent Stiffness Method	Kumar Amarandra	Kallol Khan
Non-linear Analysis of Nuclear Pipe Bends Subjected to Complex Loadings.	Kumar Manish	Kallol Khan Pronab Roy
A study on typical condensations: mathematical theories, analyses, and engineering-applications	Kar Uttam Kumar	Sengupta S., Pramanik S.
Performance Analysis Of Solar Air Heater Having Twisted Rib As Artificial Roughness Over The Absorber Plate	Kumar Anup	Apurba Layek





Topic	Investigator	Supervisor(s)
Thermo-Hydraulic Performance Enhancement Of Solar Air Heater Using Winglet Type Vortex Generator	Kumar Amit	Apurba Layek
Thermodynamic Analysis of Advanced Coal based Power Generation Systems with CO ₂ Capture	Kumar Rajesh	Karmakar Sujit
Hybrid energy for sustainable building	Kumar Nagendra	Jana K and Karmakar Sujit
Design & analysis of redundant manipulator for under water applications	Kumar Virendra	Roy S.S., Sen S.
Investigative study of 'Stirling Engine' based Solar Thermal Power Generation	Man Singh Azad	Apurba Layek
Heat transfer and fluid flow through the twisted duct	Mahato Shambhu Kumar	Rana S. C., Barman R. N.
Active, passive control and dynamic stability of nonlinear flexible systems	Mondal Saikatsuvra	Ranjan Kumar Mitra and Atul Krishna Banik
Machine Fault Diagnosis	Mondal Samrat	Mishra C., Hui N. B.
Thermal Performance Improvements of a Fin arrayed Horizontal sinks	Mandal Pabitra Kumar	Rana S. C., Bhanja D. (NIT Silchar)
Non-linear fluid dynamics in a solar air heater with the artificially roughened absorber plate	Prasad Jay Shankar	S. Mondal
Thermodynamic Analysis of Integrated Gasification-fuel Cell Combined Cycle based Power generation Systems	Pruthvi Deep A	Karmakar Sujit
Experimental Analysis Of Using Raw Vegetable Oil And Its Blends With Diesel In Ci Engine	Roy Debabrata	Apurba Layek
Condition monitoring of gear systems	Rajeev Kumar	Mishra C. Mitra R.K.
An Investigation on Design of Continuous Casting Molds	Ray Koushik	Basak I
Performance study of Vortex Tube	Singh Ravi Kant	Pramanick A.K., Rana S. C.
Experimental study of stability analysis of rotating shaft using various types of bearings and lubricants	Sharma Praveen	Barman R. N., Rana S. C.
Development and performance evaluation of self-lubricating ZTA ceramic inserts for high speed machining of steel	Singh Bipin Kumar	Roy S.S., Mandal N.
Fluid flow and heat transfer	Sharma Biswajit	Barman, R. N.
Diagnosis of faults in ball bearing	Samrat Mandal	Mishra C. Hui N. B.
Thermodynamics	Selvapandian Ebinezer	Pramanick, A.K., Ramachandran, K.P.
Hot Embossing of polymers (tentative)	Swarup Deshmukh	Goswami A..
Non conventional Machining of ceramics (tentative)	Subir Datta	Goswami A.
Heat transfer augmentation in solar air heater using artificially roughened absorber plate	Tripathy Nirmalya	S. Mondal and A. Datta



Topic	Investigator	Supervisor(s)
Fabrication of embossing moulds on various materials (tentative)	Tuhin Kar	Goswami A.
A Study of Micro Aerial Vehicle (Mav) Dynamics for a scalable design	Umesh Patkar	Banerjee Nilotpal & Majumder M.C
Optimum Design of Flow Modifier in Tundish of Slab Caster using CFD	Verma Deepak	Mullick A. N.
Study and analysis of nonlinear behavior of passive suspensions in passenger vehicles	Varude Vinay	Banerjee Nilotpal

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Topic	Investigator	Supervisor(s)
Design and development of Cu based nanocomposites with W particles reinforcement for use in heat sinks in advanced electronic devices	Bandyopadhyay Krishnan	Ghosh M. M. & Ghosh K. S.
Investigation on rolling of strips using FEM with a special focus on prevention of rolling defects	Banerjee Arijit	Ghosh M.M. and Ghosh K.S.
Design and development of Zr-Nb based alloys with enhanced radiation tolerance properties for nuclear reactor applications	Banerjee Satadipa	Ghosh M.M., Maji B. and Arya A.K. (BARC Mumbai)
Severe plastic deformation processing of in-situ cast Al-Mg ₂ Si composites	Bhandari Rahul	Mondal M. K. & Mallik M.
Structure properties correlation of in-situ Al-Mg ₂ Si composite with and without modifier	Biswas Prosanta	Mondal M.K. & Mandal D.
An approach for effective joining of dissimilar metals used in super critical boilers	Chatterjee Suvam	Maity J. & Mondal M. K.
Study on mechanical working of reduced pure iron oxide briquettes	Das Ritwik	Pramanik S. & Mondal M. K.
Effect of microalloying on Al-Cu-Ni alloys	Das Sagar	Bers S. Show B.K.
Design and Development of Highly Efficient Water and Ethylene Based Nanofluids Containing Cu-Ag Alloy Nanoparticles for Advanced Heat Transfer Applications	Das Sujoy	Ghosh M. M.
Low-Cost Synthesis and Characterization of Boron Nitride Reinforced Aluminum Based Metal Matrix Composite	Jaiswal Arvind Kumar	Maji B. & Maity J.
Development of Flux from low grade ore using microwave	Kalshyan Rajkumar	S Ghorai
Corrosion and Nanomaterials	Kar Palas	Ghosh K.S. & Ghosh M.M.
Design and development of surface nanostructured structural materials	Kumar Hrishikesh	Ghosh M. M. & Pramanik S.
Removal of impurities from liquid iron by synthetic slag under Transferred Arc plasma	Kumar Ramesh	Mandal, A.K.
Synthesis and characterization of Cu-Based alloy composite	Mahato Amar	Bera S Show B.K.



Topic	Investigator	Supervisor(s)
Coke quality improvement	Mallik, Kashinath	Mandal A.K Ghorai, Satadal
Multi-scale modeling and experiments on carbon fiber reinforced epoxy resins composites for applications in aircraft.	Mishra Ajay Kumar	Ghosh M.M & Show B.K
Structure property correlation of ODS alloys	Pandey Subham Kumar	Mallik Manab & Mondal M. K
Development of high entropy bulk metallic glass for structural and biomedical applications	Paul S	Bera S & Mandal Durbadal
Processing, microstructure and properties of ZrB ₂ based ultra high temperature ceramic composites	Paul Tanay Rudra	Mallik Manab & Mondal M. K
Structure property correlation of magnesia refractory	Rouf Abdur	Mallik Manab & Yagati Krishna Priya
Development of Al alloys for high temperature application	Rizwi Imran	Show B.K. Mandal D.
Design and development of Ti-Ni based alloy for biomedical applications	Sadhukhan Pritam	Maji Barnali & Ghosh M.M.
Development of aluminium based metal matrix composite systems with hybrid reinforcements processed through powder metallurgy route and comparative study of their properties	Saha Samata	Ghosh Manojit (BESU, Shibpur) & Maity J.
Co-Cu alloys for magnetic applications	Sarkar A.	Bera S. Chabri S. (Narula Inst.)
ZrB ₂ —SiC based ultrahigh temperature ceramic composites for high temperature applications	Sarkar Sayandip	Mallik Manab & Mondal M. K
Studies on wire arc additive manufacturing of high strength aluminium alloys	Sinha Atosh Kumar	Krishna Priya Yagati

DEPARTMENT OF PHYSICS

Topic	Investigator	Supervisor(s)
Development and Characterization of Polymer-Multiferroic Nanocomposites for Enhance Magneto Dielectric Behavior	Atta S	Meikap AK
Theoretical study of z' boson, B meson decays, Higgs boson and new physics beyond the standard model	Biswas S	Sahoo S.
Resource trade-off and emergent gene regulatory dynamics	Chakraborty P	Ghosh S.
Photocatalytic studies using metal oxide and carbon nanostructures for water splitting and purification	Chatterjee P	Chakraborty AK
Characterization and Reliability prediction studies of lead free solder joint interface for electronics application	Char M	Chakraborty AK Kar A (JBNSTS)
Green Synthesis of Some Nanocrystalline Biomaterials and Study of Gas Sensing Properties of Hydroxyapatite Based Nanocomposites: Their Microstructural and Electrical Characterization	Chatterjee T	Meikap AK Pradhan SK



Topic	Investigator	Supervisor(s)
Development and Characterization of Polymer-Multiferroic Nanocomposites for Enhance Magneto Dielectric Behavior	Atta S	Meikap AK
Theoretical study of z' boson, B meson decays, Higgs boson and new physics beyond the standard model	Biswas S	Sahoo S.
Resource trade-off and emergent gene regulatory dynamics	Chakraborty P	Ghosh S.
Photocatalytic studies using metal oxide and carbon nanostructures for water splitting and purification	Chatterjee P	Chakraborty AK
Synthesis of GeO_x and GaO_x lowdimensional materials and photodetector	Choudhury A	Mondal A Das S
Electronic and optoelectronic applications of MgO/TiO_2 and $\text{V}_x\text{O}_y/\text{TiO}_2$ heterostructure nanowires	Dalal A	Mondal A
Synthesis of Metal nanostructure for application as an active and passive scatter in generation of random laser	Dey A	Kumbhakar P
Graphene/metal oxide nanohybrids for gas sensors	Gupta S	Chakraborty AK
Radiation hazard	Jana P K	Das S
Development of metal-oxide based polymer nanocomposites for opto-electronics application	Karmakar R	Meikap AK
Sparse Representation of Signals and its Applications	Karmakar J	Mandal MK
Investigation on physics of nonlinearity of the earth system data	Khutia S	Chaudhuri H
Synthesis of nano material for degradation of antibiotics	Mukherjee S	Chaudhuri H
Exploring epidemic dynamics on spatial and social network	Mallick D.	Ghosh S.
Holography	Mandal R	Ghosh A
Investigations on Synthesis, Linear and Nonlinear Optical Properties of Some Carbon Nanomaterials and Nanocomposites	Mondal K	Kumbhakar P
Ring Oscillator and its Applications in Communication Systems	Mondal H	Mandal M.K
Studies on Erbium doped TiO_2 / Ag nanoparticle based plasmonic UV photodetectors	Mondal S	Mondal A
Theoretical study of boson, B meson decays, and Higgs boson	Mahata S	Sahoo S.
Phenomenology of boson, B mesons, Higgs boson and new physics	Maji P	Sahoo S.
A complete study on spin polarized nuclear matter and finite nuclei with finite range simple effective interaction	Pal M	Sahoo S., Sahoo B. & Chakraborty S.
Studies on Sparse Representation for Data Processing and Applications	Pathak A	Mandal M.K.
Theoretical study of the coexistence of superconductivity, antiferromagnetism and Jahn-Teller distortion in iron based superconductors	Parida PK	Sahoo S. and Pradhan B.
Investigations on synthesis, characterizations, optical properties of some carbon nanostructured materials and its applications	Pramanik A	Kumbhakar P
Study of evolutionary advantages of some fundamental properties of DNA	Sahu, P.	Subramanian, H.



Topic	Investigator	Supervisor(s)
Development and Characterization of Polymer-Multiferroic Nanocomposites for Enhance Magneto Dielectric Behavior	Atta S	Meikap AK
Theoretical study of z' boson, B meson decays, Higgs boson and new physics beyond the standard model	Biswas S	Sahoo S.
Resource trade-off and emergent gene regulatory dynamics	Chakraborty P	Ghosh S.
Photocatalytic studies using metal oxide and carbon nanostructures for water splitting and purification	Chatterjee P	Chakraborty AK
Metal oxide/hydroxide and graphene hybrid nanostructures for gas sensing application	Tiwari P	Chakraborty A.K. and Mahapatra R. (ECE)
Nanotechnology for environment	Saha B	Das S Mondal A

ANNEXURE-11.4(h)I Ph.D. DEGREE AWARDED TILL 2020-21

Name of the Department	Investigator	Supervisor(s)
Biotechnology	Dr. H. R. Bairagya	Dr. B. P. Mukhopadhyay
Biotechnology	Dr. B. Bhunia	Dr. A. Dey
Biotechnology	Dr. G. Goswami	Dr. D. Dutta & Dr. S. Chaudhuri
Biotechnology	Dr. N. Sarkar	Dr. K. Aikat
Biotechnology	Dr. B. Basak	Dr. A. Dey
Biotechnology	Dr. S. Chakraborty	Dr. A. Dey
Biotechnology	Dr. R. Das	Dr. Kazy S. K.
Biotechnology	Dr. A. Ganguly	Dr. A. Dey Dr. P.K. Chatterjee (CMERI Durgapur)
Biotechnology	Dr. N. Gupta	Dr. S. Chattopadhyay
Biotechnology	Dr. Kumar Pranaw	Dr. D. Dutta, Dr. Lata N. & Dr. S. Chaudhuri
Biotechnology	Dr. J P. Maurya	Dr. S. Chattopadhyay
Biotechnology	Dr. V. Singh	Dr. S. Chattopadhyay and A. Nandi (SLS, JNU)
Biotechnology	Dr. S. Mondal	Dr. A. Dey, Dr. S.S. Mukhopadhyay, and Dr. B. Mondal (CMERI, Durgapur)
Biotechnology	Dr. P. Verma	Dr. Kazy S. K. Dr. A. Suman (IARI, New Delhi)
Biotechnology	Dr. D. Senapati	Dr. S. Chattopadhyay
Biotechnology	Dr. K. Sinha	Dr. K. Aikat and Prof. S. Datta & Dr. P. Das (both of Jadavpur University)



Name of the Department	Investigator	Supervisor(s)
Biotechnology	Dr. S. Mondal	Dr. K. Aikat & Dr. G. Haldar (Chemical Engg)
Biotechnology	Dr. M. Behera	Dr. D. Dasgupta Mandal
Biotechnology	Dr. J.C. Bose K.	Dr. S. S. Mukhopadhyay
Biotechnology	Dr. B. Laha	Dr. M. Ghosh
Biotechnology	Dr. M. Chakraborty	Dr. S. Chattopadhyay
Biotechnology	Dr. A. K. Samanta	Dr. D. Dutta and Dr. S. Chaudhuri
Biotechnology	Dr. R. Priyadarshinee	Dr. D. Dasgupta Mandal
Biotechnology	Dr. S.S. Prasad	Dr. K. Aikat
Biotechnology	Dr. A. Verma	Dr. M. Ghosh
Biotechnology	Dr. N. Sabnam	Dr. S. Roy-Barman
Biotechnology	Dr. S. Bera	Dr. D. Dutta
Biotechnology	Dr. A. K. Srivastava	Dr. S. Chattopadhyay
Biotechnology	Dr. S. Dutta	Dr. A. Dey
Biotechnology	Dr. A. Roy	Dr. S.K.Kazy
Biotechnology	Dr. S. Deepthy T	Dr. M. Ghosh
Biotechnology	Dr. R.Samadarshi	Dr. D. Dutta
Biotechnology	Dr. S. Pal	Dr. S.K.Kazy
Biotechnology	Dr. M. Hazra	Dr. D. Dasgupta Mandal
Chemistry	Dr. M. Banerjee	Dr. R. S. Konar
Biotechnology	Dr. S.Neogi	Dr. A.Dey
Biotechnology	Dr.S.Dhabal	Dr.A. Bhattacharjee & Dr. S. S Mukhopadhyay
Biotechnology	Dr. B.Biswas	Dr. M. Ghosh
Chemistry	Dr. M. Banerjee	Dr. R. S. Konar
Chemistry	Dr. S. Chatterjee	Dr. R. S. Konar
Chemistry	Dr. B. R. Guha	Dr. S. N. Banerjee
Chemistry	Dr. S. Basu	Dr. S. N. Banerjee
Chemistry	Dr. U. Satpathi	Dr. R. S. Konar
Chemistry	Dr. P. K. Banerjee	Dr. S. N. Banerjee
Chemistry	Dr. S. Saha	Dr. N. Kurmaiah
Chemistry	Dr. V. K. Soi	Dr. N. Kurmaiah
Chemistry	Dr. S. Sarkar	Dr. R. S. Konar
Chemistry	Dr. M. S. Adhikary	Dr. R. S. Konar
Chemistry	Dr. S. Guchait	Dr. R. S. Konar
Chemistry	Dr. R. Roy	Dr. M. M. Nandi
Chemistry	Dr. P. Debnath	Dr. M. M. Nandi
Chemistry	Dr. S. Mishra	Dr. S. N. Banerjee
Chemistry	Dr. J. Chowdhuri	Dr. M. M. Nandi
Chemistry	Dr. S. Tarot	Dr. M. M. Nandi



Name of the Department	Investigator	Supervisor(s)
Chemistry	Dr. T. K. Chatterjee	Dr. G. C. Bhaumik
Chemistry	Dr. A. K. Sarkar	Dr. N. Kurmaiah
Chemistry	Dr. N. Dey	Dr. R. S. Konar
Chemistry	Dr. S. C. Mitra	Dr. R. S. Konar
Chemistry	Dr. S.C. Moi	Dr. A. K. Ghosh
Chemistry	Dr. T. Kundu	Dr. A. K. Ghosh & Dr. P. Chowdhury
Chemistry	Dr. B. Chakrabarti	Dr. B. P. Mukhopadhyay
Chemistry	Dr. T. K.Nandi	Dr. B. P. Mukhopadhyay
Chemistry	Dr. S. Samui	Dr. A. K. Ghosh & Dr. P. Chowdhury
Chemistry	Dr. B. Ghosh	Dr. B. P. Mukhopadhyay
Chemistry	Dr. Ranjana	Dr. M. M. Nandi & Dr. M. Maji
Chemistry	Dr. G. K.Ghosh	Dr. S. C. Moi & Dr. A. K. Patra
Chemistry	Dr. S.Mahata	Dr. M. M. Nandi & Dr. B. N. Mondal (CMERI)
Chemistry	Dr. H.S.Borah	Dr. S. S.Panja Dr. S.Choudhury
Chemistry	Dr. S.Roy	Dr. A. K. Patra
Chemistry	Dr. J.Shah	Dr. S. B. Das Dr. R.N. Saha Dr.Raut N. B. (C.C.E., Oman)
Chemistry	Dr. Avik Banerjee	Mukhopadhyay B.P.
Chemistry	Dr. Ranu Banerjee	Dr. M. M. Nandi.
Chemistry	Dr. Tirthankar Mallik (Regd. with B.U.)	Dr. R.N. Saha
Chemistry	Dr. Koyel Misra	Dr. S. C. Moi
Chemistry	Dr. Sukanya Chandra	Dr. R. N. Saha & Dr. P. Pal
Chemistry	Dr. Alok Dutta	Dr. D. Sukul
Chemistry	Dr. Chinmoy Roy	Dr. J. Chakrabarty
Chemistry	Dr. Paromita Choudhuri	Dr. S. S. Panja
Chemistry	Dr. Piale Roy	Dr. D Sukul
Chemistry	Dr. Dhananjay DeY	Dr. M Maji
Chemistry	Dr. Ram Chandra Maji	Dr. A. K. Patra
Chemistry	Dr. Avradeep Samanta	Dr. S C Moi
Chemistry	Dutta Suvanka	Saha R. N.
Chemistry	Pal Aparesh	Sukul D
Chemistry	Thakur, Indrani	Saha R. N.and Chatterjee S.



Name of the Department	Investigator	Supervisor(s)
Chemistry	Sikdar Anindita	Panja S S
Chemistry	Dutta Suvanka	Saha R. N.
Chemistry	Reddy V. P. B	Moi S. C.
Chemistry	Mitra, Ishani	Moi, S. C.
Chemistry	Mukherjee, Subhajit	Moi, S. C.
Chemistry	Bhandari, Anirban	Patra, A. K.
Chemistry	Dr. Sohini Guhathakurta	Dr. J. Chakrabarty
Chemistry	Sarkar Soma	Panja, S. S & Saha, R N
Chemistry	Pobi Krishnendu Kr.	Saha R N
Chemistry	Mahata Sujay	Moi , S. C.
Chemistry	Sourav Biswas	Panja S. S.
Chemistry	Dr. B. Mondal	Dr. U. Adhikari & Dr. U. Roy
Chemical Engineering	Dr. S.Chakraborty	Pal P., Roy M.
Chemical Engineering	Dr. Sanghita Basu	Pal P., Roy M.
Chemical Engineering	Dr. N. Goswami	Paruya S.
Chemical Engineering	Dr. A. Karmakar	Paruya S.
Chemical Engineering	Dr. A. Bhattacharya	Sadhukhan A. K. & Chatterjee P.K. (CSIR-CECRI)
Chemical Engineering	Dr. S. Chanda	Saha R. (CY), Pal P.
Chemical Engineering	Dr. D. Mukhopadhyay	Sarkar J.P. Dutta S.
Chemical Engineering	Dr. J. Dasgupta	Sikder J.
Chemical Engineering	Dr. R. Dhurandhar	Sarkar J. P. and Das B.
Chemical Engineering	Dr. Upendar Ganta	Dutta S. & Ghanta K.C.
Chemical Engineering	Dr. Sushovan Sen	Dutta S.
Chemical Engineering	Dr. Gargi Biswas	Dutta S. and Kalyan Adhikari (EES, NITDGP)
Chemical Engineering	Dr. Rahul Mishra	Ghanta K.C.
Chemical Engineering	Dr. Moumita Hazra	Mandal T. and Dasgupta Mandal D. [Biotechnology Deptt.]
Chemical Engineering	Dr.Kalyan Sarkar	Mandal T.
Chemical Engineering	Dr. M Bhattacharya	Mandal M. K.
Chemical Engineering	Dr. A. Prabhakar	Sadhukhan A. K. & Gupta Prof. P.
Chemical Engineering	Dr. Subhajit Dutta	Sadhukhan A.K., Gupta P., Chatterjee P. K.
Chemical Engineering	Dr. Rohit Kumar Singh	Sadhukhan A. K., Gupta P., Ruj B.
Computer Science & Engineering	Bikash Choudhury	Subhrabrata Choudhury, Animesh Dutta
Computer Science & Engineering	Abhijit Adhikari	Animesh Dutta



Name of the Department	Investigator	Supervisor(s)
Computer Science & Engineering	Bikash Choudhury	Subhrabrata Choudhury, Animesh Dutta
Computer Science & Engineering	Abhijit Adhikari	Animesh Dutta
Computer Science & Engineering	Goswami Mrinal	Dr. Bibhash Sen
Computer Science & Engineering	Vikash Kumar Singh	S. Mukhopadhyay
Computer Science & Engineering	Shyamapada Mukherjee	Suchismita Roy
Computer Science & Engineering	Khushbu Chandrakar	Suchismita Roy
Computer Science & Engineering	Subhendu Barat	Tanmay De
Computer Science & Engineering	Priyanka Das	Tanmay De
Civil Engineering	Dr. M. N. Rao	Dr. M. M. Basole
Civil Engineering	Dr. P. K. Das	Dr. M. M. Basole
Civil Engineering	Dr. N. M. Basu	Dr. M. N. Rao
Civil Engineering	Dr. S. N. Srimani	Dr. P. K. Das
Civil Engineering	Dr. S. Debbarma	Dr. S. Saha
Civil Engineering	Dr. Hariom Goel	Dr. Vijay Kumar Dwivedi & Dr. D. K. Singha Roy
Civil Engineering	Dr. N. K. Paul	Dr. R. P. Nanda
Civil Engineering	Dr. Satanand Mishra	Dr. Vijay Kumar Dwivedi
Civil Engineering	Dr. Milan Bandyopadhyay	A K Banik
Civil Engineering	Dr. N Aravind	Dr. A. K. Samanta & Dr. D. K. Singha Roy
Civil Engineering	Dr. S. Rajesh Kumar	Dr. A. K. Samanta & Dr. D. K. Singha Roy
Civil Engineering	Dr. Sumanta Rakshit	Dr. Supriya Pal & Dr. Soumya Bhattacharyya
Civil Engineering	Dr. Mohamed Ahmed Galal	Dr. A K Banik
Civil Engineering	Dr. Sanjay Sengupta	Dr. Alope Kumar Datta & Dr. Pijush Topdar
Electrical Engineering	Subrata Karmakar	Prof N K Roy & Prof P Kumbhakar
Electrical Engineering	Rupam Bhaduri	Prof. S. Banerjee
Electrical Engineering	Apurba Chatterjee	Prof. S. P. Ghoshal, Dr. V. Mukherjee
Electrical Engineering	Pabitra Kumar Biswas	Prof. S. Banerjee
Electrical Engineering	Rajan D. V.	Prof. S. S. Thakur
Electrical Engineering	Anjali Chatterjee	Prof. N. K. Roy, Prof. P. Kumbhakar
Electrical Engineering	Prasanta Kumar Pany	Prof. S. P. Ghoshal
Electrical Engineering	Sourav Mallick	Prof. S. S. Thakur, Prof. S. P. Ghoshal, Prof. P. Acharjee



Name of the Department	Investigator	Supervisor(s)
Electrical Engineering	Mrinal Kanti Sarkar	Prof. S. Banerjee, Prof. S. P. Ghoshal, Prof. T.K.Saha
Electrical Engineering	Arindam Chakraborty	Dr. J. Dey
Electrical Engineering	Arnab Ghosh	Prof. S. Banerjee
Electrical Engineering	Nasim Ali Khan	Prof. S. Ghosh, Prof. S. P. Ghoshal
Electrical Engineering	Dipayan Guha	Prof. S. Banerjee, Prof. P. K. Roy
Electrical Engineering	Pratap Kumar Panigrahi	Prof. S. Ghosh
Electrical Engineering	Karunamoy Chatterjee	Prof. S. N. Mahato, Prof. S. Chattopadhyay
Electrical Engineering	Santigopal Pain	Prof. P. Acharjee
Electrical Engineering	Nayan Kumar	Prof. T. K. Saha, Dr. J. Dey
Electrical Engineering	Santu Kumar Giri	Prof. S. Banerjee & Prof. C. Chakraborty
Electrical Engineering	Badal Sarkar	Prof. C. Koley, Prof. N. K. Roy and Prof. P. Kumbhakar
Electrical Engineering	Sriparna Roy Ghatak	Prof. P. Acharjee
Electrical Engineering	Dipak Kumar Mishra	Prof. C. Koley & Prof. N. K. Roy
Electrical Engineering	Tushnik Sarkar	Prof. S. Banerjee & Dr. Khondekar H M
Electrical Engineering	Tapas Maji	Prof. P. Acharjee
Electrical Engineering	R. T. Arun Ram Prasath	Prof. S. N. Mahato & Prof. N. K. Roy
Electrical Engineering	Dr. Indrayudh Bandyopadhyaya	Prof. C. Koley & Dr. P Purkait
Electrical Engineering	Biplab Satpati	Prof. C. Koley & Dr. Subhasis Dutta
Electrical Engineering	Minati Ghosh	Prof. N. K. Roy and Prof. C. Koley
Electrical Engineering	Reetam Mondal	Dr. J. Dey and Dr. S. Halder
Electrical Engineering	Sumit Pandey	Dr. J. Dey and Prof. S. Banerjee
Electrical Engineering	Sarbani Mukherjee	Prof. S. Banerjee & Dr. S.K. Giri
Electrical Engineering	Sourav Moitra	Dr. P. S. Bhowmik
Electrical Engineering	Surajit Sannigrahi	Parimal Acharjee
Electrical Engineering	Reetam Mondal	Dey J & Halder S.
Earth and Environmental Studies	Dr. T. K. Saha	S. B. Bhattacharjee & S. N. Ghosh (ChE)
Earth and Environmental Studies	Dr. A. K. Batabyal	S. B. Bhattacharjee & A. Mukherjee



Name of the Department	Investigator	Supervisor(s)
Earth and Environmental Studies	Dr. K. Adhikari	A. Gangopadhyay & P. Choudhury
Earth and Environmental Studies	Dr. Dibyendu Banerjee	A. Gangopadhyay & S. Bhattacharyya & S. K. Chakraborty
Earth and Environmental Studies	Dr. S. Karmakar	A. Gangopadhyay & K. Brahmachari
Earth and Environmental Studies	Dr. M. Mahapatra	A. Gangopadhyay & J. R. Kayal
Earth and Environmental Studies	Dr. B. Chakraborty	A. Gangopadhyay & K. Adhikari
Earth and Environmental Studies	Dr. K. Sadhu	K. Adhikari & A. Gangopadhyay
Earth and Environmental Studies	Dr. S. Mazumder	K. Adhikari & S. Mahapatra & D. S. Mitra
Earth and Environmental Studies	Dr. Adak Subhas	K. Adhikari & K. Brahmachari
Earth and Environmental Studies	Dr. Sudipto Banerjee	K. Adhikari & S. Bandyopadhyay
Department of Earth and Environmental Studies	Dr. Ujjal Mal	K. Adhikari
Department of Earth and Environmental Studies	Dr. Mayukh Adhikary	A. Gangopadhyay, K. Brahmachari & S. Mondal
Department of Earth and Environmental Studies	Dr. Bipasha Mridha Ghosh	A. Gangopadhyay & S. Mondal
Electronics and Communication Engineering	Acharjee Juin	Mandal S. K. Mandal K.
Electronics and Communication Engineering	Basu Banani	Mahanti G.K.
Electronics and Communication Engineering	Chatterjee Anirban	Mahanti G.K.
Electronics and Communication Engineering	Mandal Sujit Kumar	Mahanti,G.K., Ghatak R.
Electronics and Communication Engineering	Muralidharan R	Mahanti,G.K.
Electronics and Communication Engineering	Tewary Jyotirmay	Mahanti,G.K.
Electronics and Communication Engineering	Biswas Sankalita	Chandra, A., Dhar Roy, S.



Name of the Department	Investigator	Supervisor(s)
Electronics and Communication Engineering	Ghosh Biswajit	Chandra, A., Mal, A.K.
Electronics and Communication Engineering	Madhumita Sinha	Dr. R Mahapatra & Dr. R. Ghosh
Electronics and Communication Engineering	Vikas Maheshwari	R. Kar, D. Mandal S. P. Ghoshal
Electronics and Communication Engineering	Suman Kumar Saha	R. Kar, D. Mandal S. P. Ghoshal
Electronics and Communication Engineering	Gopi Ram	D. Mandal, R. Kar S. P. Ghoshal
Electronics and Communication Engineering	Bishnu Prasad De	R. Kar, D. Mandal S. P. Ghoshal
Electronics and Communication Engineering	Sudipta Das	D. Mandal, R. Kar S. P. Ghoshal
Electronics and Communication Engineering	Prashant Upadhyay	R. Kar, D. Mandal, S. P. Ghoshal
Electronics and Communication Engineering	Rajesh Bera	D Mandal R Kar S P Ghoshal
Electronics and Communication Engineering	Soumen Mallick	R Kar D Mandal S P Ghoshal
Electronics and Communication Engineering	Avishek Das	D Mandal R Kar
Electronics and Communication Engineering	Hemant Patidar	Dr.G.K.Mahanti
Electronics and Communication Engineering	Jyotirmay Tewary	Dr.G.K.Mahanti
Electronics and Communication Engineering	Arindam Biswas	D Mandal A K. Bhattacharjee A K Bandyopadhyay
Electronics and Communication Engineering	Subhra Jyoti Mandal	D Mandal A K. Bhattacharjee A Biswas
Electronics and Communication Engineering	Pragnan Chakravorty	D Mandal
Electronics and Communication Engineering	Sarkar S	Mahapatra R and M K Ghose



Name of the Department	Investigator	Supervisor(s)
Electronics and Communication Engineering	Binod Prasad	S. Dhar Roy & S. Kundu
Electronics and Communication Engineering	Abhijit Bhowmick	S. Dhar Roy & S.Kundu
Electronics and Communication Engineering	Srinivas Nallagonda	S. Kundu & S. Dhar Roy
Electronics and Communication Engineering	Sanjay DharRoy	S.Kundu
Electronics and Communication Engineering	Arnab Nandi	S.Kundu
Electronics and Communication Engineering	Uma Datta (De)	S.Kundu
Electronics and Communication Engineering	Chanchal Kr. De	S.Kundu
Electronics and Communication Engineering	Pranam Paul.	A.K .Bhattacharjee & S.Dutta
Electronics and Communication Engineering	Krishnendu Adhvaryu	A.K .Bhattacharjee, B. Maji & C.K.Chanda
Electronics and Communication Engineering	Swapan Kumar Ghoshal	A.K .Bhattacharjee & R. Ghatak
Electronics and Communication Engineering	Durbadal Mandal	A.K .Bhattacharjee & S.P. Ghoshal
Electronics and Communication Engineering	Rajib Kar	A.K .Bhattacharjee & A.K.Mal
Electronics and Communication Engineering	Joydeb Roychowdhury	A.K .Bhattacharjee & A. Chatterjee
Electronics and Communication Engineering	Shaik Madhar Saheb	A.K .Bhattacharjee & D. Hemadrasa
Electronics and Communication Engineering	Arunava De	A.K .Bhattacharjee , B.Maji & C.K.Chanda
Electronics and Communication Engineering	Khondekar Mofazzal Hossain	A.K .Bhattacharjee & K.Ghosh
Electronics and Communication Engineering	Arindam Biswas	A.K .Bhattacharjee, D. Mandal & A.K. Bandyopadhyay
Electronics and Communication Engineering	Ujjal Chakraborty	A.K .Bhattacharjee & S.K.Chowdhury
Electronics and Communication Engineering	Vikas Maheshwari	A.K .Bhattacharjee. R.Kar & D.Mandal
Electronics and Communication Engineering	Subhra Jyoti Mandal.	A.K .Bhattacharjee, D.Mandal & A.Biswas
Electronics and Communication Engineering	Saswata Chakraborty	A.K .Bhattacharjee, A.Biswas & S.Majumdar



Name of the Department	Investigator	Supervisor(s)
Electronics and Communication Engineering	Sajal Saha	A.K .Bhattacharjee & A.K.Mukhopadhyay
Electronics and Communication Engineering	Bappaditya Roy	A.K .Bhattacharjee & S.K. Chowdhury
Electronics and Communication Engineering	Prasit Kumar Bandyopadhyay	A.K .Bhattacharjee, A.Biswas & A. Acharya
Electronics and Communication Engineering	Debasis Mandal	A.K .Bhattacharjee
Electronics and Communication Engineering	Bijoy Kumar Mandal	A.K.Bhattacharjee & A.Biswas
Electronics and Communication Engineering	Aparna Kundu	A.K .Bhattacharjee
Electronics and Communication Engineering	Rajdeep Ray	A.K .Bhattacharjee, K.M Hossain & K.Ghosh
Electronics and Communication Engineering	Ankita Mitra	A.K .Bhattacharjee & A.De
Electronics and Communication Engineering	Tapas Si	A.K .Bhattacharjee & A.De
Electronics and Communication Engineering	Aritra Bhowmik	A.K .Bhattacharjee
Electronics and Communication Engineering	Ankan Bhattacharya	A.K .Bhattacharjee & S.K.Chowdhury
Electronics and Communication Engineering	Sumalya Ghosh	A.K. Mal
Electronics and Communication Engineering	Rishi Todani	A.K. Mal
Electronics and Communication Engineering	Jaydeep Howlader	A.K. Mal
Electronics and Communication Engineering	Subhrabrata Choudhury	A.K. Mal
Electronics and Communication Engineering	Manimala Pal	R Ghatak D R Poddar and A Aditya
Electronics and Communication Engineering	Abhik Gorai	R Ghatak
Humanities& Social Sciences	Dr. R. Chaudhury	Dr. P. P. Sengupta & Dr. S. C. Sikdar
Humanities& Social Sciences	Dr. S. K. Seth	Dr. P. P. Sengupta
Humanities& Social Sciences	Dr. A. Bhattacharyya	Dr. P. P. Sengupta
Humanities& Social Sciences	Dr. P. Mitra	Dr. P. P. Sengupta
Humanities& Social Sciences	Dr. R. Roy	Dr. P. P. Sengupta
Humanities& Social Sciences	Dr. C. Samajdar	Dr. P. P. Sengupta
Humanities& Social Sciences	Dr. N. Sarkar	Dr. P. P. Sengupta





Name of the Department	Investigator	Supervisor(s)
Humanities& Social Sciences	Dr. A. Bhattacharyya	Dr. P. P. Sengupta
Humanities& Social Sciences	Dr. T. Biswas	Dr. P. P. Sengupta
Humanities& Social Sciences	Dr. A. Dutta	Dr. P. P. Sengupta
Humanities& Social Sciences	Dr. S. Ghosh	Dr. P. P. Sengupta
Humanities& Social Sciences	Dr.S. Bhattacharyya	Dr. P. P. Sengupta
Humanities& Social Sciences	Dr.D.Dey	Dr. P. P. Sengupta
Humanities & Social Sciences	Dr. S. Agasti	Dr. P. P. Sengupta & Dr. P. Chaudhury
Humanities & Social Sciences	Dr. A. Banerjee	Dr. P. P. Sengupta
Humanities & Social Sciences	Dr. J. Chakraborty	Dr. P. P. Sengupta
Humanities & Social Sciences	Dr. A. K. Sinha	Dr. P. P. Sengupta & Dr. G. Bandyopadhyay
Humanities & Social Sciences	Dr. A. Kahali	Dr. P. P. Sengupta
Humanities & Social Sciences	Dr.UjjalProtim Dutta	Dr. P. P. Sengupta
Humanities & Social Sciences	Dr.ParthaMukhopadhyay	Dr. P. P. Sengupta
Humanities & Social Sciences	Dr.SeemaLall	Dr. P. P. Sengupta
Humanities & Social Sciences	Dr.Madhabendra Sinha	Dr. P. P. Sengupta
Humanities & Social Sciences	Dr.Uday Chandra Mukherjee	Dr. P. P. Sengupta
Humanities & Social Sciences	Dr. Soma Hazra	Dr. P. P. Sengupta
Humanities & Social Sciences	Dr. C. Chandramouli	Dr. P. P. Sengupta
Humanities & Social Sciences	Dr.Subrata Paul	Dr. P. P. Sengupta
Humanities & Social Sciences	Dr.Dipankar Das	Dr. P. P. Sengupta
Humanities & Social Sciences	Dr. A. De	Dr. B.N. Chakrabarti & Dr.G. Bandyopadhyay
Humanities & Social Sciences	Dr. S. Sengupta	Dr. B. N.Chakrabarti
Humanities & Social Sciences	Dr. S. Das	Dr. J. Banerjee
Humanities & Social Sciences	Dr. T.Chakrabarty	Dr. J. Banerjee
Humanities & Social Sciences	Dr. S. Guha Roy	Dr. J. Banerjee
Humanities & Social Sciences	Dr. M. Mukherjee	Dr. J. Banerjee
Humanities & Social Sciences	Dr. A. Roy	Dr. J. Banerjee
Humanities & Social Sciences	Dr.A. Mukherjee	Dr. A. Modak
Humanities & Social Sciences	Dr. S. Das	Dr. A. Modak
Humanities & Social Sciences	Dr. D. P. Misra	Dr. A. Modak
Humanities & Social Sciences	Dr. S. Pyne	Dr. P. P. Sengupta & Dr. A. Modak
Humanities & Social Sciences	Dr. A. Mandal	Dr. A. Modak
Humanities & Social Sciences	Dr. A. Bhunia Chakraborty	Dr. A. Modak
Humanities & Social Sciences	Dr. A. Pramanik	Dr. A. Modak
Humanities & Social Sciences	Dr. P. Gupta	Dr. S.K.Rai
Humanities & Social Sciences	Dr. S Banerjee	Dr. S.K.Rai



Name of the Department	Investigator	Supervisor(s)
Humanities & Social Sciences	Dr. A S Paul	Dr. S.K.Rai
Humanities & Social Sciences	Dr. I Patra	Dr. S.K.Rai
Humanities & Social Sciences	Dr.T. Sengupta	Dr. S.K.Rai
Humanities & Social Sciences	Dr. G Karmakar	Dr. S.K.Rai
Humanities & Social Sciences	Dr. S. Bhattachayya	Dr. S.K.Rai
Metallurgical & Materials Engineering	Dr. A. C. Ganguli	Dr. S. C. Dasgupta Dr. A. K. Chakraborty
Metallurgical & Materials Engineering	Dr. S. Banerjee	Dr. D. Bhaduri
Metallurgical & Materials Engineering	Dr. B. Deo	Dr. S. Sarkar
Metallurgical & Materials Engineering	Dr. A. Basu	Dr. S. C. Sengupta & Dr. S. Jana
Metallurgical & Materials Engineering	Dr. S. K. Chattopadhyay	Dr. S. K. Chatterjee & Dr. S. P. Sengupta
Metallurgical & Materials Engineering	Dr. K. Lal	Dr. S. K. Chattopadhyay & Dr. A. K. Meikap (PH)
Metallurgical & Materials Engineering	Dr. Subhendu Mukherjee	Dr. D. K. Mondal
Metallurgical & Materials Engineering	Dr. Debashis Ghosh	Dr. S.K. Mitra
Metallurgical & Materials Engineering	Dr. Ranjan Kumar Dasgupta	Dr. D. K. Mondal & Prof. A. C. Ganguli
Metallurgical & Materials Engineering	Dr. A. Saha	Dr. D.K Mondal. & Dr. J. Maity
Metallurgical & Materials Engineering	Dr. B. K. Show	Dr. J. Maity & Dr. D.K. Mondal
Metallurgical & Materials Engineering	Dr. M. K. Mondal	Dr. J. Maity & Dr. Biswas K (IIT Kharagpur)
Metallurgical & Materials Engineering	Dr. R. Karunanithi	Dr. S.Bera & Dr. K.S. Ghosh
Metallurgical & Materials Engineering	Dr. Prasanta Kumar Rout	Dr. K.S. Ghosh & Dr. M.M Ghosh
Metallurgical & Materials Engineering	Dr. Susanta Pramanik	Dr. S.K. Mitra
Metallurgical & Materials Engineering	Dr. Mondal Siddhartha Sankar	Prof. D. K. Mondal & Prof. K. S. Ghosh
Metallurgical & Materials Engineering	Dr. Pallab Roy	Dr. J. Maity & Prof. T.K. Pal (Jadavpur University)
Metallurgical & Materials Engineering	Dr. Alok Mishra	Dr. J. Maity



Name of the Department	Investigator	Supervisor(s)
Metallurgical & Materials Engineering	Dr. Biswarup Bandyopadhyay	Dr. A. Bhattacharya & Dr. M. Mallik
Metallurgical & Materials Engineering	Dr. Nivedita Dutta (Chowdhury)	Dr. K.S. Ghosh
Metallurgical & Materials Engineering	Dr. Saikat Deb Acharya	Dr. K.S. Ghosh & Dr. D. K. Mondal
Metallurgical & Materials Engineering	Dr. Amir Raza Subhani	Dr. J. Maity
Metallurgical & Materials Engineering	Dr. Aatreyee Sarkar	Dr. A. K. Chakraborty (Physics) Dr. S. Bera
Metallurgical & Materials Engineering	Dr. Shubhadeep Maity	Dr. S. Bera Dr. B.K. Show
Metallurgical & Materials Engineering	Dr. Biplab Hazra	Dr. B.K. Show Dr. S. Bera
Metallurgical & Materials Engineering	Dr. Chandan Choudhary	Dr. Durbadal Mandal Dr. K.L. Sahoo (CSIR-NML, Jamshedpur)
Management Studies	Arora, N	Dr. Banerjee, N
Management Studies	Bandyopadhyay, S	Dr. Dutta, A Dr. Bandyopadhyay, G Dr. Sanyal, G
Management Studies	Banerjee, A	Dr. De, A
Management Studies	Banerjee, A	Dr. De, A. & Dr. Bandyopadhyay, G.
Management Studies	Banerjee C	Dr. Mandal K
Management Studies	Banerjee M	Dr. Mandal K
Management Studies	Banerjee, S	Dr. Bandyopadhyay, G
Management Studies	Banerjee S	Dr. Mandal K
Management Studies	Bhattacharjee, M	Dr. Bandyopadhyay, G
Management Studies	Bhattacharjee, N	Dr. De, A.
Management Studies	Bhattacharya, S	Dr. Bandyopadhyay, G
Management Studies	Bhattacharyya, S	Dr. De, A.
Management Studies	Biswas, A	Prof. Roy, M
Management Studies	Chakrabarty, A	Dr. De, A
Management Studies	Chakraborty S.	Prof. Roy, M & Prof. P. Pal
Management Studies	Chatterjee, T	Prof. Roy, M
Management Studies	Chattopadhyay R	Dr. Mandal K
Management Studies	Dinkar	Dr. Bandyopadhyay, G Dr. R. N. Mukherjee
Management Studies	Gayen, A	Prof. Roy, M
Management Studies	Ghosh, D	Dr. Banerjee, N



Name of the Department	Investigator	Supervisor(s)
Management Studies	Guha, B	Dr. G. Bandyopadhyay
Management Studies	Gupta H	Dr. Mandal K
Management Studies	Kaushal, S	Dr. Ghosh A
Management Studies	Khastagir, D	Prof. Roy, M
Management Studies	M.P.Singh	Prof. Roy M
Management Studies	Mahapatra, M. S.	Dr. De, A. & Dr. Raveendran, J.
Management Studies	Majhi, S	Dr.Bandyopadhyay, G
Management Studies	Majumder, M	Dr. Dutta A
Management Studies	Mukherjee, K	Dr.Banerjee, N
Management Studies	Roy K	Dr. Mandal K
Management Studies	Samanta, J.	Dr.Banerjee, N
Management Studies	Sen, P.	Prof. Roy, M & Prof. P.Pal
Management Studies	Siddhanta, S	Dr.Banerjee,N
Management Studies	Singh M P	Prof. Roy M
Management Studies	Singh,R.P	Dr.Banerjee,N
Management Studies	Thomas, A C	Dr. Dutta A
Management Studies	Upadhyay, A	Dr.Bandyopadhyay, G
Mathematics	Dr. E. Tarafder	Dr. A. K. Chowdhury
Mathematics	Dr. R. Sircar	Dr. D. N. Mitra
Mathematics	Dr. H. Chattopadhyay	Dr. B. K. Roy
Mathematics	Dr. J. Sanyal	Dr. A. N. Roy Chowdhury
Mathematics	Dr. D. Chatteraj	Dr. S. K. Bose
Mathematics	Dr. T. Chattopadhyay	Dr. S. K. Bose
Mathematics	Dr. T. Das	Dr. R. Sircar
Mathematics	Dr. S. S. Halder	Dr. S. K. Bose
Mathematics	Dr. P. Chakraborty	Dr. A. N. Roy Chowdhury
Mathematics	Dr.SambhuNathDey	Dr. D. Ghosh & Dr. S. C. Sikder
Mathematics	Dr. S. N. Dey	Dr. D. Ghosh (CSE) & Dr. S.C. Sikder
Mathematics	Dr. R. Bhattacharyya	Dr. S. Kar & Dr. D. Dutta Majumder
Mathematics	Dr. D. Das	Dr. S. Kar & Dr. A. Roy
Mathematics	Dr. S. Mukherjee	Dr. K. Basu
Mathematics	Dr. A. Das	Dr. K. Basu & Dr D. Banerjee
Mathematics	Dr. S. Pathak	Dr. S. Sarkar (Mondal)
Mathematics	Dr. S. Mukherjee	Dr. S. Kar
Mathematics	Dr. P. Nandi	Dr. S. Kar & Dr. G. Gorain
Mathematics	Dr. G. Panigrahi	Dr. K. Basu
Mathematics	Dr. P. Kundu	Dr. S. Kar & Dr. M. Maiti
Mathematics	Dr. A. Saha	Dr. S. Kar & Dr. M. Maiti





Name of the Department	Investigator	Supervisor(s)
Mathematics	Dr.S. Hazari	Dr. S. Kar, Dr. J.K. Dey & Dr. K. Maity
Mathematics	Dr. P. Karmakar	Dr. S. Sarkar (Mondal) & Dr. D. Majumdar
Mathematics	Dr. P. Narayanan	Dr. A. Pal & Dr. Rizwan
Mathematics	Dr.Surojit Dan	Dr. P. Pal
Mathematics	Dr.Debashis Ghosh	Dr. L. K. Dey
Mathematics	Dr.Utpalendu Adak	Dr. L. K. Dey & Dr. H. K. Samanta
Mathematics	Dr.Jyotirmoy Tiwari	Dr.Kajla Basu &Dr.Goutam Mohanti
Mathematics	Dr.DalbinderKour	Dr.Kajla Basu & Dr.Sathi Mukherjee
Mathematics	Dr.YadaNandukumar	Dr. P. Pal
Mathematics	Dr.SarananMondal	Dr. L. K. Dey
Mathematics	Dr. Sujit Das	Dr. T. Pal (CSE) & Dr. S. Kar
Mathematics	Dr.Nilanjan De	Dr. A. Pal &Dr. S.M.A Nayeem
Mathematics	Dr.Dhrubajyoti Ghosh	Dr. A. Pal
Mathematics	Dr.Angshuman Chowdhury	Dr. S. Sarkar (Mondal)
Mathematics	Dr.AnimeshDebnath	Dr. S. Kar&Dr. J. K. Dey
Mathematics	Dr. Ahmed Hossain	Dr. S. Kar & Dr. R. Bhattacharyya
Mathematics	Dr.Amitava Chatterjee	Dr. S. Kar
Mathematics	Dr.GourSundarMitrathakur	Dr. S. Sarkar (Mondal) & Dr.Rupak Bhattachayrya
Mathematics	Dr.TanusriSenapati	Dr. L. K. Dey
Mathematics	Dr.Sachchidananda Mishra	Dr. A. Pal
Mathematics	Dr. Arindam Dey	Dr. A. Pal &Dr. T. Pal
Mathematics	Dr. Satya Mandal	Dr. S. Sarkar (Mondal) &Dr. Apurna Ghosh
Mathematics	Dr. Poulomi Ghosh	Dr. A. Pal
Mathematics	Dr.Angshu Kumar Sinha	Dr. A. Pal
Mathematics	Dr.SupriyaKar	Dr.KajlaBasu & Dr. Sathi Mukherjee
Mathematics	Dr. Kanika Mandal	Dr.Kajla Basu
Mathematics	Dr. Jagannath Roy	Dr. S. Kar
Mathematics	Dr. Kajal Chatterjee	Dr. S. Kar
Mathematics	Dr.AbhirupBandyopadhyay	Dr. S. Kar & Dr. D. Datta
Mathematics	Dr.ShanoliSamui Pal	Dr. S. Kar
Mathematics	Dr.Gadadhar Banerjee	Dr. S. Maitra



Name of the Department	Investigator	Supervisor(s)
Mathematics	Dr. Ankush Chanda	Dr. L. K. Dey
Mathematics	Dr. Pratikshan Mondal	Dr. L. K. Dey & Dr. Sk. Jakir Ali
Mathematics	Dr. Jotindra Nath Roul	Dr. S. Kar, Dr. K. Maity & Dr. M. Maiti
Mathematics	Dr. Arif Ahmed	Dr. S. Kar & Dr. D. Dogra
Mathematics	Dr. Saibal Majumder	Dr. T. Pal (CSE) & Dr. S. Kar
Mathematics	Dr. Haresh Kumar Sharma	Dr. S. Kar
Mathematics	Dr. Mauparna Nandan	Dr. P. Pal
Mathematics	Dr. Prosenjit Kundu	Dr. P. Pal
Mathematics	Dr. Pramod Kumar Mourya	Dr. S. Bagchi
Mathematics	Dr. Joydeb Pal	Dr. S. Bagchi
Mathematics	Dr. Anupam Dey	Dr. G. Panigrahi, Dr. K. Maity & Prof. M. Maiti.
Mathematics	Dr. Anindita Kundu	Dr. G. Panigrahi, Dr. B. Das & Prof. M. Maiti
Mathematics	Dr. Aniruddha Samanta	Dr. Kajla Basu
Mathematics	Dr. Shrabanti Mandal	Dr. A. Pal
Mathematics	Dr. Soumen Kundu	Dr. S. Maitra
Mathematics	Dr. Mithu Dey	Dr. S. Sarkar (Mondal) & Dr. S. S. Maiti
Mathematics	Dr. Prodip Roy	Dr. S. Sarkar (Mondal), Dr. K. P. Das, Dr. P. Karmakar.
Mathematics	Dr. Debnarayan Khatuya	Dr. S. Kar & Dr. K. Maity
Mathematics	Dr. Rajnish Kumar	Dr. S. Kar & Dr. M. K. Tiwari
Mathematics	Dr. Sharmistha Jana	Dr. G. Panigrahi, Dr. B. Das & Prof. M. Maiti
Mathematics	Dr. Manojit Ghosh	Dr. P. Pal
Mathematics	Dr. Sumanta Ghosh	Dr. A. Pal
Mathematics	Dr. Anupam Mukherjee	Dr. G. Panigrahi & Dr. Manoranjan Maiti
Mathematics	Dr. Dipayan Das	Dr. Kajla Basu & Dr. Vishal Saraswat
Mathematics	Dr. Debabrata Mondal	Dr. S. Sarkar (Mondal)
Mechanical Engineering	Dr. S. N. Mukherjee	Dr. S. K. Basu
Mechanical Engineering	Dr. D. K. Pal	Dr. S. K. Basu
Mechanical Engineering	Dr. S. N. Sengupta	Dr. S. K. Basu
Mechanical Engineering	Dr. G. Mitra	Dr. S. K. Basu
Mechanical Engineering	Dr. G. S. Gill	Prof. N. C. Dasgupta & Dr. D. Bhaduri
Mechanical Engineering	Dr. K. Chatterjee	Dr. N. B. Hui Dr. D. Chatterjee D. (CMERI)





Name of the Department	Investigator	Supervisor(s)
Mechanical Engineering	Dr. P. Basu	Prof. N. C. Dasgupta & Dr. D. Bhaduri
Mechanical Engineering	Dr. A. Majumdar	Dr. S. K. Basu
Mechanical Engineering	Dr. G. S. Patki	Dr. S. K. Basu
Mechanical Engineering	Dr. P. K. Sinha	Dr. D. Bhaduri
Mechanical Engineering	Dr. S. C. Nidhi	Dr. S. K. Basu
Mechanical Engineering	Dr. J. Basu	Dr. S. K. Basu
Mechanical Engineering	Dr. B. Bhaduri	Dr. S. K. Basu
Mechanical Engineering	Dr. M. S. Mukhopadhyay	Dr. D. K. Pal
Mechanical Engineering	Dr. M. R. Patkar	Dr. D. K. Pal & Dr. S. K. Basu
Mechanical Engineering	Dr. S. Chakraborty	Dr. D. K. Pal
Mechanical Engineering	Dr. M. A. Venkatesh	Dr. D. K. Pal
Mechanical Engineering	Dr. N. P. Mukherjee	Dr. D.K.Pal
Mechanical Engineering	Dr. S. Mukherjee	Dr. S.N.Sengupta & Dr. M.C.Majumder
Mechanical Engineering	Dr. Balamurugan Gopla	Dr. S. Ghosh Dr. B.N Mondal. (CMERI)
Mechanical Engineering	Dr. Chandan Chatteraj	Dr. M. C. Majumder
Mechanical Engineering	Dr. A. G. Mathew	Dr. M. C. Majumder Dr. K. P. Ramachandran (CCE, Oman)
Mechanical Engineering	Dr. G. K. Vijayaraghvan	Dr. Majumder M.C. Dr. K. P. Ramachandran (CCE, Oman)
Mechanical Engineering	Dr. S. Vishnupriyan	Dr. K. P. Ramachandran (CCE, Oman) Dr. M. C. Majumder
Mechanical Engineering	Dr. Debroy Pradip	Dr. S.Ghosh
Mechanical Engineering	Dr. Maity Atanu	Dr. S.Ghosh Dr. S. Majumder (CMERI)
Mechanical Engineering	Dr. Murali R. V.	Dr. A. B. Puri & Dr. Khalid
Mechanical Engineering	Dr. Gangopadhyay S.	Dr. M. C. Majumder & Dr. N. R. De
Mechanical Engineering	Dr. Ray D. N.	Dr. Mukherjee S. & Dr. S. Mazumder
Mechanical Engineering	Dr. C. Bhattacharya	Dr. N. Banerjee& Dr.H. Sarkar (WBPCB)
Mechanical Engineering	Dr. R. V. Murali (2012)	Dr. A. B. Puri
Mechanical Engineering	Dr. Debashis Nandi (2015)	Dr. A. B. Puri and Prof. I. Basak



Name of the Department	Investigator	Supervisor(s)
Mechanical Engineering	Dr. Mithilesh Dikshit (2016)	Dr. A. B. Puri and Dr. Atanu Maity
Mechanical Engineering	Dr. Arup Kumar Biswas	Dr. A N Mullick, Dr. P K Sinha & Dr. B Majumdar
Mechanical Engineering	Dr. Debajyoti Banerji	Dr. I. Basak & Dr. J. Bose (CMERI)
Mechanical Engineering	Dr. Avik Chatterjee	Dr. I. Basak & Dr. S. Majumder (CMERI)
Mechanical Engineering	Dr. Tapas Gangopadhyay	Dr. I. Basak & Dr. D.K. Pratihari (IITKgp)
Mechanical Engineering	Dr. Bibhiti Bhusan Naya	Dr. A N Mullick & Dr. D Chatterjee
Mechanical Engineering	Dr. Kanchan Chatterjee	Dr. N. B. Hui & Dr. D. Chatterjee (CMERI)
Mechanical Engineering	Dr. Jagannath De	Dr. N. Banerjee & Dr. A. K. Saha
Mechanical Engineering	Dr. Anirban C. Mitra	Dr. Nilotpal Banerjee
Mechanical Engineering	Dr. Saravanan V.	Dr. Nilotpal Banerjee
Mechanical Engineering	Dr. Swapan Barman	Dr. A. B. Puri & Nagahanumaiah
Mechanical Engineering	Dr. Bikramjit Podder	Dr. N. B. Hui & Dr. K. Ramesh Kumar (DRDL Hyderabad)
Mechanical Engineering	Dr. Robin Kr Biswas	Dr. Manik Chandra Majumder, Dr. S K Basu
Mechanical Engineering	Dr. Swapan Kumar Aditya	Dr. Manik Chandra Majumder, N.R De
Mechanical Engineering	Dr. Arka Sen	Dr. Manik Ch Majumder, Dr. Sumit Mukhopadhyay, Dr. Robin Kr Biswas
Mechanical Engineering	Dr. A K Chattopadhyay	Dr. Manik Ch Majumder,, S K Basu
Mechanical Engineering	Dr. Lokesh M	Dr. Manik Ch Majumder, Dr. K P
Mechanical Engineering	Dr. Sureh Babu	Dr. Manik Ch Majumder, Dr. A Ram Prasad
Mechanical Engineering	Dr. S. Sundaravali	Dr. Manik Ch Majumder
Mechanical Engineering	Dr. Sumit Mukhopadhyay	Dr. Manik Ch Majumder, Dr. S N Sengupta
Mechanical Engineering	Dr. Abhijit Mahapatra	Dr. S. S. Roy, Prof. D.K. Pratihari
Mechanical Engineering	Dr. Biswajit Bera	Self-supervision
Mechanical Engineering	Dr. Anup Kumar	Dr. A. Layek
Mechanical Engineering	Dr. Sibendra. Gharai	Dr. A. Layek
Mechanical Engineering	Dr. D. V. N. Lakshmi	Dr. A. Layek
Mechanical Engineering	Dr. S. Kathirvel	Dr. A. Layek





Name of the Department	Investigator	Supervisor(s)
Mechanical Engineering	Dr. Huirem Niranjana Singh	Dr. A. Layek
Mechanical Engineering	Dr. Atul Vasant Karnjkar	Dr. Nilotpal Banerjee
Mechanical Engineering	Dr. Vinayaka N.	Dr. Nilotpal Banerjee
Mechanical Engineering	Dr. Dilip Kumar Adhwarjee	Dr. N. Banerjee & Dr. M.C. Majumder
Mechanical Engineering	Dr. Buddhadeb Pradhan	Dr. N. B. Hui, Dr. D. Sinha Roy
Mechanical Engineering	Dr. Deeksha Porwal	Dr. Kallol Khan
Mechanical Engineering	Dr. Goutam Khankari	Dr. Sujit Karmakar
Physics	P. Kumbhakar	Kumbhakar P
Physics	S. Biswas	Kumbhakar P
Physics	S. Chakraborty	Kumbhakar P
Physics & Elec. Engg.	A.Chatterjee	Roy NK and Kumbhakar P
Physics	N. Choudhury	Sinha MS
Physics	A. K. Das	Sinha MS
Physics	P. Ghosh	Kumbhakar P and Sen B (VTTC, Midnapore)
Physics	B. C. Nandi	Sinha MS
Physics	P. S. Basu	Sinha MS
Physics	G. S. Roy	Sinha MS
Physics	(Mrs.) R. Sen	Chatterjee SK
Physics	D. Biswas	Meikap AK & Chattopadhyay SK
Physics	S. Sahoo	Maharana L & Meikap AK
Physics	A. Sarkar	Meikap AK & Chatterjee SK
Physics & Elec. Engg	S. Karmakar	Roy NK and Kumbhakar P
Physics	J. Ghosh	Chatterjee SK
Physics	P. Kr. Singha	Mitra AK
Physics	A Mukherjee	Basu S & Pal M
Physics	M. Chattopadhyay	Kumbhakar P
Physics	S. Ghatak	Meikap AK
Physics	K. Gupta	Meikap AK & Jana PC (V.U.)
Physics	R. Sarkar	Kumbhakar P & Mitra AK
Physics	K. Talukdar	Mitra AK
Physics	G. Chakraborty	Meikap AK
Physics	P. Ghosh	Meikap AK
Physics	S.M.Hossain	Basu S & Pal M
Physics	R.Paul	Mitra AK
Physics	R.K.Agarwalla	Chakraborty AK & Mitra AK
Physics	S. Chakraborty	Sahoo S & Sahoo B (TDB College, Ranigang)
Physics	C.K. Das	Sahoo S & Maharana L



Name of the Department	Investigator	Supervisor(s)
Physics	H.S. Desarkar	Kumbhakar P & Mitra AK
Physics	A.Ganguly	Mondal A, Yadav RK
Physics	Dr. (Mrs.) K. Usha	Kumbhakar P and Mondal B(CSIR-CMERI Durgapur)
Physics	A. Kole	Kumbhakar P
Physics	S.K.Sahoo	Sahoo S, Sahoo BK (NIT Raipur)
Physics	K. Mukherjee	Meikap AK Kumbhakar D
Physics	S. Sinha	Meikap AK Chatterjee SK
Physics and ECE	Jay Chandra Dhar	Mondal A
Physics and ECE	Naorem Khelchand Singh	Mondal A
Physics and ECE	Shubhro	Mondal A
Physics and ECE	B. Chowdhury	Mondal A & Saha A
Physics and ECE	C. Ngangbam	Mondal A. & Dev S.
Physics	V. Meriga	Chakraborty AK
Physics	S. Saha	Meikap AK & Pradhan SK
Physics	S. Choudhury	Meikap AK & Mandal M K
Physics	P. S. Mukherjee	Meikap AK
Physics	M. Goswami	Meikap AK & Ghosh R
Physics	D. Banerjee	Sahoo S
Physics	A. K. Das	Meikap AK
Physics	R. N. Jana	Meikap AK
Physics	A. Maikap	Meikap AK & Mandal BN
Physics	R. Sinha	Meikap AK & Basu S
Physics & EMPA, Switzerland	Chakraborty Souvik	Chakraborty AK & Barbezat M
Physics & MME	Sarkar Aatreyee	Chakraborty AK & Bera S
Physics	Chakraborty Nilanjan	Chakraborty AK
Physics	D. Banerjee	Sahoo S
Physics	B. Manna	Sahoo S
Physics	M. Kumar	Sahoo S
Physics	M.Banerjee	Basu S
Physics	S K Kundu	Basu S
Physics	D K Rana	Basu S
Physics & IT	D. Chattopadhyay	Mandal MK & Nandi D
Physics	M. Kar	Mandal MK
Physics	A. K. Das	Mandal MK
Physics & Women's College Burdwan	S. Mandal	Mandal MK & Garai SK



Name of the Department	Investigator	Supervisor(s)
Physics & Women's College Burdwan	D. Mandal	Mandal MK & Garai SK
Physics and ECE	Lahiri R	Mondal A
Physics	Ghosh A	Mondal A
Physics	Maji C	Chaudhuri H.

Annexure - 11.4(h)ii Proposed Plan for Research

DEPARTMENT OF BIOTECHNOLOGY

- ✦ Anti-microbials from plant/food sources.
- ✦ Anti-obesity therapeutics
- ✦ Assessment on the removal of heavy metals and dye using low cost adsorbents.
- ✦ Bio functionalization of sensor component
- ✦ Biodegradation of pesticides
- ✦ Bioenergy
- ✦ Biofuels
- ✦ Biological pigments
- ✦ Bionanotechnology
- ✦ Bioprospecting microbial diversity for biomolecules
- ✦ Bioremediation of oil refinery sludge
- ✦ Bioremediation of polyaromatic hydrocarbons, pesticides and textile dye
- ✦ Biosensor
- ✦ Biosurfactant production and application
- ✦ Cancer Biology
- ✦ Carbon dioxide sequestration and conversion to valuable products by chemolithoautotrophic microorganisms
- ✦ Chemical Biology
- ✦ Developmental Biology and Signal Transduction
- ✦ Development of novel nanomaterials based on peptide self-assembly
- ✦ Disease detection through biosensors
- ✦ Drug delivery system
- ✦ Ecotoxicology of nanomaterials
- ✦ Encapsulation of bioactive compounds
- ✦ Environmental Microbiology and Biotechnology
- ✦ Host-pathogen interaction in bacterial infections
- ✦ Inflammation and Cell Signalling
- ✦ Intrinsic disordered proteins
- ✦ Macromolecular interactions
- ✦ Microbial fermentation
- ✦ Microbial genomics and metagenomics
- ✦ Microbial production of ethanol using lignocelluloses
- ✦ Microbial production of lactic acid, using natural substrates, for production of bioplastic
- ✦ Microbiology of arsenic contaminated groundwater
- ✦ Microbiology of deep subsurface biosphere
- ✦ Microbiome and its role in human diseases
- ✦ Molecular mechanism of inflammation
- ✦ Molecular Plant Pathology
- ✦ Nanoparticles for heavy metal remediation
- ✦ Nanomedicine
- ✦ Non-coding RNAs
- ✦ Obesity, diabetes and metabolic disorders
- ✦ Parasite immunology and cell signalling
- ✦ Parasite metagenomics
- ✦ Pesticides and other chemicals from plant sources
- ✦ Petroleum microbiology
- ✦ Plant Biotechnology
- ✦ Production of lipids for use as biofuels and other value-added products from microalgae and other oleaginous microorganisms
- ✦ Regulation of stress response in mammalian cells
- ✦ Role of nutraceuticals in Lifestyle Disorders
- ✦ Screening of Novel Enzymes
- ✦ Stem cell Biology



DEPARTMENT OF CHEMICAL ENGINEERING

- ✦ Acetic acid production in membrane-integrated bioreactor system
- ✦ Arsenic removal by membrane technology
- ✦ Artificial intelligence based modelling of industrial processes
- ✦ Biochemical Utilisation of Petroleum Wax (Biochemical Conversion / SCP Production)
- ✦ Biodiesel Synthesis from Microalgae Oil and Neem Oil
- ✦ Biogas Production by Co-Digestion of Sewage Sludge, Waste paper and Waste Grown Algae
- ✦ Biological treatment of coalmine waste water
- ✦ Bioremediation of pollutants from industrial wastewater
- ✦ Boiling flow instabilities; Bubble dynamics and heat transfer; Optimization and control
- ✦ Bubbling Fluidized Bed Combustion
- ✦ Catalytic membrane reactor
- ✦ CFD modelling of boiling, multiphase flow and reactors
- ✦ CFD modelling of Pyrolysis, Combustion and Gasification of Coal and Biomass
- ✦ Characterisation of nanomembranes
- ✦ Chlorofluorocarbons Replacement
- ✦ Circulating Fluidized Bed Combustion & Gasification
- ✦ Clean Technology development for chemical processes
- ✦ Clean Technology for Chemical Processes
- ✦ Clean water production by membrane technology
- ✦ Comparative Studies on Hydrodynamic and Gas-Particle Heat Transfer in Uniform and Converging Riser
- ✦ Computer Aided Analysis of Biodiesel Synthesis Using Lipase – Immobilized Inverse Fluidized Nanosilica Particles
- ✦ Co-pyrolysis, Combustion and Gasification
- ✦ Defluoridation of contaminated groundwater by bioremediation
- ✦ Design and Analysis of Circulating Fluidised Bed Bioreactors
- ✦ Design and Analysis of Fluidized / Semifluidized Bed Bioreactors for Biodiesel Synthesis
- ✦ Design and Analysis of Semi Fluidized Bed Bioreactors
- ✦ Design of Three Phase Fluidised Bed Combustion Equipment for Colloidal Fuels (Coal- Oil Suspension)
- ✦ Development of Contour Model of Settling of Air-borne Dust from Cement Plant and Power Plant Chimneys
- ✦ Development of lithium and sodium-ion batteries
- ✦ Diesel Particulate Filter-A CFD Modelling
- ✦ Digital twin of industrial reactors
- ✦ Dry beneficiation of coal
- ✦ Dynamic modelling of integrated coke-oven wastewater treatment plant
- ✦ Effect of Waste Plastics in Physical Structure of Municipal Solid Wastes stored in Landfills and Anaerobic Digestion.
- ✦ Fluidized Bed Combustion
- ✦ Gasification of coal and biomass
- ✦ Gas-Particle Mass Transfer in a Short Converging Riser
- ✦ Green Hydrogen Production
- ✦ Heterogeneous catalysis for the for the production of biodiesel
- ✦ Immobilised Enzyme Nanoparticles
- ✦ Inverse Fluidization
- ✦ Kinetic Studies on Biochemical Production of Phosphatic Biofertiliser from Rock Phosphate Ore
- ✦ Meta heuristic optimization of industrial processes
- ✦ Meta heuristic Optimization application in process equipment design
- ✦ Methane enrichment by TSA technology
- ✦ Methanogenesis of low grade Indian coal
- ✦ Modelling transport through nanomembranes
- ✦ Modelling & Simulation of Integrated physico-chemical and biological treatment of wastewater
- ✦ Modelling & Simulation of lactic acid production in membrane-integrated hybrid system
- ✦ Modelling and simulation of industrial reactors and distillation columns



- ❖ Modelling and simulation of PSA-VSA integrated system
- ❖ Modelling nanofiltration of arsenic removal by membrane-integrated hybrid system
- ❖ Modelling of Diesel Particulate Filter (DPF)
- ❖ Modelling of Pyrolysis, Combustion and Gasification of Coal and Biomass
- ❖ Molecular dynamics simulations of nanodroplet and nano-channel flow
- ❖ Multiphase flow
- ❖ Nanofiltration
- ❖ Nature inspired meta heuristic optimization of industrial processes
- ❖ Noncatalytic Gas-Solid Reactions
- ❖ Novel Techno-economic Evaluation for Conversion & Re-refining of Used Lubricating Oils to Base Oil
- ❖ Oil Suspension
- ❖ Optimization and control
- ❖ Optimum gas absorption process development
- ❖ Performance Characteristics of Inverse Fluidized Bed Bioreactors with Special Reference to Bioplastic Synthesis
- ❖ Performance Analysis of Circulating Fluidised Bed Bioreactors employing Immobilised Enzyme Nanoparticles
- ❖ Phycoremediation of pollutants from industrial wastewater and assessment of biofuel production
- ❖ Pneumatic Drying of Wet-Particle in an uniform and Converging Riser Duct
- ❖ Pressure Swing Adsorption Mechanism for Separation
- ❖ Process Intensification towards sustainable technology
- ❖ Production of Biodegradable Plastics (PLLA) from Cheese Whey
- ❖ Production of plastic to petrol
- ❖ Pyrolysis of weeds
- ❖ Real time application of modelling and optimization of industrial processes
- ❖ Realistic nanoseparation modelling through on-line streaming potential measurement
- ❖ Refining of used lubricating oil
- ❖ Removal of Industrial Pollutant in an Inverted Fluidized Bed using Palm-seed Activated Charcoal
- ❖ Removal of phenol using shale
- ❖ Replacement of Chlorofluorocarbons from Conventional refrigeration systems
- ❖ Replacement of Chlorofluorocarbons over Pressure Swing Adsorption system
- ❖ Slurry Flow Modelling
- ❖ Studies on gas separation by nano-composite membrane
- ❖ Studies on Hydrodynamics and Mass Transfer in a Converging Inverted Fluidized Bed.
- ❖ Studies on Immobilised Cell / Enzyme Nanoparticles
- ❖ Studies on Synthesis of Lactic Acid from Agricultural / Food Wastes in Down Flow Stationary Fixed Film (DSFF) Bioreactors
- ❖ Surface modification of activated carbon by inert gas activating agent
- ❖ Synthesis of Lactic Acid from Cheese Whey and Molasses in Semifluidised Bed Biofilm Reactors
- ❖ Treatment of Industrial Wastewater
- ❖ Two phase flow modelling in pipeline and micro channel
- ❖ Treatment of Coalbed methane produced water using cost-effective technique

DEPARTMENT OF CHEMISTRY

- ❖ Application of Bio-inspired Nanoparticles in Multicomponent organic transformations
- ❖ Application of Fenton's, Lime & Biological Treatment & their Comparative Assessment for the
- ❖ Application of Photo-Fenton's Oxidation & Biological Oxidation for Degradation of Selected
- ❖ Bioorganic Chemistry
- ❖ Chemistry of Transition metal-Schiff base ligand complexes
- ❖ Corrosion chemistry: Highly efficient Green and synthetic corrosion inhibitor
- ❖ Corrosion inhibition study using inhibitors
- ❖ Development of a suitable treatment scheme of common effluent generating from iron &



- steel, Thermal Power Plants and Chemical industries located in Durgapur industrial area.
- Development of natural fibre reinforced polyester composite material.
- Evaluation of Arsenic distribution through food chain contamination.
- Fluorescence Spectroscopy, Development of Fluorescence sensor
- Isolation, Purification, Characterization and Chemical Modification of Polysaccharide
- Kinetics & mechanism of bio-inorganic reactions for modification on Pt(II) and Pd(II) based anticancer agents: Their Bioactivity, Speciation and DFT study
- Kinetics and mechanism of inorganic and bioorganic reactions
- Lipid and fatty acids of different fish species
- Lipid Chemistry in the field of biodiesel production
- Lipids analysis from different biomaterials
- MD simulation and modelling of biomolecules
- Medicinal Chemistry
- Modelling biological Ni and Cu sites supported by N,S donor ligands
- Organic synthesis of small molecules
- Organometallic chemistry
- Pollutants Present in Petro-Chemical, Pharmaceutical & Coke-Oven Wastewater.
- Polysaccharide chemistry and biochemistry
- Protein structure and dynamics
- Quality and quantity of different lipids in natural food resources
- Spatial and Temporal Variations of Ambient Air Quality
- Surface Chemistry
- Synthesis and application of nanomaterials for the reduction of environmental contaminants
- Synthesis and Characterisation of Cu- & Fe complexes
- Treatment of Textile and Dye Wastewater
- Application of machine learning techniques in Civil Engineering
- Auditing & maintenance of bridges
- Bioremediation and Nanotechnology
- Blast & wind impact on bridge
- Concrete Technologies
- Construction & Quality Control
- Contaminant migration through soil
- Development of Decision Support System for water resource management
- Development of Smart Concrete Structures.
- Engineering Limnology
- Environmental Geotechnics
- Experimental mechanics of concrete structures, Biodeposition on concrete
- Experimental set up for formation of river bed form and erosion around an island flood mitigation of river Kosi system lying in India and Nepal
- FEM-SPH coupling
- Impact of Climate change on water resources in a natural stream
- Mix design of pumpable concrete
- Pipe-soil interaction
- Reliability in Geotechnical Engineering
- Removal of heavy toxic metal from ground water using nanotechnology.
- Rural water management
- Seismic strengthening and retrofitting of structures
- Setting up of a center of low-cost housing facilities.
- Soil-Structure Interaction
- Solid waste management
- Stability analysis of OC mine slopes
- Structural Control
- Structural Health Monitoring
- Structural reliability
- Water Pollution treatment
- Wind energy Studies

DEPARTMENT OF CIVIL ENGINEERING

- Analysis and design of offshore pipelines
- Application of AE techniques for damage investigation of structures



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

- ✦ Biometrics
- ✦ Big Data and Social Network Analysis
- ✦ Computer Vision
- ✦ Crowd Computing
- ✦ Deep Learning
- ✦ Digital Forensics
- ✦ Evolutionary Computing
- ✦ Fuzzy Decision Making
- ✦ Hardware Security and applications
- ✦ Human Activity Recognition
- ✦ Image Processing
- ✦ Information Security
- ✦ Machine Learning
- ✦ Medical Imaging
- ✦ Multi Agent System
- ✦ Multi-Objective Optimization
- ✦ Multiprocessor and Multi-core Architecture
- ✦ Optical Networks
- ✦ Optimization of Multi-agent-systems
- ✦ Pattern Classification
- ✦ Recommender system
- ✦ Semantic web technology
- ✦ Theory and applications of Cellular Automata
- ✦ Ubiquitous Learning

DEPARTMENT OF EARTH AND ENVIRONMENTAL STUDIES

- ✦ Air pollution control, modelling and remediation strategies
- ✦ Arsenic remediation techniques
- ✦ Biological and pharmaceutical waste remediation strategies
- ✦ Contaminant transport through porous media
- ✦ Environmental impact on coal mining areas
- ✦ Geochemistry of sulphides from Kunderkocha Gold Mines
- ✦ Groundwater availability and its management
- ✦ Groundwater contaminant transport and its removal
- ✦ Groundwater Management technique

- ✦ Heavy metal removal from wastewater
- ✦ Impact of industrial pollution on the environment
- ✦ Petro-geochemistry of Apatite from Beldih Apatite mine
- ✦ Remobilization of sulphides from Arunachal Himalaya
- ✦ Removal of Fluoride from groundwater
- ✦ Use of remote sensing in detection of subtle and obscure geological structure
- ✦ Water and Wastewater treatment technology
- ✦ Water purification systems

DEPARTMENT OF ELECTRICAL ENGINEERING

- ✦ Application of synchrophasor measurements in transmission and distribution system
- ✦ AGC with renewable energy systems, FACTS and PSS in restructured power systems
- ✦ Biomedical Instrumentation
- ✦ Control and Trajectory Tracking of Multi-link Robot arm manipulator, State and parameter estimation, target tracking
- ✦ Distributed Generation planning, Distribution network reconfiguration, renewable energy generation
- ✦ Design & real-time Implementation of Periodic Control for Non-minimum Phase time Delayed systems
- ✦ Electric vehicle planning in distribution system
- ✦ Machine Learning
- ✦ Estimation of dynamic system
- ✦ ELD, Evolutionary optimization techniques
- ✦ Electrical Power Systems State Estimation, Detection and Identification of bad data etc.
- ✦ Electromagnetic Levitation
- ✦ FACTS
- ✦ Feature Extraction from Biological Signals
- ✦ ICT enabled High Voltage Test system
- ✦ Insulation Management system of Electric Vehicles
- ✦ Investigation of Haematological disorders from blood cells using soft computing techniques
- ✦ Modelling of breakdown voltages using soft computing techniques
- ✦ On-line Monitoring of Partial Discharge in



- Transformer Oil
- Optimal Power Flow Studies
- Optimization in DSP Filter Designs
- Power System Stabilizer
- Price Forecasting
- Pulsewidth Modulation Techniques for Multilevel Inverters
- Side Lobe Reduction in Antenna Arrays
- Simplification of Space Vector Modulation Techniques for Multilevel Inverters
- Small Signal Stability Analysis in Power Systems
- State of Charge, State of Health estimation of Li-ion batteries.
- Synthesis and Characterization of Lanthanum Doped Barium Titanate Zirconate
- Unification of field forces and to explore some of the unanswered phenomena in nature and science
- Biomedical Instrumentation
- Analysis and control of self-excited induction generators

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

- Antenna Array Synthesis using Evolutionary Algorithms
- Antenna and Microwave Front end Circuit components
- Array antenna failure detection and Correction
- Assistive technology
- Cellular IoT
- Cognitive Radio Networks
- Cooperative Communication
- Cognitive Radio Femtocell Networks
- D2D Communication
- Digital Signal processing
- Energy Harvesting using Piezoelectric devices
- Energy Harvesting based Relay Networks
- Fabrication and Characterization of On-Chip Antenna
- Free space optics
- GaN Power Electronics
- Gene Silencing

- Handoff issues in Future Generation Wireless Networks
- IoT Infrastructure for Agriculture Industry
- LDMOS Devices
- Millimeter wave channel modelling
- On-Chip Antenna
- Signal Processing
- Nanoscale Semiconductor Devices
- Neuromorphic System for Healthcare Applications
- Physical Layer Security
- Resistive Memory Devices
- Wireless Communication
- Sensors and Actuators
- Instrumentation and System Design

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

- Agricultural Economics
- Applied Linguistics
- Cultural Studies
- Canonical English Literature
- Development Economics
- Diaspora and Transnational Studies
- Digital Humanities
- Entrepreneurship Development
- Gender and Women Studies
- Globalization and Sustainable Development
- Industrial Economics
- Intercultural Communication
- International Economics
- Labour Economics
- Literary Theory
- Literature and Cinema
- Literature and Religion
- Managerial Economics
- Migration Studies
- Popular Culture
- Population Studies
- Postcolonial Studies
- Subaltern/Indigenous Studies
- Translation Studies
- Urban Economics



DEPARTMENT OF MANAGEMENT STUDIES

- ✦ Application of DEA for evaluating performance efficiency in Banking Sector
- ✦ Application of DEA in Tourism/Destination Marketing
- ✦ Application of optimization techniques in Business
- ✦ Application of statistical software's in Marketing & Human resource Management
- ✦ Banking sector
- ✦ Behavioural Finance
- ✦ Bottom of the Pyramid market
- ✦ Business Environment
- ✦ Capital Market
- ✦ Causes and Impact of Fraud in Banking Sectors
- ✦ Corporate Finance
- ✦ Corporate Social Responsibility
- ✦ Dividend Policy
- ✦ Efficiency Measurement with the Help of Data Envelopment Analysis
- ✦ Employee Engagement
- ✦ Employee Green Behaviour
- ✦ Financial market data analysis using soft computing techniques
- ✦ Green Human Resource Management
- ✦ Impact of Corporate Social Responsibility
- ✦ India's Act East Policy
- ✦ Insurance Sector
- ✦ Micro-Finance
- ✦ Mutual Funds
- ✦ Pension sector
- ✦ Portfolio optimization
- ✦ Product & Brand Management
- ✦ Psychological Capital
- ✦ Public policy on Financial Services
- ✦ Rural Marketing
- ✦ Sales & Distribution Management
- ✦ Service Marketing
- ✦ Sports Leadership
- ✦ Stock Market Analysis
- ✦ Strategy Management
- ✦ Workplace Adaptability
- ✦ Workplace Resilience

DEPARTMENT OF MECHANICAL ENGINEERING

- ✦ Alternative fuels in IC Engine
- ✦ Analytical and semi-analytical solution techniques of problems of thermodynamics, heat transfer and fluid mechanics
- ✦ Application of thermodynamic principle in heat transfer and fluid mechanics problems
- ✦ Artificial roughness in Heat transfer
- ✦ Condensation in various engineering applications
- ✦ Condition monitoring of rotating machineries
- ✦ Fabrication of structured polymers through Hot Embossing.
- ✦ Fabrication of Embossing molds through Laser Marking.
- ✦ Fundamental Principle of Thermodynamics viz., Constructal Law, Law of Motive Force.
- ✦ Interacting flame dynamics (Experiment and modelling)
- ✦ Modelling of vortex induced vibration
- ✦ Micro additive Manufacturing
- ✦ Rotor dynamics
- ✦ Supply chain management
- ✦ Soft Robotics & Assistive Technology
- ✦ Solar thermal application
- ✦ Solar air heater
- ✦ Synchronization in pulse combustion
- ✦ Thermal Power Plant System Analysis with CO₂ Capture
- ✦ Water-energy nexus

DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

- ✦ Corrosion fatigue/environmental assisted cracking of aluminium alloys and stainless steels and their weldments.
- ✦ Development of Al-based alloys for high temperature application
- ✦ Development of Al alloy based composites for wear resistant applications.
- ✦ Development of cast microalloyed steel.
- ✦ Development of high entropy alloys
- ✦ Development of TiC reinforced aluminium based metal matrix composite with and without



a second reinforcement.

- ❖ Development of new metallic alloys for bio-implant application.
- ❖ Development of higher strength weather resistant metallic charge materials for BF/EAF use
- ❖ Development of the nickel free nitrogen bearing stainless steel by direct smelting through plasma route
- ❖ Development of a Promising Ti-based Alloy for Combustion Engine of Space Shuttles through Molecular Dynamics Simulations and Experimentations
- ❖ Development of thermal insulation bricks from integrated steel plant waste
- ❖ Design and development of nanocomposites for advanced electronic devices
- ❖ Design and Development of Nano-structured Cu-Ni Alloy Thin Film with Tuned Mechanical Properties for Advanced Applications
- ❖ Design and Development of Nanostructured Zr-Nb-based Alloy with Enhanced Irradiation Tolerance
- ❖ Designing Ti-based Alloy by Multiscale Modelling to Manufacture through 3D Printing Technique for Applications as Orthopaedic Implants
- ❖ Development of in-situ Al-Mg₂Si composite for automobile application
- ❖ Effect of cyclic heat treatment on microstructure and properties of various grades of plain carbon steels.
- ❖ Effect of Y₂O₃ Addition on Oxidation Behaviour of Pressure-less Sintered ZrB₂-SiC Composite
- ❖ High temperature corrosion behaviour of steel in Industrial environment
- ❖ Molecular Dynamics based Design and Development of a Promising Ni-Ti-based Shape Memory Alloy with Tuned Composition for Spacecraft Applications
- ❖ Removal of impurities from liquid steel by synthetic slag and hydrogen plasma
- ❖ Semi-solid heat treatment of Al alloys. Mechanism of microstructural modification and subsequent improvement in properties by semi-solid heat treatment of some non-ferrous alloys.
- ❖ Severe plastic deformation of alloy and composites
- ❖ Structure-property correlation on ZrB₂ based ultra high temperature ceramic composite
- ❖ Structure-property correlation on ZrB₂-MoSi₂-SiC based ultra high temperature ceramic composites
- ❖ Study of high temperature wear behaviour of different materials.
- ❖ Synthesis and characterization of geopolymer from iron reach industrial waste
- ❖ Synthesis and characterization of metallic glass matrix composite
- ❖ Synthesis, Characterization and Modelling of Ag-Au Alloy Nanoparticles for Advanced Applications
- ❖ Synthesis and characterization of materials for biomedical application
- ❖ Synthesis and characterization of water based nanofluids
- ❖ Synthesis and Characterization of Co-doped ZnO DMS Materials in Nanostructured Form for Applications in Optoelectronic Devices
- ❖ The deformation behaviour of in-situ Al-Mg₂Si composites processed by severe plastic deformation
- ❖ Thermo-mechanical processing of micro alloyed steels

DEPARTMENT OF MATHEMATICS

- ❖ Algebraic Coding Theory
- ❖ Bio-mathematics
- ❖ Complex Analysis
- ❖ Computational Graph Theory
- ❖ Cryptography
- ❖ Electrokinetic Transport Phenomena
- ❖ Finite Field Theory
- ❖ Fixed Point Theory
- ❖ Fluid Dynamics
- ❖ Functional Analysis
- ❖ Fuzzy Mathematics
- ❖ Geophysics
- ❖ Hypergraphs



- ✦ Information Theory
- ✦ Integration Theory
- ✦ Mathematical Modelling
- ✦ Microfluidics and Nanofluidics Modelling
- ✦ Nonlinear Analysis
- ✦ Nonlinear Dynamics
- ✦ Nonlinear Waves
- ✦ Operations Research
- ✦ Optimization of dynamics system
- ✦ Plasma Physics
- ✦ Population Dynamics
- ✦ Portfolio Optimization
- ✦ Soft Computing
- ✦ Statistical Analysis
- ✦ Supply-chain Management
- ✦ Theoretical & Computational Fluid Dynamics
- ✦ Topology
- ✦ Uncertainty Theory

DEPARTMENT OF PHYSICS

- ✦ Biosensor and its characterization
- ✦ Carbon nanotubes and graphene-based metal oxide composites for supercapacitors
- ✦ Carbon Nanostructures and metal sulfides for counter electrodes in dye sensitized solar cells
- ✦ Characterization of optical detector
- ✦ Development of random lasers.
- ✦ Darwinian evolution and the emergence of structure-function relationship in biomolecules
- ✦ Design and fabrication of holographic optical elements and their applications
- ✦ Development of polymer multiferroics nanocomposites for flexible devices
- ✦ Emergence of biological information processing in the primordial era
- ✦ Early warning signatures of regime shifts in biological time series
 - Experimental investigation of neutrinoless double beta decay from ^{124}Sn
- ✦ Fabrication of solid state detector for very low counting system
- ✦ Fabrication & characterization of chemiresistive sensors
- ✦ Fabrication of nanowire and optical detector
- ✦ Fuel Cell
- ✦ Glancing angle and oblique angle deposition technique for nanostructure fabrication
- ✦ Graphene and high energy physics
- ✦ Green Synthesis of Metal Nanoparticles, Carbon-based Nanomaterials and Nanocomposites
- ✦ Holographic solar concentrator for photovoltaic application.
- ✦ Interface and load transfer in carbon nanoparticle-based epoxy nanocomposites
- ✦ Investigation on Geochemical and Geophysical Aspect for Geothermal Exploration and Helium Exploration.
- ✦ Investigation on Multi-parametric and Multi-station based Geochemical Precursors for Earthquakes.
- ✦ Investigation on Nonlinearity present in Earthquake Precursory Signals.
- ✦ Integrated and sustainable technology solutions for removal of organic contaminants from water bodies
- ✦ Integrated and sustainable technology solutions for removal of antibiotics from waterbodies
- ✦ Investigation on Geochemical and Geophysical Aspect for Geothermal Exploration
- ✦ Investigation on Earthquake Precursory Signals
- ✦ Investigation on Nonlinearity present in geochemical signals.
- ✦ Integrated and sustainable technology solutions for organic wastewater treatment
- ✦ Large scale Extraction of helium from petroleum deposits and hydrothermal gas and its purification.
- ✦ Laser speckle and related phenomena
- ✦ Mathematical modeling and nonlinear analysis of geochemical & geophysical data and medical data (EEG signals)
- ✦ Machine learning approaches for Material science
- ✦ Machine learning and deep learning techniques for Image Understanding
- ✦ Mathematical modeling and nonlinear analysis of bio-medical data (EEG signals, ECG signals)
- ✦ Mathematical and Computational modeling of



- living systems
- ✦ Mathematical model of gene expression dynamics
 - ✦ Mathematical and Computational Epidemiology
 - ✦ Measurement of radioactive hazards
 - ✦ Modeling and analysis of complex social systems
 - ✦ Multistability and oscillations in real-world complex systems
 - ✦ Nanowire synthesis and its characterization
 - ✦ Nanostructured multiferroics
 - ✦ Nonlinear analysis of geochemical & geophysical data, earthquake precursory data and medical data (EEG signals, ECG signals)
 - ✦ Non-linear dynamics, Chaos and cryptography
 - ✦ Noise and stochasticity in biological dynamics
 - ✦ Preparation and characterization of advanced polymer composites with carbon nanostructures
 - ✦ Reliability prediction studies of lead-free solder joint interface used in electronics & microelectronics applications
 - ✦ Radiation monitoring (Radon-222) in soil, water and air of Damodar basin
 - ✦ Studies of the effect of electric and magnetic fields on liquid crystals by polarizing light microscopy
 - ✦ Studies on phenomenology of π - Boson, B-meson decays and new physics.
 - ✦ Synchronous communication system, studies on multiphase oscillator, nonlinear dynamics
 - ✦ Synthesis, Characterization and Study of linear Optical and Nonlinear Optical Properties of Semiconducting, Metallic Nanoparticles and Quantum Dots
 - ✦ Synthesis and properties of carbon nanotube reinforced polymer nanocomposites
 - ✦ Synthesis of metal nanoparticles by laser ablation and study of optical properties
 - ✦ 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.
 - ✦ Synthesis of noble metal free electrocatalist
 - ✦ Sparse signal processing
 - ✦ Statistical physics of resource competition in living systems
 - ✦ Theoretical study of electronic, mechanical and thermal properties of graphene.
 - ✦ Theoretical study of quantum Hall effect and high energy physics phenomena in graphene.
 - ✦ Theoretical study of massive neutrino, black hole, gravitational wave, dark matter and dark energy.

Annexure-11.4(i) Testing & Consultancy services rendered during 2020-21

DEPARTMENT OF CIVIL ENGINEERING

Department	Title of the Project	Amount (Total)
Civil Engineering	Proof Checking of G+3 Storied School bldg. for Al-Madina Welfare Society under Memari Municipality, Bardhaman	0.22 Lacs
Civil Engineering	Misellaneous testing	1.12Lacs
Civil Engineering	Different types of proof checking on structural design and drawing	30.0 Lacs
Civil Engineering	Consultancy charges for proof-checking/ vetting of erection scheme (cantilever) of Bridge No.: a) 76B (1x76.2m welded through type open web girder) b) 63D (1x76.2m welded through type open web girder)	Rs. 2,65,500/-
Civil Engineering	Consultancy of slope stability of the MATHURA-JHANSI Third Line in Agra & Jhansi Division of North Central Railway in the State of U.P., M.P. & Rajasthan	Rs. 2,21,500/-



Department	Title of the Project	Amount (Total)
Civil Engineering	Proof Checking of G+3 Storied School bldg. for Al-Madina Welfare Society under Memari Municipality, Bardhaman	0.22 Lacs
Civil Engineering	Misellaneous testing	1.12Lacs
Civil Engineering	Different types of proof checking on structural design and drawing	30.0 Lacs
Civil Engineering	Proof checking of structural design and drawing, soil bearing capacity calculations, design of ground improvement scheme of different civil engineering projects	7.00 Lakh
Civil Engineering	Scrutiny of DPRs of PMGSY works	6.42 Lakh
Civil Engineering	Consultancy services for conducting land subsidence study at CBM Raniganj Block of Essar oil Ltd.	4.00 Lakh

DEPARTMENT OF ELECTRICAL ENGINEERING

Department	Title of the Project	Amount (Total)
Electrical Engineering	Development & Design of PD sensors for High Voltage Power Apparatus	1.5 Lakhs

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Department	Title of the Project	Amount (Total)
ECE and EE	Development of UHF Sensors for Monitoring of Partial Discharges	1.53 Lakhs

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

Department	Title of the Project	Amount (Total)
ECL (Kenda Area)	Demographic and Socio-Economic Survey of Siduli (UG+OCP)	Rs. 15.34 Lakh

DEPARTMENT OF MECHANICAL ENGINEERING

Department	Title of the Project	Amount (Total)
Mechanical Engineering	Water sample collection and analysis of 10 numbers big outfalls in Damadar at Asansol area.	Rs.1,92,170

11.5(a) Number of Faculty in position

Name of Department	Professor	Associate Prof	Asstt. Prof. Grade-I	Asstt. Prof. Grade-II	Trainee Teacher
	In position	In-position	In position	In position	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	-



Name of Department	Professor	Associate Prof	Asstt. Prof. Grade-I	Asstt. Prof. Grade-II	Trainee Teacher
	In position	In-position	In position	In position	In position
Electrical Engg	08	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	06	07	07	02
Metallurgical & Materials Engg.	02	06	03	02	-
Physics	03	05	00	04	-
Total	67	64	42	38	03

Annexure-11.5(b) List of Faculty

DEPARTMENT OF BIOTECHNOLOGY

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Aikat Kaustav, Ph.D.	Professor	Microbial Fermentation and Biochemical Engineering, Bioenergy, Environmental Biotechnology	kaustav.aikat@bt.nitdgp.ac.in aikatk@yahoo.co.in
Barik Amita, Ph.D.	Assistant Professor	Macromolecular interactions, RNA Bioinformatics, Intrinsic Disordered Proteins	amita.barik@bt.nitdgp.ac.in, amita.barik@gmail.com
Bhattacharjee Ashish, Ph.D.	Associate Professor	Cell Biology, Molecular mechanism of Inflammation and Cancer, Cell Signaling	ashish.bhattacharjee@bt.nitdgp.ac.in ashish15lo@yahoo.com
Chattopadhyay Sudip, Ph.D.	Professor	Developmental Biology and signal transduction	sudip.chattopadhyay@bt.nitdgp.ac.in sudipchatto@gmail.com
Chaudhuri Surabhi, Ph.D.	Professor	Biochemical Engineering, Food Biotechnology	surabhi.chaudhuri@bt.nitdgp.ac.in surabhi_c@yahoo.com
Dasgupta Mandal Dalia, Ph.D	Professor	Molecular toxicology, Bioremediation, Drug delivery system	dalia.dasgupta@bt.nitdgp.ac.in dasguptadalia@yahoo.com
De, Debojyoti, Ph.D.	Assistant Professor	Stem cells & Chemical Biology, Metabolic disorders	debojyoti.de@bt.nitdgp.ac.in debojyoti.de1984@gmail.com



Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Dey Apurba, Ph.D.	Professor	Biochemical Engineering, Environmental Biotechnology	apurbadey1960@gmail.com apurba.dey@bt.nitdgp.ac.in
Dutta Debjani, Ph.D.	Associate Professor	Food Biotechnology, Biochemistry, Microbial Biotechnology	debjani.dutta@bt.nitdgp.ac.in debs_2000in@yahoo.com
Ghosh Monidipa, Ph.D.	Associate Professor	Development and optimization of biosensor in disease detection; Parasite immunogenetics	gmonidipa@yahoo.com
Kazy Sufia Khannam, Ph.D.	Associate Professor	Environmental Microbiology, Bioremediation, Microbial Genomics and Metagenomics	sufia.kazy@bt.nitdgp.ac.in sufia_kazy@yahoo.com
Mahata Nibedita, Ph.D.	Assistant Professor	Biochemistry, Cell Biology, and Immunology	nibedita.mahata@gmail.com nibedita.mahata@bt.nitdgp.ac.in
Mondal, Sudipta, Ph.D.	Assistant Professor	Peptide self-assembly, Protein folding and amyloid. Bionanotechnology	sudipta.mondal@bt.nitdgp.ac.in; sudiptamondal1983@gmail.com
Mukherjee Oindrilla Dr.rer.nat	Assistant Professor	Host-pathogen interaction; Immunology; Microbiome	oindrilla.mukherjee@bt.nitdgp.ac.in mukherjee.oindrilla@gmail.com
Mukhopadhyay Sudit Sekhar, Ph.D.	Professor	Molecular Biology of Cancer, Human Genetics, Animal Biotechnology	suditmukhopadhy@yahoo.com
Roy Barman Subhankar, Ph.D.	Associate Professor	Molecular plant – fungus interactions, Plant molecular biology	subhankar.roybarman@bt.nitdgp.ac.in sroybarman@gmail.com
Saha, Sougata, Ph.D.	Assistant Professor	Cell and Molecular Biology, Cellular Stress responses, Obesity	sougata.saha@bt.nitdgp.ac.in sougatasaha2009@gmail.com

DEPARTMENT OF CHEMICAL ENGINEERING

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Das B.	Assistant Professor	Fluidization, Multiphase Flow Adsorption, Environment	bimal.das@che.nitdgp.ac.in bimal_30@yahoo.com
Dutta S.	Professor	Environmental Engineering, Biochemical Reaction Engineering	susmita.dutta@che.nitdgp.ac.in susmita_che@yahoo.com
Ghanta K. C.	Professor	Multiphase Flow, Slurry Flow Modelling, Waste water treatment	kartik.ghanta@che.nitdgp.ac.in kartikghanta@gmail.com
Ghosh Chaudhuri R	Assistant Professor	Colloids and Interfacial science, Nanotechnology	rajib.ghoshchaudhuri@che.nitdgp.ac.in
Gupta P.	Professor	Mathematical Modelling, Combustion & Gasification of Coal & Biomass	parthapratiim.gupta@che.nitdgp.ac.in parthgupta2000@yahoo.com



Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Halder G. N.	Professor and Head	Chemical Engineering Thermodynamics, Process Heat Transfer, Environmental Energy	gopinath_haldar@yahoo.co.in gopinathhaldar@gmail.com gopinath.haldar@che.nitdgp.ac.in
Hens, A.	Assistant Professor	CFD and Heat Transfer ,Molecular Dynamics Simulation, Process Modelling and Simulations, Microfluidics and Nanotechnology	abhiram.hens@che.nitdgp.ac.in , hens.abhiram@gmail.com
Lahiri, S. K.	Associate Professor	simulation, process modelling and optimization of industrial processes, artificial intelligence in process industry, Advance Process Control, Meta heuristic Optimization, soft sensor, slurry flow modelling	sandipkumar.lahiri@che.nitdgp.ac.in
Mandal M. K.	Associate Professor	Membrane Seapartion Processes, Catalytic Membrane Reactor, Nano material for Water and energy, Modeling and Simulation	mrinalmandal@gmail.com mrinalkanti.mandal@che.nitdgp.ac.in
Mandal T.	Professor	Environmental Bio-Engineering, Bio-Reaction Engineering	tamal.mandal@che.nitdgp.ac.in , tamal.nitdgp@gmail.com ; tamal_mandal@yahoo.com
Mandal, B. K.	Assistant Professor	Acid gas treatment and utilization, Process Simulation, Thermodynamic Modeling	bk.mondal@che.nitdgp.ac.in , bikash.kgp.11@gmail.com
Pal P.	HAG Professor	Petroleum Refining & Petrochemicals, Mass Transfer, Novel Separations, Membrane Technology, Process Intensification, Environmental Engineering	parimal.pal@che.nitdgp.ac.in
Paruya S.	Assistant Professor	Boiling Two-phase Flow, Optimization & Control	swapan.paruya@che.nitdgp.ac.in swapanparuya@rediffmail.com
Sadhukhan A. K.	Professor	Modelling and Simulation of Pyrolysis, Combustion and Gasification of Coal and Biomass	anupkumar.sadhukhan@che.nitdgp.ac.in t_sadhu@yahoo.com
Sikder J.	Associate Professor	Membrane Synthesis, Biofuels and byproducts, Photocatalysis, Process Optimization, Fermentation	jaya.sikder@che.nitdgp.ac.in umunique1@gmail.com
Sarkar A.	DST INSPIRE Faculty	Next-generation Sodium-ion Battery for portable electronic Devices	ananta.sarkar@ccche.nitdgp.ac.in ananta2k10@gmail.com



DEPARTMENT OF CHEMISTRY

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Adhikari Utpal, PhD	Assistant Professor	Synthesis of small molecules, carbohydrates and polysaccharides, Corrosion inhibition studies	utpal.adhikari@ch.nitdgp.ac.in utpalshuchi1@gmail.com
Banerjee, Deb Ranjan, PhD	Assistant Professor	Bioorganic, computational and medicinal chemistry	debranjana.banerjee@ch.nitdgp.ac.in debranjana2@gmail.com
Chakrabarty Jitamanyu, PhD	Associate Professor	Lipid Chemistry, Food Chemistry, Analytical Chemistry, Cryobiology, Biodiesel	jitamanyu.chakrabarty@ch.nitdgp.ac.in jito19@gmail.com
Ghosal, Subhas, PhD	Assistant Professor	Chemical Reaction Dynamics, DFT, MD simulations	subhasg@gmail.com subhas.ghosal@ch.nitdgp.ac.in
Maji Milan, PhD	Professor	Coordination Chemistry, Inorganic materials	milan.maji@ch.nitdgp.ac.in milan_maji@yahoo.co.in
Moi Sankar Chandra, PhD	Professor	Kinetics and mechanism of biologically important Inorganic substitution reaction and Bioactivity and molecular biology	sankar.moi@ch.nitdgp.ac.in sankarmoi67@yahoo.com
Panja Sujit Sankar, PhD	Associate Professor	Fluorescence Spectroscopy Development of sensor	sujit.panja@ch.nitdgp.ac.in Sujit.panja@gmail.com
Patra Apurba Kumar, PhD	Professor	Inorganic Chemistry relevant to biology	apurba.patra@ch.nitdgp.ac.in apurba.patra.nitdgp@gmail.com
Saha Rajnarayan, PhD	Professor	Inorganic Chemistry, Environmental Chemistry, Water and wastewater Treatment, Environmental Management	rajnarayan.saha@ch.nitdgp.ac.in rajasaharupa@yahoo.com rnsahanitd@gmail.com
Saha Tanmoy Kumar, Ph.D	Assistant Professor	Organometallic chemistry; Design & Synthesis of Schiff base-Transition Metal Complexes and Their Potentials towards Chemical and Biological Activities; Bio-inspired nanocatalysts in small Organic transformation; C-C coupling reaction;	tanmoy.saha@ch.nitdgp.ac.in chem.tanmoy@gmail.com
Sukul Dipankar, PhD	Professor	Ultra-fast laser spectroscopy and Electrochemistry	dipankar.sukul@ch.nitdgp.ac.in dipankar.sukul@gmail.com

**DEPARTMENT OF CIVIL ENGINEERING**

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Banik Atul Krishna, PhD	Professor	Dynamics of Nonlinear Flexible Systems under Deterministic and Stochastic Excitation, Stability of Compliant Offshore Structures, Dynamics of Nonautonomous Delayed System	atulkrishna.banik@ce.nitdgp.ac.in akbanik@gmail.com
Bhattacharya Kamal, PhD	Professor	Earthquake Engineering, Foundation Engineering	kamal.bhattacharyya@ce.nitdgp.ac.in
Bhattacharyya Soumya, PhD	Professor	Environmental Engineering	soumya.bhattacharyya@ce.nitdgp.ac.in
Das Amlan, PhD	Professor	Water Resources Engineering	amlan.das@ce.nitdgp.ac.in
Das Diptesh, PhD	Associate Professor	Earthquake Engineering, Structural Dynamics, Structural Control	diptesh.das@ce.nitdgp.ac.in d_diptesh@yahoo.com
Datta Alope Kumar, PhD	Associate Professor	Earthquake Engineering, SHM, Structural Engineering	alokekumar.datta@ce.nitdgp.ac.in
Dwivedi Vijay Kumar, PhD	Professor	Water Resources Engineering	vijaykumar.dwivedi@ce.nitdgp.ac.in vkdwivedi10725@yahoo.co.in
Karmakar Somnath, PhD	Assistant Professor	Bridge Engineering	somnath.karmakar@ce.nitdgp.ac.in structure.som07@gmail.com
Nanda Radhikesh Prasad, PhD	Associate Professor	Repair and retrofitting, Disaster management, Earthquake resistant masonry buildings	rpnanda@ce.nitdgp.ac.in rpnanda@gmail.com
Pal Supriya	Associate Professor	Geotechnical and Geo-environmental Engineering,	supriya.pal@ce.nitdgp.ac.in supriya070478@gmail.com
Ray Purnendu, PhD	Professor	Structural Engineering	purnendu.ray@ce.nitdgp.ac.in
Roy Pronab PhD	Assistant Professor	Application of Machine Learning Techniques, Structural Engineering, Structural Reliability, Probability and Applied Statistics, Analysis and Design of offshore Pipelines, Pipe-soil interaction.	pronab.roy@ce.nitdgp.ac.in pronabroy@rediffmail.com



Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Saha Showmen, PhD	Professor	Struct. Engg. & Concrete Structure, Smart Material	soumen.saha@ce.nitdgp.ac.in
Samanta Amiya Kumar, PhD	Professor & Head	Comp. & exp. Mechanics of Concrete/ composite structures	amiyak.samanta@ce.nitdgp.ac.in
Singha Roy Dilip Kumar, PhD	Professor	Structural Engineering- Composite & Experimental mechanics of Concrete and Composite structures/ retrofitting & strengthening and Concrete technology with conventional & non-conventional materials	dsr_rec_dgp@yahoo.com dilip.singharoy@ce.nitdgp.ac.in dilip.sroy@gmail.com
Topdar Pijush, PhD	Associate Professor	Smart structures, composite and sandwich structures, structural rehabilitation and structural health monitoring	pijush.topdar@ce.nitdgp.ac.in, topdar72@yahoo.co.uk

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Pal Tandra, PhD	Professor	Soft Computing	tandra.pal@cse.nitdgp.ac.in tandra.pal@gmail.com
Roy Suchismita, PhD	Professor	Electronic Design Automation, VLSI Testing and Verification, Satisfiability based Simulation Techniques in VLSI Design and Test, Hardware Security, FPGA Based Embedded System Design	suchismita27@yahoo.com suchismita.roy@cse.nitdgp.ac.in
Sarker Goutam, PhD	Associate Professor	Pattern Recognition & Image Understanding, Face Detection, Identification & Localization, Data Mining & Data Warehousing, Video & Image Summarization, Text Categorization & Summarization, Machine Learning & Expert Systems.	goutam.sarker@cse.nitdgp.ac.in sarkergoutam@yahoo.co.in g_sarker@ieee.org
Tanmay De,	Associate Professor	Optical Network, Wireless Network, Delay Tolerant Network.	tanmay.de@cse.nitdgp.ac.in
Nandi Subrata, PhD	Professor	Network System, IoT, Sensor Network, Complex Network.	subrata.nandi@cse.nitdgp.ac.in



Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Anirban Sarkar, Ph.D.	Associate Professor	Software Engineering, Database System, Service Computing	anirban.sarkar@cse.nitdgp.ac.in sarkar.anirban@gmail.com
Changder Suvamoy, PhD	Assistant Professor	Information Security. Steganography & Watermarking	suvamoy.nitdgp@gmail.com
Saha Mousumi, PhD	Assistant Professor	VLSI Design And Testing	msaha.nitd@gmail.com
Choudhury Subhrabrata, PhD	Professor	Communication Networks, Modeling & simulation of Networks, Optical Burst Switched Network, Distributed Systems, Wireless Networks	subhrabrata@cse.nitdgp.ac.in
Baisakhi Chakraborty, PhD	Associate Professor	DBMS, knowledge Systems, Case Based Reasoning, Natural language processing	baisakhi@cse.nitdgp.ac.in
Debashis Nandi,	Professor	Signal and Image Processing, Information coding, Medical Imaging and Analysis, Machine Learning.	debashis@cse.nitdgp.ac.in
Choudhury Prasenjit, PhD	Assistant Professor	Data Science, Mobile Crowd Computing, Elearning	prasenjit.chowdhury@cse.nitdgp.ac.in
Mukhopadhyay Sajal, PhD	Associate Professor	Algorithms and its application, Algorithmic game theory and its application, Reinforcement learning	sajal@cse.nitdgp.ac.in
Das Suvrojit, PhD	Associate Professor	System Security, Distributed Systems	suvrojit.das@cse.nitdgp.ac.in
Howlander Jaydeep, PhD	Assistant Professor	Cryptography, Automata & Theory of Computation, Object Oriented Programming & Modeling	jaydeep@cse.nitdgp.ac.in
Subhankar Majhi, M.Tech	Assistant Professor	VLSI, Computer Graphics	subhankar@cse.nitdgp.ac.in, subhankar_nitd@hotmail.com, skm.it.nitd.edu@gmail.com
Chandran Saravanan, PhD	Associate Professor	Computer Vision Biometrics	cs@cse.nitdgp.ac.in
Chatterjee, Rajib Kumar , M.Tech	Assistant Professor	Software Engineering	chatterjee.rajib@gmail.com, rajib.chatterjee@cc.nitdgp.ac.in



Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Dutta Animesh, Ph.D.	Associate Professor	Multi-agent systems modelling, Semantic web Social Network Analysis	animesh@cse.nitdgp.ac.in, animeshnit@gmail.com
Das Deepanwita, PhD.	Assistant Professor	Distributed Algorithms, Swarm Robotics	deepanwita@cse.nitdgp.ac.in
Sen Bibhash,	Associate Professor	Software Engineering, Design and Testing of Digital Logic around Quantum-dot Cellular Automata and Reversible Logic	bibhash.sen@cse.nitdgp.ac.in
Guha Thakurta, Parag Kumar, PhD	Assistant Professor	Mobile Computing, Wireless Adhoc and sensor networks	paragkumar.guathakurta@cse.nitdgp.ac.in parag.nitdgp@gmail.com
Sadhu Sanjib, PhD.	Assistant Professor	Computational Geometry	sanjib.sadhu@cse.nitdgp.ac.in
Jana Nanda Dulal, PhD	Assistant Professor	Metaheuristic Optimization, Model-based Optimization Algorithm, Protein Structure Prediction, Big Data Optimization and Algorithm Selection Problem	nandadulal@cse.nitdgp.ac.in
Mitra D, PhD	Associate Professor	Fairness issues in Automated decision making	debasis.mitra@it.nitdgp.ac.in debasis.mitra@gmail.com
Bhattacharjee Sanghita, PhD	Assistant Professor	Mobile Computing, Wireless Adhoc and sensor networks	sanghita.bhattacharjee@cse.nitdgp.ac.in
Dalui Mamata, PhD	Assistant Professor	Intelligent Biomedical Devices, Assistive Technology, Hardware Security, VLSI Design and Test, Theory and Applications of Cellular Automata	mamata.dalui@cse.nitdgp.ac.in mamata.06@gmail.com
Sharma, Abhijit, PhD	Assistant Professor	Wireless Networks & Mobility	abhijit.sharma@cse.nitdgp.ac.in, abhijit.cst@gmail.com
Sujoy Saha, PhD	Assistant Professor	Modelling & System Development for Challenged Network Scenarios. Internet of Things. Urban Computing: (a) Intelligent Transport System (b) Environment Monitoring & Prediction Visible Light Communication System	sujoy.saha@cse.nitdgp.ac.in



Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Kisku Dakshina Ranjan, PhD	Associate Professor	Biometrics, Human Activity Recognition, Machine Learning, Machine Vision, Pattern Recognition, Digital Forensics	drkisku@cse.nitdgp.ac.in drkisku@gmail.com

DEPARTMENT OF EARTH AND ENVIRONMENTAL STUDIES

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Adhikari Kalyan, PhD	Professor	Groundwater, Contaminant transport, GW Modelling, Remediation, Application of RS & GIS in Environmental problems, contaminant removal through adsorption technique	k_adh@yahoo.com kalyan.adhikari@ees.nitdgp.ac.in
Mondal Sandip, PhD	Assistant Professor	Environment, Groundwater Contaminant Transport and its Removal, Pollutants removal from water and wastewater	san.mondal@gmail.com sandip.mondal@ees.nitdgp.ac.in
Ozha Manoj Kumar, PhD	Assistant Professor	Ore Geology, Geochemistry, and Metamorphic Petrology	manojzh@gmail.com manoj.ozha@ees.nitdgp.ac.in

DEPARTMENT OF ELECTRICAL ENGINEERING

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Acharjee Parimal, PhD	Professor	Power system and soft computing	parimal.acharjee@ee.nitdgp.ac.in parimal.acharjee@gmail.com
Banerjee Subrata, PhD	Professor	Power Electronics, Control Systems	subrata.banerjee@ee.nitdgp.ac.in bansub2004@yahoo.com
Barman Jitesh Chandra	Assistant Professor	Electrical Machines & Drives	jiteshchandra.barman@ee.nitdgp.ac.in jcb_nitdgp@rediffmail.com
Bhowmik Partha Sarathee, PhD	Associate Professor	Power Systems, Instrumentation, Renewable Energy Systems, Machine Learning	psbhowmik@ee.nitdgp.ac.in psbhowmik@gmail.com
Das Avinandan	Assistant Professor	Electrical Machines	avinandan.das@ee.nitdgp.ac.in
De Jayati, PhD	Associate Professor	Control Systems	jayati.dey@ee.nitdgp.ac.in deyjayati@rediffmail.com
Ghosh Saradindu, PhD	Professor	Power Systems, High Voltage, Electromagnetic Fields	s.ghosh@ee.nitdgp.ac.in



Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Halder Suman, PhD	Assistant Professor	Measurement & Instrumentation, Biomedical Instrumentation, Feature Extraction from bio-signals	suman.halder@ee.nitdgp.ac.in sum_hal@yahoo.co.in
Koley Chiranjib, PhD	Professor	Instrumentation, High Voltage	chiranjib.koley@ee.nitdgp.ac.in chiranjib_k@yahoo.com
Mahato Sankar Narayan, PhD	Professor	Applications of Induction Generators in Renewable Energy Systems, Electrical Drives	sankar.mahato@ee.nitdgp.ac.in snmrec@yahoo.co.in
Roy Nirmal Kumar, PhD	Professor (HAG)	High Voltage Engineering, Simulation of Magnetic fields, e-governance, Application of ICT & IoT in High Voltage Engineering	nirmalkumar.roy@ee.nitdgp.ac.in roy.nk2003@gmail.com
Saha Tapas K	Professor	Electrical Machines & Drives Non Conventional Energy Systems	tapas.saha@ee.nitdgp.ac.in tapassahanit@gmail.com
Sarkar Supriya	Assistant Professor	Power Systems	supriya.sarkar@ee.nitdgp.ac.in
Thakur Siddhartha Shankar, PhD	Professor	Power Systems	siddhartha.thakur@ee.nitdgp.ac.in sst_nit_ee@yahoo.co.in
Rajdip Dey	Trainee Teacher	Use of power electronics converters in power system, Future grids	dey.raj09@gmail.com rajdip.dey@ee.nitdgp.ac.in
Ahmed Irfan	Assistant Professor	Multilevel Inverters, Pulse-width modulation techniques for multilevel inverters, Electric and Hybrid Electric Vehicles	ahmed.irfan@ee.nitdgp.ac.in irfan_nit@rediffmail.com
Dhara Ashis Kumar	Assistant Professor	Machine Learning, Biomedical image analysis	ashis.dhara@ee.nitdgp.ac.in dear.ashis79@gmail.com
Bohre Aashish Kumar	Assistant Professor	Power System, Renewable Energy, Power system optimization, Microgrid etc	aashishkukmar.bohre@ee.nitdgp.ac.in aashish.bohre@gmail.com
Bhattacharya Aniruddha	Assistant Professor	Electric Vehicle Charging, Power System Small Signal Stability, Power System Operation, Microgrid Operation, Power System Reliability, Optimization	aniruddha.bhattacharya@ee.nitdgp.ac.in bhatta.aniruddha@gmail.com
Dey Aritro	Assistant Professor	Control System, State estimation	aritra.dey@ee.nitdgp.ac.in
Bera Tushar Kanti	Assistant Professor	Biomedical Instrumentation, Measurement, Sensing and Imaging	tkbera77@gmail.com tusharanti.bera@ee.nitdgp.ac.in



Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Saha Roy Biman Kumar	Assistant Professor	Application of synchrophasor measurements in Power System	bk.saharoy@ee.nitdgp.ac.in

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Bhattacharjee Anup Kumar, PhD	Professor	Cryptography, Antenna, Microwave	anup.bhattacharjee@ece. nitdgp.ac.in akbece12@yahoo.com
Kundu Sumit, PhD	Professor (HAG)	Wireless communication Physical layer security, Energy Harvesting, Cognitive Radio Networks	sumit.kundu@ece.nitdgp.ac.in sumitkundu@yahoo.com
Mahanti Gautam Kumar, PhD	Professor (HAG)	Soft Computing, Array Antennas, Electromagnetics, Artificial Intelligence, Machine learning	gkm@ece.nitdgp.ac.in gautammahanti@yahoo.com
Mahapatra Rajat, PhD	Professor	Microelectronics, VLSI	rajat.mahapatra@ece.nitdgp. ac.in
Sen Susanta	Professor	VLSI Design	susanta.rpe@gmail.com
Maji Bansibadan, PhD	Professor	Microwave, Electronics Devices, Electromagnetics	bansibadan.maji@ece.nitdgp. ac.in
Chandra Aniruddha, PhD	Associate Professor	Wireless Communication	aniruddha.chandra@ece. nitdgp.ac.in aniruddha_chandra@yahoo. co.in
Chakraborty Pratik	Assistant Professor	Wireless Communication	pratik.chakraborty@ece.nitdgp. ac.in
Dhar Roy Sanjay, PhD	Associate Professor	Wireless Communication	sanjay.dharroy@ece.nitdgp. ac.in s_dharroy@yahoo.com
Ghatak Rowdra, PhD	Professor	Microwave, Antenna	rowdra.ghatak@ece.nitdgp. ac.in rowdraghatak@yahoo.com
Kar Rajib , PhD	Associate Professor	VLSI, Signal Processing	rajib.kar@ece.nitdgp.ac.in rajibkarece@gmail.com
Majumder Aurpan	Assistant Professor	Biological Signal Processing	aurpan.majumder@ece.nitdgp. ac.in aurpan.nitd@gmail.com



Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Mal Ashis Kumar	Professor	Mixed Signal VLSI Design	akmal@ece.nitdgp.ac.in toakmal@gmail.com
Mandal Durbadal, PhD	Associate Professor	Antenna Array, Soft Computing, Signal Processing	durbadal.mondal@ece.nitdgp.ac.in durbadal.bittu@gmail.com
Mandal Sujit Kumar, PhD	Assistant Professor	Soft Computing, Antenna Arrays, DGS, Energy Harvesting, On-chip antenna	sujit.mandal@ece.nitdgp.ac.in skmandal2006@gmail.com
Sadhukhan Tapas	Associate Professor	Broadband Communication	tapas.sadhukhan@ece.nitdgp.ac.in tapasnitd@gmail.com
Mondal, Hemanta Kumar, PhD	Assistant Professor	VLSI Design	hemanta.mondal@ece.nitdgp.ac.in, mondal.ece@gmail.com
Sapana Ranwa, PhD	Assistant Professor	Micro and Nanoelectronics, Gas sensors, Nanodevice Fabrications	sapana.ranwa@ece.nitdgp.ac.in
Chattaraj Nilanjan	Assistant Professor	Electromechanical sensors and actuators	nilanjan.chattaraj@ece.nitdgp.ac.in

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Sengupta, Partha Pratim	Professor	International Economics, Globalization & Development, Managerial Economics, Entrepreneurship Development	parthapratim.sengupta@hu.nitdgp.ac.in
Banerjee, Joydeep	Associate Professor	Indian Writings in English	joydeep.banerjee@hu.nitdgp.ac.in
Modak, Arindam	Associate Professor	Canonical English Literature, Literary Theory	arindam.modak@hu.nitdgp.ac.in
Rai, Shri Krishan	Associate Professor	Religion, Cinema, and Literary Theory	shrikrishanrai@hu.nitdgp.ac.in
Chakraborty, Debasis	Assistant Professor	Labour Economics, Urban Economics, Development Economics, Migration Studies, Agricultural Economics	debasis.chakraborty@hu.nitdgp.ac.in
Banerjee, Sutanuka	Assistant Professor	Gender and Women's Studies, South Asian Literature, Media & Popular Culture, Transnational Studies	sutanuka.banerjee@hu.nitdgp.ac.in

**DEPARTMENT OF PHYSICS**

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Basu Soumen PhD	Associate Professor	Nanomaterials, Multiferroics, Electro-catalysis, Fuel Cellxx	soumen.basu@phy.nitdgp.ac.in
Chakraborty Amit, PhD	Professor	Graphene, carbon nanotubes & their composites with polymer, metal, semiconductors for solar photovoltaics, supercapacitors, gas sensors and hydrogen evolution by photocatalysis	amit.chakraborty@phy.nitdgp.ac.in
Chaudhuri Hirok, Ph.D	Associate Professor	Geothermal Exploration Helium Exploration. Nonlinear analysis of geochemical & geophysical data, bio-medical data Earthquake precursory signals Integrated and sustainable technology solutions for organic wastewater treatment.	hirok.chaudhuri@phy.nitdgp.ac.in
Das Soumik, PhD	Assistant Professor	Double beta decay, experimental physics	soumik.das@phy.nitdgp.ac.in
Ghosh Abhijit, PhD	Assistant Professor	Holographic Optical Elements, Laser speckle and related phenomena, Photovoltaic Concentrator, Laser based Instrumentation, Optical Metrology	abhijit.ghosh@phy.nitdgp.ac.in
Ghosh Sayantari PhD	Assistant Professor	Statistical physics of complex systems; Dynamics of nonlinear natural systems; Early warning signatures of regime shifts; Social networks and information diffusion; emergent dynamics, criticality and stochasticity in synthetic and systems biology;	sayantari.ghosh@phy.nitdgp.ac.in
Kumbhakar Pathik, PhD	Professor & Head	Nanophotonics, Nonlinear Optics, 2D Materials, Random Laser, Green synthesis, Carbon Quantum Dots, Energy Harvesting, Triboelectric nanogenerators, Photocatalytic effects, Hydrogen Energy Evolution	pathik.kumbhakar@phy.nitdgp.ac.in
Mandal Mrinal Kanti, Ph. D.	Associate Professor	Electronics	mrinalkanti.mandal@phy.nitdgp.ac.in, nitmkm@yahoo.co.in
Meikap Ajit Kumar, PhD	Professor & Dean (R&C)	Low Temperature Characterization, Thin-film Technology, Conducting polymers, Nanocomposites	ajit.meikap@phy.nitdgp.ac.in ak_meikap@yahoo.com
Mondal Aniruddha, Ph.D		Fabrication of 1d metal oxide semiconductor nanostructure by using glancing angle deposition technique and fabrication of UV-Vis detector, plasmonic detector, hybrid semiconductor detectors.	aniruddha.mondal@phy.nitdgp.ac.in, aniruddhamo@gmail.com



Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Sahoo Sukadev, Ph. D.	Associate Professor	Theoretical High Energy Physics: Phenomenology of Z' boson, B meson decays, Higgs boson and new physics. Quantum Hall effect and high energy physics phenomena in graphene	sukadev.sahoo@phy. nitdgp.ac.in sukadevsahoo@yahoo. com
Subramanian H., Ph.D		Theoretical biophysics, Soft condensed matter physics, computational modeling	hemachander@gmail. com hemachander. subramanian@phy. nitdgp.ac.in

DEPARTMENT OF MANAGEMENT STUDIES

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Bandyopadhyay Gautam	Associate Professor	Portfolio optimization ,Application of DEA in Tourism/Destination Marketing, Application of DEA for evaluating performance efficiency in Banking Sector, Application of optimization techniques in Business, Application of statistical software's in Marketing & Human resource Management, Financial market data analysis using soft computing techniques.	math_gb@yahoo.co.in
Banerjee Neelotpaul	Associate Professor	Consumer Behaviour, Marketing Communications, Neuromarketing, Services Marketing, AI in Marketing.	neelotpaul.banerjee@ dms.nitdgp.ac.in
De Anupam	Associate Professor	Corporate Finance, Capital Structure Issues, Working Capital Management, Financial Ratio Analysis, Capital Budgeting, Banking and Insurance, Behavioural Finance	anupam.de@dms.nitdgp. ac.in; anupamde.ca@ gmail.com
Dutta Avijan	Professor	Capital Market , Strategy Management	avijand@gmail.com avijan.dutta@dms.nitdgp. ac.in
Ghosh Amlan,	Associate Professor	Banking Sector, Insurance Sector Pension sector, Behavioural Finance, Public Policy, MFIs and Post Offices.	amlan.ghosh@dms. nitdgp.ac.in amlanpost@gmail.com
Mandal Kaushik,	Associate Professor	Sales & Distribution Management, Product & Brand Management, Service Marketing and Business Environment.	kaushik.mandal@ dms.nitdgp.ac.in kaushikmandal.nit@ gmail.com



Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Pal Durba,	Associate Professor	Psychological Capital, OCB, Employee Engagement, Workplace Adaptability, Employee Green Behaviour, Workplace Resilience, Sports Leadership, Workplace Inclusivity	durba.pal@dms.nitdgp.ac.in dr.durba.pal@gmail.com
Paul Ujjwal Kanti	Assistant Professor (Grade II)	Rural Marketing, India's AEP Agri Value Chain Analysis, Digital Marketing, Marketing Analytics	ujjwalkanti.paul@dms.nitdgp.ac.in ujjwal.paul@gmail.com
Roy Mousumi	Professor	Sustainable development, Human resource Development & knowledge Kned , Management, E-commerce & Global Econo Trade, Circular Economy, Quality Education for Sustainable economy	roydrmousumi@yahoo.co.in mousumi.roy@dms.nitdgp.ac.in
Sarkar Subhadip	Assistant Professor	SCM, OR, TQM	rajsarkar77@yahoo.co.in

DEPARTMENT OF MATHEMATICS

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Ali Md Firoz Ph.D.	Assistant Professor	Complex Analysis	firoz.ali@maths.nitdgp.ac.in
Bagchi Satya, PhD	Associate Professor	Coding Theory, Cryptography, Algebra.	satya.bagchi@maths.nitdgp.ac.in sbgchi.maths@gmail.com
Basu Kajla, PhD	Professor	Operations Research, Statistical Analysis, Fuzzy Mathematics	kajla.basu@maths.nitdgp.ac.in kajla.basu@gmail.com
Dey Lakshmi Kanta, PhD	Associate Professor	Functional Analysis, Fixed Point Theory, Proximity Theory, Non-linear Analysis, and Topology	lakshmikanta.dey@maths.nitdgp.ac.in lakshmikdey@yahoo.co.in
Gopmandal Partha Pratim	Assistant Professor	Computational Fluid Dynamics, Microfluidics and Nanofluidics Modelling	partha.gopmandal@maths.nitdgp.ac.in parthap1218@gmail.com
Kar Samarjit, PhD	Professor	Optimization, Soft Computing, Machine Learning, Financial Modelling	samarjit.kar@maths.nitdgp.ac.in kar_s_k@yahoo.com
Maitra Sarit, PhD	Associate Professor	Nonlinear waves, Plasma Physics, Mathematical Ecology	sarit2010.nt@gmail.com sarit.maitra@maths.nitdgp.ac.in
Pal Anita, PhD	Associate Professor	Computational Graph Theory, Fuzzy Mathematics	anita.pal@maths.nitdgp.ac.in anita.buie@gmail.com
Pal Pinaki, PhD	Associate Professor	Fluid Dynamics, Nonlinear Dynamics	pinaki.math@gmail.com, pinaki.pal@maths.nitdgp.ac.in



Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Panigrahi Gautam, PhD	Assistant Professor	Optimization Techniques, Electronic Commerce	panigrahi_goutam@rediffmail.com goutam.panigrahi@maths.nitdgp.ac.in
Sarkar (Mondal), Seema, PhD	Professor	Operations Research, Optimization, Supply chain Management, Geophysics.	seema.sarkar@maths.nitdgp.ac.in seemasarkarmondal17@gmail.com

DEPARTMENT OF MECHANICAL ENGINEERING

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Akram Wasim	Trainee Teacher	CFD and Microfluidics	wasimakram214@gmail.com
Banerjee Nilotpal, PhD	Professor	Vehicle Dynamics, Mechanical System Modelling and Simulation	nilotpal.banerjee@me.nitdgp.ac.in nil_rec@yahoo.com
Barman Rabindra Nath, PhD	Assistant Professor	Fluid Mechanics, Hydraulics, Heat Transfer, CFD	rn.barman@me.nitdgp.ac.in, rahul.barman@yahoo.co.in
Basak Indrajit, PhD	Professor	Production Engineering	indrajit.basak@me.nitdgp.ac.in basak_indrajit@yahoo.com
Bera Biswajit	Assistant Professor	Tribology: Biotribology, Microtribology, Automotive-tribology	bisu_bera@yahoo.com
Biswas Arup Kumar, Ph.D.	Associate Professor	Computational Fluid Dynamics	arup.biswas10@gmail.com
Datta Aparesh, Ph.D.	Assistant Professor	Heat transfer, Fluid Mechanics	adatta96@gmail.com
Das Asim Kumar	Assistant Professor	Fluid Mechanics, Hydraulics	asim.das19@gmail.com
De Jagannath	Assistant Professor	Modelling and simulation of mechanical systems, Machine tools	aagannath_de@yahoo.co.in
Goswami Arjyayoti, Ph.D.	Assistant Professor	Micro Nano Manufacturing, Simulation of Nanostructured surfaces, Focused Ion Beam Machining, Welding and Allied Processes,	arjyayoti.goswami@me.nitdgp.ac.in aj87.goswami@gmail.com
Halder Biswajit, PhD	Professor	Hydraulics & Hydraulic Machines, Machine Dynamics, Rotordynamics, Fluid mechanics	biswajit.halder@me.nitdgp.ac.in jeetarkaanik@yahoo.co.in
Hui Nirmal Baran, PhD	Professor	Mobile Robotics, Soft Computing, Dynamics and control	nirmal.hui@me.nitdgp.ac.in



Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Jana Kuntal, PhD	Assistant Professor	Energy, Environment	kuntal.jana@me.nitdgp.ac.in kuntaljana@gmail.com
Karmakar Sujit, Ph.D.	Assistant Professor	Energy, Power Plant Engineering, CO ₂ Sequestration, Circulating Fluidized Bed Combustion and Heat Transfer	sujit.karmakar@me.nitdgp.ac.in sujitkarmakar@yahoo.com
Khan Kallol, PhD	Associate Professor	Dynamics of Plates, Vibration of Composite structures, bimodulus-composite, finite element methods	kallol.khan@me.nitdgp.ac.in Kallol_rec@yahoo.co.in
Kumar Deepak, Ph.D. Pursuing	Trainee Teacher	Hydrodynamic Stability, Bluff body flows	deepak.kumar@me.nitdgp.ac.in
Layek Apurba, Ph.D.	Professor	Solar Energy, Heat Transfer, I. C. Engine	apurba.layek@me.nitdgp.ac.in apurba_layek@yahoo.co.in
Mishra Chintamani, Ph.D.	Assistant Professor	Dynamics and Control, Nonlinear Vibrations	chintamani.mishra@me.nitdgp.ac.in
Mitra Ambuj Kumar	Associate Professor	Computational Stress Analysis, Mechanics	ambuj.mitra@me.nitdgp.ac.in
Mitra Ranjan Kumar	Assistant Professor	Dynamics and Control, Nonlinear Vibrations, Wave Forces on Offshore Structures	ranjankumar.mitra@me.nitdgp.ac.in, ranjan_kr_mitra@yahoo.com
Mondal Sirshendu, Ph.D	Assistant Professor	Heat transfer, Combustion, Dynamical systems.	sirshendumondal13@gmail.com, sirshendu.mondal@me.nitdgp.ac.in
Mullick Amar Nath, PhD	Professor	Experimental & Computational Fluid and Heat Transfer, Bio-Mechanics & Microfluidics	anmullick@gmail.com amaranth.mullick@me.nitdgp.ac.in
Mukhopadhyay Sumit, PhD	Associate Professor	Robotics, Control Systems	sumit.mukherjee@me.nitdgp.ac.in
Patari Animesh	Assistant Professor	Fluid Flow and Heat Transfer, Fluid Power system and Control, CFD	animesh.patari@me.nitdgp.ac.in patari_animesh@rediffmail.com
Pramanick Achintya Kumar, PhD	Associate Professor	Thermodynamics, Heat Transfer, Fluid Mechanics	akpramanick@yahoo.com, achintyakumar.pramanick@me.nitdgp.ac.in
Pramanik Shantanu, PhD	Assistant Professor	Numerical Fluid Mechanics and Heat Transfer	shantanu.pramanik@me.nitdgp.ac.in



Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Puri Asit Baran, PhD	Professor	Machining, Non-conventional Machining, Tool based Micromachining	asitbaran.puri@me.nitdgp.ac.in abpuri2000@yahoo.co.in
Rana Subhas Chandra, PhD	Associate Professor	Numerical Fluid Mechanics and Heat Transfer, Thermoacoustic instability	subhas.rana@me.nitdgp.ac.in
Roy Shibendu Shekhar, PhD	Professor	Mobile Robot, Micro-robotics, Additive manufacturing, Product design, Soft Computing	shibendu.roy@me.nitdgp.ac.in ssroy99@gmail.com
Sengupta Sayantan	Assistant Professor	Condensation, Rotating flow, CFD	sayantanjgec@gmail.com, sayantan.sengupta@me.nitdgp.ac.in

DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Bera Supriya, PhD	Associate Professor	Physical Metallurgy, Powder Metallurgy, Metallurgical Thermodynamics	supriya.bera@mme.nitdgp.ac.in supriyabera@gmail.com
Ghorai Satadal, PhD	Associate Professor	Process Metallurgy	satadal.ghorai@mme.nitdgp.ac.in satadal.ghorai@gmail.com
Ghosh Karuna Sindhu, PhD	Professor	Corrosion, Physical Metallurgy, Welding	ksgghosh2001@mme.nitdgp.ac.in ksgghosh2001@yahoo.co.uk
Ghosh Madan Mohan, Ph.D	Associate Professor	Deformation, Heat Treatment, Materials Modeling	madanmohan.ghosh@mme.nitdgp.ac.in mmgnitd@gmail.com
Maity Joydeep, Ph.D	Professor	Diffusion, Phase Transformation, heat treatment and transient Liquid Phase Bonding	joydeep.maity@mme.nitdgp.ac.in joydeep_maity@yahoo.co.in
Maji Barnali, Ph.D	Assistant Professor	Foundry Technology, Metal Joining, MMCs, Corrosion, Materials Characterisation	barnali.maji@mme.nitdgp.ac.in barnali.maji04@gmail.com
Mallik Manab, Ph.D	Assistant Professor	Advanced materials, Biomaterials, Mechanical Metallurgy, Nanomaterials, Powder Metallurgy, Ultra high temperature ceramics	manab.mallik@mme.nitdgp.ac.in manabmallik@gmail.com
Mandal Arup Kumar, PhD	Assistant Professor	Extractive Metallurgy, Iron and Steel Making Waste utilization	arup.mandal@mme.nitdgp.ac.in arup9180@yahoo.co.in



Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Mandal Durbadal, Ph.D	Assistant Professor	Solidification, Alloy Development, MMCs, Semi solid processing	durbadal.mandal@mme.nitdgp.ac.in durbadal73@yahoo.co.in
Mondal Manas Kumar, Ph.D	Associate Professor	Development of Aluminium and its alloys, composites, FEM & CFD modeling	manas.mandal@mme.nitdgp.ac.in manas_nitdgp@yahoo.co.in
Pramanik Susanta, Ph.D	Associate Professor	Iron Making & Steel Making	susanta.pramanik@mme.nitdgp.ac.in sus_met@yahoo.com
Show Bijay Kumar, Ph.D	Associate Professor	Microstructure-property correlation and wear behaviour of different materials.	bijay.show@mme.nitdgp.ac.in bijayshow@gmail.com
Yagati Krishna Priya, Ph.D	Assistant Professor	Metal Joining	kp.yagati@mme.nitdgp.ac.in

11.5(c) New appointment of faculty during the year 2020-21

Sl.No	Name	Department	Designation	Date of Joining
1.	NIL			

Annexure – 11.5(d) Retirement, Resignation and Voluntary Retirement of faculty during the year

Sl. No.	Name	Department	Designation	Date of retirement/ Resignation
1	NIL			

Annexure-11.6(a) List of Officers

Registrar	Sen Sharma Soumya
Joint Registrar	Kumar Asit Mukherjee Uday Chandra Ray Dhrubajyoti
Assistant. Registrar	Bhattacharya Sayan Das Ashutosh Mondal Debasish Sardar Amiya Kumar



Executive Engineer	Haldar Tanmay
Physical Training Instructor	Mukherjee Hillol
Library Librarian Deputy Librarian Assistant Librarian	Vacant Vacant Kumar Jitendra
Workshop Superintendent	Vacant
Registrar's Secretariat Technical Officer	Saha Santosh Kr.
Medical Unit-cum-Hospital Senior Medical Officer Medical Officer(s)	Sarkar Banhi Kumar (Dr.) Patra Sucharita (Dr.) Pravabati G.(Dr.)
Estate Section Security Officer	Bhagat Ajit Kumar

Annexure-11.6(b) In position posts of officers and number in position

	Sanctioned	In position	Vacant	Remarks
Registrar	01	01	00	To be filled through DP
Joint Registrar	Nil	03	00	
Dy. Registrar	04	Nil	01	
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	-	01	
SAS Officer	01	Nil	01	
Principal Scientific/Technical Officer	02	Nil	02	
Sr. Scientific/Technical Officer	01	Nil	01	
Scientific/Technical Officer	03	01	02	
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	01	00	
*Physical Training Inst.	Nil	01	00	
	29	16	14	

(*PTI post is not a sanctioned post)



Annexure-11.6(c) Number of technical & administrative staff members

1.	Sr. Tech. Asstt.	17
2.	Tech. Asstt. (SG-II)	17
3.	Tech. Asstt. (SG-I)	04
4.	Sr. Library Infor. Asstt.	01
5.	Sr. Technician	02
6.	Technician(SG-I)	03
7.	Laboratory Asstt.	01
8.	Superintendent	03
9.	Sr. Superintendent	04

10.	Superintendent(SG-II)	04
11.	Superintendent(SG-I)	01
12.	Staff Nurse	01
13.	Junior Assistant	02
14.	Sr. Assistant	07
15.	Assistant (SG-II)	10
16.	Assistant (SG-I)	04
17.	Attendant	03
18.	Sr. Attendant	12
19.	Attendant (SG-II)	09
20.	Attendant (SG-I)	03

Annexure-11.6(d) New Recruitment of Staff

Sl.No	Name	Department	Designation	Date of Joining
	NIL			

Annexure-11.6(e) Retirement, Resignation, Death and Voluntary Retirement of Staff during the year.

Sl. No	Name	Department/Section	Designation	Date of Retirement
1	Chakraborty Dipankar	Computer Centre	Tech. Asstt. (SG-I)	31.03.2020
2	Santra Ashis	Medical Unit	Pharmacist (SG-I)	31.03.2020
3	Sarkar Ila	Chief Warden	Attendant (SG-I) Cook	30.04.2020
4	Sen Anup Kr.	Civil Engg.	Tech. Asstt. (SG-I)	30.06.2020
5	Dome Krishna	Maintenance	Attendant (SG-I)	30.06.2020
6	Sen Partha Sarathi	Library	Tech. Asstt. (SG-I)	31.12.2020
7	Dalui Shymal	Accounts Section	Attendant (SG-I)	31.12.2020
8	Chattopadhyay Alope Kr.	Hostel Section	Joint Registrar	28.02.2021
9	Santra Tanmoy	Personnel Sec.	Superintendent (SG-II)	28.02.2021
10	Roy Parimal	Chief Warden	Asstt. (SG-I)	28.02.2021
11	Mukherjee Kabita	Comp. Sc. & Engg.	Sr. Attendant	28.02.2021

Annexure – 11.7(a) Faculty deputed on QIP (doctoral programme) during this period

None





Annexure–11.7(b) Seminars, summer/winter schools, short term courses attended by faculty members during 2020-21

DEPARTMENT OF BIOTECHNOLOGY

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1.	Barik, A.	One day online workshop on “R for Biologists”	One day online workshop on “R for Biologists”	01.08.2020
2.	Dutta, D.	‘Potential and Diverse Applications of Atmospheric Cold Plasma for Inactivation and Mitigation of Corona Virus (nCovid-19)	AFST(I)	01.05.2020
3.	Dutta, D.	‘Role of dietary spices in human health and wellness’	AFST(I)	16.05.2020
4.	Dutta, D.	COVID 19: Global Impacts and Response	Faculty of Science, Yobe State University, Damaturu, Yobe State, Nigeria	25.08.2020-27.08.2020
5.	Mukherjee, O.	Bio Medical Waste management Rules, 2016: Provisions and implementations aspects	National productivity Council	09.06.2020
6.	Mukherjee, O.	Gender Based Violence: Surviving the Covid19 Situation	NIT Durgapur	22.06.2020
7.	Mukherjee, O.	Host-Microbe Interactions: Present and Future Perspectives	Presidency University	06.08.2020-07.08.2020
8.	Mukherjee, O.	EHMSG 2020 Conference- Virtual	European Helicobacter & Microbiota Study Group	12.09.2020
9.	Saha, S.	Biomedical Waste management rules, 2016	National Productivity Council	09.06.2020
10.	Saha, S.	Can future energy needs be made sustainable	National Academy of Sciences, and MHRD	10.07.2020
11.	Saha, S.	Engineering the future of medicine	National Academy of Sciences, and MHRD	06.08.2020
12.	Saha, S.	Natures engines; active matter	National Academy of Sciences, and MHRD	14.08.2020

**DEPARTMENT OF CHEMICAL ENGINEERING**

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Mandal, M.K.	Online seminar on Surface Engineering of Polymer Membrane	Centre of Chemistry & Chemical Excellence (CCCE), Noida	September 09, 2020
2	Ghosh Chaudhuri, R.	Water challenges during and post Covid-19	International Centre for Clean Water (ICCW) and Indian Institute of Technology Madras	7-28 th May, 2020
3	Ghosh Chaudhuri, R.	Nanoscience and Nanotechnology in the Present Scenario	School of Physical Science & Special Centre for Nano Sciences Jawaharlal Nehru University, New Delhi	9-10 th June, 2020
4	Ghosh Chaudhuri, R.	The Molecular Magic of the Primary Steps of Photosynthesis	The National Academy of Sciences, India (NASI) - Delhi Chapter- & MHRD-Institution Innovation Council (IIC) Deen Dayal Upadhyaya College Chapter (University of Delhi)	August 20, 2020

DEPARTMENT OF CHEMISTRY

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1.	Patra, A. K.	Structure and Dynamics in Biology, Chemistry and Materials Science	IIT Roorkee	16-20 November, 2020

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SL. NO.	Name	Name of the Programme	Organized by	Date of the programme
1	Abhijit Sharma	Recent Advances in NLP using Deep Learning	NIT Silchar	March 8-12, 2021

DEPARTMENT OF ELECTRICAL ENGINEERING

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1.	N K Roy (as Invited Speaker)	Challenges to Keep Healthy Power System: Role of Monitoring System through ICT & IoT	IEI, Pune	20th March 2021
2.	N K Roy (as Invited Speaker)	Short Term Training Programme on Automation, Control & Intelligent System (ACIS-2020) titled "ICT & IoT Enabled High Voltage Test Facilities	Ajmeer College of Engineering & VJIT, Mumbai	23-27th Nov 2020



SL. NO	Name	Name of the Programme	Organized by	Date of the programme
3.	N K Roy (as Invited Speaker)	Faculty Development Programme on Innovation and Intelligence (FDPII 2020) titled "ICT & IoT Enabled Monitoring of Electrical System & Laboratory Facilities"	National Institute of Technology, Durgapur	6 to 10th October 2020
4.	N K Roy (as Invited Speaker)	TEQIP sponsored Online short Term course on Security Challenges, Objectives and Issues in IoT in SMART GRID (SCOISG-2020) titled "ICT & IoT Enabled Monitoring of Smart GRID & High Voltage Testing Facilities"	National Institute of Technology, KURUSKHETRA	23-27th Sept 2020
5.	N K Roy(as Invited Speaker)	WEBINAR on "IOT enabled High Voltage Laboratory Facilities"	Gaya College of Engineering, Gaya	24th August 2020
6.	S. Banerjee(as Invited Speaker)	ONLINE Faculty development Program on "Technological Advancements for Electric Vehicle Application"	GNTU, Kolkata	17- 21st August, 2020
7	S. Banerjee(as Invited Speaker)	TEQIP-III sponsored online short term course and faculty development programme on "Power Electronics and Renewable Energy Integration in Smartgrid, Electric Vehicle (Pereisgev 2020)"	NIT Rourkela	23- 27th September 2020
8	T. K. Saha(as Invited Speaker)	IEEE-IAS Technical Lecture on "Control of Power Electronic Converters for Different Applications"	IEEE – IAS Kolkata Chapter	28 th September, 2020

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1.	Chandra, A.	IEEE SA Standards Working Group Chair Fundamentals (Course)	IEEE Continuing Education (Online)	Jun. 01-30, 2020
2.	Chandra, A.	How to Read a Standard (Course)	IEEE Continuing Education (Online)	Jun. 01-03, 2020
3.	Chandra, A.	Technology backbone for growth in rural communities (Seminar)	IEEE Standards Association (Online)	May 28, 2020
4.	Chandra, A.	IEEE SA Summit: Impact of IEEE Standards on Emerging Applications (Workshop)	IEEE Standards Association (Online)	Dec. 09-10, 2020
5.	Chandra, A.	Smart Mobility in Smart Cities (Seminar)	IEEE (Online)	Jun. 12, 2020
6.	Chandra, A.	5G in Intelligent Transportation Systems (Workshop)	ITS - Architecture and Standards (Online)	Nov. 28, 2020
7.	Chandra, A.	Visible Light for Broadband Communication: Current Research and Standardization (Workshop)	IIIT Delhi, Delhi	Mar. 25-26, 2021



SL. NO	Name	Name of the Programme	Organized by	Date of the programme
8	Mondal, H. K.	VLSI and Nanotechnology in Energy, Environment, and Neuromorphic Computation (FDP)	IIT Indore	Dec. 21-23, 2020
9	Mondal, H. K.	Building Research Universities in India (Digital Book Launch)	IIIT Delhi	Nov. 24, 2020
10	Mondal, H. K.	Future-Proof Your Teaching Skills Masterclass Series with Dr. Pankaj Jalote (Special Learning Series)	Harapa Education	Oct. 6-16, 2020
11	Mondal, H. K.	Analog Mixed Signal (AMS) Flow using SCL 180nm PDK (Webinar)	Siemens-Mentor	Feb. 10, 2021
12	Mondal, H. K.	Design Methodology for Developing Accelerated Applications (Webinar)	Xilinx	April 30, 2020
14.	Mal, A. K.	Design Of Analog Integrated Circuits In Nanometer CMOS (Online)	IIT Kharagpur	Nov. 23rd 27th 2020
15.	Mal, A. K.	Professional Development Training Programme	IIM Visakhapatnam	Dec. 07-09, 2020
16.	Mal, A. K.	Professional Development Training Programme	IIM Trichi	Jan. 18-20, 2020
17.	D. Mandal	InCAP 2020	IEEE APMT Kolkata	17-20 Dec 2020
18.	S. K. Mandal	IEEE International Symposium on Antennas and Propagation (IEEE APS-URSI 2020)	IEEE APS-URSI, Montreal, Quebec, Canada	5-10 July 2020.

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1.	Banerjee, S.	International Webinar on "Postcolonial Negotiations: History, Literature and Culture"	Sidho Kanho Birsha University	June 03-05
2.	Banerjee, S.	International Webinar on "COVID-19 Pandemic and Communication"	Rabindra Bharati University	June 17-18
3.	Banerjee, S.	Gender Bias and Stereotyping	NIT Durgapur	June 26 & July 03
4.	Banerjee, S.	International Webinar on "Missionary Women and Governesses"	Kishore Bharati Bhagini Nivedita College & New Alipore college	August 24
5.	Chakraborty, D.	Re-thinking Social Change in South Asia amidst COVID-19	Kamala Nehru College, University of Delhi	21.05.2020



SL. NO	Name	Name of the Programme	Organized by	Date of the programme
6.	Chakraborty, D.	Consequences and Challenges of Reverse Migration in India	IIHMR University	26.05.2020
7.	Chakraborty, D.	Gender Bias and Stereotyping Gender Equality and Women's Right	NIT Durgapur	June 26 & July 03
8.	Chakraborty, D.	1st International Workshop on Research Methods and Approaches to Migration and Diaspora Studies	Centre For Diaspora Studies Central University of Gujarat, Gandhinagar, India. In Collaboration with Centre for Migration, Refugees and Belonging, University of East London U.K.	30.06.2020 to 02.07.2020
9.	Chakraborty, D.	eFDP on Data Analysis with SPSS	eduCate Consulting	13.07.2020 to 17.07.2020
10.	Chakraborty, D.	Diversification of Rural Employment in North-East India: Issues and Challenges	Deptt. of Economics, Mankachar College, Mankachar, Assam and Deptt. Of Economics, Hatsingimari College, Hatsingimari, Assam	14.07.2020
11.	Chakraborty, D.	Five Days Faculty Development Program (FDP) on Data Analytics using R (Basic to Advance)	Academic Research Practices	29.07.2020 to 02.08.2020
12.	Chakraborty, D.	Analysis of Time Series Data using E-Views	IMS Engineering College, Ghaziabad	30.07.2020 to 01.08.2020

DEPARTMENT OF MANAGEMENT STUDIES

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Ghosh, A.	Professional Development Training (PDT)	IIM Kozhikode	25-30 Jan 2021
2	Mandal, K.	Using Open Source Learning management System for Online teaching	Visvabharati	17-25 August 2020
3	Pal, D.	Webinar on Gender Based Violence: Surviving the Covid-19 Situation.	ICC, NIT DURGAPUR	26 June, 2020.
4	Pal, D.	Webinar on The Impact of Covid 19 and its Policy Response on Informal Women Workers in the Indian Economy.	ICC, NIT DURGAPUR	03 July, 2020.

**DEPARTMENT OF MATHEMATICS**

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1.	Bagchi, S.	International Conference on Security & Privacy (ICSP 2020)	NIT Jamshedpur, India	November 05-06, 2020
2.	Bagchi, S.	An International Online workshop on Advanced Topics in Mathematics (IWATM-2020)	Dr. SPM International Institute of Information Technology Naya Raipur	October 01-05, 2020
3.	Gopmandal, P. P.,	Tsukuba Global Science Week (TGSW-2020)	Tsukuba University, Japan (ONLINE)	Sept. 28-29, 2020
4.	Pal, A.	Virtual workshop on collating Mathematics resources for teachers in higher education.	National Resource Centre for Education, NIEPA, New Delhi, India.	October 06-07, 2020
5.	Pal, A.	Webinar on “Professional Etiquettes Development Among Students”.	National Institute of Technical Teachers' Training and Research, Bhopal, India.	July 16, 2020.
6.	Pal, A.	Webinar on “Employability Skills for New Age Technical Graduates”.	National Institute of Technical Teachers' Training and Research, Bhopal, India.	July 13, 2020.
7.	Pal, A.	Two week Online Workshop on “Comprehensive e-Learning to e-Training guide for Administrative Work”.	Teaching Learning Centre, Ramanujan College, University of Delhi funded by MHRD, Govt. of India.	May 25-June 05, 2020
8.	Pal, A.	Webinar on “Mathematical Modeling and Multidisciplinary Mathematics”.	Mathematics Centre of Education, IITE	May 02-03, 2020
9.	Pal, A.	Webinar series on “Current Trends and Future Technologies in Computing”.	Internal Quality Assurance Cell (IQAC) of Usha Pravin Gandhi College of Arts, Science & Commerce, in association with University Department of Information Technology (UDIT), University of Mumbai.	May 08-13, 2020
10.	Pal, A.	One Day National Webinar on Mathematics in Machine Learning workshop.	Department of Mathematics, SSN College of Engineering, Kalavakkam-603110.	May 20, 2020
11.	Pal, A.	Webinar on three days online Basic Optimization Technology Workshop.	REST Society for Research International (RSRI), Krishnagiri, Tamil Nadu, India.	May 04-06, 2020
12.	Pal, A.	Two-Day National Webinar on “Recent Development in Mathematics & Its Social Impact”	Sukumar Sengupta Mahavidyalaya, Keshpur, Paschim Medinipur, West Bengal, India.	August 08-09, 2020.



SL. NO	Name	Name of the Programme	Organized by	Date of the programme
13.	Sarkar (Mondal), S.	A Two - Day International Webinar on "Fighting COVID-19 through Mathematical Way"	Department of Mathematics in collaboration with IQAC Acharya Jagadish Chandra Bose College 1/1B, A. J. C. Bose Road; Kolkata.	August 9-10, 2020
14.	Sarkar (Mondal), S.	TEQIP III sponsored One Week Online FDP on "Research Trends in Water Resources and Environmental Engineering" to be held from 03.08.2020 to	NIT Arunachal Pradesh and GCT Coimbatore.	August 03-07, 2020
15.	Sarkar (Mondal), S.	"Mathematics Is Every where With Sujatha Ramdorai"	MNTC	August 5, 2020
16.	Sarkar (Mondal), S.	AICTE sponsored online STTP on "Structural Health Monitoring and Seismic Protection of Structures and Infrastructural Systems" – Phase III	Bannari Amman Institute of Technology, Tamil Nadu, India.	September 07-12, 2020
17.	Sarkar (Mondal), S.	TEQIP III sponsored Online "Professional Development Training"	Indian Institute of Management Raipur.	January 14-16, 2021.

DEPARTMENT OF MECHANICAL ENGINEERING

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Goswami A	Atomistic Modelling of Solids: Theory & Applications	IIT Indore	December 21-December 25, 2020
2	Kumar, Deepak	Online Faculty development Program on "Experimental and computational methods in fluid flow and heat transfer in engineering applications"	NIT Manipur	February 15-19, 2021
3	Mishra, C.	TEQIP-III sponsored short-term course on "Industrial Noise and Vibration Control"	IIT, Indore	Nov 26-28, 2020
4	Mishra, C.	TEQIP-III sponsored short-term course on "Condition Monitoring of Rotating Machines using Advanced Signal Processing Techniques"	IIT Indore	Dec 21-23, 2020
5	Mondal, S.	Second International Nonlinear Dynamics Conference, NODYCON 2021	Sapienza University Di Roma	February 16-19, 2021
6	Sengupta, S.	Atomistic Modeling of Solids: theory & applications	IIT Indore	December 21-25, 2020

**DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING**

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1.	Mandal, A.K.	Five Day Faculty Development Program on 'Recent Advance in Process Metallurgy'	O P Jindal Institute of Technology, Raigarh	13.07. 2020-17.07.2020
2.	Mandal A. K.	FDP Webinar on 'Innovation, Incubation & Entrepreneurship'	FDP Cell, Engineering Staff College of India (ESCI) Hyderabad	26.06.2020
3.	Mandal A. K	FDP webinar on 'leadership in higher & technical education'	FDP Cell, Engineering Staff College of India (ESCI) Hyderabad	30.06.2020

DEPARTMENT OF PHYSICS

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Sahoo S.	Webinar on "Graphene – A honeycomb exotica"	School of Engineering and Technology, CMR University, Bengaluru-562149, India	July 14, 2020
2	Kumbhakar P.	TEQIP-III Sponsored Short-Term Online Course "Nanostructured Materials for Energy, Environment and Healthcare Applications" -Attended	IIT Delhi	Nov. 9-13, 2020
3	Kumbhakar P.	TEQIP-III Sponsored short term course on "Electrochemical Energy Storage Devices" -Attended	IIT Delhi	Dec. 7-11, 2020
4	Kumbhakar P.	Recent Developments in chemistry (RDC-2021) –Presentation (ORAL Talk)	Dept. of Chem., NIT Durgapur	March 3-5, 2021
5	Chakraborty A. K.	e-workshop on Electrochemical Energy Storage Devices	Indian Institute of Technology Delhi	December 7-11, 2020
6	Mondal A.	International Conference CONIAPS XXVI-"Advances in Applied Physics and Earth Sciences"	Manipal University Jaipur	December 18-20, 2020
7	Ghosh S.	International webinar on Recent developments on the understanding of epidemic dynamics	BB College, Asansol	June 20, 2020
8	Ghosh S.	TMLS workshop on soft matter and biology	Emory's Theory and Modeling of Living Systems initiative	July 31, 2020

**Annexure – 11.7(c) Training of staff members during 2020-21****DEPARTMENT OF BIOTECHNOLOGY**

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1.	Ghosh M.	Online professional development training for faculties	IIM Udaipur	14.12.2020-18.12.2020

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1.	Banerjee, S.	Social Media Management and Practices	MHRD	27.12.2019

11.7(d) Interdisciplinary Centers**✦ CENTRE OF BIOMEDICAL ENGINEERING & ASSISTIVE TECHNOLOGY (BEAT)**

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 are

- (i) Biomaterials & Biofabrication
- (ii) Biomechanics & Biomechanical Engineering
- (iii) Biomedical Devices, Bio-Instrumentation & Bio-sensors
- (iv) Assistive Technology & Rehabilitation Engineering

WORKSHOPS/SEMINARS ORGANISED (2020-21)

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Prof. Suresh Devasahayam CMC Vellore	Recent Trends in Biomedical Engineering : RTBE 2020	Jan 3-7, 2020
2	Prof. Santanu Dhara, IIT KGP		
3	Prof. Bikramjit Basu, IISc Bangalore		
4	Dr. Subhadip Bodhak, CSIR-CGCRI		
5	Dr. Ananya Barui, IEST-Shibpur.		
6	Dr. Debrupa Lahiri IIT ROORKEE		
7	Dr. Piyali Basak, JU		
8	Dr. Shikha, CMERI		
9	Dr. Koushik Chatterjee IISC		
10	Dr. Suman Chakraborty IITKGP		
11	Dr. Monidipa Ghosh BT NITDGP		
12	Dr. Tushar K Bera EE NITDGP		

OTHER INFORMATION:

Centre of BEAT has got approval of floating open Elective at B.Tech Level 7th Semester, XEO742 : Medical Instrumentation & Assistive Technology.



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	Synthesis and characterization of nanomaterials	manab.mallik@mme.nitdgp.ac.in
Madan M. Ghosh	Asso Professor	Simulation for Designing Structural Materials Nanomaterials - Nanoparticles, Nanocomposites and Nanofluids	madanmohan.ghosh@mme.nitdgp.ac.in
Tushar K. Bera	Asstt Professor	Biomedical Instrumentation, Sensors and Actuators, Medical Electronics Electrical Impedance Based Health Monitoring (EIHM)	tusharkanti.bera@ee.nitdgp.ac.in
Ashis K. Dhara	Asstt Professor	Computer-aided Diagnosis System, AI & Machine Learning, Deep Learning in Medical 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





Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Nilanjan Chattaraj	Asstt Professor	Smart materials based devices and Structronic Systems, Electromechanical systems, Flexible-Mechatronics System Engineering	nilanjan.chattaraj@ece.nitdgp.ac.in
Diptesh Das	Asso Professor	Passive, Semi-active and Hybrid Vib Control, AI and Soft Computing Offshore Struct. Engineering	diptesh.das@ce.nitdgp.ac.in
Amiya K. Samanta	Professor	Comp. & exp. Mechanics, simulation of composite structures, innovative materials.	amiyak.samanta@ce.nitdgp.ac.in

CENTER FOR ADVANCED RESEARCH ON ENERGY (CARE)

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-elctro-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 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.

CARE ACTIVITIES 2 020-21

1. PhD program
2. Interdisciplinary research activities in the area of energy
3. Paper publications

JOURNAL PAPERS

1. Sannigrahi, S., Ghatak, S. R., Acharjee, P., November, 2020. Multi-Scenario Based Bi-Level Coordinated Planning of Active Distribution System Under Uncertain Environment. IEEE Transactions on Industry Applications, 56(1), 850-863.
2. Ghatak, S. R., Sannigrahi, S., Acharjee, P., January 2020. Multiobjective Framework for Optimal Integration of Solar Energy Source in Three-Phase Unbalanced Distribution Network. IEEE Transactions on Industry Applications, 56(3), 3068-3078.
3. Maji, T. K., Acharjee, P., January 2020. Operational-based Techno-economic PMU Installation Approach Using Grey Wolf Optimisation Algorithm (GWOA). IET Generation, Transmission, & Distribution, 14(1), 70-78.
4. Kumar, N., Saha, T. K. and Dey, J., March, 2020. Multilevel Inverter (MLI)-Based Stand-Alone Photovoltaic System: Modeling, Analysis, and Control. IEEE Systems Journal, 14(1), 909-915.
5. Jana, S., Kumar, N., Mishra, R., Sen, D., Saha, T. K., February, 2020. Development and implementation of modified MPPT algorithm for boost converter based PV system under input and load deviation. International Transaction on Electrical Energy System, 30(2), e12190.
6. Mishra, R., and Saha, T. K., February, 2020. Combined control of stand-alone energy conversion scheme for distributed sources: Development and performance analysis. International Journal of Electrical Power & Energy Systems, Elsevier, 115, 105480.
7. Sen, D., Saha, T. K. and Dey, J., April, 2020. Development, implementation and performance analysis of decoupler based control of dual source DC-DC converter. AEU - International Journal of Electronics and Communications, Elsevier, 117, 153136.
8. Mishra, R., and Saha, T. K., April, 2020. Control of a stand-alone distributed generation system with unbalanced and nonlinear load." in International Transactions on Electrical Energy Systems, Wiley, e12286.
9. Mishra, R., and Saha, T. K., July, 2020. Modelling and analysis of distributed power generation schemes supplying unbalanced and non-linear load." in International Journal of Electrical Power & Energy Systems, Elsevier 119, 105878.
10. Mishra, R., and Saha, T. K., July, 2020. Virtual Power-Based Control for Operation and Grid Synchronization of Induction Generator. IEEE Systems Journal, doi: 10.1109/JSYST.2020.3005874. (Early Access).
11. Mishra, R., and Saha, T. K., May, 2020. Performance Analysis of Model Predictive Technique Based Combined Control for PMSG-Based Distributed Generation Unit. IEEE Transactions on Industrial Electronics, 67(10), 8991-9000.
12. Chatterjee, S., Ghosh, P. K., Saha Roy, B.K., February 2020. PMU based power system component monitoring scheme satisfying complete observability with multi-criteria decision support. International Transactions on Electrical Energy Systems, 30(2), 1-23.
13. Ghosh, Saikat, and Mahato, S. N., October 2020. Modeling and Analysis of Multiphase Induction Generator used in AC & DC Hybrid Micro Grid Generating System. Journal of the Indian Chemical Society, 97.
14. Ray, Sambaran, Chatterjee, Himadri S., Mahato, Sankar N., and Roy, Nirmal K., 2021. Analysis of a Novel Three-phase Asynchronous Generator Based on Graph Theory for Supplying Single-Phase Load. IETE Journal of Research, DOI: 10.1080/03772063.2021.1944334.
15. Ray, Sambaran, Chatterjee, Himadri S., Samajapati, Dipanjan, Mahato, Sankar N. and Roy, Nirmal K., 2021. BSA Based Analysis of Three-



Phase Standalone Asynchronous Generator Using Two-Port Network. International Journal of Power Electronics.

CONFERENCE PAPERS

1. Sannigrahi, S., Ghatak, S. R., Acharjee, P., 2020. Point Estimate Method based Distribution System Planning using MOPSO Technique. IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE).
2. Das, S., Bhattacharya, A., Acharjee, P., 2020. Charging Scheduling of Electric Vehicles (EV) in Probabilistic Scenario considering Grid-to-Vehicle (G2V) and Vehicle-to-Grid (V2G). IEEE Calcutta Conference (CALCON), Kolkata, India.
3. Das, S., Acharjee, P., Bhattacharya, A., 2020. Charging Scheduling of Electric Vehicle incorporating Grid-to-Vehicle (G2V) and Vehicle-to-Grid (V2G) technology in Smart-Grid. IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE2020), Cochin, India.
4. Das, S., Bhattacharya, A., Acharjee, P., 2020. Intelligent Strategy for Finding Out Appropriate Charging Station. International conference on Water, Energy, and Environmental Sustainability, Durgapur, India.
5. Ghosh, S., Saha, T.K., 2020. PV-Battery based Hybrid Electric Vehicle Utilising CTLL. International Conference on "Water, Energy, and Environmental Sustainability 2020 (WEES 2020)", NIT Durgapur, India.
6. Mishra, R., Saha, T.K., 2020. Utilisation of Induction Generator with SVPWM switching for stand-alone wind energy conversion system. International Conference on "Water, Energy, and Environmental Sustainability 2020 (WEES 2020)", NIT Durgapur, India.
7. Sen, D., Saha, T. K. Dey, J., 2020. Study of DPC based AC-DC Conversion. International Conference on "Water, Energy, and Environmental Sustainability 2020 (WEES 2020)", NIT Durgapur, India.

PROJECT:

Name of the Investigator	Title of the project and duration	Status	Funding Agency
Dr. P. Acharjee	"Cost Minimization-Based Multi-Stage PMU Installation Strategy Considering Energy Industries' Perspective"	Ongoing	CSIR-HRDG
Dr. T.K. Saha	PV System having Battery as Storage Element for Indian Rural Development/Electrical Vehicle	Ongoing	NPIU
Dr. J. Dey & Dr. T.K. Saha	Improved Energy Management and Control of a Hybrid UGV for Combat Use	Ongoing	DRDO

CENTRE FOR RESEARCH ON ENVIRONMENT AND WATER (CREW)

Ministry of Education, Govt 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.

ACTIVITIES:

Collaboration with Academic and Research Institutions



Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Engineering School of Natural Resources, National Research Tomsk Polytechnic University	Environmental geochemistry and treatment of organic pollutants in aquatic systems	Chaudhuri H, Pal S, Mandal M. K	Joint Research and Joint Publication
East China University of Technology (ECUT), School of Water Resources and Environmental Engineering	Environmental geochemistry and treatment of organic pollutants in aquatic systems	Chaudhuri H, Pal S, Mandal M. K	Joint Research and Joint Publication
Federal University of Minas Gerais (Brazil), Federal University of Rio de Janeiro (Brazil), Far Eastern Federal University, Vladivostok (Russia), Durban University of Technology (South Africa), Central University of Technology (South Africa) and also with Saha Institute of Nuclear Physics, Kolkata, Variable Energy Cyclotron Center, Kolkata, Jadavpur University, Kolkata, Jawaharlal Nehru University, New Delhi	Interdisciplinary areas based on Environmental geochemistry a	Chaudhuri H	Joint Research and Joint 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	Arsenic removal	Ruj Biswajit, Debbarma Swarup Ranjan & Saha R. N.	Joint Supervisor for Ph.D Work, Paper publication
Civil Engineering Department North Dakota State University, USA.	Water and Wastewater Treatment	Bezbaruah A. N. Saha R.N.	Research on "Synthesis of Advanced Nano-materials and their Application for the Reduction of Environmental Contaminants"

ONGOING SPONSORED PROJECTS

Name of the Department	Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
CREW	Environmental geochemistry and treatment of organic pollutants in aquatic systems in the selected areas of China, India and Russia	Dr. Supriya Pal, Dr. Hirok Chaudhuri, Dr. M. K. Mandal, Dr. K. Dubey, Prof. Oleg Savichev, Prof. Zhanxue Sun	DST (BRICS)	44.08 lakh	2019-2022

**ONGOING SPONSORED PROJECTS**

Topic	Investigators	Supervisor(s)
Study on Hetero-structured Photocatalytic Materials for the Removal of Antibiotics in Wastewater	Miss Suvashree Mukherjee	Dr. Hirok Chaudhuri, Dr. Mrinal Kanti Mandal

RESEARCH PAPERS PUBLISHED IN SCI / SCOPUS / WEB OF SCIENCE

1. Kankana Seal, **Hirok Chaudhuri**, Soumen Basu, Mrinal Kanti Mandal, Supriya Pal; Study on effect of the solvothermal temperature on synthesis of 3D hierarchical TiO₂ nanoflower and its application as photocatalyst in degradation of organic pollutants in wastewater, Arabian Journal for Science and Engineering, 46 (7), 6315 – 6331, 2021.
2. O. G. Savichev, E. A. Soldatova, **H. Chaudhuri**, S. S. Ulaeva, Ecologo-geochemical conditions of water bodies in the Damodar River Basin (West Bengal, India), Geography and Natural Resources, 41(3), 162–169, 2020.
3. **Chiranjit Maji**, Nimagna Hazra, Animesh Datta, **Hirok Chaudhuri**, A. N. Sekar Iyengar, Imprints of nonlinearity in radioactive gas Radon-222 expelled out of Bakreswar hot spring, India, Annals of Geophysics, 63(3), GT333, (1-18), 2020.

RESEARCH PAPERS ACCEPTED FOR PUBLICATION IN SCI / SCOPUS / WEB OF SCIENCE

1. Naskar J, Chowdhury S, Adhikary A, Pal S, Kazy SK (2021) Strength enhancement of lateritic soil through mechanical mixing with magnetite nanoparticles, starch solution and calcite precipitating bacteria, Arabian Journal of Geosciences. (Accepted)

INVITED LECTURES DURING 2020-21

Name of the faculty	Title of the lecture	Programme	Place	Date
Saha Rajnarayan	Green Chemistry	Invited Lecture	Shah and Anchor Kutchhi Engineering College, Mumbai	01.08.2020
Saha RajnarayanN	Green Chemistry approaches for the Minimization of pollution	Invited Lecture	Brainware University Kolkata	04.11.2020
Hirok Choudhuri	Environmental Radioactivity and its applications for benefit of mankind	Invited Lecture	Brainware University Kolkata	19.10.20
Hirok Choudhuri	Facts and Facets of Environment- A post COVID 19 Perspective	Invited Lecture	JIS Engineering College, Kalyani	

PROCUREMENT STATUS

Procurement of equipment under process for 1st year allocation

1. Environmental radiation monitoring- Radon Monitor and Environmental radiation monitoring- Gamma beta spectrometer -Completed
2. Geotechnical centrifuge-ongoing

CONTACT DETAILS:

Prof. Rajnarayan Saha

Coordinator, CREW

(M) 9434788063

email: rajnarayan.saha@ch.nitdgp.ac.in



Activities carried out by Centre of Excellence on “Internet of Things and Intelligent Systems” (IoTIS) during 01.04.2020 to 31.03.2021

- A. The centre offered the elective course titled “Internet of Things” for M. Tech students and open elective “Computer Networks” for UG students.
- B. Following papers were published in International Conferences and Journals from the Centre.
 1. Arindam Ghosh, Amartya Chakraborty, Joydeep Kumbhakar, Mousumi Saha, Sujoy Saha, “HumanSense: a framework for collective human activity identification using heterogeneous sensor grid in multi-inhabitant smart environments”, Personal and Ubiquitous Computing, Published: 21 May 2020
 2. Bandyopadhyay, A., Kumar Singh, V., **Mukhopadhyay, S.**, Rai, U., Xhafa, F. and Krause, P., 2020. Matching IoT Devices to the Fog Service Providers: A Mechanism Design Perspective. *Sensors*, 20(23), p.6761.
 3. Krishnandu Hazra, Vijay K Shah, Simone Silvestri, Vaneet Aggarwal, Sajal K Das, Subrata Nandi, Sujoy Saha , “Designing efficient communication infrastructure in post-disaster situations with limited availability of network resources”, Elsevier Volume 164, 1 December 2020, Pages 54-68
 4. Monalisa Mishra, Prasenjit Choudhury, and Bibudhendu Pati. “*Modified ride-NN optimizer for the IoT based plant disease detection.*” *Journal of Ambient Intelligence and Humanized Computing* (2020): 1-13. (SCIE), Vol 12, pp. 691-703, January 2021, DOI <https://doi.org/10.1007/s12652-020-02051-6>
 5. Mukhopadhyay, J., Singh, V.K., Mukhopadhyay, S., Pal, A. and Kumar, A., 2021. A truthful budget feasible mechanism for IoT-based participatory sensing with incremental arrival of budget. *Journal of Ambient Intelligence and Humanized Computing*, pp.1-18.
 6. Rangaballav Pradhan and Tanmay De, “A selective forwarding technique for data dissemination in vehicular ad hoc networks based on traffic parameters”, *Int. Journal of Ad Hoc and Ubiquitous Computing*, Vol. 35, No. 4, pp. 179-190, 2020. DOI: 10.1504/IJAHUC.2020.111460.
 7. Pijush Kanti Dutta Pramanik, Gautam Bandyopadhyay, and Prasenjit Choudhury, “Predicting relative topological stability of mobile users in a P2P mobile cloud”, *SN Applied Sciences* (Springer), Vol. 2, Issue 11, pp. 1-18, Scopus 2020. DOI: <https://doi.org/10.1007/s42452-020-03584-3>
 8. Mukhopadhyay, J., Singh, V.K., Mukhopadhyay, S., Pal, A. and Kumar, A., 2021. A truthful budget feasible mechanism for IoT-based participatory sensing with incremental arrival of budget. *Journal of Ambient Intelligence and Humanized Computing*, pp.1-18.
- C. The centre is carrying out two collaborative projects as mentioned below –
 - 1) “Neuro-computing and Cognitive Intelligence”, in collaboration with IIT Delhi sponsored by MeitY, Gol.
 - 2) Connected Smart Health Services for Rural India (No. DST/ICPS/IoT/Cluster/2019 dt. 18.09.2020 of ICPS division, DST, Ministry of IT, Gol), with Calcutta University, Kolkata.

The Centre of Excellence in Advanced Materials is a relatively new entity at NIT Durgapur which received its first grant of Rs. 5 Crores in 2013, from the erstwhile MHRD (now Ministry of Education), Govt. of India under its Technical Education Quality Improvement program (TEQIP) Phase-II, for setting up an interdisciplinary centre for research in advanced materials. The grant was received in response to a proposal prepared jointly by Prof. Amit K. Chakraborty of Department of Physics and Prof. D. K. Mondal (now retd.) of



Department of MME with the help of several other faculty members as detailed below under the active guidance of the then Director, Prof. T. Kumar; Dean (R&C), Prof. P. P. Gupta; and TEQIP Coordinator, Prof. K. C. Ghanta.

Although it was not until September, 2017 that the centre found its current premise, its first major equipment, the Field Emission Scanning Electron Microscope was commissioned in February 2016 in the department of MME and was later brought to its current building. The centre received more grants from the Ministry of Education under its TEQIP Phase-III once in 2018 (Rs. 3 Crores) and again **an incentive** in October, 2020 (Rs. 1 Crore) for its outstanding performance. These grants have not only helped the centre to procure high-end equipments for materials research but also have supported the fellowship of a number of institute research scholars and some Research Associates over the past couple of years in addition to providing enormous support in materials research to its members and beyond.

Currently, the centre has many sophisticated **equipments (worth ~Rs. 5 Crores)** to support **not only the researchers of NIT Durgapur but also external users** as the facilities of the centre are open for access by all against payment of a nominal fee. The centre also offers all year-round training programmes on various equipments against payment of a fee to cover its running expenses. More details can be obtained by contacting any of the following contact points.

PROFESSOR-IN-CHARGE:

Prof. Amit K. Chakraborty,

Professor, Department of Physics,

Email: coe.am@nitdgp.ac.in, amit.chakraborty@phy.nitdgp.ac.in

Phone (lab): 0343 275 9188

TECHNICAL ASSISTANT:

1. Mr. Shambhu Sarkar, B. Tech., Ph. No. – 9123484743

LIST OF MAJOR EQUIPMENTS AT THE CENTRE

1. Field Emission Scanning Electron Microscope

2. X-ray Diffractometer
3. Atomic Force Microscope
4. BET Surface Analyser
5. Infrared Spectrometer (FTIR) with Diamond ATR
6. UV-DRS Spectrophotometer with integrated sphere (200-2500 nm)
7. Fluorescence Spectrometer
8. Solar Simulator System
9. Battery Fabrication & Testing Unit
10. Chemical Vapor Deposition Unit
11. Gas Sensor Unit
12. LCR Meter (4 Hz to 5 MHz)
13. Sputter Coater
14. Thermal Coater
15. Electrochemical Work Station

MEMBERS OF THE CENTRE

✦ **Prof. A. K. Meikap**, Department of Physics
Research interest: Transport properties of polymer nanocomposites
<https://nitdgp.ac.in/faculty/1b266bb0-f281-483c-bd5c-4913f114566d>

✦ **Prof. K. S. Ghosh**, Department of MME
Research interest: Aluminum alloy-based Nanocomposites, Corrosion studies
<https://nitdgp.ac.in/faculty/ddb276d1-79c4-479c-91a6-0f2c415ecd62>

✦ **Prof. P. Kumbhakar**, Department of Physics
Research interest: Photonic materials, nanophotonics
<https://nitdgp.ac.in/faculty/a4ac0cab-48fd-4153-ab4c-b440ed3d0dc7>

✦ **Prof. Joydeep Maity**, Department of MME
Research interest: Diffusion, Phase Transformation, Heat treatment, Transient Liquid Phase (TLP) Diffusion Bonding and Metal Matrix Composites
<https://nitdgp.ac.in/department/metallurgical-materials-engineering/faculty-12/joydeep-maity>

✦ **Prof. Amit K. Chakraborty**, Department of Physics
Research interest: Carbon nanomaterials



(graphene & CNT) and their novel nanocomposites for application in supercapacitors, batteries, dye-sensitized solar cells, photocatalysis, chemiresistive/ electrochemical sensors.

<https://nitdgp.ac.in/faculty/6e8da785-ff5c-49e5-ab30-1ddce007da7c>

✦ **Prof. R. Mahapatra**, Department of ECE

Research interest: High-k dielectrics, Flexible Resistive Memory devices, Gas sensors

<https://nitdgp.ac.in/faculty/931612ad-7f92-4a34-bd38-981578c5819b>

✦ **Dr. M.M. Ghosh**, Department of MME

Research interest: Molecular dynamics simulation of alloy-based composites.

<https://nitdgp.ac.in/faculty/dd91c499-b616-4d12-9a69-d23c0fd93da0>

✦ **Dr. Soumen Basu**, Department of Physics

Research interest: Multiferroic materials, solid oxide fuel cells

<https://nitdgp.ac.in/faculty/2a69b6db-47ec-47e4-9954-4b6b69a52426>

✦ **Dr. Supriya Bera**, Department of MME

Research interest: Aluminum alloy-based Nanocomposites

<https://nitdgp.ac.in/faculty/8b032963-1fb3-475c-9bab-0dc2fa63e519>

ANNEXURE– 11.8(A) LIST OF PROGRAMMES OFFERED

11.8. (A). 1. UNDER-GRADUATE PROGRAMMES:

The Institute offers the following programmes leading to 4 Year (8 Semester) B.Tech. / Ten Semester (Five Year) B. Tech and M .Tech Dual Degree / / Ten Semester (Five Year) Integrated M.Sc Degree.

Name of the programme	Department
Bachelor of Technology in Biotechnology	Biotechnology
Bachelor of Technology in Chemical Engineering	Chemical Engineering
Bachelor of Technology in Computer Science & Engineering	Computer Science & Engineering

Name of the programme	Department
Bachelor of Technology in Civil Engineering	Civil Engineering
Bachelor of Technology in Electronics & Communication Engineering	Electronics & Communication Engineering
Bachelor of Technology in Electrical Engineering	Electrical Engineering
Bachelor of Technology in Metallurgical & Materials Engineering	Metallurgical & Materials Engineering
Bachelor of Technology in Mechanical Engineering	Mechanical Engineering
B.Tech&M.Tech Dual Degree in Biotechnology	Biotechnology
B.Tech&M.Tech Dual Degree in Chemical Engineering	Chemical Engineering
5 year Integrated M.Sc in Chemistry	Chemistry

11.8. (A). 2. POST – GRADUATE PROGRAMMES:

M. TECH. PROGRAMMES:

Dept. / Specialisation	Year of Starting	Duration
Biotechnology	2008	2 years
Chemical Engineering	1968	2 years
Civil Engineering (Structural Engineering)	1971	2 years
Computer Science and Engineering		
Electrical Engineering (Electrical System)	1969	2 years
Electronics & Communication Engg (Telecommunication Engg)	2005	2 years
Electronics & Communication Engg (Microelectronics & VLSI)	2008	2 years



Dept. / Specialisation	Year of Starting	Duration
Earth & Environmental Studies – co-ordinating dept. (Environmental Science & Technology)	2008	2 years
Mathematics (Operations Research)	1990	2 Years
Mechanical Engineering (Machine Design)	1966	2 years
Metallurgical and Materials Engineering (Metallurgy and Materials Technology)	1966	2 years
Entrepreneurship and Innovation	2015	2years
Civil Engineering (Geotechnical Engineering)	2014	2 years

Dept. / Specialisation	Year of Starting	Duration
Mechanical Engineering (Fluid Mechanics and Heat Transfer)	2014	2 years

OTHER PROGRAMMES:

Dept. / Programme	Year of Starting	Duration
Management Studies (MBA)	2004	2 Years
Physics (M. Sc. in Physics)	2009	2 Years
Chemistry (M. Sc. in Chemistry)	2009	2 Years
Mathematics (M. Sc. in Mathematics)	2010	2 Years
EES (MSc in Applied Geology and Geoinformatics)	2020	2 Years
BT (MSc in Life Science)	2020	2 Years
HSS (MSW)	2020	2 Years

ANNEXURE-11.8(B) PROGRAMME-WISE ENROLMENT WITH GENDER AND CASTE BREAK-UP

11.8. (B).1.i ENROLMENT IN B.TECHPROGRAMMES DURING 2020-2021 (GENDER WISE):

Enrolment of Indian students in odd semesters of B. Tech. courses 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	52	17	60	16	60	18	153	37	76	21	81	20	00	00	150	39	59	14	691	182
B.Tech III	42	18	55	12	55	11	144	31	68	19	72	18	00	00	138	28	52	12	626	149
B.Tech V	41	15	44	13	52	09	122	24	63	16	68	16	00	00	124	19	48	13	562	125
B. T e c h VII	30	16	49	13	52	05	54	05	57	15	63	14	53	09	129	02	45	13	532	92
Total	165	66	208	54	219	43	473	97	264	71	284	68	53	09	541	88	204	52	2411	548

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

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	51	17	59	16	58	18	152	37	76	21	80	20	00	00	147	39	58	14	681	182
B.Tech III	41	18	54	12	53	11	140	31	67	19	71	18	00	00	136	28	50	12	612	149



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 V	41	15	45	13	52	09	122	24	63	16	68	16	00	00	124	19	48	13	563	125
B.Tech VII	30	16	49	13	52	05	54	05	57	15	63	14	53	09	129	02	45	13	532	92
Total	163	66	207	54	215	43	468	97	263	71	282	68	53	09	536	88	201	52	2388	548

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

11.8 (B).1.II. ENROLMENT IN B. TECH & M. TECH DUAL DEGREE PROGRAMMES (ALL STUDENTS) DURING 2020-2021 (GENDERWISE):

Semester	BT		ChE		Total	
	M	F	M	F	M	F
Dual Degree I	4	1	4	1	8	2
Dual Degree III	4	1	2	1	6	2
Dual Degree V	4	1	2	1	6	2
Dual Degree VII	0	0	0	0	0	0
Dual Degree IX	0	0	0	0	0	0
Total	12	3	8	3	20	6

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

Semester	BT		ChE		Total	
	M	F	M	F	M	F
Dual Degree II	06	01	04	01	10	02
Dual Degree IV	04	00	04	01	08	01
Dual Degree VI	04	01	02	01	06	02
Dual Degree VIII	04	01	02	01	06	02
Total	18	03	12	04	30	07

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

11.8 (B).1.III. ENROLMENT IN INTEGRATED M.Sc. PROGRAMMES DURING 2020-2021 (GENDERWISE):

Semester	Chemistry		Total	
	M	F	M	F
INT M.Sc. I	11	04	11	04
INT M.Sc. III	05	04	05	04
INT M.Sc. V	07	06	07	06
INT M.Sc. VII	09	00	09	00
Total	32	14	32	14

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



Semester	Chemistry		Total	
	M	F	M	F
INT M.Sc. II	09	04	09	04
INT M.Sc. IV	03	03	03	03
INT M.Sc. VI	07	06	07	06
INT M.Sc. VIII	09	00	09	00
Total	30	14	30	14

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

11.8 (B).2.I. ENROLMENT OF FOREIGN STUDENTS IN B.TECH. PROGRAM 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	00	00	00	00	00	00	06	04	00	00	00	00	00	00	00	00	00	00	06	04
B.Tech III	00	00	00	00	00	00	13	01	01	00	01	00	00	00	03	01	00	00	18	02
B.Tech V	00	01	01	00	00	00	09	04	02	01	00	01	00	00	04	02	00	00	16	09
B . T e c h VII	01	00	00	01	02	00	03	04	04	01	00	00	04	01	05	01	00	00	19	08
Total	01	01	01	01	02	00	31	13	07	02	01	01	04	01	12	04	00	00	59	23

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

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	00	00	00	00	00	00	06	04	00	00	00	00	00	00	00	00	00	00	06	04
B.Tech III	00	00	00	00	00	00	13	01	01	00	01	00	00	00	03	01	00	00	18	02
B.Tech V	00	01	01	00	00	00	09	04	02	01	00	01	00	00	04	02	00	00	16	09
B . T e c h VII	01	00	00	01	02	00	03	04	04	01	00	00	04	01	05	01	00	00	19	08
Total	01	01	01	01	02	00	31	13	07	02	01	01	04	01	12	04	00	00	59	23

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

11.8.(B).2.II. ENROLMENT IN B.TECH. PROGRAMMES DURING 2020-2021 (CASTEWISE)

Dept.	B.Tech							B.TECH						B.TECH						B.TECH					
	I Semester						III Semester						V Semester						VII Semester						
	OP	EWS	SC	ST	OBC	TOT	OP	EWS	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT			
BT	21	10	11	03	24	69	22	03	09	05	21	60	22	09	04	21	56	16	17	03	20	46			



Dept.	B.Tech						B.TECH						B.TECH						B.TECH					
	I Semester						III Semester						V Semester						VII Semester					
ChE	27	11	11	06	21	76	27	05	09	05	21	67	28	09	03	17	57	30	08	05	19	62		
CE	23	13	13	06	23	78	22	05	11	05	23	66	29	08	05	19	61	23	09	04	21	57		
CSE	59	32	28	14	57	190	61	22	27	14	51	175	72	22	10	42	146	30	09	04	16	59		
ECE	31	17	15	07	27	97	33	10	14	07	23	87	39	11	05	24	79	34	12	05	21	72		
EE	35	14	16	07	29	101	34	10	15	06	25	90	41	13	06	24	84	37	11	06	23	77		
IT	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	30	09	04	19	62		
ME	56	29	30	14	60	189	56	20	27	16	47	166	64	21	11	45	143	66	19	10	36	131		
MME	27	10	09	06	21	73	19	07	10	05	23	64	23	08	06	24	61	26	09	05	18	58		
Total	279	136	133	63	262	873	274	82	122	63	234	775	320	101	50	216	687	292	93	46	193	624		

11.8.(b).2. Enrolment in B.Tech & M. Tech Dual Degree Programmes during 2020-2021 (Castewise)

Dept.	Dual Degree						Dual Degree						Dual Degree						Dual Degree					
	I Semester						III Semester						V Semester						VII Semester					
	OP	EWS	SC	ST	OBC	TOT	OP	EWS	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT		
BT	01	01	01	01	03	07	02	00	01	01	00	04	02	01	01	01	05	03	01	00	01	05		
ChE	00	02	01	00	02	05	02	00	01	00	02	05	01	00	00	02	03	01	01	00	01	03		
Total	01	01	02	01	05	12	04	00	02	01	02	09	03	01	01	03	08	04	02	00	02	08		

11.8.(B).2.III. ENROLMENT IN 5 YEAR INTEGRATED M.Sc. PROGRAMMES, DURING 2020-2021 (CASTWISE)

Dept.	INT M.Sc.						INT M.Sc.						INT M.Sc.						INT M.Sc.					
	I Semester						III Semester						V Semester						VII Semester					
	OP	EWS	SC	ST	OBC	TOT	OP	EWS	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT		
Chem	03	04	02	00	06	15	03	01	02	01	02	09	06	00	02	05	13	04	02	01	02	09		
Total	03	04	02	00	06	15	03	01	02	01	02	09	06	00	02	05	13	04	02	01	02	09		

11.8.(B).2.IV ENROLMENT IN 5 YEAR INTEGRATED M.Sc. PROGRAMMES, DURING 2020-2021 (CASTWISE)

Dept.	INT M.Sc.						INT M.Sc.						INT M.Sc.						INT M.Sc.					
	II Semester						IV Semester						VI Semester						VII Semester					
	OP	EWS	SC	ST	OBC	TOT	OP	EWS	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT		
Chem	03	03	02	00	05	13	02	01	01	00	02	06	06	00	02	05	13	04	02	01	02	09		
Total	03	03	02	00	05	13	02	01	01	00	02	06	06	00	02	05	13	04	02	01	02	09		





11.8.(B).2. ENROLMENT IN B.TECH. PROGRAMMES DURING 2020-2021 (CASTEWISE)

Dept.	B.TECH						B.TECH						B.TECH						B.TECH					
	II Semester						IV Semester						VI Semester						VIII Semester					
	OP	EWS	SC	ST	OBC	TOT	OP	EWS	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT		
BT	20	10	11	03	24	68	21	03	09	05	21	59	22	09	04	21	56	16	17	03	20	46		
ChE	27	11	10	06	21	75	27	05	09	05	20	66	29	09	03	17	58	30	08	05	19	62		
CE	21	13	13	06	23	76	21	05	11	05	22	64	29	08	05	19	61	23	09	04	21	57		
CSE	58	32	28	14	57	189	57	22	27	14	51	171	72	22	10	42	146	30	09	04	16	59		
ECE	31	17	15	07	27	97	32	10	14	07	23	86	39	11	05	24	79	34	12	05	21	72		
EE	34	14	16	07	29	100	33	10	15	06	25	89	41	13	06	24	84	37	11	06	23	77		
IT	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	30	09	04	19	62		
ME	55	29	29	14	59	186	55	20	27	16	46	164	66	21	11	45	143	66	19	10	36	131		
MME	27	10	09	06	21	73	18	07	09	05	23	60	23	08	06	24	61	26	09	05	18	58		
Total	273	136	131	63	261	864	264	82	121	63	231	761	321	101	50	216	688	292	93	46	193	624		

11.8.(B).2. ENROLMENT IN B.TECH & M. TECH DUAL DEGREE PROGRAMMES DURING 2020-2021 (CASTEWISE)

Dept.	B.TECH						B.TECH						B.TECH						B.TECH				
	I Semester						III Semester						V Semester						VII Semester				
	OP	EWS	SC	ST	OBC	TOT	OP	EWS	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	
BT	01	01	01	01	03	07	02	00	01	01	00	04	02	01	01	01	05	03	01	00	01	05	
ChE	00	02	01	00	02	05	02	00	01	00	02	05	01	00	00	02	03	01	01	00	01	03	
Total	01	01	02	01	05	12	04	00	02	01	02	09	03	01	01	03	08	04	02	00	02	08	

11.8.(B).3. ENROLMENT IN M.TECH. & M.Sc PROGRAMMES DURING 2020-2021 (GENDERWISE)

Semester	BT	CH	CE (SE)	CE (GE)	CS	EE (PS)	EE (PMD)	EC (TE)	EC (VL)	ES (EST)	OR (MA)
M.Tech I & II	10 (7)	13 (6)	19 (0)	18 (1)	71 (17)	16 (4)	18 (1)	16 (8)	18 (5)	18 (3)	14 (5)
M.Tech III & IV	11 (5)	4 (1)	18 (4)	15 (1)	64 (19)	17 (3)	14 (6)	14 (9)	16 (6)	11 (2)	12 (1)

Semester	ME (MD)	ME (FMHT)	ME (TE)	MM	AMS (PHY)	TOTAL
M.Tech I & II	21 (0)	14 (0)	17 (0)	11 (2)	5 (0)	299 (59)
M.Tech III & IV	15 (1)	12 (1)	15 (0)	4 (0)	5 (3)	247 (62)

**11.8.(B).3. 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 & Geoinfo)	TOTAL
M.Sc I & II	23 (13)	22 (5)	17 (4)	11 (6)	17 (5)	90 (33)
M.Sc III & IV	16 (3)	20 (5)	18 (4)	----	----	54 (12)

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

11.8.(B).4. ENROLMENT IN M.TECH PROGRAMMES DURING 2020-2021(CASTWISE)

Dept. / Year	I & II					III & IV				
	OP	SC	ST	OBC	TOTAL	OP	SC	ST	OBC	TOTAL
BT	8 (6)	0 (0)	0 (0)	2 (1)	10 (7)	7 (3)	1 (0)	0 (0)	3 (2)	11 (5)
CH	10 (5)	0 (0)	0 (0)	3 (1)	13 (6)	3 (1)	1 (0)	0 (0)	0 (0)	4 (1)
CE (SE)	10 (0)	3 (0)	0 (0)	6 (0)	19 (0)	7 (1)	3 (2)	1 (0)	7 (1)	18 (4)
CE (GT)	10 (1)	3 (0)	0 (0)	5 (0)	18 (1)	8 (0)	1 (0)	1 (1)	5 (0)	15 (1)
CS	29 (6)	11 (2)	3 (0)	28 (9)	71 (17)	28 (10)	10 (3)	1 (0)	25 (6)	64 (19)
EE (PS)	8 (2)	2 (0)	1 (0)	5 (2)	16 (4)	9 (1)	2 (0)	1 (1)	5 (1)	17 (3)
EE(PMD)	8 (0)	2 (0)	0 (0)	8 (1)	18 (1)	8 (3)	2 (2)	0 (0)	4 (1)	14 (6)
EC (TE)	13 (6)	1 (1)	0 (0)	2 (1)	16 (8)	6 (5)	1 (1)	0 (0)	7 (3)	14 (9)
EC (VL)	9 (3)	3 (1)	0 (0)	6 (1)	18 (5)	6 (3)	3 (1)	0 (0)	7 (2)	16 (6)
ES	9 (2)	3 (0)	0 (0)	6 (1)	18 (3)	6 (1)	2 (0)	1 (0)	2 (1)	11 (2)
MA (OR)	7 (3)	1 (0)	0 (0)	6 (2)	14 (5)	7 (0)	2 (0)	0 (0)	3 (1)	12 (1)
ME (MD)	9 (0)	3 (0)	1 (0)	8 (0)	21 (0)	9 (0)	2 (1)	0 (0)	4 (0)	15 (1)
ME (FMHT)	6 (0)	2 (0)	0 (0)	6 (0)	14 (0)	10 (1)	1 (0)	0 (0)	1 (0)	12 (1)
ME (TE)	9 (0)	3 (0)	0 (0)	5 (0)	17 (0)	7 (0)	2 (0)	0 (0)	6 (0)	15 (0)
MM (MT)	6 (2)	2 (0)	0 (0)	3 (0)	11 (2)	2 (0)	1 (0)	0 (0)	1 (0)	4 (0)
PH (AMS)	4 (0)	0 (0)	0 (0)	1 (0)	5 (0)	4 (3)	1 (0)	0 (0)	0 (0)	5 (3)
Total	155 (36)	39 (4)	5 (0)	100 (19)	299 (59)	127 (32)	35 (10)	5 (2)	80 (18)	247 (62)

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





11.8.(B).4. 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 (6)	4 (3)	0 (0)	8 (4)	23 (13)	9 (3)	2 (0)	0 (0)	5 (0)	16 (3)
M.Sc (MA)	6 (1)	4 (0)	0 (0)	12 (4)	22 (5)	10 (4)	3 (0)	0 (0)	7 (1)	20 (5)
M.Sc (PH)	10 (1)	4 (1)	0 (0)	3 (2)	17 (4)	9 (3)	3 (1)	0 (0)	6 (0)	18 (4)
M.Sc (BT)	5 (3)	2 (1)	0 (0)	4 (2)	11 (6)	----	----	----	----	----
M. Sc (EES)	8 (3)	2 (0)	2 (0)	5 (2)	17 (5)	----	----	----	----	----
Total	40 (14)	16 (5)	2 (0)	32 (14)	90 (33)	28 (10)	8 (1)	0 (0)	18 (1)	54 (12)

11.8.(B). 5. . ENROLMENT IN MCA PROGRAMME DURING 2020-2021(GENDERWISE)

Master of Computer Applications (MCA)	V & VI Semester
	27 (7)

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

11.8. (B). 6. ENROLMENT IN MCA PROGRAMME DURING 2020-2021 (CASTEWISE)

MCA	MCA V & VI				
	OP	SC	ST	OBC	TOTAL
	14 (5)	5 (0)	2 (1)	6 (1)	27 (7)

11.8. (B) 7. ENROLMENT IN MBA PROGRAMMES DURING 2020-2021(GENDER WISE)

Master of Business Administration (MBA)	I & II Semester	III & IV Semester
	31 (12)	25 (12)

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

11.8. (B).8. 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
	22 (10)	3 (0)	0 (0)	6 (2)	31 (12)	17 (9)	4 (1)	0 (0)	4 (2)	25 (12)

11.8.(B) 8.I ENROLMENT IN MSW PROGRAMME DURING 2020-2021 (GENDERWISE)

Master of Social Work (MSW)	I & II Semester
	2 (1)

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

**11.8. (B).8.II ENROLMENT IN MSW PROGRAMME DURING 2020-2021(CASTWISE)**

MSW	MSW I & II				
	OP	SC	ST	OBC	TOTAL
	2 (1)	0 (0)	0 (0)	0 (0)	2 (1)

11.8.(B). 9.I. ADMISSION OF RESEARCH SCHOLARS FOR REGULAR PHD PROGRAMME DURING 2020-2021:

SL. NO.	Branch of Research Study	Gender		Caste				Total
		Male	Female	OP	SC	ST	OBC	
1	Biotechnology	9	4	9	2	0	2	13
2	Chemical Engineering	3	2	2	1	0	2	5
3	Chemistry	3	0	2	1	0	0	3
4	Civil Engineering	3	2	2	1	0	2	5
5	Computer Science & Engineering	4	3	5	1	0	1	7
6	Earth & Environmental Studies	0	1	1	0	0	0	1
7	Electrical Engineering	4	1	2	1	0	2	5
8	Electronics & Communications Engineering	5	2	3	1	1	2	7
9	Humanities & Social Sciences	1	1	2	0	0	0	2
10	Management Studies	2	2	1	1	0	2	4
11	Mathematics	8	3	6	1	0	4	11
12	Mechanical Engineering	8	0	5	1	1	1	8
13	Metallurgical & Materials Engineering	5	1	4	0	0	2	6
14	Physics	3	2	3	1	0	1	5
	Total	58	24	47	12	2	21	82

11.8.(B). 9.II. ADMISSION OF RESEARCH SCHOLARS FOR PROFESSIONAL PHD PROGRAMME DURING 2020-2021:

SL. NO.	Branch of Research Study	Gender		Caste				Total
		Male	Female	OP	SC	ST	OBC	
1	Biotechnology	1	0	1	0	0	0	1
2	Chemical Engineering	0	3	2	1	0	0	3
3	Chemistry	0	0	0	0	0	0	0



SL. NO.	Branch of Research Study	Gender		Caste				Total
		Male	Female	OP	SC	ST	OBC	
4	Civil Engineering	1	0	1	0	0	0	1
5	Computer Science & Engineering	3	1	4	0	0	0	4
6	Earth & Environmental Studies	0	0	0	0	0	0	0
7	Electrical Engineering	1	0	1	0	0	0	1
8	Electronics & Communications Engineering	2	0	2	0	0	0	2
9	Humanities & Social Sciences	1	0	1	0	0	0	1
10	Management Studies	1	2	3	0	0	0	3
11	Mathematics	1	0	0	0	0	1	1
12	Mechanical Engineering	3	0	2	0	0	1	3
13	Metallurgical & Materials Engineering	3	0	2	1	0	0	3
14	Physics	4	1	3	1		1	5
	Total	21	7	22	3		3	28

11.8.(B). 9.III. TOTAL STRENGTH OF RESEARCH SCHOLARS FOR REGULAR PHD PROGRAMME IN 2020-2021:

SL. NO.	Branch of Research Study	Gender		Caste				Total
		Male	Female	OP	SC	ST	OBC	
1	Biotechnology	27	24	33	10	1	7	51
2	Chemical Engineering	14	14	19	4	1	4	28
3	Chemistry	11	8	13	5	0	1	19
4	Civil Engineering	11	5	7	4	0	5	16
5	Computer Science & Engineering	36	21	38	2	3	14	57
6	Earth & Environmental Studies	1	2	2		0	1	3
7	Electrical Engineering	24	2	14	4	1	7	26
8	Electronics & Communications Engineering	24	9	18	8	1	6	33
9	Humanities & Social Sciences	5	7	9	1	0	2	12



SL. NO.	Branch of Research Study	Gender		Caste				Total
		Male	Female	OP	SC	ST	OBC	
10	Management Studies	4	3	4	1	0	2	7
11	Mathematics	29	10	24	5	0	10	39
12	Mechanical Engineering	31	0	21	3	1	6	31
13	Metallurgical & Materials Engineering	18	1	12	1	0	6	19
14	Physics	14	7	13	4	0	4	21
15	Centre For Research On Environment & Water	0	1	1	0	0	0	1
	Total	249	114	228	52	8	75	363

11.8.(b).9.IV. TOTAL STRENGTH OF RESEARCH SCHOLARS FOR PROFESSIONAL PhD PROGRAMME IN 2020-2021:

SL. NO.	Branch of Research Study	Gender		Caste				Total
		Male	Female	OP	SC	ST	OBC	
1	Biotechnology	2	4	5	0	0	1	6
2	Chemical Engineering	16	11	23	3	0	1	27
3	Chemistry	8	4	10	1	0	1	12
4	Civil Engineering	24	4	21	5	0	2	28
5	Computer Science & Engineering	42	16	51	1	1	5	58
6	Earth & Environmental Studies	5	1	1	0	0	1	6
7	Electrical Engineering	15	5	17	2	0	1	20
8	Electronics & Communications Engineering	32	9	37	1	0	3	41
9	Humanities & Social Sciences	10	6	4	1	0	1	16
10	Management Studies	15	6	20	1	0	0	21
11	Mathematics	9	4	10	1	0	2	13
12	Mechanical Engineering	27	1	20	6	1	1	28
13	Metallurgical & Materials Engineering	2	1	2	1	0	0	3
14	Physics	8	4	7	4	0	1	12



SL. NO.	Branch of Research Study	Gender		Caste				Total
		Male	Female	OP	SC	ST	OBC	
15	CENTRE FOR RESEARCH ON ENVIRONMENT & WATER	0	0	0	0	0	0	0
	Total	215	76	242	27	2	20	291

Annexure – 11.8 (c) Admission statistics –UG & PG

11.8.(c).1 STUDENTS ADMITTED TO B. TECH. PROGRAMMES FROM RURAL AND URBAN AREA DURING 2020-2021

SL NO.	STATE	Below Rupees 1 lakh	Between Rupees 1 lakh to Rupees 5 lakhs	Above Rupees 5 lakhs	TOTAL
1	Andhra Pradesh	77	17	57	151
2	Assam	02	01	02	05
3	Bihar	29	20	17	66
4	Chattishgarh	02	01	01	04
5	Gujarat	00	00	04	04
6	Haryana	00	00	01	01
7	Himachal Pradesh	00	00	01	01
8	Jharkhand	09	04	09	22
9	Karnataka	00	01	06	07
10	Madhya Pradesh	02	01	04	07
11	Maharashtra	02	02	10	14
12	Manipur	01	00	00	01
13	Odisha	02	01	04	07
14	Punjab	00	00	01	01
15	Rajasthan	09	07	09	25
16	Tamil Nadu	01	01	00	02
17	Telangana	26	19	20	65
18	Tripura	01	00	00	01
19	Uttar Pradesh	37	07	22	65
20	Uttarakhand	00	01	01	02
21	West Bengal	101	126	194	408



SL NO.	STATE	Below Rupees 1 lakh	Between Rupees 1 lakh to Rupees 5 lakhs	Above Rupees 5 lakhs	TOTAL
22	Andaman & Nicobar	00	03	11	14
TOTAL		301	212	374	873

11.8.(c).1.i. STUDENTS ADMITTED TO B.TECH & M. TECH DUAL DEGREE PROGRAMME FROM RURAL AND URBAN AREA DURING 2020-2021-1ST YEAR

SL NO.	STATE	Below Rupees 1 lakh	Between Rupees 1 lakh to Rupees 5 lakhs	Above Rupees 5 lakhs	TOTAL
1	Andhra Pradesh	01	00	01	02
2	Rajasthan	01	01	00	02
3	Telangana	01	00	00	01
4	Uttar Pradesh	00	00	01	01
5	West Bengal	01	03	02	06
TOTAL		04	04	04	12

11.8.(c).1.ii. STUDENTS ADMITTED TO INTEGRATED M.Sc. PROGRAMME FROM RURAL AND URBAN AREA DURING 2020-2021-1ST YEAR

SL NO.	STATE	Below Rupees 1 lakh	Between Rupees 1 lakh to Rupees 5 lakhs	Above Rupees 5 lakhs	TOTAL
1	Andhra Pradesh	01	00	00	01
2	Bihar	00	00	01	01
3	Maharashtra	00	00	01	01
4	Rajasthan	00	01	00	01
5	Tamil Nadu	01	00	00	01
6	Uttar Pradesh	02	00	00	02
7	West Bengal	00	05	03	08
TOTAL		04	06	05	15

11.8.(c).2. THE DETAILS OF ADMISSION TO THE PG PROGRAMMES DURING 2020-2021 -1ST YEAR

Department	PG Program	OPEN	OBC	SC	ST	TOTAL
Physics	Advanced Material Science & Technology	4	2	0	0	6



Department	PG Program	OPEN	OBC	SC	ST	TOTAL
Biotechnology	Biotechnology	8	2	0	0	10
Chemical Engineering	Chemical Engineering	10	3	0	0	13
Computer Science & Engineering	Computer Science & Engineering	33	29	12	3	77
Earth and Environmental Studies (Coordinating)	Environmental Science & Technology	9	6	3	0	18
Mechanical Engineering	Fluid Mechanics and Heat Transfer	9	6	2	0	17
Civil Engineering	Geotechnical Engineering	10	5	3	0	18
Mechanical Engineering	Machine Design	9	8	3	1	21
Metallurgical and Materials Engineering	Metallurgy and Materials Technology	6	3	2	0	11
Electronics and Communication Engineering	Microelectronics & VLSI	9	7	3	0	19
Mathematics	Operations Research	8	6	2	0	16
Electrical Engineering	Power Electronics & Machine Drives	8	8	3	1	20
Electrical Engineering	Power Systems	8	7	3	1	19
Civil Engineering	Structural Engineering	10	6	3	0	19
Electronics and Communication Engineering	Telecommunication Engineering	13	2	1	0	16
Mechanical Engineering	Thermal Engineering	9	5	3	0	17
Total M. Tech.		163	105	43	6	317
Chemistry	MSc in Chemistry	11	9	4	0	24
Physics	MSc in Physics	13	5	4	0	22
Mathematics	MSc in Mathematics	6	12	4	0	22
EES	MSc in Applied Geology & Geoinformatics	10	5	3	2	20
Biotechnology	MSc in Life Science	7	4	2	0	13
Management Studies	MBA	22	6	3	0	31
HSS	MSW	2	0	0	0	2
Total Admission		234	146	63	8	451

11.8.(c).3. THE DETAILS OF ADMISSION OF STUDENTS UNDER EWS TO THE DIFFERENT PROGRAMMES DURING 2020-2021 -1ST YEAR

Department	PG Program / Specialization	EWS		TOTAL
		Male	Female	
Physics	Advanced Material Science & Technology	1	0	1
Biotechnology	Biotechnology	0	0	0



Department	PG Program / Specialization	EWS		TOTAL
		Male	Female	
Chemical Engineering	Chemical Engineering	1	1	2
Computer Science & Engineering	Computer Science & Engineering	5	0	5
Earth and Environmental Studies (Coordinating)	Environmental Science & Technology	2	0	2
Mechanical Engineering	Fluid Mechanics and Heat Transfer	2	0	2
Civil Engineering	Geotechnical Engineering	2	0	2
Mechanical Engineering	Machine Design	3	0	3
Metallurgical and Materials Engineering	Metallurgy and Materials Technology	1	0	1
Electronics and Communication Engineering	Microelectronics & VLSI	1	1	2
Mathematics	Operations Research	0	0	0
Electrical Engineering	Power Electronics & Machine Drives	2	0	2
Electrical Engineering	Power Systems	2	0	2
Civil Engineering	Structural Engineering	2	0	2
Electronics and Communication Engineering	Telecommunication Engineering	2	0	2
Mechanical Engineering	Thermal Engineering	2	0	2
	Total M. Tech.	28	2	30
Chemistry	MSc in Chemistry	1	1	2
Physics	MSc in Physics	3	0	3
Mathematics	MSc in Mathematics	1	0	1
EES	MSc in Applied Geology & Geoinformatics	2	1	3
Biotechnology	MSc in Life Science	1	0	1
Management Studies	MBA	3	1	4
HSS MSW		0	0	0
Total Admission		39	5	44

SL. NO.	Branch of Research Study	EWS		Total
		Male	Female	
1	Biotechnology	0	0	0
2	Chemical Engineering	0	0	0
3	Chemistry	1	0	1
4	Civil Engineering	0	0	0
5	Computer Science & Engineering	0	0	0
6	Earth & Environmental Studies	0	0	0



SL. NO.	Branch of Research Study	EWS		Total
		Male	Female	
7	Electrical Engineering	0	0	0
8	Electronics & Communications Engineering	0	0	0
9	Humanities & Social Sciences	1	0	1
10	Management Studies	0	0	0
11	Mathematics	1	1	2
12	Mechanical Engineering	1	0	1
13	Metallurgical & Materials Engineering	0	0	0
14	Physics	1	0	1
	Total	5	1	6

Name of the programme	EWS		Total
	Male	Female	
Bachelor of Technology in Biotechnology	08	02	10
Bachelor of Technology in Chemical Engineering	09	02	11
Bachelor of Technology in Computer Science & Engineering	25	06	31
Bachelor of Technology in Civil Engineering	09	04	13
Bachelor of Technology in Electronics & Communication Engineering	13	03	16
Bachelor of Technology in Electrical Engineering	12	02	14
Bachelor of Technology in Metallurgical & Materials Engineering	07	02	09
Bachelor of Technology in Mechanical Engineering	22	06	28
B.Tech&M.Tech Dual Degree in Biotechnology	01	00	01
B.Tech&M.Tech Dual Degree in Chemical Engineering	01	01	02
5 year integrated M.Sc in Chemistry	03	01	04
Total	110	29	139

11.9 AWARDS DURING 2020-21

Department of Computer Science and Engineering

1. Re-elected as "Fellow" of the Royal Society for Public Health, London, U. K., June 2020.
2. Dakshina Ranjan Kisku is a recipient of "Lifetime Achievement Award" conferred by Marquis Who's Who, USA, October 2020.
3. Dakshina Ranjan Kisku is a recipient of "Certificate of Appreciation" conferred by Institute of Advanced Engineering and

Science, November 2020.

"COVID-19 Detection on Chest X-Ray and CT Scan Images Using Multi-image Augmented Deep Learning Model" authored by Kiran Purohit, Abhishek Kesarwani, Dakshina Ranjan Kisku, Mamata Dalui got featured in World Health Organization, Alliance for Pandemic Preparedness, USA and Centers for Disease Control & Prevention, USA.

Department of Electrical Engineering

1. Prof. S. Banerjee nominated as (i) Associate



Editor, IEEE Access (USA) & (ii) Associate Editor,

IEEE Transportation Electrification Community eNewsletter (USA)

2. Prof. S. Banerjee & his team received the 2020 Best Paper Award for the Journal 'International Journal of Modelling and Simulation', Taylor & Francis.

Department of Electronics and Communication Engineering

1. Senior Member IEEE awarded to Rajib Kar

Department of Metallurgical and Materials Engineering

1. The paper entitled, 'Studies on reduction behavior of highly fluxed iron ore pellets for application in steelmaking' by Dishwar Raj Kumar, Mandal, Arup Kumar, Sinha O.P. was selected as Best paper award under Process Waste category in International Conference on Management and Recycling of Metallurgical Wastes MetWaste-2020, held from 22-23 February 2020, Varanasi, India
2. The paper entitled, 'New approaches for utilization of iron ore slime and bottom ash' by Kumar Ramesh, Mandal, A.K., Dishwar Raj K and Sinha O.P., was selected as Best paper award under Fly Ash category in International Conference on Management and Recycling of Metallurgical Wastes MetWaste-2020, held from 22-23 February 2020, Varanasi, India

1. ANNEXURE-11.10 (A) VOCATIONAL TRAINING

Sl. No.	COMPANY
1	ABB
2	ADOBE INDIA
3	AMAZON
4	ASP
5	BCCL
6	BHEL(HYDERABAD)
7	BSNL
8	CESC

Sl. No.	COMPANY
9	CLW
10	CMERI
11	COAL INDIA
12	CPWD
13	DPL
14	DRDO
15	DSP
16	DSTPS Andal
17	EASTERN RAILWAYS
18	ESSAR
19	EXPEDIA GROUP
20	GAIL
21	GOLDMAN SACHS
22	HAL
23	HALDIA PETROCHEMICALS
24	HCL TECHNOLOGIES
25	HINDUSTAN SHIPYARD
26	HPCL
27	HPL
28	IIM BANGALORE
29	IISC BANGALORE
30	IIT BOMBAY
31	IIT DELHI
32	IIT GUWAHATI
33	IIT KHARAGPUR
34	IIT MADRAS
35	IIT ROORKEE
36	IOCL
37	ISRO BANGALORE
38	J. P. MORGAN
39	JSW
40	MAHINDRA & MAHINDRA
41	MAQ SOFTWARE
42	MARUTI SUZUKI
43	MICROSOFT
44	MN DASTUR
45	MORGAN STANLEY
46	MTPS
47	NSPCL
48	NTPC FARAKKA



Sl. No.	COMPANY
49	NUVOCO
50	OIL INDIA LIMITED
51	ONGC
52	PWC
53	SAIL-ISP BURNPUR
54	SHAPOORJI PALLONJI
55	TATA HITACHI
56	TATA METALICKS

Sl. No.	COMPANY
57	TATA MOTORS
58	TATA POWER
59	TATA STEEL
60	TATA TECHNOLOGY
61	THERMAX LTD
62	VISAG STEEL
63	VSP
64	WELLS FARGO

ANNEXURE-11.10(B) PLACEMENT STATISTICS DURING 2019 – 2020

Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED (BRANCH WISE)									
			B.Tech									
			BT	CE	CHE	CSE	ECE	EE	IT	ME	MME	TOTAL
Sharing slot												
1	INFOSYS	-	4	2	8	1	3	3	1	9	4	35
2	TCS	-	5	9	6	1	5	9	2	12	7	56
Branch wise Core Sector						Full Time & PPO						
1	J.P. MORGAN (PPO)	17.08.2020	-	-	-	2+2 (FTE)	1	2	3+2 (FTE)	-	-	12
2	GOLDMAN SACHS (PPO)	19.8 & 4.9.2020	-	-	-	0	0	-	1	-	-	1
3	MICROSOFT (PPO)	28 & 31.08.2020	-	-	-	2	0	0	2	-	-	4
4	AMAZON (PPO)	PPO	0	0	0	1	0	0	3	0	0	4
5	ADOBE (PPO)	PPO	-	-	-	2	0	0	0	-	-	2
6	CESC (PPO)	PPO	-	-	-	0	-	2	-	1	-	3
7	TATA STEEL (PPO)	PPO	-	-	-	-	-	0	-	0	2	2
8	TATA METALIKS	PPO	-	-	-	-	-	-	-	1	1	2
Full Time												
1	GOOGLE	-	-	-	-	0	0	-	-	-	-	0
2	WELLS FARGO	05 & 06.09.2020	-	-	-	2	-	-	2	-	-	4
3	ORACLE	11 & 15.09.2020	-	-	-	1	0	1	2	-	-	4
4	AVALARA	16 & 18.09.2020	0	0	0	0	0	0	0	0	0	0
5	L&T INFOTECH	17 & 20.09.2020	1	0	1	1	0	1	1	1	1	7
6	CAPGEMINI	20.09 & 12.10.2020	1	2	3	0	2	3	0	4	2	17
7	PUBLICIS SAPIENT	21 & 23.09.2020	-	-	-	4	0	-	3	-	-	7
8	AMDOCS	24 & 30.09.2020	-	-	-	2	5	-	5	-	-	12
9	VERIZON	25 & 28.09.2020	-	-	-	1	-	-	4	-	-	5



Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED (BRANCH WISE)									
			B.Tech									
			BT	CE	CHE	CSE	ECE	EE	IT	ME	MME	TOTAL
10	ZS ASSOCIATES	26.09. & 05.10.2020	0	0	0	0	1	0	0	3	0	4
11	SIGNALTRON	27 & 29.09.2020	-	-	-	0	0	1	0	-	-	1
12	SIGNALCHIP	27 & 29.09.2020	-	-	-	0	0	0	0	-	-	0
13	OFSS	02 & 06.10.2020	-	-	-	2	4	5	0	2	-	13
14	LJI	01 & 05.10.2020	-	-	-	0	-	-	0	-	-	0
15	TCS DIGITAL	03 & 04.10.2020	-	-	-	0	1	0	0	0	-	1
16	BAJAJ AUTO	03 & 04.10.2020	-	-	-	-	-	-	-	3	-	3
17	NOKIA	04 & 07.10.2020	-	-	-	1	3	1	1	-	-	6
18	ADDVERB TECHNOLOGIES	06 & 07.10.2020	-	-	-	0	1	-	0	-	-	1
19	MAQ SOFTWARE	07 & 14.10.2020	-	-	-	0	-	-	0	-	-	4
20	QUANTIPHI	08 & 09.10.2020	0	0	0	1	0	0	2	1	0	4
21	RELIANCE JIO(2)	17 & 28.10.2020	-	-	-	3	10	-	3	-	-	16
22	RELIANCE JIO(1)	02.11.2020	-	-	-	0	2	-	-	-	-	2
23	L&T TECHNOLOGY	27.10.2020	-	-	-	0	0	0	0	-	-	0
24	C-DAC	29.10.2020	-	-	-	0	0	0	0	-	-	0
25	LARSEN & TOUBRO	30.10.2020	-	2	0	0	0	0	-	2	0	4
26	GreyB	05 & 06.11.2020	-	-	-	0	0	1	0	2	2	5
27	WIPRO	09 & 10.11.2020	3	6	-	2	5	3	1	0	-	20
28	ACCENTURE	06 & 11.11.2020	1	0	0	1	3	1	1	1	2	10
29	ABZOOBA	10 & 12.11.2020	-	-	-	0	0	-	1	-	-	1
30	ALSTOM	12 & 20.11.2020	-	-	-	-	-	3	-	1	-	4
31	ANALOG DEVICES	17 & 20.11.2020	-	-	-	-	0	0	-	-	-	0
32	HERO MOTOCORP	21 & 27.11.2020	-	-	-	-	-	-	-	5	-	5
33	RTDS	26.11.2020	-	-	-	0	0	0	0	-	-	0
34	KOO INDIA	30.11.2020	-	-	-	1	-	-	-	-	-	1
35	COMVIVA	01 & 07.12.2020	-	-	-	1	2	-	1	-	-	4
36	INTUIT INDIA	02.12.2020	-	-	-	0	-	-	0	-	-	0



Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED (BRANCH WISE)									
			B.Tech									
			BT	CE	CHE	CSE	ECE	EE	IT	ME	MME	TOTAL
37	PWC 1	02 & 03.12.2020	-	-	-	1	3	2	1	8	-	15
38	JARO GROUP	08.12.2020	0	0	3	0	0	0	2	1	0	6
39	ADITYA BIRLA	09 & 10.12.2020	-	-	-	0	-	4	0	7	-	11
40	GRAY MATTER	09.12.2020	-	-	-	0	-	-	0	-	-	0
41	JSW STEEL	09.12.2020	-	-	-	-	-	3	-	3	0	6
42	AM/NS	10 & 11.12.2020	-	-	0	0	-	0	-	0	3	3
43	DIGIT INSURANCE	14.12.2020	-	-	-	0	0	-	1	-	-	1
44	RODIC CONSULTANT	15.12.2020	-	4	-	-	-	-	-	-	-	4
45	OYO	17 & 18.12.2020	-	-	-	4	-	1	3	-	-	8
46	THERMAX	17.12.2020	-	-	-	-	-	-	-	2	-	2
47	AAKASH INSTITUTE	21.12.2020	0	0	0	0	0	0	0	0	0	0
48	MEESHO	21 & 23.12.2020	-	-	-	0	-	-	0	-	-	0
49	INDIAMART	24.12.2020	-	-	-	0	-	-	3	-	-	3
50	NICKELFOX	04.01.2021	-	-	-	0	-	-	0	-	-	0
51	AXIS BANK	05.01.2021	0	0	0	1	0	0	0	0	0	1
52	LINDE	05 & 06.01.2021	-	-	7	-	-	0	-	2	1	10
53	INNOMINDS	07 & 12.01.2021	0	0	0	0	0	0	2	0	1	3
54	ZYCUS	07 & 14.01.2021	0	0	0	0	0	0	0	0	0	0
55	DELHIVERY	08.01.2021	0	0	1	0	0	0	0	0	1	2
56	TCS (Innovator)	09.01.2021	0	3	4	1	0	2	1	1	1	13
57	HALDIA PETROCHEMICALS	11.01.2021	0	0	1	0	0	2	0	0	0	3
58	NAVYUG	12.01.2021	0	0	0	0	0	0	0	0	0	0
59	APTEAN	18 & 22.01.2021	-	-	-	0	-	-	0	-	-	0
60	BRIGOSHA	18.01.2021	-	-	-	0	1	0	0	-	-	1
61	314e CORPORATION	21.01.2021	-	-	-	0	-	-	0	-	-	0
62	CREDR	21.01.2021	-	-	-	0	-	-	0	-	-	0
63	IFB	23 & 27.01.2021	-	-	-	-	-	0	-	0	1	1
64	PINNACLE	29.01.2021	-	-	-	-	-	-	-	0	-	0
65	GRIFEO	31.01.2021	-	-	-	0	0	0	0	-	-	0
66	TRACELINK	01.02.2021	-	-	-	1	-	-	0	-	-	1
67	VEDANTA	02 & 03.02.2021	-	0	3	0	-	-	-	-	8	11
68	DELOITTE	02 & 05.02.2021	-	3	6	2	4	3	0	10	-	28
69	TATA POWER	03.02.2021	-	0	1	0	1	1	0	0	-	3



Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED (BRANCH WISE)									
			B.Tech									
			BT	CE	CHE	CSE	ECE	EE	IT	ME	MME	TOTAL
70	SIFY TECHNOLOGIES	10.02.2021	-	-	-	0	0	0	0	-	-	0
71	NREFERENCE	10.02.2021	-	-	-	0	0	-	0	-	-	0
72	EMIL	12.02.2021	-	2	-	-	-	2	-	1	-	5
73	GOCOMET	26.02.2021	-	-	-	0	-	-	1	-	-	1
74	COLLEGEDUNIA	02.03.2021	1	0	0	0	0	0	0	0	2	3
75	REBELFOODS	05 & 06.03.2021	-	-	-	1	-	-	0	-	-	1
76	DANIELI	09 & 10.03.2021	-	-	-	-	0	0	-	-	0	0
77	IQUANTI	12 & 16.03.2021	2	0	1	0	0	0	0	0	0	3
78	NAPINO	16.03.2021	-	-	-	-	0	-	-	-	-	0
79	PHARMAACE	20 & 25.03.2021	1	-	2	-	-	-	-	-	-	3
80	UOLO	22 & 30.03.2021	0	0	0	0	0	0	0	0	0	0
81	GENPACT	29.03.2021	0	0	0	0	0	0	0	0	2	2
82	NIMBUS	30.03.2021	-	-	-	0	0	0	0	-	-	0
83	BIRLASOFT	31.03.2021	-	-	-	0	-	-	0	-	-	0
84	TATA HITACHI	31.03.2021	-	-	-	-	0	0	-	1	0	1
85	RELIANCE RETAIL	01.04.2021	-	4	-	-	-	2	-	-	-	6
86	WHITEKLAY	03.04.2021	0	0	0	0	0	0	1	0	0	1
87	DAIMLER	07.04 & 29.05.2021	-	-	-	-	-	-	-	0	-	P
88	SAINT GOBAIN	08.04.2021	-	0	0	-	-	-	-	0	-	P
89	VIKRAM SOLAR	08.04.2021	-	0	-	-	0	0	-	0	-	P
90	CLEARTRAIL	10 & 14.04.2021	-	-	-	0	0	-	0	-	-	P
91	BERGER PAINTS	12.04.2021	-	-	0	-	-	-	-	-	-	P
92	WOOQER	13 & 15.04.2021	-	-	-	0	-	-	0	-	-	0
93	MPHASIS	15 & 29.04.2021	-	-	-	1	3	0	1	-	-	5
94	SMS GROUP	16 & 21.04.2021	-	-	0	-	-	-	-	-	-	P
95	JIO PLATFORMS	21 & 26.04.2021	-	-	-	1	-	-	0	-	-	1
96	QUALCOMM	08.05.2021	-	-	-	0	0	0	0	-	-	P
97	SAMSUNG R&D	09.05.2021	-	-	-	0	0	0	0	-	-	0
98	GROWISTO	10.05.2021	-	-	-	-	-	-	-	-	-	P
99	SERVETEL	17.05.2021	0	0	0	0	0	0	0	0	0	0
100	JSW STEEL(2)	18.05.2021	-	-	0	-	-	0	-	0	0	1
101	VEDANTU	18.05.2021	0	0	0	0	0	0	0	0	0	0
102	VISA STEEL	19.05.2021	-	-	-	-	-	-	-	-	1	1
103	HIMADRI	20 & 22.05.2021	-	-	0	-	-	-	-	-	-	0
104	PIRAMAL GROUP	23 & 27.05.2021	-	-	-	0	-	-	-	-	-	0



Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED (BRANCH WISE)									
			B.Tech									
			BT	CE	CHE	CSE	ECE	EE	IT	ME	MME	TOTAL
105	CALYXPOD	31.05.2021	-	-	-	0	-	-	0	-	-	0

Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED (BRANCH WISE)									
			B.Tech									
			BT	CE	CHE	CSE	ECE	EE	IT	ME	MME	TOTAL
Eligible Students			39	52	61	61	69	74	61	129	58	604
Total Placed			13	27	36	48	52	47	56	66	37	382
Percentage Placed			33.33	51.92	59.02	78.69	75.36	63.51	91.80	51.16	63.79	63.25
Total Job Offered			19	37	47	50	60	58	58	84	42	455
Double Jobs			6	10	11	2	8	11	2	18	5	73

Sl. No.	Company	Date Of Selection	NUMBER OF STUDENTS PLACED (BRANCH WISE)																
			M.Tech Specialization																
			BT	CE	CHE	CSE	ECE		EE		ME			MME	PHY	MATH	EES	TOTAL	
			BT	GE	SE	CHE	CSE	TELE	VLSI	PE	PS	MD	FM	TE	MMT	AMST	OR		EST
Sharing slot																			
1	INFO SYS	-	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	4
2	TCS	-	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Branch wise Core Sector																			
1	AMAZON	-	-	-	-	-	0	0	0	-	-	-	-	-	-	-	0	-	0
2	ORACLE	11 & 15.09.2020	-	-	-	-	0	0	0	0	0	-	-	-	-	-	-	-	0
3	CAPGEMINI	20.09 & 12.10.2020	0	-	-	0	0	0	0	0	0	-	-	-	-	-	-	-	0
4	AMDOCS	24 & 30.09.2020	-	-	-	-	0	0	0	0	0	-	-	-	-	-	-	-	0
5	OFSS	02 & 06.10.2020	-	-	-	-	3	0	0	1	0	0	0	0	-	-	-	-	4
6	TCS (Digital)	03 & 04.10.2020	-	-	-	-	0	0	0	0	0	0	0	0	-	-	-	-	0
7	NOKIA	04 & 07.10.2020	-	-	-	-	3	0	0	0	0	-	-	-	-	-	-	-	3
8	MAQ SOFTWARE	07 & 27.10.2020	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0
9	QUANTIPHI	08 & 09.10.2020	-	-	-	-	3	0	0	0	0	-	-	-	-	-	-	-	3
10	C-DAC	29.10.2020	-	-	-	-	2	0	0	0	0	-	-	-	-	-	-	-	2
11	LARSEN & TOUBRO	30.10.2020	-	0	0	0	-	0	0	0	0	0	0	0	-	-	-	0	0
12	GreyB	05 & 06.11.2020	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	-	0
13	ALSTOM	12 & 20.11.2020	-	-	-	-	3	-	-	-	-	0	0	0	-	-	-	-	3
14	ANALOG DEVICES	17 & 20.11.2020	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	-	0
15	PWC	02 & 03.12.2020	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0
16	JARO GROUP	08.12.2020	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
17	AM/NS	10 & 11.12.2020	-	-	-	0	0	-	-	0	0	0	0	0	0	-	-	-	0
18	Rodic Consultant	15.12.2020	-	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0



Sl. No.	Company	Date Of Selection	NUMBER OF STUDENTS PLACED (BRANCH WISE)																
			M.Tech Specialization																
			BT	CE		CHE	CSE	ECE		EE		ME			MME	PHY	MATH	EES	TOTAL
			BT	GE	SE	CHE	CSE	TELE	VLSI	PE	PS	MD	FM	TE	MMT	AMST	OR	EST	
19	Parul University	17.12.2020	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	3
20	Aakash Institute	21.12.2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	Indiamart	24.12.2020	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
22	Nickelfox	04.01.2021	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
23	Innominds	07 & 12.01.2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Zycus	07 & 14.01.2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	TCS (Innovator)	09.01.2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	NAVYUG	12.01.2021	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0
27	314e Corporation	21.01.2021	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0
28	DELOITTE	02 & 05.02.2021	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
29	GOCOMET	26.02.2021	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0
30	DANIELI	09 & 10.03.2021	-	-	-	-	-	0	-	3	0	-	-	-	0	-	-	-	3
31	Pharmaace	20 & 25.03.2021	0	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0
32	UOLO	22 & 30.03.2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	VIKRAM SOLAR	08.04.2021	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
34	Cleartrail	10 & 14.04.2021	-	-	-	-	0	0	-	-	-	-	-	-	-	-	-	-	0
35	Siemens Gamesa	14.04.2021	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	2
36	Qualcomm	08.05.2021	-	-	-	-	2	0	0	0	0	-	-	-	-	-	-	-	2
37	Samsung R&D	09.05.2021	-	-	-	-	0	0	0	0	0	-	-	-	-	-	-	-	0
Eligible Students			11	15	18	4	65	14	17	14	17	15	12	15	4	5	12	11	249
Total Placed			0	0	0	0	27	0	0	4	0	0	1	0	0	0	0	0	32
Total Job Offered			0	0	0	0	29	0	0	4	0	0	1	0	0	0	0	0	34

PLACEMENT RECORDS

MCA: 2020-21

[0- CONSIDERED BUT NOT SELECTED]

Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED
1	TCS	-	4
2	AVALARA	16 & 18.09.2020	0
3	J.P. MORGAN	17.08.2020	1
4	AMDOCS	24 & 30.09.2020	3



Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED
5	OFSS	02 & 06.10.2020	0
6	TCS (Digital)	03 & 04.10.2020	0
7	MAQ SOFTWARE	07 & 27.10.2020	1
8	QUANTIPHI	08 & 09.10.2020	0
9	RTDS	26.11.2020	0
10	COMVIVA	01 & 07.12.2020	3
11	JARO GROUP	08.12.2020	0
12	NICKELFOX	04.01.2021	3
13	INNOMINDS	07 & 12.01.2021	0
14	NAVYUG	12.01.2021	0
15	GRIFEO	31.01.2021	0
16	DELOITTE	02 & 05.02.2021	0
17	REBELFOODS	05 & 06.03.2021	0
18	UOLO	22 & 30.03.2021	0
19	CLEARTRAIL	10 & 14.04.2021	0
20	MPHASIS	15 & 29.04.2021	1
21	JIO PLATFORMS	21 & 26.04.2021	0
22	HDFC	-	1
Eligible Students			26
Total Placed			17
Total Job Offered			17

Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED
1	PINNACLE	29.01.2021	1
2	GRIFEO	31.01.2021	5
3	INDUS NET	22.04.2021	P
4	GLENMARK	-	P
Eligible Students			22
Total Placed			06
Total Job Offered			06

ANNEXURE 11.11(A) NON-PLAN GRANT

Non-Plan Grant received in 2020-2021- Rs. 11315.17 Lakhs

ANNEXURE 11.11(B) PLAN GRANT

Plan (General) Grant received in 2020-21- Rs. 5350.00 Lakhs

ANNEXURE – 11.11(c) SOURCES OF GRANTS

Till Financial year 2002-03

Share of Recurring Expenditure were borne by Government of India and Government of West Bengal in 50:50 basis.

From financial year 2003-04 onward

Entire Recurring and Non-Recurring Grants are borne by Govt. of India.

ANNEXURE – 11.11(d) EXPENDITURE POSITION FOR

**LAST FEW YEARS**

(Rupees in Lakhs)

Plan head Expenditure		Non-Plan head Expenditure	
2012-13	4050.00	2012-13	6101.14
2013-14	5058.03	2013-14	7296.61
2014-15	2495.36	2014-15	7573.72
2015-16	4750.82	2015-16	8092.35
2016-17	2570.46	2016-17	11188.98
2017-18	1425.36	2017-18	12423.47
2018-19	1409.89	2018-19	14814.37
2019-20	3286.52	2019-20	15130.18
2020-21	1905.16	2020-21	14813.00

ANNEXURE 11.12(A) CONSTRUCTION WORK COMPLETED/ IN PROGRESS DURING THE YEAR 2020-21 (PLAN GRANT PROJECT)

- 1250 Seated Boy's Hostel : All works completed. Handing over of the building is in progress.
- 1500 Seated Auditorium : Work is in progress.
- Raising of Boundary wall of campus : Work is in progress.
- Relaying and Renovation of Sewer Line : Work

is in progress.

- Construction of concrete pavement road : Work is completed;
 - Renovation of flexible pavement of campus road : Work is completed.
- Construction of conference room & Faculty Room on existing 2nd floor of Mechanical Engineering Department : Work is in progress.
- Renovation of Central Library : Work is in progress.
- Augmentation of Civil & Electrical facilities of Lecture Halls and Lectures Galleries (LH & LG) : Work is in progress.
- Ramp & toilets for physically impaired students : Work is in progress.
- Internal renovation of 55 no. LM type staff quarters : Work is in progress.
- Augmentation of CSE Dept. by Construction of shed over the roof of Chemistry Dept. : Work is in progress.
- Construction of EE measurement lab through vertical extension of Electrical Engineering Lab. : Work is in progress.

11.12(B) CONSTRUCTION WORK COMPLETED/ IN PROGRESS DURING THE YEAR 2020-21 (HEFA LOAN PROJECT)

- Central Research Lab (G+10) (Utkarsh Bhavan) : Work is in progress.

ANNEXURE – 11.13 LIST OF LABORATORIES

Department	Laboratories
Biotechnology	Biochemistry, Microbiology, Bioinformatics, Molecular Biology & rDNA Technology, Immunology, Fermentation Technology, Bioseparation Technology, Bioprocess Engineering, Plant Biotechnology, Food Biotechnology,
Chemical Engineering	Heat Transfer Lab, Mass Transfer Lab, Fluid Flow Lab, Mechanical Operations Lab, Environmental and Membrane Technology Lab, Computing Lab, Energy Lab, Adsorption Lab, Chemical & Bio-Chemical Reaction. Engg. Lab, Process Control Lab, Combustion Engineering Lab, Multi-phase Flow Lab, Process Modelling & Simulation Lab, Central Research Laboratory, Process Equipment Design Lab, Thermo-fluid laboratory
Chemistry	Electrochemical Laboratory, PG (M.Sc.) Laboratory, UG (B.Tech.) Laboratory, Synthesis & Analytical Laboratory, Inorganic Synthesis and Environmental Laboratory, Natural Product & Biological Chemistry Laboratory, Bio-molecular Modelling Laboratory, Instrumentation Laboratory -1, Instrumentation Laboratory -2, Computer Laboratory cum Library, Computational chemistry lab Development of new 'Computational Chemistry Lab' during 2019-20 by Dr. Subhas Ghosal, sponsored by DST-SERB, DST-FIST and NIT Durgapur



Department	Laboratories
Civil Engineering	PG Structural Engineering Laboratory, Concrete and Structure Laboratory, Highway Engineering Laboratory, Surveying Laboratory, Environmental Engineering Laboratory, Water Resources Engineering Laboratory, Exciter and FFT analyser for Earthquake Laboratory, Structural Health Monitoring Laboratory, Soil Mechanics and Foundation Engineering Laboratory, Geo-environmental Laboratory, Simulation of Blast and Wind Impact Lab.
Computer Science & Engineering	Advanced Software Engineering, Compiler, Operating System and Computer networking Laboratory, Data Structure and Database Laboratory, Microprocessor laboratory
Earth and Environmental Studies	Environmental Laboratory-I, Environmental Laboratory-2, Research Laboratory, Computer Laboratory, Geology Laboratory, Instrument Laboratory, Contaminant Transport Laboratory
Electrical Engineering	Electrical Technology Lab, Network Laboratory, Electrical & Electronics Measurement Lab, Electrical Machines Lab, Power Electronics Lab, Power Systems Lab, High Voltage Engg Lab, Control Systems Lab, Advanced Power Electronics Lab, Advanced Power Systems Lab, Advanced Control Systems Lab, Process Instrumentation Lab, Digital Signal Processing Lab, Embedded Systems Lab, Computation Lab, Machine Drives Laboratory
Electronics & Communication Engineering	Electronics Circuit Lab, Network Lab, VLSI Lab, Digital Electronics Lab, Communication Lab, Industrial Electronics Lab, Instrumentation Lab, Microprocessor Lab, Computer architecture Lab, Microwave Lab, PCB Lab, Microwave and Antenna Research Laboratory, Microwave Component Design Laboratory, Advanced Communication Lab (for PG), Nano Device Lab
Humanities and Social Sciences	MSW Lab and Language Lab
Mathematics	Computer Laboratory
Mechanical Engineering	CAD /CAM Laboratory, Fluid Mechanics & Hydraulic Machines Laboratory, Heat Power Laboratory, Machine Dynamics Laboratory, Metrology Laboratory, Production Eng. Laboratory Thermal Energy Laboratory.
Metallurgical & Materials Engineering	Computer Application in Metallurgical Process Laboratory for UG, Computer Application in Metallurgical Process Laboratory for PG, Chemical Analysis Laboratory, Foundry Laboratory, Heat Treatment Laboratory, Mechanical Testing Laboratory, Metallography and Phase Transformation Laboratory, Thermodynamics of Materials Laboratory, Process Metallurgy Laboratory, Electrometallurgy and Corrosion Laboratory, X-ray Diffraction and Thin Film Laboratory, Nanomaterials and Composites Laboratory
Central Instrumentation Facility	Scanning Electron Microscope with EDS, X-Ray Diffractometer, Nd:YAG Laser Unit, Spectrum Analyzer
Physics	Nanoscience Laboratory, Materials Science Laboratory, X-ray Diffraction Laboratory, Low Temperature Characterization Laboratory, Laser Laboratory, Electronics Laboratory, Carbon Nanotechnology Laboratory, Optical sensor laboratory
Management Studies	Systems Lab



ANNEXURE-11.14 TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)

NIT Durgapur got selected as one of the Mentor Institute under TEQIP III in 2017-18 for mentoring two Institutes: i) Dumka Engg. College, Dumka, Jharkhand and ii) NIT Nagaland and was allocated total project life allocation of Rs. 7 (seven) crores under TEQIP III plus 4 (four) crores additional for Centre of Excellence (COE) in Advanced Materials for improvement in quality of technical education through infrastructure development and different academic activities. The life time of the project was upto March 31, 2021. However, it has been further extended upto September 2021 for some of the specific activities and naturally fund allocation has been made for those activities of some of the particular Institution. NIT Durgapur is not included within that.

Accordingly, the Institute has achieved to fulfil its desired action plan spending the allocated funds of NPIU under different heads of account. Finally, we have spent about 10.51 crores (Ten crores fifty-one lakhs) till March 31, 2021 and the balance amount of about 49 lakhs earmarked for procurement was not

permitted to complete within extended timeline as it was not being possible to complete following the revised guidelines of procurement. The significant expenditures were made on procurement (Rs. 4.4 crores), improvement in students learning (~39 lakhs), graduates employability (8.33 lakhs), assistantship to students (~1.97 crores), industry-Institute Interaction (~16 lakhs), faculty/staff development and motivation (76.3 lakhs), research and development (1.53 crores), reforms and governance (46.7 lakhs), operation & maintenance of equipment (19.7 lakhs) and office expenses (~16.5 lakhs).

Third performance audit of TEQIP III has completed during 17-19 February, 2021 on virtual mode by Prof. Ravindra Gudi, Professor of Chemical Engg., IIT Bombay and the Institute has performed very successfully with a score of 1.12 while 1.0 indicates the best performance.

ANNEXURE-11.15 ALUMNI

Centre for Alumni Affairs & International Relations (CAAIR)

Annexure-11.16 Other relevant information

ANNEXURE 11.16 (A): BOOKS AUTHORED DURING 2020-21

DEPARTMENT OF BIOTECHNOLOGY

Author	Title of the book	Publisher	Date of Publication
Datta C, Dhabal S, and Bhattacharjee A.	Oxidoreductase (chapter: A Therapeutic Target in Lung Cancer)	IntechOpen	17.02.2021
Ghosh M. & Koley C*	Modern Techniques in Biosensors (chapter- An IoT enabled Enzyme Embossed Biosensor for Determination of Vitamin D Level in Human Blood Sample)	Springer Nature	05.01.2021

DEPARTMENT OF CHEMICAL ENGINEERING

Author	Title of the book	Publisher	Date of Publication
Pal, P	Membrane-Based Technologies for Environmental Pollution Control	Elsevier Science	2020
Lahiri, S.K.	Profit maximization techniques for operating chemical plant	Wiley	2020



Author	Title of the book	Publisher	Date of Publication
Lahiri, S.K. and Dutta, S., Sen, S., Rai, A., Chakrabarty, J.,	Algae: Multifarious Applications for a Sustainable World	Springer Nature	2020
Yadav, I.A., Mandal, M.K., Dubey, K.K.	Chapter 8: Nanomaterial Biosynthesis and Enzyme Immobilization In book: Green Synthesis of Nanomaterials for Bioenergy Applications	John Wiley & Sons, Inc	September 2020
Gwala, M., Dutta, S., Chaudhuri, R.	Algae Mediated Nanomaterials Synthesis in Algae-Multifarious Applications for a Sustainable World (Chapter: 13)	Springer Nature Singapore Pte Ltd.	2020
Wasee, A., Ghosh Chaudhuri, R., Kumar, P., lype, E.,	A Study on Distance Based Representation of Molecules for Statistical Learning in New Trends in Computational Vision and Bio-inspired Computing, Selected works presented at the ICCVBIC 2018, Coimbatore, India. (Page: 577-585)	Springer	2020
Rokhum, L., Halder, G.N., Assabumrungrat, S., Ngaosuwan, K.	Biodiesel Production: Feedstocks, Catalysts and Technologies.	Wiley-Blackwell	2021

DEPARTMENT OF CHEMISTRY

Sl. No.	Authors' Names	Title	Publisher	Year, ISBN, Page Nos.
1	S. Sen, A. Rai, J. Chakrabarty, S. K. Lahiri, S. Dutta	Parametric Modeling and Optimization of Phycoremediation of Cr(VI) Using Artificial Neural Network and Simulated Annealing In book: Algae, Multifarious Applications for a Sustainable World	Springer Nature Singapore Pte Ltd	2020, 978-981-15-7518-1_6 103- 133
2	A. Rai, S. Mukherjee, A. Mukherjee, J. Chakrabarty P. Bhattacharya and S. Dutta	Application of Bacillus sp. NITD 19 for Utilization of Cyanide as Nutrient Source (Ch 24) in Advances in Bioprocess Engineering and Technology	Springer, Singapore	2020, 978-981-15-7408-5;

DEPARTMENT OF CIVIL ENGINEERING

Author	Title of the book	Publisher	Date of Publication
Das, D.(Indian adaptation author/ sole contributor for Indian adaptation)	'Concrete Technology', 2e in SI Units by A. M. Neville and J. J. Brooks (ISBN – 978-93-534-3655-1)	Pearson India Education Services Pvt. Ltd	July 2019



Author	Title of the book	Publisher	Date of Publication
Khushboo, A., Yadav, K., Mandal, M.K., Pal, S., Chaudhuri, H., Dubey, K.K.	Current Developments in Biotechnology and Bioengineering. Resource Recovery from Wastes.	Elsevier	2020

DEPARTMENT OF MANAGEMENT STUDIES

Author	Title of the book	Publisher	Date of Publication
Prof. Mousumi Roy	Sustainable Development Strategies: Engineering, Culture and Economics	Elsevier Science	19.08.2020

DEPARTMENT OF MATHEMATICS

Author	Title of the book	Publisher	Date of Publication
Kundu, P. and Sarkar (Mondal), S.	Analysis of ground deformation of a viscoelastic half-space due to movement of an infinite creeping and a finite locked interacting faults	LAP LAMBERT Academic Publishing, ISBN:978-620-252617-3	April, 2020
Z. Shi, M. Chakraborty, S. Kar	Intelligent Science III	Springer, ISBN:978-3-030-74825-8	March, 2021

DEPARTMENT OF MECHANICAL ENGINEERING

Author	Title of the book	Publisher	Date of Publication
Amit Kumar, Dheeraj Kumar, Apurba Layek	Determination of Nusselt Number Over Artificially Roughened Solar Air Heater Using Numerical Approach in Theoretical, Computational, and Experimental Solutions to Thermo-Fluid System (Book Chapter)	Springer Nature	2021
Biswas, N., Datta, A. and Manna, N.K.	Electro-thermal Convection in a Rectangular Enclosure. <i>Theoretical, Computational, and Experimental Solutions to Thermo-Fluid Systems: Select Proceedings of ICITFES 2020</i> , p.103.	Springer Nature	2021
Dheeraj Kumar, Ravi Kant Singh, Apurba Layek,	Cold Chain and Its Application in Supply Chain Intelligence (Book Chapter)	Springer Nature	2020
Dheeraj Kumar, Ravi Kant Singh, Apurba Layek,	Block Chain and Its Application in Supply Chain Intelligence (Book Chapter)	Springer Nature	2020



Author	Title of the book	Publisher	Date of Publication
Dheeraj Kumar, Amit Kumar, Apurba Layek	Measurement of Temperature Distribution Using Liquid Crystal Thermography Technique Over the Absorber Plate of Solar Air Heater in Theoretical, Computational, and Experimental Solutions to Thermo-Fluid System (Book Chapter)	Springer Nature	2021
Deshmukh S, Goswami A, Shrivastava R and Jadhav V S	Parametric Study and Optimization of Parameters in Powder Mixed Wire-EDM Using Taguchi Analysis (Chapter)	Apple Academic Press	December 2020
Dwivedi K K, Pramanick A. K., Karmakar M K, Chatterjee P K	Handbook of Advanced Approaches Towards Pollution Prevention and Control (Book Chapter)	Elsevier	2021-01-01
Mitra R. K.	Differential Equations in Engineering: Research and Applications	CRC Press: Taylor & Francis Group	2021, In Press

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Author	Title of the book	Publisher	Date of Publication
R. Mitra, M. Mallik, and Sunil Kashyap	Book Chapter Title: High-Temperature Environmental Degradation Behavior of Ultrahigh-Temperature Ceramic Composites, in Handbook of Advanced Ceramics and Composites (Defense, Security, Aerospace and Energy Applications), Y. Mahajan, J. Roy (Eds.)	Springer, ISBN: 978-3-030-16346-4	2020

DEPARTMENT OF PHYSICS

Author	Title of the book	Publisher	Date of Publication
Choudhuri, B., Mondal, A.	Emerging Trends in Terahertz Solid-State Physics and Devices Chapter: Group III—Nitrides and Other Semiconductors for Terahertz Detector DOI: https://doi.org/10.1007/978-981-15-3235-1_12 .	Springer	March 21, 2020
Gangopadhyay, T. K., Kumbhakar, P., Mandal, M. K.	Photonics and Fiber Optics: Foundations and Applications	CRC Press	Sept. 23, 2019



ANNEXURE 11.16 (B).I: REVIEWS OF MANUSCRIPTS FOR PUBLICATION IN JOURNALS

DEPARTMENT OF BIOTECHNOLOGY

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Aikat, K.	Bioenergy Research	Springer Nature	November 2020
Bhattacharjee, A.	Frontiers Cell and Developmental Biology	Frontiers	August 2020
Bhattacharjee, A.	EMBO Molecular Medicine	EMBO Press	March 2021
Chaudhuri, S.	Indian Journal of Microbiology	Springer	March 2021
Dutta, D.	Iranian Journal of Science and Technology, Transactions A: Science	Springer	July 2020
Dutta, D.	Journal of Food Science and Technology	Springer	June 2020
Dutta, D.	LWT – Food Science and Technology	Elsevier	March 2021
Dutta, D.	LWT – Food Science and Technology	Elsevier	January 2021
Dutta, D.	LWT – Food Science and Technology	Elsevier	December 2020
Dutta, D.	LWT – Food Science and Technology	Elsevier	November 2020
Dutta D	LWT – Food Science and Technology	Elsevier	November 2020
Dutta D	LWT – Food Science and Technology	Elsevier	November 2020
Dutta D	LWT – Food Science and Technology	Elsevier	October 2020
Dutta D	LWT – Food Science and Technology	Elsevier	April 2020
Dutta D	Journal of Food Science and Technology	Springer	November 2020
Dutta D	Journal of Food Science and Technology	Springer	October 2020
Dutta D	Journal of Food Science and Technology	Springer	September 2020
Ghosh M	Bulletin of Material Science	Springer	November 2020
Kazy, S.K.	Scientific Reports	Nature Publishing Group	August, 2020
Mukherjee, O.	Gut pathogens	BMC Central	March 2020



Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Mukherjee, O.	Gut pathogens	BMC Central	May 2020
Mukherjee, O.	Gut pathogens	BMC Central	February 2021
Mukherjee, O.	Current Research in Pharmacology and Drug Discovery	Elsevier	March 2021
Saha, S.	Heat Shock Proteins (HESP)	Springer	December 2020

DEPARTMENT OF CHEMICAL ENGINEERING

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Pal P	Biochemical Engineering Journal	Elsevier	1/4/2020
Pal P	Process Biochemistry	Elsevier	19/4/2020
Pal P	Science of Total Environment	Elsevier	25/4/2020
Pal P	ACS Applied Materials and Interface	ACS	22/5/2020
Pal P	Process Biochemistry	Elsevier	23/5/2020
Pal P	Journal of Water Process Engineering	Elsevier	30/5/2020
Pal P	Journal of Water Process Engineering	Elsevier	7/6/2020
Pal P	Journal of Membrane Science	Elsevier	14/6/2020
Pal P	Biochemical Engineering	Elsevier	21/6/2020
Pal P	Journal of Water Process Engineering	Elsevier	15/7/2020
Pal P	Water Research	Elsevier	17/8/2020
Pal P	Journal of Water Process Engineering	Elsevier	29/8/2020
Pal P	Chemical Engineering and Processing - Process Intensification	Elsevier	3/9/2020
Pal P	Biomass & Bioenergy	Elsevier	2/11/2020
Pal P	Chemical Engineering & Processing: Process Intensification	Elsevier	3/11/2020
Pal P	Water Environment Research	Wiley	22/11/2020
Pal P	Journal of Water Process Engineering	Elsevier	28/11/2020
Pal P	Biochemical Engineering Journal	Elsevier	19/12/2020
Pal P	Journal of Water Process Engineering	Elsevier	19/12/2020
Pal P	RSC Advance	RSC	31/12/2020
Pal P	Environmental Technology	Taylor & Francis	2/1/2021



Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Pal P	Environmental Processes	Springer	31/1/2021
Pal P	Journal of Water Process Engineering	Elsevier	5/1/2021
Pal P	Industrial Engineering & Chemistry Research, Elsevier	Elsevier	6/1/2021
Pal P	Separation & Purification Review	Taylor and Francis	10/1/2021
Pal P	Water Environment Research	Wiley	31/1/ 2021
Pal P	Biochemical Engineering Journal	Elsevier	31/1/2021
Pal P	Journal of Membrane Science	Elsevier	16/3/2021
Gupta P	Chemical Engineering Science	Elsevier	04/10/2020
Gupta P	Heliyon	Elsevier	09/01/2021
Gupta P	Fuel	Elsevier	25/02/2021
Sadhukhan A.K.	Energy Sources, Part A: Recovery, Utilization, and Environmental	Taylor and Francis	29/04/2020
Sadhukhan A.K.	Energy & Fuels	American Chemical Society	24/08/2020
Sadhukhan A.K.	Combustion Science and Technology	Taylor and Francis	06/03/2021
Hens, A.	Physics of Fluid	AIP (US)	06/03/2021
Hens, A.	Journal of the Brazilian Society of Mechanical Sciences and Engineering	Springer	10/11/2020
Hens, A.	Journal of Molecular Structure	Elsevier	13/12/2020
Hens, A.	Journal of Colloid And Interface Science	Elsevier	17/11/20
Halder, G.N.	ACS Omega	ACS	21/10/2020
Halder, G.N.	Desalination and Water Treatment	Taylor & Francis	04/04/2020
Halder, G.N.	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	Taylor & Francis	18/06/2020
Halder, G.N.	Applied Surface Science	Elsevier	21/05/2020
Halder, G.N.	Biomass & Bioenergy	Elsevier	12/05/2020
Halder, G.N.	Chemical Engineering Research and Design	Elsevier	01/07/2020
Halder, G.N.	Biomass Conversion and Biorefinery	Springer	26/01/2021
Halder, G.N.	International Journal of Coal Geology	Elsevier	05/06/2020
Halder, G.N.	Clean Technologies and Environmental Policy	Springer	03/02/2021



Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Halder, G.N.	Environmental Engineering Research	Springer	15/06/2020
Halder, G.N.	Energy Report	Elsevier	18/08/2020
Halder, G.N.	Environmental Nanotechnology, Monitoring & Management	Elsevier	12/07/2020
Halder, G.N.	Environmental progress and Sustainable energy	Wiley-Blackwell	18/09/2020
Halder, G.N.	Environmental Technology & Innovation	Elsevier	19/09/2020
Halder, G.N.	International Journal of Environmental Analytical Chemistry	Taylor & Francis	04/02/2021
Halder, G.N.	Industrial crops	Elsevier	12/10/2020
Halder, G.N.	Journal of cleaner production	Elsevier	17/11/2020
Halder, G.N.	Journal of CO2 utilization	Elsevier	15/12/2020
Halder, G.N.	Journal of Environmental Management	Elsevier	02/01/2021
Halder, G.N.	Journal of Water Process Engg	Elsevier	12/01/2021
Halder, G.N.	Fuel	Elsevier	16/01/2021
Halder, G.N.	Journal of Environmental Chemical Engg	Elsevier.	02/02/2021
Halder, G.N.	RSC Advances	Royal Society of Chemistry	15/02/2021
Sarkar A.	Journal of Hazardous Materials	Elsevier	14/09/2020
Sarkar A.	Electrochemical Acta	Elsevier	24/09/2020
Sarkar A.	Electrochemical Acta	Elsevier	16/10/2020
Sarkar A.	Electrochemical Acta	Elsevier	12/11/2020
Sarkar A.	Electrochemical Acta	Elsevier	21/12/2020
Sarkar A.	Electrochemical Acta	Elsevier	15/01/2021
Sarkar A.	Electrochemical Acta	Elsevier	02/02/2021
Sarkar A.	Electrochemical Acta	Elsevier	07/03/2021
Sarkar A.	Electrochemical Acta	Elsevier	25/03/2021
Sarkar A.	Electrochemical Acta	Elsevier	01/04/2021

DEPARTMENT OF CHEMISTRY

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Banerjee D. R.	Journal of Heterocyclic Chemistry	Wiley	28.03.2020
Chakrabarty J	Journal of CO2 Utilization	Elsevier	21.07.2020



Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Chakrabarty J	Environmental Progress & Sustainable Energy	Wiley	07.12. 2020
Chakrabarty J	PLOS One	PLOS	26.02.2021
Chakrabarty J	Journal of Environmental Engineering and Landscape Management	Taylor & Francis	22.03.2021
Panja S. S.	Journal of Chemical Sciences	Springer	02.02.2021
Panja S. S.	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	Elsevier	07.10.2020
Panja S. S.	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	Elsevier	21.11.2020
Patra, A. K.	Chem. Eur. J.	Wiley VCH	03.03.2021
Patra, A. K.	Angew. Chem. Int. Ed.	Wiley VCH	15.09.2020
Patra, A. K.	Inorg. Chem.	American Chemical Society	20.05.2021
Sukul D.	Materials Research	SciELO	09.11.2020
Sukul D.	Materials Research	SciELO	22.09.2020
Sukul D.	SN Applied Sciences	Springer	02.12.2020
Sukul D.	Chemistry Select	Wiley	10.12.2020
Sukul D.	ACS Omega	ACS	16.08.2020
Sukul D.	Chem. Phys. Lett.	Elsevier	26.11.2020
Sukul D.	J. Molecular Str.	Elsevier	18.10.2020

DEPARTMENT OF CIVIL ENGINEERING

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Datta, A.K.	Indian Concrete Journal	ACC	January 10, 2021
Datta, A.K.	Civil Engineering and Architecture	Horizon Research Publishing Corporation, USA	October 23, 2020
Datta, A.K.	Civil Engineering and Architecture	Horizon Research Publishing Corporation, USA	October 07, 2020
Datta, A.K.	Civil Engineering and Architecture	Horizon Research Publishing Corporation, USA	August 31, 2020
Datta, A.K.	Civil Engineering and Architecture	Horizon Research Publishing Corporation, USA	July 31, 2020
Das, D.	Current Science	Indian Academy of Sciences	September 2020



Das, D.	Sadhana	Springer	September 2020
Karmakar, S.	Journal of The Institution of Engineers (India): Series A	Springer Nature	May & December 2020
Samanta A. K.	STRUCTURES	Elsevier	October 2020
Samanta A. K.	ICJ	ACC Ltd.	January 2021
Samanta A. K.	Ocean Engineering	Springer	March 2021
Topdar, P.	Journal of The Institution of Engineers (India): Series A	Springer India	June 2020

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Mitra, D	Journal of Electronic Testing: Theory and Applications	Springer	Mar, 10, 2021
Mitra, D	Journal of Electronic Testing: Theory and Applications	Springer	Oct, 20, 2020
Kisku, D. R.	IEEE Access	IEEE	July 2020
	Applied Intelligence	Springer	January 09, 2021
Kisku, D. R	Applied Intelligence	Springer	December 27, 2020
Kisku, D. R	Applied Intelligence	Springer	March 31, 2021
Kisku, D. R	Applied Intelligence	Springer	September 30, 2020
Kisku, D. R	Applied Intelligence	Springer	July 31, 2020
Kisku, D. R	Applied Intelligence	Springer	August 31, 2020
Kisku, D. R	Multimedia Tools and Applications	Springer	May 15, 2021
Kisku, D. R	Image and Vision Computing	Elsevier	July 23, 2020
Kisku, D. R	Pattern Recognition Letters	Elsevier	July 18, 2020
Kisku, D. R	Journal of Visual Communication and Image Representation	Elsevier	July 13, 2020
Mukhopadhyay S.	Internet of Things	Elsevier	Dec 26, 2020
Mukhopadhyay S.	Internet of Things	Elsevier	Dec 29, 2020
Mukhopadhyay S.	Internet of Things	Elsevier	Oct. 29, 2020

DEPARTMENT OF ELECTRICAL ENGINEERING

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Acharjee P.	IEEE System Journal	IEEE	May 2020 & Nov 2020



Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Acharjee P.	International Journal of Electrical Power and Energy Systems	Elsevier	January 2021
Acharjee P.	Applied Energy	Elsevier	December 2020
Aritro Dey	IEEE Transactions on Systems Man and Cybernetics	IEEE	September 2020, February 2021
Banerjee S	IEEE Transactions on Power Electronics	IEEE	12.06.2020, 21.07.2020, 5.8.2020, 26.9.20, 22.11.20, 26.01.21, 20.3.21
Banerjee S	IEEE Transactions on INDUSTRIAL Electronics	IEEE	1.4.2020, 20.6.20,
Banerjee S	IEEE Access	IEEE	6.7.2020, 10.8.2020
Banerjee S	IEEE IAS Publications	IEEE	20.09.20, 20.12.20, 14.2.21, 22.4.2021
Banerjee S	IEEE Transactions on Circuits & Systems II: Express Briefs	IEEE	13.06.20, 24.03.21
Bhattacharya A.	International Journal of Electrical Energy Systems, Journal of Energy Storage, Applied Energy, Applied Soft Computing, Energy, Renewable and Sustainable Energy Reviews, Reliability Engineering and System Safety, Sustainable Energy Technologies and Assessments	Elsevier	February 2021, March 2021, February 2021, February 2021, March 2021, March 2021, January 2021, September 2020
Mahato S. N.	Energy Reports	Elsevier	December 2020
Saha Roy B.K.	International Transaction on Electrical Energy Systems	Willy	May 2020
Saha Roy B.K.	International Journal of Electrical Power and Energy Systems	Elsevier	June 2020
Sarkar S.	IEEE Access	IEEE	September 2020

DEPARTMENT OF EARTH AND ENVIRONMENTAL STUDIES

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Adhikari Kalyan	Environmental Monitoring and Assessment	Springer	
Adhikari Kalyan	Environmental Science and Pollution Research	Springer	
Mondal Sandip	Environmental Engineering Science	Springer	20-04-2020
Mondal Sandip	Environmental Science and Pollution Research	Springer	16-04-2020



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Dhar Roy, S.	IEEE Signal Processing Letters	IEEE	3.4.2020
Dhar Roy, S.	Internation Journal of Electronics	Taylor & Francis	12.4.2020
Dhar Roy, S.	Interantional Journal of Communication Systems	Wiley	26.5.2020
Dhar Roy, S.	IET Communications	IEE	4.6.2020
Dhar Roy, S.	IEEE Networking Letters	IEEE	6.6.2020
Dhar Roy, S.	International Journal of Distributed Sensor Networks	Sage	13.6.2020
Dhar Roy, S.	IEEE Access	IEEE	26.6.2020
Dhar Roy, S.	IEEE Transactions on Vehicular Technology	IEEE	5.7.2020
Dhar Roy, S.	IEEE Transactions on Signal Processing	IEEE	17.7.2020
Dhar Roy, S.	IET Communications	IEE	4.8.2020
Dhar Roy, S.	IEEE Transactions on Vehicular Technology	IEEE	13.8.2020
Dhar Roy, S.	Advances in Electrical and Electronic Engineering	VSB-Technical University of Ostrava, Czechia	18.8.2020
Dhar Roy, S.	International Journal of Electronics Letters	Taylor & Francis	26.8.2020
Dhar Roy, S.	Computer Networks	Elsevier	4.10.2020
Dhar Roy, S.	International Journal of Electronics Letters	Taylor & Francis	30.10.2020
Dhar Roy, S.	Physical Communication	Elsevier	6.11.2020
Dhar Roy, S.	IEEE Access	IEEE	21.12.2020
Dhar Roy, S.	Computer Networks	Elsevier	16.1.2021
Dhar Roy, S.	Wireless Communication & Mobile Computing	Hindawi	25.1.2021
Dhar Roy, S.	Physical Communication	Elsevier	29.1.2021
Dhar Roy, S.	IEEE Access	IEEE	12.2.2021
Dhar Roy, S.	International Journal of Communication Systems	Wiley	23.2.2021
Dhar Roy, S.	Cognitive Computation and Systems	Wiley	8.3.2021
Dhar Roy, S.	International Journal of Electronics	Taylor& Francis	9.3.2021
Dhar Roy, S.	Physical Communication	Elsevier	22.3.2021
Dhar Roy, S.	Concurrency and Computation: Practice and Experience	Wiley	29.3.2021



Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Chandra, A.	IEEE Transactions on Vehicular Technology	IEEE	Jun. 21, 2020 Jun. 28, 2020 Jul. 29, 2020 Nov. 25, 2020 Jan. 01, 2021
Chandra, A.	IEEE Communication Letters	IEEE	Jun. 05, 2020 Oct. 12, 2020 Nov. 04, 2020 Nov. 09, 2020 Jan. 18, 2021 Feb. 22, 2021
Chandra, A.	IEEE Systems Journal	IEEE	Jul. 23, 2020 Jul. 31, 2020 Oct. 30, 2020
Chandra, A.	IEEE Wireless Communications Letters	IEEE	Nov. 20, 2020 Feb. 17, 2021
Chandra, A.	IEEE Access	IEEE	May 13, 2020 Jun. 08, 2020 Oct. 17, 2020 Oct. 30, 2020 Nov. 06, 2020 Dec. 04, 2020 Dec. 19, 2020
Chandra, A.	Internet Technology Letters	Wiley	Feb. 20, 2021
Chandra, A.	ETRI Journal	ETRI	Mar. 01, 2021
Kundu S	IEEE Access	IEEE	July 2020
Kundu.S	Physical Communication	Elsevier	Dec 2020
Kundu. S	Physical communication	Elsevier	July 2020
Kundu.S	AEUE - International Journal of Electronics and Communications	Elsevier	May 2021
Kundu.S	Physical Communication	Elsevier	April 2021
Kundu.S	Adhoc Network	Elsevier	March 2021
Mandal, S. K.	IEEE Transactions on Antennas and Propagation	IEEE	October 08, 2020 February 20, 2021
Mandal, S. K	Digital Signal Processing	Elsevier	Jan 08, 2021 March 14, 2021
Mandal, S. K	International Journal of Electronics & Communication (AEUE)	Elsevier	April 11, 2020



Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Mandal, S. K	PIER	The EM Academy	April 03, 2020 Sept 15, 2020 October 27, 2020
Mandal, S. K.	International Journal of RF and Computer-Aided Engineering	Wiley	April 10, 2020
Mandal, S. K.	MOTL	Wiley	August 20, 2020 November 07, 2020
Ghatak R	IEEE Transaction on Antenna and Propagation, IEEE Transaction on Microwave Theory and Techniques, IEEE Microwave and Wireless Propagation Letters, IET Microwave Antennas and Propagation, PIER, AEUE International journal of Electronics and Communication, RFMICAE, JEMWA	IEEE, IET, Springer, Elsevier, Taylor Francis	2020-21
Chattaraj N	IEEE Transactions on Instrumentation & Measurement	IEEE	Sep 03, Oct 09, Nov 21, 2020

DEPARTMENT OF MATHEMATICS

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Ali, M. F.	Turkish Journal of Mathematics	Scientific and Technological Research Council of Turkey	June, 2020
Ali, M. F.	Abstract and Applied Analysis	Hindawi	December, 2020
Ali, M. F.	Hacettepe Journal of Mathematics and Statistics	Hacettepe University	November 2020, March 2021
Bagchi, S.	Journal Applied Mathematics and Computing	Springer	November, 2020
Bagchi, S.	Computer and security	Elsevier	October, 2020
Kar, S.	Soft Computing	Springer	July, 2020
Kar, S.	Applied Soft Computing	Elsevier	September, 2020
Kar, S.	Soft Computing	Springer	December, 2020
Kar, S.	IEEE Transactions on Systems, Man and Cybernetics	IEEE	December, 2020
Kar, S.	Journal of Intelligent Fuzzy Systems	Springer	January, 2021
Kar, S.	Information Sciences	Elsevier	January, 2021
Kar, S.	IEEE Transactions on Fuzzy Systems	IEEE	January, 2021
Kar, S.	International Journal of Fuzzy Systems	Springer	February, 2021
Kar, S.	Applied Soft Computing	Elsevier	February, 2021



Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Kar, S.	Computers and Industrial Engineering	Elsevier	February, 2021
Kar, S.	Expert Systems with Applications	Elsevier	March, 2021
Dey, L.K.	Journal of Inequalities and Applications	Springer	July, 2020
Dey, L.K.	Alexandria Engineering Journal	Elsevier	June, 2020
Dey, L.K.	Mathematics	MDPI	July, 2020
Dey, L.K.	Journal Applied Mathematics and Computing	Springer	May, 2020
Dey, L.K.	Numerical Algorithms	Springer	August, 2020
Pal, P.	International journal of bifurcation and chaos	World Scientific	February, 2021
Pal, A.	Journal Applied Mathematics and Computing	Springer	October, 2020
Pal, A.	TWMS J. App. And Eng. Math.	Turkic World Math Society	July, 2020
Pal, A.	Complex & Intelligent System	Springer	May, 2020
Gopmandal P. P	Electrophoresis	Wiley	August, October and December 2020
Gopmandal, P. P	AIChE	Wiley	Oct,2020
Gopmandal P. P.	Journal of Molecular Liquids	Elsevier	July 2020
Sarkar (Mondal), S.	Journal of Scientific Research and Reports	Science Domain International.	September, 2020

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Mandal, A.K.	Journal of Sustainable Metallurgy	Springer	27.02.2021
Mandal, A.K.	Journal of Mining and Metallurgy: Section B:Metallurgy (JMMB)	University of Belgrade, Serbia	21.11.2020
Mandal, A.K.	Materials Today: Proceedings	Elsevier	06.08.2020
Mandal, A.K.	Journal of Sustainable Metallurgy	Springer	05.08.2020
Mandal, A.K.	Journal of Solid Waste Technology and Management	Widener University PA	22.07.2020
Mandal, A.K.	Journal of Mining and Metallurgy: Section B:Metallurgy (JMMB)	University of Belgrade, Serbia	08.06.2020
Ghosh K. S.	Materials Science and Engg A	Elsevier	19-01-21
Ghosh K. S.	Transactions, IIM	Springer	08-01-21



Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Ghosh K. S.	Journal of Alloys and Compounds	Elsevier	07-09-20
Show B.K.	Metals and Materials International	Springer	29-10-2020
Mondal, M. K.	Materials Research Express	IOP Publishing	19-12-2020
Mallik, M.	Metallurgical and Materials Transactions A	Springer	16-02-2021
Mallik, M.	Metallurgical and Materials Transactions A	Springer	30-10-2020
Mallik, M.	International Journal of Metalcasting	Springer	15-12-2020
Mallik, M.	Transactions of the Indian Institute of Metals	Springer	16-07-2020
Mallik, M.	Surface Topography: Metrology and Properties	IOPscience	29-05-2020
Mallik, M.	Surface Topography: Metrology and Properties	IOP Science	24-01-2021

DEPARTMENT OF MANAGEMENT STUDIES

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
De, Anupam	Journal of Public Affairs (Scopus)	-	June, 2020
De, Anupam	Vision: The Journal of Business Perspective (Scopus)	SAGE	November, 2020
Ghosh, A	AUSTRALIAN ECONOMIC PAPERS	Wiley	august 2020
Ghosh, A	Indian Council for Research on International Economic Relations (ICRIER)	ICRIER	May 5, 2020
Ghosh, A	Int. J. of Business and Emerging Markets	InderScience	July 2020
Ghosh, A	European journal of international management	InderScience	March 2021
Ghosh, A	Journal of Financial Economic Policy	Emerald	March 2021
Paul, U K	Journal of International Food and Agribusiness Marketing	Taylor and Francis	January 2021
Paul, U K	World Development	Elsevier	January 2021
Roy, M	WARM	Elsevier Science	7.03.2020
Roy, M	Resource, Conservation & Recycling	Elsevier Science	8.03.2020
Roy, M	Clean Technology and Environmental Policy	Springer	19.06.2020



Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Roy, M	Clean Technologies and Environmental Policy	Springer	28.07.2020

DEPARTMENT OF MECHANICAL ENGINEERING

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Datta A	Journal of thermal science and engineering application	ASME	December 07 2020
Datta A	Journal of thermal analysis and caloremtry	Springer	March 30 2021
Banerjee, Nilotpal	Journal of Intuition of Engineers(India) Series C (IEIC)	Springer	08 May 2021
Banerjee, Nilotpal	Journal of Intuition of Engineers(India) Series C (IEIC)	Springer	14 Feb 2021
Banerjee, Nilotpal	Journal of Science and Technology	©Journals of UTHM	28 May 2021
Hui N. B.	IEEE Tans. On Mechatronics	IEEE	July, 2020, Feb. 2021
Hui N. B.	Applied Soft Computing	Elsevier	May, June, Aug. 2020
Hui N. B.	Journal of Materials Processing Technology	Elsevier	Sep. 2020
Hui N. B.	Computers & Industrial Engineering	Elsevier	March 2021
Hui N. B.	Journal of Intelligent & Fuzzy Systems.	IOS Press	Jan. 2021
Hui N. B.	Journal of Manufacturing Processes	Elsevier	May 2021
Puri, A. B.	Int. Journal of Advanced Manufacturing Technology	Springer	05 Jun 2020
Puri, A. B.	Int. Journal of Advanced Manufacturing Technology	Springer	02 Aug 2020
Puri, A. B.	Int. Journal of Advanced Manufacturing Technology	Springer	9th Oct, 2020
Puri, A. B.	Engineering Science and Technology, an International Journal	Elsevier	July 2020
Puri, A. B.	Part E: Journal of Process Mechanical Engineering	Sage	16th Aug, 2020
Puri, A. B.	Journal of Micro- and Nano-Manufacturing	ASME	9th Oct, 2020
Sengupta S.	Journal of Fluid Mechanics	Cambridge University Press	21-Jun-2020



DEPARTMENT OF PHYSICS

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Chakraborty, A.K.	ACS Applied Materials & Interface	American Chemical Society	18.03.2021
Chakraborty, A.K.	Journal of Materials Science: Materials in Electronics	Springer	07.11.2020, 08.08.2020, 21.04.2020
Chakraborty, A.K.	Ceramic International	Elsevier	21.04.2021
Chakraborty, A K	Materials Letters	Elsevier	13.08.2020, 13.07.2020
Chakraborty, A. K.	Chemical Engineering Science	Elsevier	04.06.2020
Chakraborty, A.K.	Solar Energy	Elsevier	04.01.2021
Chakraborty, A.K.	Carbon	Elsevier	23.11.2020
Ghosh, S.	Physical Biology	Elsevier	March, 2021
Kumbhakar, P.	Plasmonics	Springer	April, 2020
Kumbhakar, P.	Chem. Phys. Lett.	Elsevier	May, 2020
Kumbhakar, P.	Optical Material	Elsevier	May, 2020
Kumbhakar, P.	Photonics Research	OSA	June, 2020
Kumbhakar, P.	Optical Material	Elsevier	June 2020
Kumbhakar, P.	IEEE Transactions on Instrumentation & Measurement	IEEE	June, 2020
Kumbhakar, P.	Journal of Basic Microbiology	Wiley-VCH	June, 2020
Kumbhakar, P.	RSC Advances	RSC, England	June, 2020
Kumbhakar, P.	Indian Journal of Chemistry Section A (IJCA)	GBS Publishers and Distributors (India)	June, 2020
Kumbhakar, P.	Optical Material	Elsevier	July, 2020
Kumbhakar, P.	Fibers and Polymers	Springer	July, 2020
Kumbhakar, P.	IEEE Transactions on Instrumentation & Measurement	IEEE	Aug, 2020
Kumbhakar, P.	Inorganic Chemistry	ACS	Sept., 2020
Kumbhakar, P.	SN Applied Sciences	Springer	Oct, 2020
Kumbhakar, P.	ACS Sustainable Chemistry & Engineering	ACS	Nov, 2020
Kumbhakar, P.	Laser & Photonics Reviews	Wiley	Dec, 2020
Kumbhakar, P.	J. Appl. Phys	AIP	Jan, 2021
Kumbhakar, P.	Optics Letters	OSA	Jan, 2021
Kumbhakar, P.	ACS Omega	ACS	Jan, 2021
Kumbhakar, P.	J. Alloys. and Compounds	Elsevier	Jan., 2021
Kumbhakar, P.	Optics Letters	OSA	Feb., 2021
Kumbhakar, P.	Dalton Transactions	RSC	March, 2021



Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Meikap, A K	Bulletin of Materials Science	Springer	September 2020
Meikap, A K	Polymer Composite	Wiley	October 2020
Meikap, A K	Ionics	Springer	October 2020
Meikap, A K	Polymer Engineering & Science	Wiley	November 2020
Meikap, A K	Journal of Physics and Chemistry of Solids	Elsevier	December 2020
Meikap, A K	Physica Scripta	IOPscience	January 2021
Meikap, A K	Journal of Alloys and Compounds	Elsevier	February 2021
Meikap, A K	Ceramics International	Elsevier	March 2021
Sahoo S.	International Journal of Theoretical Physics	Springer	September, 2020
Sahoo S.	Indian Journal of Physics	Springer	June, 2020

Annexure 11.16 (b).ii: Reviews of books during 2020-2021 session

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Reviewer	Name and author of the book	Publisher	Date
D. Mandal	Digital Signal Processing: Study Based on Dimensions of Signals	Cambridge University Press India Pvt Ltd.	13.08.2020

DEPARTMENT OF PHYSICS

Reviewer	Name and author of the book	Publisher	Date
Ghosh, S.	Lessons of the Pandemic: Data-driven modelling of COVID-19	Springer-Nature	March 17, 2021

DEPARTMENT OF CHEMICAL ENGINEERING

Reviewer	Name and author of the book	Publisher	Date
Prof. P. Pal	Nanomaterials for Bioreactors and Bioprocessing,	Elsevier	20/11/2020

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Reviewer	Name and author of the book	Publisher	Date
Dakshina Ranjan Kisku	"Pattern Classification" by Richard Duda, Peter Hart, David Stork	Wiley	September 11, 2020
Tandra Pal	Machine Learning meets Computational Biology Fuzzy Logic with Engineering Applications, 4th Edition	CRC Press, Taylor & Francis Group Wiley	May, 2020



DEPARTMENT OF CIVIL ENGINEERING

Reviewer	Name and author of the book	Publisher	Date
Samanta A. K.	Reinforced Concrete Design by Somnath Ghosh	CRC press	Dec 2020

DEPARTMENT OF MECHANICAL ENGINEERING

Reviewer	Name and author of the book	Publisher	Date
Rana S. C.	International Journal of Hydrogen Energy	Elsevier	Mar, 2020

DEPARTMENT OF CHEMISTRY

Reviewer	Name and author of the book	Publisher	Date
Ghosh, S.	Lessons of the Pandemic: Data-driven modelling of COVID-19	Springer-Nature	March 17, 2021

Annexure 11.16 (c). Participation in National Committees/ visits during 2020-21

DEPARTMENT OF CHEMICAL ENGINEERING

Name of the faculty	Name of the committee	Place of visit	Date
Halder, G. N.	National Advisory Committee	NIT Jalandhar	Sept 12-14, 2020

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Name of the faculty	Name of the committee	Place of visit	Date
Dakshina Ranjan Kisku	LITD 32 Biometrics Sectional Committee, Bureau Of Indian Standards, Govt. of India	Virtual	February 04, 2021
Dakshina Ranjan Kisku	LITD 32 Biometrics Sectional Committee, Bureau Of Indian Standards, Govt. of India	Virtual	November 25, 2020
Dakshina Ranjan Kisku	LITD 32 Biometrics Sectional Committee, Bureau Of Indian Standards, Govt. of India	Virtual	June 24, 2020

DEPARTMENT OF MECHANICAL ENGINEERING

Name of the faculty	Name of the committee	Place of visit	Date
Hui N. B.	Executive Committee Member of Institute of Engineers, Durgapur Local Centre	IEI, Durgapur Local Centre	2018-2020 (extended till 2021)



Annexure 11.16(d): Invited examiners/paper-setters/board of studies

DEPARTMENT OF BIOTECHNOLOGY

Name of the faculty	Name of the examination	University/Institute	Date
Chaudhuri S	JRF selection	Jadavpur University	04.12.2020
Dutta D	Thesis evaluation & PhD Viva	CSIR-CSMCRI	11.10.2020
Roy-Barman, S	Thesis evaluation & PhD Viva	KIIT, Bhubaneswar	11.2020

DEPARTMENT OF CHEMICAL ENGINEERING

Name of the faculty	Name of the examination	University/Institute	Date
Hens, A	External examiner of final semester B.Tech project	Calcutta University	External examiner of final semester B.Tech project
Mondal, B.K.	External examiner of final semester B.Tech project	Calcutta University	External examiner of final semester B.Tech project
Dutta S.	External Examiner for M. Tech thesis	Jadavpur University	July, 2021
Dutta S.	PhD Thesis	Jadavpur University	March, 2021
Das, B.	External Examiner for B. Tech. final year project	University of Calcutta	October, 2020
Das, B.	External Examiner for B. Tech. final year general viva-voce	University of Calcutta	October, 2020
Halder, G.N.	Board of Post-Graduate Studies in Environmental Science	Burdwan University	February 11, 2021

DEPARTMENT OF CHEMISTRY

Name of the faculty	Name of the examination	University/Institute	Date
Moi S. C.	External examiner of M. Sc Pract. exam	Bankura University	March'2020
Moi S. C.	Member of Ph. D board of studies	Sambalpur University	2020-2021
Moi S. C.	Member of Ph. D board of studies	Cairo University Egypt	2020-2021
Patra, A. K.	PhD Thesis Examination	IACS Kolkata	26.11.2020
Patra, A. K.	PhD Thesis Viva voce External Examiner	IACS Kolkata	12.02.2021

DEPARTMENT OF CIVIL ENGINEERING

Name of the faculty	Name of the examination	University/Institute	Date
Samanta, A.K.	Member, BOS	HIT Haldia	November 30, 2019



Name of the faculty	Name of the examination	University/Institute	Date
Samanta, A.K.	Ph.D pre submission Viva of the candidate Abdullah Ahamed Laskar with Registration No. D-7/E/147/16	Jadavpur University	July 20, 2020
Pal, S.	External expert for M Tech Thesis Examination (School of Water Resources Engg.)	Jadavpur University	2020
Pal, S.	Chaired a seminar as an external expert for the assessment of upgradation of JRF-SRF of Ms. Srinidhi S (32EE18A27010), an AcSIR GATE-JRF (integrated Ph.D.) held online.	NEERI, Nagpur	Sept. ,2020
Pal, S.	Acted as an external expert for the interview for selecting project staff for external funded projects of CSIR-NEERI. The interview held in online mode.	NEERI, Nagpur	Oct., 2020

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Name of the faculty	Name of the examination	University/Institute	Date
Tandra Pal	Member, UG BOS of Computer Science	Kazi Nazrul University, Asansol	four years w.e.f. 07.04.2020
Tandra Pal	Member, Board of Studies of IT Dept.	MCKV Institute of Engineering, Liluah, Howrah	30th May 2020

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Name of the faculty	Name of the examination	University/Institute	Date
Banerjee S	Doctoral Committee Meeting	EE Department, IEST Shibpur	29th September, 2020
Banerjee S	Project Review Meeting	DST, GOVT.of WB	22.01.2021
Bhattacharya A.	Interview for selection of candidate in Ph.D (Tech) in Electrical Engineering	ICT Mumbai-Marathwada Campus, Jalna	28th December 2020
Bhowmik P S	M. Tech Thesis & Viva Voce	IEST Shibpur	27th July, 2020
Bhowmik P S	External Examiner	CAEPHT,Sikkim	12th March, 2021

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

Name of the faculty	Name of the examination	University/Institute	Date
R Ghatak	Member of board of examiner for Sem II comprehensive viva on practical for M.Tech ECE (Microwaves)	The University of Burdwan	4th December 2020
R Ghatak	Member of board of examiner for Sem III viva on project work evaluation examination for M.Tech ECE (Microwaves)	The University of Burdwan	2nd April 2021
R Ghatak	Member of board of examiner of Comprehensive Viva Voce on Practicals (MW 108) of M Tech Sem I Exam 2021 in Electronics and Communication Engineering (Microwaves)	The University of Burdwan	7th April 2021

DEPARTMENT OF EARTH AND ENVIRONMENTAL STUDIES

Name of the faculty	Name of the examination	University/Institute	Date
Adhikari. Kalyan	Member of UG BOS	Kazi Nazrul University	

DEPARTMENT OF MATHEMATICS

Name of the faculty	Name of the examination	University/Institute	Date
Bagchi, S.	External Exapart of a Doctoral Committee	SRM Institute of Science and Technology, Kattankulathur	February, 2021
Basu,K	External Examiner for PhD thesis evaluation & viva voce in dept. of Mathematics	SRM Institute of science and Technology (Formerly known as SRM University) Kattankulathur	March 2021
Pal, P.	PG Board of Studies	Kazi Nazrul University	June, 2019
Gopmandal, P. P.	Paper setter	Kazi Nazrul University	March, 2020
Pal, A.	External member in PhD committee.	NIT Sikkim	January, 2021
Pal, A.	External member in PhD committee.	Vel Tech Rangarajan Institute, Chennai	March, 2021
Pal, A.	External member in PhD committee.	Aliah University, Kolkata	September, 2020
Pal, A.	External member in PhD committee.	Manonmaniam Sundaranar University, Tamilnadu	December, 2020
Pal, A.	External member in PhD committee.	Manonmaniam Sundaranar University, Tamilnadu	September, 2020



Name of the faculty	Name of the examination	University/Institute	Date
Sarkar (Mondal), S.	External Examiner for PhD thesis evaluation in dept. of Mathematics.	Mody university of Science and Technology, Rajasthan.	9.1.2021
Kar, S	Member of the Board of Studies, Mathematics	Haldia Institute of Technology	July 2019 – Till date
Kar, S	Member of the Board of Studies, Computer Science and Engineering	Kazi Nazrul University	July 2020 – Till date
Kar, S	Member of the Board of Studies, Mathematics	MAKUT	September 2020 – Till date
Kar, S	External Examiner for PhD thesis evaluation in dept. of Mathematics	Thapar University	July, 2020
Kar, S	External Examiner for PhD thesis evaluation in dept. of Mathematics	NIT Raipur	August, 2020
Kar, S	External Examiner for PhD thesis evaluation in dept. of Mathematics	SRM Institute of Science and Technology, Kattankulathur	February, 2021

DEPARTMENT OF MECHANICAL ENGINEERING

Name of the faculty	Name of the examination	University/Institute	Date
Banerjee Nlotpal	Ph. D Thesis Evaluation & conducting Viva-Voce Examination	Visvesvaraya Technological University	Feb, 2021
Goswami A	M.Tech Final Viva Voce Examiner	Government College of Engineering, Karad	30 January 2021
Layek Apurba.	Ph. D Thesis Evaluation & conducting Viva-Voce Examination	NIT Patna	August, 2020
Layek Apurba.	Ph. D Thesis Evaluation & conducting Viva-Voce Examination	Jadavpur University	April, 2020
Mondal S.	M.Tech Final Viva Voce Examiner	Jadavpur University	May, 2020

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Name of the faculty	Name of the examination	University/Institute	Date
Dr. Manab Mallik	External expert of the PhD Comprehensive Examination	AcSIR CSIR-CMERI Durgapur	29th January 2021

**DEPARTMENT OF MANAGEMENT STUDIES**

Name of the faculty	Name of the examination	University/Institute	Date
Bandyopadhyay, G.	To act as a member of the Board of Studies of Management Science and Humanities Department of MCKV Institute of Engineering.	Humanities Department of MCKV Institute of Engineering	12th July, 2020
Bandyopadhyay, G.	To act as a member of the Board of Studies of School of Management of JIS University	Management of JIS University	12th March, 2021
Bandyopadhyay, G.	External expert for revision of syllabus of MBA programme for new academic session 2021-23	University of North Bengal, Raja Rammohunpur, West Bengal- 734014	First Meeting held on 9th January 2021
De, A. (as an External Expert)	External Expert for MBA 2nd Yr. Viva voce Examination 2020	Indian Institute of Engineering Science and Technology, Shibpur (IIST Shibpur)	July 27-28, 2020.
Ghosh, A.	Member, PG Board of Studies, Dept. of Management, NBU	University of North Bengal, Raja Rammohunpur, West Bengal- 734014	Meeting on 02.03.2021
Pal, Durba. (As an External Subject Matter Expert)	online focus group discussion in connection to the evaluation of the psychometric properties of a set of questionnaires	Indian Institute of Psychometry, Calcutta-700108	6th July, 2020.

DEPARTMENT OF PHYSICS

Name of the faculty	Name of the examination	University/Institute	Date
Chakraborty A.K.	M. Sc. dissertation	ISERC, Visvabharati University, Santiniketan	February 14, 2021
Chakraborty A.K.	Member of the Board of Studies for UG course in Materials Science	Maulana Abul Kalam Azad University of Technology, Kalyani	November 2019 onwards
Chakraborty A.K.	Member of the Board of Studies for PG course of Physics	Netaji Subhash Open University, Kolkata	January 2019 onwards
Chakraborty A.K.	Member of the Board of Studies for PG course of Physics	Kazi Nazrul University, Asansol	November 2020 onwards
Chakraborty A.K.	Ph.D. thesis examiner	Indian Association for the Cultivation of Sciences (IACS), Kolkata	September 2020
Ghosh S.	Paper setter	Kazi Nazrul University, Asansol	January, 2021
Kumbhakar P.	PhD. Thesis Examiner	Tripura Univ., Tripura	May, 2020



Name of the faculty	Name of the examination	University/Institute	Date
Kumbhakar P.	PhD. Thesis Examiner	Calcutta Univ., WB, India	Jan., 2021
Kumbhakar P.	PhD. Thesis Examiner	JU, Kolkata, WB, India	Aug., 2020
Kumbhakar P.	Board of Studies	VBU, Santiniketan, WB, India	Sept., 2020
Kumbhakar P.	External Member of the Doctoral Committee of the Dept. of Physics	B.U., Burdwan	Jan. 27, 2021
Meikap A. K.	Conducting Viva-Voce Examination of Ph.D. candidate	University of Kalyani	February 12, 2021
Meikap A. K.	External Expert for Board of Research Studies in Physics	Kazi Nazrul University, Asansol	January 28, 2021
Meikap A. K.	External Expert for Board of Research Studies in Physics	Kazi Nazrul University, Asansol	August 2, 2020
Meikap A. K.	Paper Setter	Burdwan University, Burdwan	2020-2021

Annexure 11.16 (e): Invited experts in selection committee

DEPARTMENT OF BIOTECHNOLOGY

Name of the faculty	Discipline	University/Institute	Date
Bhattacharjee, A.	External expert of a technical committee regarding procurement of class 100K clean room facilities for unified campus	Bose Institute , Kolkata	30.12.2020

DEPARTMENT OF CHEMICAL ENGINEERING

Name of the faculty	Discipline	University/Institute	Date
Hens, A	External examiner of final semester B.Tech project	Calcutta University	External examiner of final semester B.Tech project
Mondal, B.K.	External examiner of final semester B.Tech project	Calcutta University	External examiner of final semester B.Tech project
Dutta S.	External Examiner for M. Tech thesis	Jadavpur University	July, 2021
Dutta S.	PhD Thesis	Jadavpur University	March, 2021
Das, B.	External Examiner for B. Tech. final year project	University of Calcutta	October, 2020
Das, B.	External Examiner for B. Tech. final year general viva-voce	University of Calcutta	October, 2020
Halder, G.N.	Board of Post-Graduate Studies in Environmental Science	Burdwan University	February 11, 2021

**DEPARTMENT OF CHEMISTRY**

Name of the faculty	Discipline	University/Institute	Date
Chakrabarty J.	Chairman of the Assessment Committee for extension of tenure of CSIR-SRF fellowship	CMERI-Durgapur	11.11.2020
Chakrabarty J.	Member of the Expert Committee on Environment, Ecology (including Medicinal Plants) and Climate Change of Deptt. of Science and Technology and Biotechnology, Govt. of WB	Deptt. of Science and Technology and Biotechnology, Govt. of WB	02.02.2021
Moi S. C	Chemistry JRF/SRF selection	CMERI-Durgapur	02/2021
Moi S. C	Chemistry JRF/SRF selection	CMERI-Durgapur	02/2020

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Name of the faculty	Discipline	University/Institute	Date
Tandra Pal	Project Associate	CSIR-CMERI, Durgapur	December 17, 2020
Tandra Pal	School of Computing	SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu,	Nov. 4, 2020

DEPARTMENT OF CIVIL ENGINEERING

Name of the faculty	Discipline	University/Institute	Date
Das, D.	Civil Engineering	DMC	Dec 24, 2020
Samanta, A.K.	Management Trainee (MT)	M/s ECL at Coal Bhawan	Dec. 28-29, 2020
Samanta, A.K.	Civil Engineering	NIT Sikkim	Jan. 27, 2021

DEPARTMENT OF ELECTRICAL ENGINEERING

Name of the faculty	Discipline	University/Institute	Date
Dr. S. N. Mahato	Electrical Engineering	Institute of Engineering and Industrial Technology, Sanaka Educational Trust's Group of Institutions, Malandighi, Durgapur	27.11.2020



Name of the faculty	Discipline	University/Institute	Date
Dr. S. N. Mahato	Electrical Engineering	Institute of Engineering and Industrial Technology, Sanaka Educational Trust's Group of Institutions, Malandighi, Durgapur	11.02.2021

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Name of the faculty	Discipline	University/Institute	Date
D. Mandal	Associate Professor for Department of Mining Engineering of School of Mines & Metallurgy	Kazi Nazrul University, Asansol	10.01.2021

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Name of the faculty	Discipline	University/Institute	Date
Dey, L.K.	Adjudicator in RC-MATHEMATICS	University of North Bengal	January 20, 2021
Kar, S.	Expert to the Selection Committee for appointment to the post of Assistant Professor, Department of Computer Science & Engineering.	Kazi Nazrul University	20th October 2020
Sarkar (Mondal), S.	Member of a Selection Committee for promotion under the Career Advancement Scheme to the post of Professor (Stage – 4 to Stage – 5) in the Department of Mathematics.	Jadavpur University, Kolkata	October 16, 2020
Sarkar (Mondal), S.	External Member of the Assessment Committee for upgradation of a research scholar from JRF to SRF in the Department of Mathematics	Jadavpur University, Kolkata	December 29, 2020
Sarkar (Mondal), S.	Expert to the Selection Committee for appointment to the post of Assistant Professor for the department of Mathematics.	Jadavpur University, Kolkata	February 18-23, 2021 (except Feb. 21, 2021)

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Name of the faculty	Discipline	University/Institute	Date
S. Ghorai	Metallurgy	CSIR-NML, Jamshedpur	20.01.2021



Annexure 11.16 (f): Invited lectures

DEPARTMENT OF BIOTECHNOLOGY

Name of the faculty	Title of the lecture	Programme	Place	Date
Barik, A.	Intrinsic Disordered Proteins (IDPs) and their prediction softwares	Online training program "Computational Tools used in Life Science Research"	Department of Bioinformatics, University of North Bengal	09.10.20-11.10.20
Bhattacharjee, A.	STAT-dependent expression and function of Monoamine Oxidase A (MAO-A) in IL-13 activated A549 cells	One-Day State Level Webinar on "ANTICANCER DRUG DESIGN & DRUG DEVELOPMENT AND CANCER BIOLOGY"	Dept.of Chemistry, Krishnagar Govt. College, Krishnagar, Nadia, West Bengal	18.09.2020
Dutta, D.	Nano-nutraceuticals as Therapeutics	Material Science and Nanotechnology	London	04.11.2020-05.11.2020
Ghosh, M.	The world of Biosensors and its applications	Webinar by on Biosensor	Advent Biological society, Kolkata	16.10.2020
Ghosh, M.	Inflammation and the role of neutrophils in innate immune response	Virtual FIMSA Immunology Course 2020	Federation of Immunological Societies of Asia-Oceania (FIMSA)	08.10.2020-10.10.2020

DEPARTMENT OF CHEMICAL ENGINEERING

Name of the faculty	Title of the lecture	Programme	Place	Date
Pal, P Panelist & KeyNote Speaker	Technological Intervention for Clean Water and Wastewater Management	VAIBHAV SUMMIT, GOI, 2020	Virtual	October 2-13 2020
Ghosh Chaudhuri, R	Nanotechnology: An Innovative Tool to Enhance the Materials' Application in Different Fields	Short Term Course on Nanostructured Materials: Synthesis, Characterization and Applications	Central Institute of Petrochemicals Engineering & Technology: IPT - Bhubaneswar	January 27-28, 2021
Dutta, S.	Biological Sequestration of CO ₂	5 Days Faculty Development Programme on CO ₂ Sequestration & Utilization	VIT University, Vellore	December 7-11, 2020
Halder, G.N	Coal Bed Methane: Emerging Alternative Energy Source	TEQIP-III sponsored Faculty Development program on Recent Trends in Clean Energy	Maulana Azad National Institute of Technology, Bhopal	March 11, 2021



Name of the faculty	Title of the lecture	Programme	Place	Date
Halder, G.N.	Conversion of Biomass to Biofuel: A Sustainable Approach towards Replacement of Conventional Petro-fuels and Mitigation of Energy Crisis	UGC sponsored Refresher Course in Environmental Science (09.02.2021 to 22.02.2021)	Burdwan University	February 10, 2021
Halder, G.N.	Biomass to Bioenergy: An approach of waste valorisation	AICTE Training And Learning (ATAL) Academy Sponsored Online Faculty Development Program (FDP) On Sustainable Engineering for Industrial Development	GMR Institute of Technology, Rajam, Andhra Pradesh.	Sept 10, 2020
Sarkar, A	Nanostructured Materials for the Development of Sodium-ion Batteries	International Online Conference on Nano Materials (ICN 2021)	Mahatma Gandhi University Kottayam, Kerala, India	April 09-11, 2021

DEPARTMENT OF CHEMISTRY

Name of the faculty	Title of the lecture	Programme	Place	Date
Banerjee D. R	Drug repurposing and Vaccine discovery against COVID	Invited Lecture on 2-days national webinar on the topic of "Scientific Approaches Towards COVID-19 Pand"	Kujhutipara Chandidas Mahavidalaya	02.08.2020
Moi S. C.	Pt(II) based anticancer Drug design and drug developments	Two days International seminar (special Lecture delivered by Noble Laureate Prof. Jean Merry Lehn)	SV NIT Surat	17.11.2020
Moi, S. C.	Pt(II) based anticancer drug design and drug developments,	One day National seminar	Krishnanagar Government College, Krishnanagar, Nadia	18.09.2020
Moi, S. C.	Pt(II) based anticancer drug design and drug developments,	Three days International Conference(special Lecture delivered by Noble Laureate Prof. Jean Merry Lehn)	NIT Durgapur	3rd – 5th March'2021 Sept'2020
Saha R N	Green Chemistry	Invited Lecture	Shah and Anchor Kutchhi Engineering College, Mumbai	01.08.2020



Name of the faculty	Title of the lecture	Programme	Place	Date
Saha R N	Green Chemistry approaches for the Minimization of pollution	Invited lecture	Department of Chemistry, Brainware University	04.11.2020

DEPARTMENT OF CIVIL ENGINEERING

Name of the faculty	Title of the lecture	Programme	Place	Date
Das, D.	Energy Dissipation Techniques for Protection of Civil Engineering Structures	IC-ACI, Mumbai and ACI, USA sponsored five-day webinar Sustainable Development in Structural Engineering	C.V. Raman Global University, Bhubaneswar	July 20-24, 2020
Das, D.	Lateral Load Resisting Systems - Recent Development and Future Challenges	Faculty Development Programme on Adaptation of Emerging Technique in Structural and Geotechnical Engineering	Department of Civil Engineering of Dr. B. C. Roy Polytechnic, Durgapur	August,3-4, 2020
Das, D.	Recent Advancements in Dynamics of Structures	TEQIP III sponsored webinar	Chaibasa Engg. College, Jharkhand	October 17, 2020
Das, D.	Scope of jobs for students after COVID-19	Webinar organized by National Skill Qualification Framework, Government of India	Online	July 18, 2020
Nanda, R.P.	Seismic Vulnerability and Strengthening of Masonry Structures	Special commemorative Issue as a humble tribute towards the immense pioneering contributions of the legend, Late Professor Anand Swarup Arya, Padma Shri in the field of Earthquake Engineering	ISET, IIT Rk (online)	September 1, 2020
Nanda, R.P.	Geosynthetic as sustainable materials for earthquake resistant buildings	National conference on sustainable materials and practices for infrastructure development (SMPID-2020)	Govt. College of Engg, BPUT, Kalahandi (online)	September 18, 2020



Name of the faculty	Title of the lecture	Programme	Place	Date
Pal, S.	Environmental Geotechnics-Some Case Studies	Seminar	Department of Civil Engg., Dr. B. C. Roy Polytechnic, Durgapur	August, 2020
Samanta, A.K.	Sustainable development in Structural Engineering	Webinar by NSPCL Durgapur	Online	July 22, 2020
Samanta, A.K.	Recent Advances in Infrastructure Technology'	Webinar by NIT Sikkim	Online	March 4, 2021

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Name of the faculty	Title of the lecture	Programme	Place	Date
Saravanan Chandran	Computer Vision based Biometric System	AICTE sponsored STTP on Implementation of Medical Image Processing using Advanced Green Computing Technology	Saveetha Engineering College, Chennai	18th to 23rd Jan 2021
Saravanan Chandran	Cyber Security Threats	One Week Online FDP "Data Analytics on Real Time System"	Goel Institute of Technology and Management, Lucknow	26th to 30th December, 2020
Saravanan Chandran	Computer Vision based Biometric System	AICTE sponsored STTP on Implementation of Medical Image Processing using Advanced Green Computing Technology	Saveetha Engineering College, Chennai	2nd to 7th Nov 2020
Saravanan Chandran	Computer Vision based Biometric System	AICTE sponsored STTP on Implementation of Medical Image Processing using Advanced Green Computing Technology	Saveetha Engineering College, Chennai	14th to 19th Dec 2020
Saravanan Chandran	Hypertext Markup Language (HTML) development tools	AICTE Training and Learning (ATAL) Academy Online Faculty Development Programme on "Role of Artificial Intelligence in Science and Engineering Applications (RAISEA-2020)" for CBSE School Teachers	National Institute of Technology Silchar.	26 – 30 October 2020
Prasenjit Choudhury	Data Science and It's Prospects	Department of Computer Applications, Techno India University, West Bengal	Webinar on "Data Science and Its Prospects"	15th October, 2020



Name of the faculty	Title of the lecture	Programme	Place	Date
Prasenjit Choudhury	Data Science and It's Prospects	Greater Kolkata College of Engineering and Management	Webinar on "Data Science and Its Prospects"	27th Novemver, 20
Dakshina Ranjan Kisku	Image Enhancements in Machine Vision Applications	Chaibasa Engineering College, Jharkhand	TEQIP-III Sponsored One Day Webminer on "Image Enhancements in Machine Vision Applications"	August 28, 2020
Dakshina Ranjan Kisku	Machine Learning Techniques for Biometrics	Chaibasa Engineering College, Jharkhand	TEQIP-III Sponsored Three Days Webinar on "Machine Learning Techniques for Biometrics"	June 2020
Mamata Dalui	Computer Architecture, Cellular Automata and Security	SPARC workshop on "Cellular Automata and Secured Hardware Design"	IEST Shibpur	March 15-19, 2021
Tandra Pal	Clustering Techniques in Big Data & Analytics	Big Data Analytics Using Soft Computing Tools	MCKV Institute of Engineering	October 06, 2020.
Tandra Pal	Clustering & SOM	Emerging Trends and Advances in Machine learning	Sahid Kshudiram Smriti Mahavidyalaya	August 22, 2020

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Name of the faculty	Title of the lecture	Programme	Place	Date
Mahanti G.K.	Synthesis of Linear Array Antenna using iterative fast fourier transform	AICTE-ISTE sponsored Refresher program on Antenna Design and Analysis	St.Xavier's Technical Institute,Mumbai (Online)	03.03.2021
Dhar Roy S	D2D Communication in 5G	Recent Advancement of System Design Towards 5G Communication (RASDT5C 2021)	Haldia Institute of Technology (Autonomous Institute), HIT Campus, Haldia,	13.01.2021
Chandra A	mmWave for Vehicular Communication	AICTE-AQIS sponsored STTP on AI and 5G Communication Technology	Poornima College of Engineering, Jaipur, Rajasthan	Dec. 09, 2020



Name of the faculty	Title of the lecture	Programme	Place	Date
Chandra A	mmWave for 5G	AICTE sponsored STTP on Hands on Project-Based Approach for 5G Design and Development using MATLAB (Phase-I)	Kakatiya Institute of Technology and Science, Warangal, Telangana	Nov. 05, 2020
Chandra A	Satellite Communication: An Introduction	Expert Talk by External Faculty Member	G H Raison College of Engineering, Nagpur, Maharashtra	Aug. 18, 2020
Chandra A	Surviving a UG Program: Life at JU ETCE	Colloquium JU ETCE	Jadavpur University, Kolkata	Jun. 06, 2020
Mahapatra R	Resistive RAM for Non Volatile Memory Application	On-line Workshop on 'Nano-electronic Devices and their Applications	IIIT, Kalyani, West Bengal	March 23-25, 2021
Mandal D.	technologyOptimal Radiation Pattern Synthesis of Antenna Arrays With Time Modulation	Webinar on "Recent trends and research scope in Antenna Domain"	Vignan's Institute of Information Technology, Vishakapatnam	29th July 2020
Mandal D.	Basic Electronics	Expert lecture on TEQIP –III sponsored webinar	ECE Dept., Chaibasa Engineering College, Chaibasa, Jharkhand	14th Sept. to 19th Sept. 2020
Mandal D.	Optimal Design of Time Modulation based Antenna Arrays	two week TEQIP-III Sponsored Online Short Term Course	Department of ECE, University College of Engineering and Technology (UCET), Vinoba Bhave University, Hazaribagh, Jharkhand	10th February 2021
Ghatak R	Revisiting Antenna Characterization	Webinar on "Recent trends and research scope in Antenna Domain"	Vignan's Institute of Information Technology, Vishakapatnam	27th July 2020
Ghatak R	Revisiting Antenna Parameters	5 Day online FDP on "Research Challenges and Opportunities in Antenna Design" RCOAD-2020 is being organized by the Department of ETCE, VSSUT, Burla, Odisha	VSSUT, Burla, Odisha	19th September 2020



Name of the faculty	Title of the lecture	Programme	Place	Date
Ghatak R	Revisiting Electromagnetic Sensor Characteristics	5 Day Faculty Development Program (FDP) under AICTE Training and Learning (ATAL) Academy held at the University of Burdwan	University of Burdwan	7th November 2020
Mal A. K.	Analog IC Design in Nano-CMOS	UGC Sponsored 11 days Refresher Course on Emerging Technology(Online) Dec. 01-14, 2020	Mizoram University	Dec. 12, 2020
Ghatak R	ICT enabled education	"Planning & Development of Massive Open Online Courses [MOOCs]" on 12th December, 2020 organized by A.K. Dasgupta Centre for Planning and Development [A centre sponsored by the NITI AAYOG, Govt. of India], Visva Bharati.	A.K. Dasgupta Centre for Planning and Development [A centre sponsored by the NITI AAYOG, Govt. of India], Visva Bharati.	12th December 2020
Ghatak R	Revisiting Antenna Characteristics	TEQIP-III sponsored workshop on "Modern Antennas for Present and Futuristic Wireless Communication Technology" from 8th to 13th of March, 2021	NITSikkim	10th March 2021
Mandal S. K.	Principle of Evolutionary Algorithm & their Applications	Webinar on Emerging Technologies for Different Fields of Engineering,	Luthfaa Polytechnic Institut, Molandighi, Durgapur	28.09.2020
Mandal S. K.	Time-Modulated Antenna Arrays: Theory, Design and Applications	FDP on "Recent Innovations and Trends in Antenna Design	Silicon Institute of Technology, Sambalpur, Odisha,	26.06.2020
Mandal S. K.	4D Antenna Arrays – Theory, Analysis and Design	FDP on "Research Challenges and Opportunities in Antenna Design	Department of Electronics & Telecommunication Engineering Veer Surendra Sai University of Technology Burla Odisha, India	12.09.2020



Name of the faculty	Title of the lecture	Programme	Place	Date
Chattaraj Nilanjan	Sensors and Actuators on Assistive Devices	AICTE Training And Learning (ATAL) Academy Programme on "Robotics and Assistive Technology	National Institute of Technology, Durgapur,	24th -28th November, 2020

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

Name of the faculty	Title of the lecture	Programme	Place	Date
Sengupta, P. P.	Concept of Entrepreneurs, Enterprise and Entrepreneurship	Invited lecture in FDP	NIT Agartala	1 March 2021
Modak, A.	Research Paper Writing	Guest Lecture for B.Sc. Computer Science Students	VIT University, Vellore	1 March 2021
Modak, A.	How to Write an Effective Research Paper	Guest Lecture for PhD Students	VIT University, Vellore	26 March 2021
Banerjee, S.	Humanism and Empathy in the Time of COVID-19 Pandemic	TEQIP-III Sponsored Invited talk for B.Tech students	Chaibasa Engineering College (online)	May 14-16
Banerjee, S.	Gender, Modernity, Morality and Transnationalism in a Bengali Magazine Nara-Naree in the Late Colonial Period	Gnosis Lecture Series 2020	Gnosis Journal (online)	May 29
Banerjee, S.	Gender Equality and Women's Rights in Focus	TEQIP-III Sponsored Invited talk, organized by Women's Cell	Chaibasa Engineering College (online)	June 18
Banerjee, S.	Philosophies of Life to Cope with COVID-19	TEQIP-III Sponsored Invited talk for B.Tech students	Ramgarh Engineering College (online)	June 25-27
Banerjee, S.	Culture and Communication in the Post-COVID Times	Invited Talk	B. C Roy Engineering College (online)	July 07
Banerjee, S.	Solidarity for Gender Equality: The Way Forward	TEQIP-III Sponsored Invited talk for B.Tech students	Dumka Engineering College (online)	July 18
Banerjee, S.	Revisioning Women Empowerment: Perspectives and Prospects	Web Lecture Series	Gobindaprasad Mahavidyalaya (online)	August 02



Name of the faculty	Title of the lecture	Programme	Place	Date
Banerjee, S.	Gender Concerns: Problems and Principles	Guest Speaker in the webinar on “Gender Oppression and Legal Issues”, organized by Women Studies Cell, Cell for Prevention of Sexual Harassment, Grievance Redressal Cell, Legal Club for Legal Consultancy and IQAC	Nabadwip Vidyasagar College (online)	September 24

DEPARTMENT OF MANAGEMENT STUDIES

Name of the faculty	Title of the lecture	Programme	Place	Date
Bandyopadhyay, G.	Statistical Analysis using R and R Studio	Statistical Analysis using R and R Studio organized by Department of Management Studies, Bodoland University.	Management Studies, Bodoland University (Online)	22nd June, 26th June & 2nd July, 2020
Bandyopadhyay, G.	Advanced Research Techniques	Online five days Faculty Development Program (FDP) on “Advanced Research Techniques.	Maulana Abul Kalam Azad University of Technology, WB (Online)	8th August, 9th August, 16th August, 22nd August & 23rd August 2020
Bandyopadhyay, G.	Introduction to Cross-Sectional Data Analysis using SPSS and JAMOV	Online Research Methodology Workshop cum FDP on Introduction to Cross-Sectional Data Analysis using SPSS and JAMOV.	Joint collaboration with the Department of Commerce, University of Calcutta and The Institute of Cost accountants of India	17th August, 2020 & 23rd August, 2020
Bandyopadhyay, G.	Multi- Criteria Decision Making Techniques and Applications	Multi- Criteria Decision Making Techniques and Applications	Calcutta Business School, Kolkata	September 01-02, 2020
Bandyopadhyay, G.	Application of Data Science and Soft Skill	Application of Data Science and Soft Skill	NIT Durgapur in Collaboration with ORSI, Durgapur	September 27th, 2020
Bandyopadhyay, G.	Contemporary Methodologies and Tools in Research	Contemporary Methodologies and Tools in Research	A.K.Dasgupta Centre for Planning and Developme	7th October'2020



Name of the faculty	Title of the lecture	Programme	Place	Date
Bandyopadhyay, G.	Big Data Analytics Using Soft Computing Tools	Big Data Analytics Using Soft Computing Tools	Mckv Institute Of Engineering Liluah West Bengal India	10th October, 2020
Bandyopadhyay, G.	Advanced Techniques and Tools in Social Science Research	Advanced Techniques and Tools in Social Science Research	Management and Business Administration, Aliah University.	29th November '2020
Bandyopadhyay, G.	Predictive modelling	Faculty Development Programme	School of Management & Commerce of Brainware University, Barasat, Kolkata.	6th December' 2020
Bandyopadhyay, G.	Research Methodology	Research Methodology	IQAC and R&D cell of Bijoy Krishna Girls' College Howrah in collaboration with IQAC of Calcutta University.	16th January 2021 & 17th January 2021
Bandyopadhyay, G.	Research Methods & Data Analysis Using SPSS & R	Research Methods & Data Analysis Using SPSS & R	A.K.Dasgupta Centre for Planning and Development [A centre sponsored by the NITI AAYOG, Govt. of India]	27th February, 2021
Bandyopadhyay, G.	Multivariate Data Analysis	Multivariate Data Analysis	Exceller Open in collaboration with University of Calcutta Affiliated Naba Ballygunge Mahavidyalaya	20/03/2021 & 21/03/2021
De, A	Prediction of Corporate Dividend Performance: An Emperical Study on Indian Iron and Steel Companies	Finance Seminar/ Webinar	RITM, University Paris-Saclay, France	June 18, 2020
De, A.	Case Study of Statistical Analysis Using Primary Data	5-day Online Workshop on "Statistical Analysis using R and R Studio "	Department of Management Studies, Bodoland University, Assam	July 03, 2020



Name of the faculty	Title of the lecture	Programme	Place	Date
Ghosh, A.	Post Covid19 strategy to survive the Tourism industry: Indian Perspective	International e-Symposium 2020 (webinar) on Econometrics	University of North Bengal, Raja rammohunpur, Siliguri.	18th & 19th July 2020
Ghosh, A.	Future Tourism Development Strategies	Two Days National e-Conclave 2020	University of North Bengal, Raja rammohunpur, Siliguri.	28th & 29th June 2020
Ghosh, A.	Case writing	FDP in Case writing workshop	Amity University Kolkata	21st July 2020
Ghosh, A.	Post Covid19 Economy : Dynamics & Challenges	National Level Webinar on Post COVID-19 Economy: Dynamics & Challenges"	Dr. Lankapalli Bullayya College, Visakhapatnam	18th August 2020.
Ghosh, A.	Panelist	Panel discussion on "Atma Nirbhar Bharat-Vocal For Local".	Institution Innovation and Incubation Council (IIIC), NIT Durgapur	22nd December 2020
Ghosh, A.	Referencing and Citing	One Day National Webinar on the topic " Indexing and Referencing of Journals in Research"	Operational Research Society of India, Durgapur Chapter.	7th March 2021
Ghosh, A.	Time Series Analysis and forecasting	One week FDP on 'Advanced Panel Data Analysis'	Faculty Development Centre and Department of economics, Kurukshetra University, Kurukshetra	26th March 2021
Pal, Durba.	"Coping with Covid 19: Tools to Build Resilience for the Students."	A Webinar on Coping with Covid-19	NSHM School of Business and Management Studies, NSHM Knowledge Campus, Durgapur.	18th July, 2020.
Paul, UK.	Surviving and Thriving in the New Normal	National Webinar on Covid-19: Challenges and Reconstruction of Society	East Calcutta Girls' College, Kolkata	June 9, 2020
Paul, UK.	Panel discussion on Chapter 23 and 24 of National Education Policy 2020	Capacity Building Program on National Education Policy 2020	IASE, Prayagraj U.P	October 11, 2020



Name of the faculty	Title of the lecture	Programme	Place	Date
Roy, M.	Fundamentals of Sampling	Workshop on Contemporary Methodologies & Tools in Research	A.K. Das Gupta Centre, Visva-Bharati	7.10.2020
Roy, M.	Quality Education	Webinar on Organizational culture fairness and performance in Higher Learning Institutes	Benaras Hindu University	29.11.2020

DEPARTMENT OF MATHEMATICS

Name of the faculty	Title of the lecture	Programme	Place	Date
Pal, A.	Graph coloring	National webinar entitled "Recent advancement in Pure & Applied Mathematics"	Narajol Raj College, Midnapur, India.	July 10-11, 2020
Pal, A.	Application of minimum spanning tree in water supply management	Two Days Webinar on Recent Advances in Mathematical Science.	Santal Bidroha Sardha Satabarshiki Mahavidyalaya.	September 27-28, 2020
Pal, A.	Topological indices and their applications	Virtual Workshop on Domination Theory and Topological Indices	Department of Mathematics, Mangalore University.	February 04-06, 2021.
Pal, A.	Graph Theory and its applications	Lecture series on Mathematics.	Theivanai Ammal College for Women, Villupuram.	February 04, 2021
Pal, A.	Development of Economy through Trade & Industry	India International Grand Trade Fair (IIGTF)	Gandhi Maidan, Durgapur, India.	February 05-15, 2021
Pal, A.	National Science Day Celebration 2021	National Science Day Celebration 2021	Jawahar Navodaya Vidyalaya, Durgapur.	February 28, 2021.
Pal, A.	Abstracting and Indexing of Journals	One-Day National Webinar on Indexing and Referencing of Journals in Research (WIRJR-2021)	ORSI Durgapur	March 07, 2021
Pal, A.	Women Empowerment	International Women's day	Ankit Educational and Social Welfare Society, Durgapur.	March 08, 2021
Pal, A.	Introduction to Graph Theory	The virtual workshop on collating Mathematics resources for teachers in higher education	National Resource Centre for Education, NIEPA, New Delhi, India	October 6-7, 2020



Name of the faculty	Title of the lecture	Programme	Place	Date
Pal, A.	Graph colouring and its applications.	Two-Day National Webinar on "Recent Development in Mathematics & Its Social Impact"	Sukumar Sengupta Mahavidyalaya, Keshpur, Paschim Medinipur, West Bengal, India	August 8-9, 2020
Sarkar (Mondal, S.)	Career Scope in Mathematics, Statistics and Data Science.	Webinar Series 2020 on Career Scope in Mathematics, Statistics and Data Science	Department of Mathematics in association with CDC, ADAMAS University, School of Science, Kolkata.	May 17, 2020

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Name of the faculty	Title of the lecture	Programme	Place	Date
Mandal, A.K.	Expert lecture on "Application of plasma arc melting process for extraction and purification of Metals"	3 days Webinar on "Secondary Melting and Processing Technologies"	Department of Metallurgical & Materials Technology, Mahatma Gandhi Institute of Technology, (MGIT), Hyderabad	23rd to 25th July, 2020
Mandal, A.K.	Expert lecture on 'Recycling of Nonferrous and Ferrous Industry Waste Materials'	One week Faculty Development Program on 'Creating Wealth from Waste' (CWW-2021)	Department of Metallurgical & Materials Engineering, NIT Durgapur	18.01.21 - 22.01.2021
Ghosh M.M	NANOFLUIDS: The Promising Next Generation Heat Transfer Fluids	Plenary Talk in the online FDP on "Advanced Materials and Engineering" sponsored by AICTE Training and Learning (ATAL) Academy	In ONLINE mode Organized by: College of Engineering and Management, Kolaghat, West Bengal, India	Jan. 22-26, 2021

DEPARTMENT OF MECHANICAL ENGINEERING

Name of the faculty	Title of the lecture	Programme	Place	Date
Goswami A.	Micro Nano Manufacturing Technologies	Interaction Programme with 4th Year Mechanical Engineering Students	Asansol Engineering College	May 04, 2020



Name of the faculty	Title of the lecture	Programme	Place	Date
Goswami A.	Introduction to Micro Nano Manufacturing	Guest speaker in Advances in Manufacturing: Materials, Processes & Systems (AMMPS-2020)	NIT Hamirpur.	November 24, 2020
Goswami A.	Manufacturing at Micro and Nano Scale- Approaches and Experiments	Interaction Programme with Mechanical Engineering Students	Ajay Kumar Garg Engineering College, Ghazaibad	December 31, 2020
Hui N. B.	Application of Fuzzy Logic in Robot Motion Planning	Fuzzy Logic Systems in Engineering Applications (FLSEA 21)	NIT Sikkim	March 15-9, 2021
Hui N. B.	Robots as Assistive Devices	AICTE sponsored ATAL program on Robotics & Assistive Technology	NIT Durgapur	November 24-28, 2020
Hui N. B.	Robotics and Its Challenges	One day lecture on Robotics	Dr. B. C. Roy Engineering College Durgapur	July 04, 2020
Layek A.	Solar Thermal applications	Solar Energy Utilization - 2020	NIT Patna	14-18 Sept, 2020

DEPARTMENT OF PHYSICS

Name of the faculty	Title of the lecture	Programme	Place	Date
Chakraborty, AK	Nanostructured Carbon for Renewable Energy Applications	1st National Conference on Innovations in Sustainable Energy and Technology (ISET-2020)	Energy Institute Bangalore (A unit of RGIPT)	December 3-4, 2020
Chakraborty, AK	Carbon nanostructure reinforced lightweight polymer composites: an investigation into the filler-matrix interface	Online FDP in "modeling, Simulation and Experimental Approaches of Mechanical Systems"	Government College of Engineering, Kalahandi, Bhawanipatna, Odisha	August 24-28, 2020
Chakraborty, AK	Nanotechnology for Sustainable Development: Energy Environment and Healthcare	Science Communications Forum, Kolkata	Kolkata	September 29, 2020
Chakraborty, AK	Carbon Nanostructures for Energy Harvesting and Storage Application	International Conference for Convergence in Engineering	Kolkata	September 5-6, 2020, India



Name of the faculty	Title of the lecture	Programme	Place	Date
Ghosh, S	Understanding & predicting epidemic dynamics	Recent developments on the understanding of epidemic dynamics	B.B. College, Asansol	June 20, 2020
Kumbhakar P.	Laser and its Societal Applications	Webinar on “Laser and its Societal Applications”	Vivekananda College, Thakurpukur, Kolkata-63 9Online)	06.11.2020
Kumbhakar P.	Fundamentals and Applications of Nanostructured Materials in Environmental Science	Refresher Course in Environmental Science is being conducted by the UGC – Human Resource Development Centre, The University of Burdwan	UGC-Human Resource Development Centre, The University of Burdwan, Burdwan	09.02.2021
Kumbhakar P.	Synthesis, linear and nonlinear optical properties of some 2D layered nanostructured materials	Recent Developments in chemistry (RDC-2021),	Department of chemistry, NIT Durgapur,	March 3-5, 2021
Sahoo S.	Fractional Quantum Hall effect in graphene	Workshop on “Advanced Nanomaterials & Their Applications”	NIT Manipur	24th November, 2020

Annexure 11.16 (g): Session chair/convenor

DEPARTMENT OF BIOTECHNOLOGY

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Mandal, M.K.,	Session Chair	International Conference on Sustainable Water Resources Management under Climate Change Scenario	Jadavpur University, West-Bengal	-	March 13-15, 2020.
Halder G.N.	Session chair	36th National Convention of Chemical Engineers: Frontier Technologies for 21st Century's Process Industries	Institution of Engineers, Durgapur Chapter	Theme: Chemical and Biochemical Process	March 6, 2021



DEPARTMENT OF CHEMISTRY

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Moi, S. C.	Session chair	Three days International Conference	NIT Durgapur	3rd – 5th March'2021 Sept'2020	5th March' 2021
Saha R. N	Session Chair	Recent Developments in Chemistry(RDC-21)	NIT Durgapur	Session-1	03.03.21

DEPARTMENT OF CIVIL ENGINEERING

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Nanda, R.P.	Session Chair	National conference on sustainable materials and practices for infrastructure development (SMPID-2020)	Govt. College of Engineering BPUT, Kalahandi (online)	Structure (Technical Session 3)	Sept. 19, 2020
Pal, S	Session Chair	Two days National Conference(online platform) on "Geo-Science and Geo-Structures (GSGS-2020)"	Department of Civil Engineering, National Institute of Technology Jamshedpur		Sept., 2020

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Saravanan Chandran	Session Chair	7th International Conference on Mathematics and Computing, ICMC 2021, Department of Information Technology, Indian Institute of Engineering Science and Technology, Shibpur, India,	Shibur		March 2021
Sajal Mukhopadhyay	Session Chair	3PGCIC-2020 The 15-th International Conference on P2P, Parallel, Grid, Cloud and Internet Computing October 28th - October 30th, 2020 Yonago, Tottori, Japan	Japan	3PGCIC-S1: Distributed Systems Applications	October 2020
Abhijit Sharma	Session Chair	International Conference on Emerging Trends in Science & Technology (ICETST-TECHMEET), 2020	Kolkata	Paper Presentation (Oral)	August 2020

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
A. Chandra	Session Chair	Global Technology Forum 2020	ICT Academy, Tamil Nadu (Online)	International Conference on Signal, Communication and Embedded Systems (ICSCEs)	Oct. 15, 2020

DEPARTMENT OF ELECTRICAL ENGINEERING

Name of the faculty	Title of the lecture	Programme	Place	Date
S. Banerjee, Prof	Power Electronics Session	IEEE-ICPEE 2020	KIIT University (Online),	3.1.2021
S. Banerjee, Prof	Power Electronics Session	IEEE-iSSSC 2020	GIET University, (Online),	17.12.20
T. K. Bera, Dr.	Session Chair	International Conference on Science and Computing (ICSC2021)	VIT Jaipur, India	23-24 Jan. 2021
T. K. Bera, Dr.	Session Chair,,	3rd International Conference on Intelligent Circuits and Systems (ICICS) 2020	LPU, Punjab	24th to 25th April 2020,

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Sengupta, P. P	Session Chair	International Conference on "Pandemic and Social Work Profession"	Bankura University	Social Work Intervention during Pandemic	August 28
Banerjee, S	Session Chair	International Conference on "Pandemic and Social Work Profession"	Bankura University	Women and Pandemic	August 29

DEPARTMENT OF MATHEMATICS

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Bagchi, S.	Session Chair	International Conference on Security & Privacy (ICSP 2020)	NIT Jamshedpur, India		November 05-06, 2020



Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Bagchi, S.	Session Chair	An International Online workshop on Advanced Topics in Mathematics (IWATM-2020)	Dr. SPM International Institute of Information Technology Naya Raipur		October 01-05, 2020
Pal, A.	Session Chair	Virtual Workshop on Domination Theory and Topological Indices	Department of Mathematics, Mangalore University,		February 04-06 2021.
Sarkar (Mondal), S.	Session Chair	7th International Conference on Mathematics and Computing-ICMC 2021 (Online)	Department of Information Technology, Indian Institute of Engineering Science and Technology, Shibpur, India		March 04, 2021

DEPARTMENT OF MECHANICAL ENGINEERING

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Layek A.	Session Chair	IEEE International Conference on "Emerging Trends in Industry 4.0"	Raigarh	02, ME 01	19 May, 2021

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Dr. Manab Mallik	Session Chair	RDMPMC- 2020	NIT Jamshedpur (Online)	S1Meet3	26th August 2020

Annexure 11.16(h) List MOUs signed with Foreign Governments 2020-21

Nil

Annexure 11.17 Other information

DEPARTMENT OF BIOTECHNOLOGY

1. Dr. Aikat K. Guest editor for Journal of Indian Chemical Society (vol.97, no.10b, Oct 2020) (special issue for WEES-2020) (International Conference on Water Energy and Environmental Sustainability, WEES2020).
2. Dr. Bhattacharjee, A. American Society for Biochemistry and Molecular Biology (Member ID: 61340, Validity up to August 05, 2021)
American Association of Immunologists (AAI) (Member ID: 00250981, Validity up to Dec 2021)



Society of Biological Chemists (SBC), India, Life member

3. Dr. Kazy, S.K Selected as Editorial Board Member of the reputed international journal BMC Microbiology (Springer Nature), 2020 onwards

DEPARTMENT OF CHEMICAL ENGINEERING

1. Prof.Parimal Pal recognized as one of the top 2% of the scientists (considering all branches) of the World as per Stanford University Report 2020. International rank in the Environmental Science category 363.
2. Dutta, S., has acted as Guest Editor for Special Issue on "Water, Energy and Environmental Sustainability"(WEES 2020) of Journal of the Indian Chemical Society.
3. IconSWM Excellence Award 2019 by Sayantan Sarkar for the Paper "Parametric optimization for regeneration of waste lubricating oil by CCD approach" The 10th International Conference on Sustainable Waste Management towards Circular Economy(IconSWM-CE 2020)

DEPARTMENT OF CHEMISTRY

1. Amita Mondal, Research scholar, won 2nd position in Innovation contest organized by IIIC NIT DURGAPUR
2. RITUPARNA BHADURI, Research scholar, won the Best poster award at NIT Surat in two days international webinar
3. Titli Sadhu, Research Scholar, won the best oral presentation award in WEES 2020.
4. Sarabajit Layek, MSc student, was awarded INSPIRE fellowship by DST, GOI.
5. Four MSc students qualified in GATE exam 2020.
6. Manoj Singh and Dolly Singh, Int MSc students, achieved summer internship at ONGC.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

1. Mukhopadhyay, S. Served as track co-chairs in the Track: IoT, Crowdsourcing and Social Networking in The 14th International

Conference on Innovative Mobile and Internet Services in Ubiquitous Computing (IMIS-2020) held during July 1st – July 3rd, 2019, Lodz University of Technology, Lodz, Poland

2. Prasenjit Choudhury organized a special session on "Application of Computational Intelligence in Data Science for Societal Benefits" in the 5th International Conference on Data Management, Analytics & Innovation (ICDMAI), Kolkata, India, January 15-17, 2021.

DEPARTMENT OF CIVIL ENGINEERING

Dr. A.K. Samanta

- Head /Coordinator /In-Charge of the Department of Civil Engineering
- Coordinator /In-Charge of the Centre of Interdisciplinary Research on Biomedical Engg & Assistive Technology (BEAT) of NIT Durgapur.
- Member of Joint Committee of Building Committee and Building & Campus Committee of the
- Visva Bharati University.

Dr. Diptesh Das

1. Associate Dean (Alumni Affairs and Outreach)
2. Joint Coordinator, Centre for Alumni Affairs and International Relations (C-AAIR)

Dr. D. K. Singha Roy

- Chairman (Expert from outside CSIR) to "Study the reports and recommend regarding non-utilization of infrastructures for more than decades & dilapidated condition of the same for further utilization at CSIR-CMERI colony and office premises" vide, CSIR-CMERI OM No.1.Adm.(1)/Misc./Committee/97-E, dated 01/09/2020.
- Member for Selection Committee for Gr.III (Technical Officer) Recruitment at CSIR-CMERI vide letter no.8/2/2018 (1)-Rct. dated 04.01.2021.

Dr. S. Karmakar

- Member, STA, PMGSY, NRRDA, MoRD, Govt. of India
- FIC, (Civil) Maintenance Section



- Member PMQCC, Office of Dean (P&D),

Dr. S. Pal

- Co-ordinator for BRICS NUs Programme of MHRD at NIT Durgapur
- Co-ordinator, STA, PMGSY, NRRDA, MoRD, Govt. of India
- Environmental Coordinator, TEQIP-III, NIT Durgapur

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

1. Acted as a jury member for evaluating the projects of the Online Innovative Science Model Contest 2020 organized by Regional Science Center, Bhopal during October 24 & 25, 2020

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

1. Maji, P., Modak, A. "Gandhigiri: An Attribute of Weakness or Strength?" in *Thinking through Gandhi: Examining a Century and a Half of Literary and Cultural Discourse*, edited by S. M. Yahiya Ibrahim and Basudhara Roy. (Accepted)
2. Maji, P., Modak, A. "Stay Home. Stay Safe in Danger" in *Disease and Discrimination: Sickness and the Woman Question*, edited by Sourav Kumar Nag. (Accepted)
3. Kankaria, L., Banerjee, S. (2020). "Cartographies of Indian Cinema: A Transnational Journey" in S. K. Biswal et al. (Eds.) *Handbook of Research on Social and Cultural Dynamics in Indian Cinema* (pp. 235-249). Pennsylvania: IGI Global
4. Chakraborty, D. (2020). "Socio-economic Impacts of Indian American Diaspora on the Indian Economy" in N. Chatterjee and A. Chatterjee (Eds.) *Re-theorising the Indian Subcontinental Diaspora: Old and New Directions*. Cambridge Scholars Publishing, UK, pp.24-38. ISBN (10): 1-5275-5951-3, ISBN (13): 978-1-5275-5951-6.

DEPARTMENT OF MANAGEMENT STUDIES

1. Dr. Anupam De acted as an Observer of the 'National Eligibility Cum Entrance Test, NEET (UG)-2020' conducted by National Testing Agency (NTA) held on September 13, 2020.
2. Dr. Anupam De acted as an Observer of the 'Joint CSIR-UGC NET June 2020' held on November 19, 21 & 26, 2020
3. Dr Amlan Ghosh evaluated one PhD thesis from Andhra University, Vizag, Andhra Pradesh, during academic year 2020-2021.
4. Dr Amlan Ghosh evaluated one PhD thesis from Anna University, Chennai, Tamil Nadu, during academic year 2020-2021.
5. Dr Amlan Ghosh has been invited as an expert panel to discuss the economic impact of Covid 19 (live) by a TV news channel CN Television Network, on 11th April 2020.
6. Dr Amlan Ghosh published an article entitled "India's proactive response to the Corona Virus crisis and the way forward" in "MyIndMakers", on 18th April 2020.
7. Dr Amlan Ghosh delivered a live webinar session on "Post Covid19: Indian Economy", organised by the MBA students batch 2018-2020 on 28th April 2020.
8. Dr Amlan Ghosh delivered a live webinar session on "Post Covid19: Indian Economy", organised by the MBA students batch 2018-2020 on 1st May 2020.
9. Dr Amlan Ghosh Published an editorial column "Deshar parisorei parjoton ke changa kora samvab", Uttar Banga Sambad, (Bengali daily), 14th May 2020.
10. Dr Durba Pal was invited to join as an Honorary Research Advisory Committee Member of Indian Institute of Psychometry, Calcutta-700108
11. Dr. Ujjwal Kanti Paul acted as a Presiding Officer during the recently held Assembly Election in West Bengal

**DEPARTMENT OF METALLURGICAL AND MATERIALS
ENGINEERING**

1. The Indian Institute of Metals, the largest professional body for the Metallurgy and Materials fraternity of India opened his Student affiliated Chapter in NIT Durgapur on 19th September 2020. This chapter is the first chapter opened in any NIT in India. Dr, Arup Kumar Mandal and Dr. Satadal Ghorai acting as Faculty in charge and associate faculty in charge respectively.
2. Prof. K S Ghosh. Editorial Board Members of Materials Genome Engineering (MGE).
3. Prof. K S Ghosh. Editorial Board Members of Journal of Minerals, Metals and Materials Engineering

NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR

Mahatma Gandhi Avenue, Durgapur-713209
West Bengal, INDIA

Phone: +91-343-2546397

Fax: +91-343-2547375

URL: <http://www.nitdgp.ac.in>

61st
ANNUAL ACCOUNTS
2020-2021

(April 01, 2020 – March 31, 2021)



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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BALANCE SHEET AS ON 31.3.2021

(Amount in Rupees)

SOURCES OF FUNDS	Schedule	Current Year	Previous Year
UNRESTRICTED FUNDS			
CORPUS/CAPITAL FUND	1	6,177,388,142.70	5,970,391,750.21
DESIGNATED/EARMARKED/ENDOWMENT FUNDS	2	1,574,346,558.01	1,565,040,030.01
CURRENT LIABILITIES AND PROVISIONS	3	1,126,195,169.21	962,766,416.75
TOTAL		8,877,929,869.92	8,498,198,196.97
APPLICATION OF FUNDS			
FIXED ASSETS	4		
TANGIBLE ASSETS		2,617,997,568.58	2,660,612,493.58
INTANGIBLE ASSETS		47,507,359.28	15,093,568.76
CAPITAL WORK-IN-PROGRESS		1,586,749,696.00	1,611,061,155.00
INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS	5		
LONG TERM		-	-
SHORT TERM		-	-
INVESTMENTS-OTHERS	6	2,132,589,709.00	2,045,311,725.00
CURRENT ASSETS	7	2,250,832,832.09	2,088,878,454.86
LOANS, ADVANCES & DEPOSITS	8	242,252,704.97	77,240,799.77
TOTAL		8,877,929,869.92	8,498,198,196.97

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Joint Registrar (F&A)

Registrar

Director



INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON 31.3.2021

(Amount in Rupees)

Particulars	Schedule	Current Year				Previous year	
		Unrestricted Funds			Restricted Fund	Total	Total
		Corpus	Designated fund	General fund			
INCOME							
● Academic Receipts	9	232,284,845.05				232,284,845.05	301,035,472.20
● Grants / Subsidies	10	1,131,516,742.00				1,131,516,742.00	1,472,600,000.00
● Income from Investments	11	79,934,387.00				79,934,387.00	43,867,688.00
● Interest earned	12	107,224,075.00				107,224,075.00	97,029,660.00
● Other Incomes	13	13,147,132.00				13,147,132.00	14,391,824.00
● Prior Period Income	14	-				-	-
TOTAL (A)		1,564,107,181.05				1,564,107,181.05	1,928,924,644.20
EXPENDITURE							
● Staff Payments & Benefits (Establishment Expenses)	15	960,718,132.72				960,718,132.72	1,028,350,504.00
● Academic Expenses	16	7,187,460.00				7,187,460.00	46,493,815.34
● Administrative and General Expenses	17	209,243,718.26				209,243,718.26	274,061,859.41
● Transportation Expenses	18	1,697,261.00				1,697,261.00	2,785,305.00
● Repairs & Maintenance	19	21,251,226.00				21,251,226.00	42,614,115.00
● Finance Costs	20	971,742.00				971,742.00	0.00
● Depreciation	4	138,485,528.00				138,485,528.00	118,712,448.00
● Other Expenses	21	403,600.00				403,600.00	0.00
● Prior Period Expenses	22	1,785,546.00				1,785,546.00	0.00
TOTAL (B)		1,341,744,213.98				1,341,744,213.98	1,513,018,046.75
Balance being excess of Income over Expenditure (A-B)		222,362,967.07				222,362,967.07	415,906,597.45
Transfer to/from Designated fund Building fund Others (specify)		0.00				0.00	0.00
Balance Being Surplus (Deficit) Carried to General Fund		222,362,967.07				222,362,967.07	415,906,597.45

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Joint Registrar (F&A)

Registrar

Director



RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31.03.2021

(Amount in Rupees)

RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year	Previous Year
I. Opening Balances			I. Expenses		
a) Cash Balances	-	-	a) Establishment Expenses	908,826,944.00	928,160,968.00
b) Bank Balances			b) Academic Expenses	11,490,122.00	51,119,356.34
i. In Current Account	1,906,473,480.96	1,384,813,217.93	c) Administrative Expenses	193,584,932.26	255,644,462.41
ii. In Deposit Account	12,764,716.07	8,674,985.07	d) Transportation Expenses	1,429,437.00	3,705,430.00
iii. In Savings Account	169,640,257.83	123,688,845.31	e) Repairs & Maintenances	21,215,291.00	41,806,949.00
			f) Prior period expenses	-	-
II. Grants Received			II. Payments against Earmarked/ Endowment Funds	-	1,038,840.00
a) From Government of India	1,185,016,742.00	1,721,752,000.00			
b) From State Government					
c) From other sources (details)					
III. Academic Receipts	237,600,161.05	300,859,243.20	III. Payments against Sponsored Projects/ Schemes	15,972,224.00	74,201,879.00
IV. Receipts against Earmarked/ Endowment Funds	-	-	IV. Payments against sponsored Fellowships and Scholarships	143,110,230.00	143,389,224.00
V. Receipts against Sponsored Projects/ Schemes	13,557,765.50	56,714,084.00	V. Investments and Deposits made		
			a) Out of Earmarked/ Endowments Funds	-	-
			b) Out of own funds (Investment- Others)	12,616,046.00	42,393,385.00
VI. Receipts against sponsored Fellowships and Scholarships	37,015,855.78	21,659,604.00	VI. Term Deposits with Scheduled Banks	662,400.00	492,363.00
VII. Income on Investments from:			VII. Expenditure on Fixed Assets and Capital Works-in-Progress		
a) Earmarked/ Endowment Funds	-	3,928,890.00	a) Fixed Assets	100,457,690.22	64,848,982.00
b) Other Investments	29,013,977.00	778,790.00	b) Capital Works-in-Progress	11,000,000.00	213,803,865.00
VIII. Interest received on			VIII. Other Payments including statutory payments	7,708,523.62	15,790,250.44
a) Bank Deposits	1,813,485.00	299,490.00			
b) Loans and advances	-	-			
c) Saving Bank accounts	109,187,456.00	98,439,107.00			
IX. Investments encashed	467,976.00	540,195.00	IX. Refunds of grants	-	-
X. Term Deposits with Scheduled banks encashed	-	-	X. Deposits and Advances	22,703,528.00	19,623,482.00
XI. Other Income including Prior Period Income)	8,747,334.00	10,612,095.54	XI. Other Payments	97,875,813.00	55,219,825.00
XII. Deposits and Advances	14,286,088.00	205,905,853.00	XII. Closing Balances		
			a) Cash Balances	-	-
			b) Bank Balances		
			i. In Current Account	1,949,153,530.78	1,906,473,480.96
			ii. In Deposit Account	9,867,963.07	12,764,716.07
			iii. In Savings Account	291,811,338.24	169,640,257.83
XIII. Miscellaneous Receipts including Statutory Receipts	-	479,813.00			
XIV. Any other Receipts	73,900,718.00	60,971,503.00			
	3,799,486,013.19	4,000,117,716.05		3,799,486,013.19	4,000,117,716.05

Joint Registrar (F&A)

Registrar

Director



SCHEDULE TO BALANCE SHEET AS ON 31.03.2021

SCHEDULE 1 -CORPUS

(Amount in Rupees)

	Current Year	Previous year
Balance at beginning of the year	5,970,391,750.21	5,291,981,577.76
Add: Contribution towards Corpus /Capital Fund	85,747,523.30	262,503,575.00
Add: Grants from UGC, Government of India and State Government to the extent utilized for Capital Expenditure	-	-
Add: Assets Purchased out of Earmarked Funds	-	-
Add: Assets Purchased out of Sponsored Projects , Where ownership vests in the institution	-	-
Add: Assets Donated/Gifts Received	-	-
Add: Others Additions	-	-
Less: Balance amount transferred to General Provident Fund Account	101,114,097.88	-
Total	5,955,025,175.63	5,554,485,152.76
Add: Surplus Transferred from Income & Expenditure Accounts	222,362,967.07	415,906,597.45
BALANCE AS AT THE YEAR END	6,177,388,142.70	5,970,391,750.21

SCHEDULE - 2 - DESIGNATED/EARMARKED FUNDS

(Amount in Rupees)

	FUND WISE BREAK UP			TOTAL	
	Donation Fund	Others	Endowment Fund	Current Year	Previous Year
a) Opening Balance of the Fund	2,785,837.50	-	209,372,110.03	1,352,882,082.48	1,565,040,030.01
b) Addition to the Funds					
i. Donation/grant	-	-	-	-	-
ii. Income from Investment made of the funds	174,886.00	-	12,129,570.00	12,304,456.00	12,774,459.00
iii. Accrued interest on investments of the funds	-	-	-	-	-
iv. Other additions (specify nature)	-	-	-	-	-
TOTAL (a+b)	2,960,723.50	-	221,501,680.03	1,352,882,082.48	1,565,040,030.01
c) Utilisation/Expenditure towards objectives of funds					
i. Capital Expenditure					
- Fixed Assets	-	-	-	-	-
- Others	30,319.00	-	2,967,609.00	2,997,928.00	1,038,840.00
TOTAL	30,319.00	-	2,967,609.00	2,997,928.00	1,038,840.00
ii. Revenue Expenditure					
- Salaries, Wages and Allowances etc.	-	-	-	-	-
- Rent	-	-	-	-	-
- Other Administrative expenses	-	-	-	-	-
TOTAL	-	-	-	-	-
TOTAL (c)	30,319.00	-	2,967,609.00	2,997,928.00	1,038,840.00
CLOSING BALANCE AS AT THE YEAR END (a+b-c)	2,930,404.50	-	218,534,071.03	1,352,882,082.48	1,565,040,030.01



SCHEDULE TO BALANCE SHEET AS ON 31.03.2021

SCHEDULE - 2A - ENDOWMENT FUNDS

	FUND WISE BREAK UP			TOTAL	
	Grant from GOI	IT Fund	Other Scholarship	Current Year	Previous Year
a) Opening Balance of the Fund	1,333,736,508.27	7,003,661.63	12,141,912.58	1,352,882,082.48	1,352,882,082.48
b) Addition to the Funds					
i. Donation/grant	-	-	-	-	-
ii. Income from Investment made of the funds	-	-	-	-	-
iii. Accrued interest on investments of the funds	-	-	-	-	-
iv. Other additions (transferred)	-	-	-	-	-
TOTAL (a+b)	1,333,736,508.27	7,003,661.63	12,141,912.58	1,352,882,082.48	1,352,882,082.48
c) Utilisation/Expenditure towards objectives of funds					
i. Capital Expenditure					
- Fixed Assets	-	-	-	-	-
- Others	-	-	-	-	-
TOTAL	-	-	-	-	-
ii. Revenue Expenditure					
- Salaries, Wages and Allowances etc.	-	-	-	-	-
- Rent	-	-	-	-	-
- Other Administrative expenses	-	-	-	-	-
TOTAL	-	-	-	-	-
TOTAL(c)	-	-	-	-	-
NET BALANCE AS AT THE YEAR-END (a+b-c)	1,333,736,508.27	7,003,661.63	12,141,912.58	1,352,882,082.48	1,352,882,082.48

SECURED LOAN

	(Amount in Rupees)	
	Current Year	Previous Year
1. Central Government	-	-
2. State Government (Specify)	-	-
3. Financial Institutions		
a) Term Loans	-	-
b) Interest accrued and due	-	-
4. Banks:		
a) Term Loans		
- Interest accrued and due	-	-
b) Other Loans (Specify)		
- Interest accrued and due	-	-
5. Other Institutions and Agencies	-	-
6. Debentures and Bonds	-	-
7. Others (Specify)	-	-
TOTAL	-	-
Note: Amounts due within one year	NIL	NIL



SCHEDULE TO BALANCE SHEET AS ON 31.03.2021

UNSECURED LOANS

(Amount in Rupees)

	Current Year	Previous Year
1. Central Government	-	-
2. State Government (Specify)	-	-
3. Financial Institutions	-	-
4. Banks:	-	-
a) Term Loans	-	-
b) Other Loans (Specify)	-	-
5. Other Institutions and Agencies	-	-
6. Debentures and Bonds	-	-
7. Fixed Deposits	-	-
8. Others (Specify)	-	-
TOTAL	-	-
Note: Amounts due within one year		

SCHEDULE 3- CURRENT LIABILITIES & PROVISIONS

(Amount in Rupees)

	Current Year	Previous Year
A. CURRENT LIABILITIES		
1. Deposits from Staff	2,508,093.51	2,705,730.51
2. Deposits from Students	14,265,611.88	14,265,611.88
3. Sundry Creditors		
a) For Goods & Services	22,895,039.42	30,510,551.42
b) Others	1,572,777.28	1,572,777.28
4. Advances Received	-	-
5. Interest accrued but not due on:		
a) Secured Loans / borrowings	-	-
b) Unsecured Loans / borrowings	-	-
6. Statutory Liabilities(GPF, TDS, WC TAX, CPF, GIS, NPS):		
a) Overdue	-	-
b) Others	169,283.00	474,859.21
7. Other Current liabilities		
a) Salaries	79,221,118.62	87,837,888.62
b) Receipts against sponsored projects	56,124,258.78	28,842,097.56
c) Receipts against sponsored fellowships & scholarships	-	37,962.43
d) Unutilised Grants	-	-
e) Grants in advance	-	-
f) Other funds	942,875,860.72	787,561,906.84
g) Secured Loan	5,823,172.00	7,323,172.00
h) Other Liabilities	739,954.00	1,633,859.00
TOTAL (A)	1,126,195,169.21	962,766,416.75
B. PROVISIONS		
1. For Taxation	-	-
2. Gratuity	-	-
3. Super Annuation/Pension	-	-
4. Accumulated leave Encashment	-	-
5. Expenses payable	-	-
6. Trade Warranties/Claims	-	-
7. Others (Specify)	-	-
TOTAL (B)	-	-
TOTAL (A+B)	1,126,195,169.21	962,766,416.75



SCHEDULE 3A : SPONSORED PROJECTS FOR THE FINANCIAL YEAR 2020-21

Sr No.	Name of the Project	Opening Balance		Receipts Recoveries during the Year	Total	Expenditure during the Year	Closing Balance	
		Credit	Debit				Credit	Debit
1	Investigation of functional interrelations of bZIP transcription factors: ZBF2/GBF1, HY5 and HYH of light signaling pathways in Arabidopsis thaliana	183,450.00	0.00	1,500,000.00	1,683,450.00	1543867.00	139,583.00	0.00
2	Programme Support on Genome Engineering of Tomato (Cloning and functional characterization of GBF1/ZBF2 in tomato.	972,959.00	0.00	0.00	972,959.00	520680.00	452,279.00	0.00
3	Magnetoconvection of low Prandtl number fluids.	32,756.00	0.00	0.00	32,756.00	18598.00	14,158.00	0.00
4	Investigation of the modulation of transcriptional regulation of CAM7 by COP1 and Ca++/ Mg++ during Arabidopsis seedling development.	257,287.00	0.00	0.00	257,287.00	257287.00	0.00	0.00
5	Investigation of the molecular mechanism of MKK3, MPK6-MYC2 module in Arabidopsis seedling development.	436,838.00	0.00	0.00	436,838.00	95918.00	340,920.00	0.00
6	Dispersion of modified starch onto polymer matrix towards enhancement of its biodegradability to reduce the solid waste generation.	5,867.00	0.00	320,560.00	326,427.00	312183.00	14,244.00	0.00
7	Phenomenology of Z' Boson, B Meson Decays, Higgs Boson and New Physics.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	To develop and fabricate an efficient TiO2 nanowire array based UV detector using plasmonic nanoparticles array.	17,973.00	0.00	489,677.00	507,650.00	470120.00	37,530.00	0.00
9	Chemically Modified Polysaccharides linked to Schiff Base Ligand- Metal Complex: a Novel Approach of Investigation towards Antioxidant and Antitumor Activities,	126,745.00	0.00	0.00	126,745.00	123221.00	3,524.00	0.00
10	Investigation on the extracts of swertia chirata, Butea monosperma, Tradescantia pallida and madhuca indica as green corrosion inhibitors for mild steel in acidic medium	207,794.00	0.00	0.00	207,794.00	0.00	207,794.00	0.00
11	Fish fat transformation during processing preservation, braising and its nutritional consequences in terms of food value,	546,904.00	0.00	0.00	546,904.00	397218.00	149,686.00	0.00


SCHEDULE 3A : SPONSORED PROJECTS FOR THE FINANCIAL YEAR 2020-21 (Contd...)

(Amount in Rupees)

Sr No.	Name of the Project	Opening Balance		Receipts Recoveries during the Year	Total	Expenditure during the Year	Closing Balance	
		Credit	Debit				Credit	Debit
12	Development of highly efficient microwave absorber through controlled fluorescent nanoparticle localization in an immiscible polymer blend.	0.00	0.00	52,181.00	52,181.00	52,181.00	0.00	0.00
13	Control of multi-input converter for hybrid wind solar battery based system,	53,200.00	0.00	0.00	53,200.00	53,200.00	0.00	0.00
14	Microbiology of deep granitic subsurface of Koyana-Warna region,	272,964.00	0.00	32,947.45	305,911.45	93853.00	212,058.45	0.00
15	Synthesis of Pharmacologically Active Heterocyclic Compounds via One Pot Three Component Coupling Reaction Catalyzed by Bio-Inspired Nanoparticles.	671,730.00	0.00	0.00	671,730.00	182194.00	489,536.00	0.00
16	Development of doubly-even self-dual binary codes of length 24k	350,000.00	0.00	0.00	350,000.00	34600.00	315,400.00	0.00
17	Process Intensification of Biodiesel Synthesis from Non-edible Oil via Superheated Propanol Injection Technique,	95,894.00	0.00	0.00	95,894.00	94735.00	1,159.00	0.00
18	Development of self lubricating nano-composite for wear-resistant applications,	124,708.00	0.00	0.00	124,708.00	0.00	124,708.00	0.00
19	Light signaling under abiotic stress environment with special reference to the regulation of glyoxalase I/II family of genes in rice and Arabidopsis,	1,174,146.00	0.00	0.00	1,174,146.00	218043.00	956,103.00	0.00
20	Reclamation of Steel Industry Wastewater through Phycoremediation Technique Using Microalgae and Assessment of Biofuel Production from Algal Biomass,	52,800.00	0.00	452,000.00	504,800.00	402500.00	102,300.00	0.00
21	Evaluation of the role of vitamin D in obesity cardiovascular disease and diabetes using SiO ₂ /TiO ₂ nanowire based sensor,	680,202.00	0.00	107,436.00	787,638.00	787638.00	0.00	0.00
22	Development and characterization of magneto dielectric materials for the use of substrates in antenna miniaturization,	168,611.00	0.00	0.00	168,611.00	137025.00	31,586.00	0.00
23	Development of noble metal free electro catalyst for direct oxidation of ethylene glycol in direct ethylene glycol fuel cell (DEGFC),	253,084.00		233,500.00	486,584.00	486584.00	0.00	0.00



SCHEDULE 3A : SPONSORED PROJECTS FOR THE FINANCIAL YEAR 2020-21 (Contd...)

Sr No.	Name of the Project	Opening Balance		Receipts Recoveries during the Year	Total	Expenditure during the Year	Closing Balance	
		Credit	Debit				Credit	Debit
24	Development of Novel time Modulated Antenna Arrays for the Present Communication Systems,	379,458.00	0.00	0.00	379,458.00	154864.00	224,594.00	0.00
25	Design and Development of crack detection system in steel bridges using acoustic emission technique,	415,698.00	0.00	17,993.00	433,691.00	144020.00	289,671.00	0.00
26	An early warning System for Electrical Power System Utility Using Ultra-high Frequency Sensors,	419,585.00	0.00	311,364.00	730,949.00	566747.00	164,202.00	0.00
27	Engineering of cellulase enzymes of aspergillus fumigates NITDGPKA3 for enhancing their activity,	62,362.00	0.00	0.00	62,362.00	0.00	62,362.00	0.00
28	Development of compliant actuators with mechanical impedance variability.	128,278.00	0.00	0.00	128,278.00	0.00	128,278.00	0.00
29	Role of protein arginylation in cellular stress responses: A study using heat stress and oxidative models in arginylation deficient cell culture system.	63,238.00	0.00	0.00	63,238.00	63238.00	0.00	0.00
30	Improvement of smart microgrid flexibility and power quality using phasor measurement unit.	200,000.00	0.00	13,106.00	213,106.00	0.00	213,106.00	0.00
31	Design and Implementation of Time Modulated Antenna Arrays with Optimal Radiation Pattern in Both Transmission and Reception,	123,393.00	0.00	510,673.00	634,066.00	527329.00	106,737.00	0.00
32	Developing ICT-based kiosks for post disaster situational information management using opportunistic networking framework. (DST-WB KIOSK),	307,654.00	0.00	0.00	307,654.00	252840.00	54,814.00	0.00
33	Searching of less toxic and more effective Cis-platin based new Pt (II) anticancer agents: Kinetics, DNA binding, bio-activity and DFT study,	45,749.00	0.00	0.00	0.00	45749.00	0.00	0.00
34	Synthesis and characterization of Cis-platin based Pt/Pd(II) complexes: Their kinetics, mechanism, DNA- binding property and theoretical study,	9,476.00	0.00	518,873.00	528,349.00	417346.00	111,003.00	0.00
35	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,	1,712,146.00	0.00	650,000.00	2,362,146.00	1883739.00	478,407.00	0.00
36	Search for effective corrosion inhibitors based on benzothiazole derivatives: combined experimental and theoretical approach to establish structure reactivity relationship.	50,840.00	0.00	0.00	50,840.00	46154.00	4,686.00	0.00



SCHEDULE 3A : SPONSORED PROJECTS FOR THE FINANCIAL YEAR 2020-21 (Contd...)

(Amount in Rupees)

Sr No.	Name of the Project	Opening Balance		Receipts Recoveries during the Year	Total	Expenditure during the Year	Closing Balance	
		Credit	Debit				Credit	Debit
37	Overstability in Rotating Magnetoconvection, Study on metric fixed point results with possible applications,	180,000.00	0.00	0.00	180,000.00	94006.00	85,994.00	0.00
38	Design of Light weight and cost effective PUF-enabled secure architecture for Authentication and FPGA application.	146,182.00	0.00	0.00	146,182.00	75278.00	70,904.00	0.00
39	Emerging Contaminants and their accumulation in ecosystem of lower stretch of Hooghly River,	133,142.00	0.00	0.00	133,142.00	105687.00	27,455.00	0.00
40	Investigation of functional connection between cAMP- dependent signalling pathway and MoWISH, a gene encoding a novel GPCR in rice blast fungus,	10,704.00	0.00	0.00	10,704.00	2000.00	8,704.00	0.00
41	Design of Light weight and cost effective PUF- enabled secure architecture for FPGA based IoT applications,	2,145,889.00	0.00	0.00	2,145,889.00	1668634.00	477,255.00	0.00
42	Dielectric Engineering on GaN for sustainable energy application,	438,533.00	0.00	500,000.00	938,533.00	445534.00	492,999.00	0.00
43	Resistive Random Access Memory using HfO2 based Hetero-structures for Flexible Electronics ,	160,101.00	0.00	0.00	160,101.00	160101.00	0.00	0.00
44	Prospects and study of floating offshore wind turbine (FOWT) platforms for wind energy harnessing,	839,070.00	0.00	191,380.00	1,030,450.00	848345.80	182,104.20	0.00
45	MCM3AP: A novel phases replication checkpoint protein and its relation to fanconi anemia protein,	154,971.00	0.00	0.00	154,971.00	0.00	154,971.00	0.00
46	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,	712,928.00	0.00	0.00	712,928.00	694632.00	18,296.00	0.00
47	ADKIT: Smartphone Based Artificial Intelligence Enabled Portable Low-cost Anaemia Detection Kit based on Observation of Nail and Palm Pallor,	644,110.00	0.00	0.00	644,110.00	468111.00	175,999.00	0.00
48	Forwards-osmosis integrated membrane distillation coupled,	559,881.00	0.00	958,000.00	1,517,881.00	986128.00	531,753.00	0.00
49	Investigation of thermo-hydraulic performance of artificially Roughened Solar air heater Using Infrared Thermography Technique,	590,420.00	0.00	0.00	590,420.00	529282.00	61,138.00	0.00
50		905,000.00	0.00	0.00	905,000.00	205442.00	699,558.00	0.00



SCHEDULE 3A : SPONSORED PROJECTS FOR THE FINANCIAL YEAR 2020-21 (Contd...)

(Amount in Rupees)

Sr No.	Name of the Project	Opening Balance		Receipts Recoveries during the Year	Total	Expenditure during the Year	Closing Balance	
		Credit	Debit				Credit	Debit
51	Dual Hamming distance of two weighted codes from trace codes over a chain ring,	156,414.00	0.00	0.00	156,414.00	109630.00	46,784.00	0.00
52	Development and characterization of functionalized carbon nanotubes-polymer nanocomposites having enhanced dielectric properties for charge storage device,	487,205.00	0.00	0.00	487,205.00	487201.00	4.00	0.00
53	Synthesis of semiconductor and metal nanostructures and the investigation of their role as active or passive scatterer in random laser generation,	465,438.00	0.00	0.00	465,438.00	413596.00	51,842.00	0.00
54	Microbial production of lactic acid using wastes (dairy waste & rice straw) as substrates, for the production of bio plastic,	359,030.00	0.00	0.00	359,030.00	210441.00	148,589.00	0.00
55	Environmental geochemistry and treatment of organic pollutants in aquatic system in the selected areas of China, India and Russia,	1,163,620.00	0.00	1,101,220.00	2,264,840.00	1243227.00	1,021,613.00	0.00
56	Design of a smart material based soft lower limb exoskeleton to assist soldier,	1,147,339.00	0.00	0.00	1,147,339.00	125000.00	1,022,339.00	0.00
57	Nonlinear waves and structures in dusty and quantum plasma,	96,198.00	0.00	0.00	96,198.00	31000.00	65,198.00	0.00
58	Center for Technological Excellence on Water Purification (CTEWP),	723,969.00	0.00	645,000.00	1,368,969.00	954822.00	414,147.00	0.00
59	Development of Al-Mg2Si composite novel equal channel angular squeeze casting (ECASC) technique,	2,220,177.50	0.00	225,000.00	2,445,177.50	2234420.00	210,757.50	0.00
60	An approach towards conservation of birds of West Bengal through cresting an intelligent bird identification system,	166,790.00	0.00	0.00	166,790.00	166238.00	552.00	0.00
61	Design and development of force reflecting hand exoskeleton (Haptic device) for application in remote handling in defence,	694,494.00	0.00	0.00	694,494.00	36000.00	658,494.00	0.00
62	Development of hybrid numerical tools to study the electrokinetic transport of vio-collodis,	216,513.00	0.00	0.00	216,513.00	15582.00	200,931.00	0.00
63	Role of adenosine monophosphate activated protein kinase (AMPK) activators in reducing cancer cell aggressiveness.	348,161.00	0.00	0.00	348,161.00	115276.00	232,885.00	0.00



SCHEDULE 3A : SPONSORED PROJECTS FOR THE FINANCIAL YEAR 2020-21 (Contd...)

Sr No.	Name of the Project	Opening Balance		Receipts Recoveries during the Year	Total	Expenditure during the Year	Closing Balance	
		Credit	Debit				Credit	Debit
64	Investigation of corrosion inhibition of newly synthesized green corrosion inhibitors against mild steel in acidic medium,	2,787,340.34	0.00	0.00	2,787,340.34	1727887.00	1,059,453.34	0.00
65	IntAirSense: intelligent air pollution monitoring for smart cities using low-cost sensors,,	533,661.00	0.00	0.00	533,661.00	517196.00	16,465.00	0.00
66	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.	22,409.00	0.00	0.00	22,409.00	18659.00	3,750.00	0.00
67	Understanding the old ate financial stress and retirement planning of workers in the unorganized sector in India,	173,270.00	0.00	240,000.00	413,270.00	208333.00	204,937.00	0.00
68	Understanding Host-Circuit Interaction & Resource Sharing in Synthetic Biology,	574,085.00	0.00	700,000.00	1,274,085.00	214516.00	1,059,569.00	0.00
69	Study of heat Transfer Enhancement with the Application of various Nano fluids in a Differentially Heated Cavity,	50,000.00	0.00	0.00	50,000.00	49983.00	17.00	0.00
70	The social Impact of Corporate social Responsibilities of the Major Public Sector Undertakings in India:A case study of west Bengal,	360,000.00	0.00	0.00	360,000.00	75926.00	284,074.00	0.00
71	Universal advanced low cost nono-hybrid platform for air pollution, water and bio-fluids,	713,042.00	0.00	1,469,000.00	2,182,042.00	666503.00	1,515,539.00	0.00
72	Determining the role of the gastric microbiota in Helicobacter pylori infection to utilize it for the development of a probiotic therapy.	1,064,276.00	0.00	600,000.00	1,664,276.00	996446.00	667,830.00	0.00
73	Design of modular peptide nanotubes platforms by self assembly of shortes helical building blocks for application as ion channel mimic.	1,740,000.00	0.00	0.00	1,740,000.00	727302.00	1,012,698.00	0.00
74	Molecular characterization of a small molecule best reprogramming of non-adipocyte cells to brown adipocyps for its potential use as anty obesity drug.	1,873,650.00	0.00	0.00	1,873,650.00	1850848.00	22,802.00	0.00
75	Regulation ofn mcp-1-induced calcium – independent phospholipase A2(pla2)dependent monocyte migration.	1,789,534.00	0.00	0.00	1,789,534.00	1082111.00	707,423.00	0.00



SCHEDULE 3A : SPONSORED PROJECTS FOR THE FINANCIAL YEAR 2020-21 (Contd...)

Sr No.	Name of the Project	Opening Balance		Receipts Recoveries during the Year	Total	Expenditure during the Year	Closing Balance	
		Credit	Debit				Credit	Debit
76	28 GHz mmWave for 5G wireless in tropical region short range propagation and channel modeling,, Development of some 2D Transition Metal Dichalcogenide semiconductor Nanostructures and Nanostructures and Nanocomposites for Photocatalytic Dye Degradation, Light Energy Harvesting and Hydrogen Production,, Development of Al-Si alloys with and without grain refiner or eutectic modifier by strain induced melt activation process,,	1,628,255.00	0.00	0.00	1,628,255.00	0.00	1,628,255.00	0.00
77		1,052,200.00	0.00	0.00	1,052,200.00	1046703.00	5,497.00	0.00
78		1,454,900.00	0.00	0.00	1,454,900.00	50516.00	1,404,384.00	0.00
79	Template Based Fabrication for Development of Various Micro Nano Structured surfaces and Their Characterization,, Development of Assembly Auto Alignment Methodology.	2,081,661.00	0.00	0.00	2,081,661.00	0.00	2,081,661.00	0.00
80		971,728.00	0.00	0.00	971,728.00	0.00	971,728.00	0.00
81	Extreme events in networks of dynamical systems,, Development of Flexible Environmental Gas Sensor based on 2D MOS2 Nanosheets,, The impact of various Biochars on the bio-accessibility and bio-accumulation of polycyclic aromatic hydrocarbons (PAHs) and potentially toxic elements (PTEs) in contaminated soil,, A study on the water molecular dynamics of human Monoamine oxidase (hMAO): An attempt for Inhibitor Design,, Functional interrelation of ZBF1/MYC2 and FLC in Arabidopsis seedling development and flowering time,, DST-FIST Program 2018	493,809.00	0.00	0.00	493,809.00	45000.00	448,809.00	0.00
82		1,945,670.00	0.00	0.00	1,945,670.00	1541097.00	404,573.00	0.00
83		0.00	0.00	36,052.00	36,052.00	36052.00	0.00	0.00
84		90,545.00	0.00	1,442.00	91,987.00	91987.00	0.00	0.00
85		365,602.00	0.00	996,937.00	1,362,539.00	1066002.00	296,537.00	0.00
86		13,500,000.00		32,500.00	13,532,500.00	0.00	13,532,500.00	0.00
87	Tailoring The architecture of microstructure in Al-based Al-Cu-Ni alloys to improve the mechanical Properties.	2,955,529.00	0.00	0.00	2,955,529.00	108500.00	2,847,029.00	0.00
88	IL-2Ryc is a critical determinant factor of alternative activation of monocytes and monocyte-macrophage differentiation,, Effect of Y203 Addition an oxidation Behavior of pressure-less sintered ZrB2-Sic composite.	134,300.00	0.00	537,200.00	671,500.00	630170.00	41,330.00	0.00
89		1,714,779.00	0.00	0.00	1,714,779.00	142870.00	1,571,909.00	0.00

SCHEDULE 3A : SPONSORED PROJECTS FOR THE FINANCIAL YEAR 2020-21 (Contd...)

(Amount in Rupees)

Sr No.	Name of the Project	Opening Balance		Receipts Recoveries during the Year	Total	Expenditure during the Year	Closing Balance	
		Credit	Debit				Credit	Debit
90	artificial Intelligence (AI) in Education Focus : Children with Learning Disability.	4,653,000.00	0.00	0.00	4,653,000.00	650629.00	4,002,371.00	0.00
91	Study of quantum hall Effect, High Energy Physics Phenomena and Mechanical Properties of Graphene.	345,000.00	0.00	0.00	345,000.00	155588.00	189,412.00	0.00
92	Neurocomputing and Cognitive Intelligence: Developing a model for analysing the reading disability of the Dylexic Child,	2,651,000.00	0.00	0.00	2,651,000.00	2062471.00	588,529.00	0.00
93	FIST Program of DST,Gol,	0.00	0.00	3,950,000.00	3,950,000.00	3409736.00	540,264.00	0.00
94	UltraCold chemistry of molecular ions	1,699,643.00	0.00	0.00	1,699,643.00	1331229.00	368,414.00	0.00
95	Improved Energy Management and Control of a Hybrid UGV for combat use	0.00	0.00	4,732,000.00	4,732,000.00	5000.00	4,727,000.00	0.00
96	Connected Smart Health Services for Rural India(Multi Institution Project)	0.00	0.00	171000	171,000.00	0.00	171,000.00	0.00
97	Visvesvaraya PhD Scheme for Electronics & IT 2014-2015 @ 2015-2016 Batch.	7,755,177.80	0.00	1852027	9,607,204.80	8350399.51	1,256,805.29	0.00
	Total	83,644,134.64	0.00	24,149,068.45	107,747,454.09	51,668,944.31	56,124,258.78	0.00





SCHEDULE TO BALANCE SHEET AS ON 31.03.2021

SCHEDULE 4- FIXED ASSETS

DESCRIPTION	GROSS BLOCK				DEPRECIATION			NET BLOCK	
	Cost as on 01.04.2020	Addition during the year	Deductions during the year	Total cost as on 31.03.2021	Opening Depreciation as on 01.04.2020	On Additions during the year	On Deductions during the year	As at the current year end	As at the previous year end
(Amount in Rupees)									
I. Land:									
a) Freehold	10,305,688.62	-	-	10,305,688.62	-	-	-	10,305,688.62	10,305,688.62
b) Leasehold									
II. Buildings:									
a) On Freehold Land	2,757,923,204.44	-	-	2,757,923,204.44	684,714,971.79	46,161,170.00	-	2,027,047,062.65	2,073,208,232.65
b) On Leasehold Land									
c) Ownership Flats/ Premises									
d) Superstructures on Land not belonging to educational institutions									
III. Plant, Machineries & Equip.	334,734,237.22	25,223,763.00	-	359,958,000.22	232,408,956.50	7,569,968.00	-	119,979,075.72	102,325,280.72
IV. Vehicles	1,749,958.22	-	-	1,749,958.22	1,749,957.22	-	-	1.00	1.00
V. Furniture & Fixture	237,573,298.28	8,729,600.00	-	246,302,898.28	102,372,168.33	13,795,723.00	-	130,135,006.95	135,306,002.95
VI. Office Equipment	1,131,705.95	-	-	1,131,705.95	882,431.28	26,708.00	-	222,566.68	249,274.68
VII. Computer / Peripherals	107,566,931.42	18,078,465.00	-	125,645,396.42	92,069,565.79	11,065,939.00	-	22,509,891.63	15,489,446.63
VIII. Electrical Installations	77,071,505.91	-	-	77,071,505.91	43,441,196.78	2,233,549.00	-	31,396,760.13	33,630,309.13
IX. Library Books	212,655,507.75	1,082,187.00	-	213,737,694.75	107,546,893.53	14,778,929.00	-	91,411,872.22	105,108,614.21
X. Tube wells & water supply	-	-	-	-	-	-	-	-	-
XI. Other Fixed Assets	-	-	-	-	-	-	-	-	-
A. Total of Current Year	3,740,712,037.81	53,114,015.00	-	3,793,826,052.81	1,265,186,141.22	95,631,986.00	-	2,433,007,925.59	2,475,622,850.58
XII. Capital Work-in-progress		86,447,600.00	827,858,491.00	(741,410,891.00)					
Transfer to Assets	-	-	-	-					
B. Net Work in Progress				(741,410,891.00)					
TOTAL (A+B)	3,740,712,037.81	139,561,615.00	827,858,491.00	3,052,415,161.81	1,265,186,141.22	95,631,986.00	-	2,433,007,925.59	2,475,622,850.58
C. TEQIP Assets									
Building (TEQIP-I)	9,897,307.00	-	-	9,897,307.00	-	-	-	9,897,307.00	9,897,307.00
Equipment (TEQIP-I)	155,065,026.00	-	-	155,065,026.00	-	-	-	155,065,026.00	155,065,026.00
Vehicle (TEQIP-I)	515,937.00	-	-	515,937.00	-	-	-	515,937.00	515,937.00
Furniture (TEQIP-I)	7,998,127.00	-	-	7,998,127.00	-	-	-	7,998,127.00	7,998,127.00
Library Books (TEQIP-I)	11,513,246.00	-	-	11,513,246.00	-	-	-	11,513,246.00	11,513,246.00
TOTAL (C)	184,989,643.00	-	-	184,989,643.00	-	-	-	184,989,643.00	184,989,643.00
TOTAL (A+B+C)	3,925,701,680.81	53,114,015.00	-	3,978,815,695.81	1,265,186,141.22	95,631,986.00	-	2,617,997,568.58	2,660,612,493.58

SCHEDULE TO BALANCE SHEET AS ON 31.03.2021

8. Capital Work In Progress

(Amount in Rupees)					
Particulars	Op.bal as on 31.03.2020	Addition during Apr-Sep	Addition during Oct-Mar	Deletion during the year	Balance as on 31.03.2021
Const of Boys Hostel 1250 Seated	765,000,000.00	120,000,000.00	-	-	885,000,000.00
Renovation of Work Shop	-	-	-	-	-
Confn.main gate & guard office	422,879.00	-	-	-	422,879.00
CPWD Projects	588,013,465.00	51,774,952.00	-	206,261,600.00	433,526,817.00
Construction of VIP Guest House	-	-	-	-	-
Construction of hostel annx exist hostel	-	-	-	-	-
Construction of Auditorium	256,138,400.00	11,661,600.00	-	-	267,800,000.00
Renovation of Academic Building	1,486,411.00	-	-	1,486,411.00	-
500 Seated Girls Hostel	-	-	-	-	-
TOTAL	1,611,061,155.00	183,436,552.00	-	207,748,011.00	1,586,749,696.00

Assets Head	GROSS BLOCK			DEPRECIATION				NET BLOCK		
	Cost as on 01.04.2020	Addition during the year	Deductions during the year	Total cost as on 31.03.2021	Opening Depreciation as on 01.04.2020	On Additions during the year	On Deductions during the year	Total up to the year end	As at the current year end	As at the previous year end
Intangible Assets										
Computer Software	-	-	-	-	-	-	-	-	-	-
E-Journals	77,191,643.00	75,267,332.52		152,458,975.52	62,098,074.24	42,853,542.00		104,951,616.24	47,507,359.28	15,093,568.76
Patents	-	-								
TOTAL	77,191,643.00	75,267,332.52	-	152,458,975.52	62,098,074.24	42,853,542.00	-	104,951,616.24	47,507,359.28	15,093,568.76





8. Capital Work In Progress

Particulars	Op.bal as on 31.03.2020	Addition during Apr-Sep	Addition during Oct-Mar	Deletion during the year	Balance as on 31.03.2021
Const of Boys Hostel 1250 Seated	765,000,000.00	120,000,000.00	-	-	885,000,000.00
Renovation of Work Shop	-	-	-	-	-
Contn.main gate & guard office	422,879.00	-	-	-	422,879.00
CPWD Projects	588,013,465.00	51,774,952.00	-	206,261,600.00	433,526,817.00
Construction of VIP Guest House	-	-	-	-	-
Construction of hostel annx exist hostel	-	-	-	-	-
Construction of Auditorium	256,138,400.00	11,661,600.00	-	-	267,800,000.00
Renovation of Academic Building	1,486,411.00	-	-	1,486,411.00	-
500 Seated Girls Hostel	-	-	-	-	-
TOTAL	1,611,061,155.00	183,436,552.00	-	207,748,011.00	1,586,749,696.00

Assets Head	GROSS BLOCK			DEPRECIATION				NET BLOCK		
	Cost as on 01.04.2020	Addition during the year	Deductions during the year	Total cost as on 31.03.2021	Opening Depreciation as on 01.04.2020	On Additions during the year	On Deductions during the year	Total up to the year end	As at the current year end	As at the previous year end
Computer Software	-	-	-	-	-	-	-	-	-	-
E- Journals	77,191,643.00	75,267,332.52	-	152,458,975.52	62,098,074.24	42,853,542.00	-	104,951,616.24	47,507,359.28	15,093,568.76
Patents	-	-	-	-	-	-	-	-	-	-
TOTAL	77,191,643.00	75,267,332.52	-	152,458,975.52	62,098,074.24	42,853,542.00	-	104,951,616.24	47,507,359.28	15,093,568.76



SCHEDULE TO BALANCE SHEET AS ON 31.03.2021

SCHEDULE 4B-NON PIAN

S. No.	Assets Heads	Op. Balance 01.04.20	Gross Block			Depreciation for the Year 2020-21				Net Block 3/31/2021
			Additions	Deductions	Cl. Balance	Dep. Opening Balance	Dep. for the Year	Deduction/ Adjustment	Total Depreciation	
1	Land									
2	Site Development									
3	Buildings									
4	Roads & Bridges									
5	Tubewells & Water Supply									
6	Sewerage & Drainage									
7	Electrical Installation and equipment									
8	Plant & Machinery									
9	Scientific & Laboratory Equipment									
10	Office Equipment									
11	Audio Visual Equipment									
12	Computers & Peripherals									
13	Furniture, Fixtures & Fittings									
14	Vehicles									
15	Lib. Books & Scientific Jouranls									
16	Small Value Assets									
	Total (A)									
17	Capital Work in Progress (B)									

NIL

S. No.	Assets Heads	Op. Balance 01.04.20	Additions	Deductions	Cl. Balance	Dep. Opening Balance	Dep. for the Year	Deduction/ Adjustment	Total Depreciation	3/31/2021
18	Computer Software									
19	E-Journals									
20	Patents									
	Total (C)									
	Grand Total (A+B+C)									

SCHEDULE 4C- INTANGIBLE ASSETS

SCHEDULE 4C (i)- PATENTS AND COPYRIGHTS



SCHEDULE TO BALANCE SHEET AS ON 31.03.2021

SCHEDULE 5- INVESTMENTS FROM EARMARKED/ ENDOWMENT FUNDS

(Amount in Rupees)

	Current Year	Previous Year
1. In Central Government Securities	-	-
2. In State Government Securities	-	-
3. Other Approved Securities	-	-
4. Shares	-	-
5. Debentures and Bonds	-	-
6. Others (to be specified)	-	-
TOTAL	-	-

SCHEDULE 6- INVESTMENTS - OTHERS

(Amount in Rupees)

	Current Year	Previous Year
1. In Central Government Securities	-	-
2. In State Government Securities	-	-
3. Other Approved Securities	-	-
4. Shares	-	-
5. Debentures and Bonds	-	-
6. Others (to be specified)	2,132,589,709.00	2,045,311,725.00
TOTAL	2,132,589,709.00	2,045,311,725.00

SCHEDULE 7- CURRENT ASSETS

(Amount in Rupees)

	Current Year	Previous Year
1. Stock:		
a. Stores & Spares	-	-
b. Loose Tools	-	-
c. Publications	-	-
2. Sundry Debtors:		
a) Debts outstanding for a period exceeding six months	-	-
b) Others	-	-
3. Cash Balance in hand (Incl. cheques draft and imprest)	-	-
4. Bank Balances: (to be further classified as pertaining to earmarked fund or otherwise)		
a) With Schedule Banks-	2,250,832,832.09	2,088,878,454.86
- In current accounts	-	-
- In term deposit accounts	-	-
- In savings accounts	-	-
b) With non-schedule Banks		
- In current accounts	-	-
- In term deposit accounts	-	-
- In savings accounts	-	-
4. Post-Office Savings A/C		
TOTAL	2,250,832,832.09	2,088,878,454.86



SCHEDULE TO BALANCE SHEET AS ON 31.03.2021

SCHEDULE 8 - LOANS, ADVANCES & DEPOSITS

(Amount in Rupees)

	Current Year		Previous Year	
1. Advances to employees: (Non- interest bearing)			-	
a) Salary	25,21,203.09		58,70,294.09	
b) Festival	2,39,719.39		2,39,719.39	
c) LTC	82,080.00		82,080.00	
d) Medical Advance	2,43,962.50		2,43,962.50	
e) Others (to be specified)	8,92,974.77	39,79,939.75	15,42,224.77	79,78,280.75
2. Long Term Advances to employees: (Interest bearing)				
a) Vehicle Loan			-	
b) Home Loan			-	
c) Others (to be specified)	4,41,696.00	4,41,696.00	3,60,272.00	3,60,272.00
3. Advances and other amounts recoverable in cash or in kind or for value to be received				
a) On Capital account	-		-	
b) To suppliers	4,24,048.40		4,24,048.40	
c) Others	12,41,40,466.33	12,45,64,514.73	2,61,77,625.16	2,66,01,673.56
4. Prepaid expenses				
a) Insurance			-	
b) Other expenses	-	-	4,96,350.00	4,96,350.00
5. Deposits				
a) Telephone	7,000.00		7,000.00	
b) Lease Rent	-		-	
c) Electricity	450.00		450.00	
d) AICTE, if applicable	-		-	
e) MCI, if applicable	-		-	
f) Others (to be specified)	12,650.00	20,100.00	12,650.00	20,100.00
6. Income Accrued				
a) On Investment from earmarked/ endowment fund	-		-	
b) On investment-others	3,79,09,213.00		2,57,21,243.00	
c) On loans and advances	-		-	
d) Others (includes income due unrealized Rs....)	-	3,79,09,213.00	-	2,57,21,243.00
7. Other receivables				
a) Debit balances in Sponsored Projects	-		-	
b) Debit balances in Fellowship & Scholarship	-		-	
c) Grants Recoverable	-		-	
d) Other receivable	7,53,37,241.49	7,53,37,241.49	1,60,62,880.46	1,60,62,880.46
8. Claims Receivable				
TOTAL		24,22,52,704.97		7,72,40,799.77



Schedule to Income & Expenditure Account for the year ended 31.3.2021

SCHEDULE 9- ACADEMIC RECEIPTS

(Amount in Rupees)		
	Current Year	Previous Year
FEE FROM STUDENTS		
Academic		
1. Tuition fee	210,363,898.41	280,760,535.02
2. Admission fee	-	-
3. Enrolment fee	-	-
4. Library Admission fee	-	-
5. Computer fee	-	-
6. Art & Craft fee	-	-
7. Registration fee	-	-
8. Syllabus fee	-	-
TOTAL (A)	210,363,898.41	280,760,535.02
Examinations		
1. Admission test fee	-	-
2. Annual Examination fee	-	-
3. Mark sheet, certificate fee	-	-
TOTAL (B)	-	-
Other fees		
1. Identity card fee	-	-
2. Fine/Miscellaneous fee	-	-
3. Medical fee	-	-
4. Transportation fee	-	-
5. Hostel fee	14,380,222.64	11,629,454.00
6. Institute fee	7,175,724.00	8,204,983.18
7. Insurance & Migration charges	-	-
8. Provisional certificate fee	-	8,000.00
9. Seat rent & Electricity charges from Student hall	-	-
10. Students Activity fees	-	-
11. Transcription fees	1,500.00	22,500.00
12. Training & Placement fees	-	-
13. Education Verification	162,500.00	409,500.00
14. Migration Fees	1,000.00	500.00
15. Examination Fees	200,000.00	-
TOTAL (C)	21,920,946.64	20,274,937.18
1. Sale of syllabus and Question Paper, etc.	-	-
2. Sale of Prospectus including admission forms	-	-
TOTAL (D)	-	-
GRAND TOTAL (A+B+C+D)	232,284,845.05	301,035,472.20



Schedule to Income & Expenditure Account for the year ended 31.3.2021

SCHEDULE 10 - GRANTS & DONATIONS (Irrevocable Grants & Subsidies Received)

(Amount in Rupees)

	Current Year	Previous Year
1) Central Government	-	-
2) State Government	-	-
3) Government Agencies	-	-
4) Institutions/ Welfare bodies	-	-
5) International Organisations	-	-
6) Others (specify)	-	-
Grant-in-aid, Govt. Of India, Non plan	1,131,516,742.00	1,472,600,000.00
	-	-
TOTAL	1,131,516,742.00	1,472,600,000.00

SCHEDULE 11 - INCOME FROM INVESTMENTS

(Amount in Rupees)

	Current Year	Previous Year
Investment from Earmarked/Endowment Fund		
1) Interest		
a) On Govt. Securities	-	-
b) Other Bonds/Debentures	-	-
2) Income received		
a) Each Fund separately	-	-
3) Income Accrued		
a) General Fund	79,934,387.00	43,867,688.00
4) Others (specify)	-	-
TOTAL	79,934,387.00	43,867,688.00
TRANSFERRED TO EARMARKED/ ENDOWMENT FUNDS	-	-

SCHEDULE 12 - INTEREST EARNED

(Amount in Rupees)

	Current Year	Previous Year
1) On Saving Accounts with Scheduled Banks	107,224,075.00	97,029,660.00
2) On Loans		
a) Employees/Staff	-	-
b) Others	-	-
3) On Debtors and Others Receivables	-	-
TOTAL	107,224,075.00	97,029,660.00



Schedule to Income & Expenditure Account for the year ended 31.3.2021

SCHEDULE 13- OTHER INCOME

(Amount in Rupees)

	Current Year	Previous Year
A. Income from Land & Building		
1. Hostel room rent	-	-
2. License fee	1,167,881.00	1,178,602.00
3. Hire charges of Auditorium/Play ground/ Convention Centre, etc.	-	-
4. Electricity & water charges	2,119,601.00	1,920,019.00
TOTAL (A)	3,287,482.00	3,098,621.00
B. Sale of Institute's publications	-	-
TOTAL (B)		
C. Income from holding events		
1. Gross receipts from annual function/ sports carnival	-	-
Less: Direct expenditure incurred on the annual function/sports carnival	-	-
2. Gross receipts from fetes	-	-
Less: Direct expenditure incurred on the fetes	-	-
3. Gross receipts from educational tours	-	-
Less: Direct expenditure incurred on the tours	-	-
4. Others(to be specified and separately disclosed)	-	-
TOTAL (C)	-	-
D. Interest on Term Deposits		
a) with scheduled banks	-	-
b) with non-scheduled banks	-	-
c) with institutions	-	-
d) others	-	-
TOTAL (D)	-	-
E. Interest on Debtors and Other Receivables	-	-
F. Others		
Electric charges & Collection of room rent	3,995,887.00	5,081,492.00
Garage rent	360.00	390.00
Guest house income	71,626.00	526,209.00
Misc Charges	106,211.00	409,855.00
Lease Money	-	914,124.00
Liquidated Damages	148,317.00	59,339.00
Other Receipts	3,663,310.00	558,940.00
Overhead Charges of Projects	52,482.00	223,000.00
Penal Charges	15,000.00	-
Registration Fees for Ph.D	539,500.00	-
Sale of Salvage etc	-	348,600.00
Sale Of Application , Tender form	504,450.00	395,050.00
Income from Testing & Consultancy	515,127.00	2,726,572.00
Water charges Recovered	247,380.00	49,632.00
TOTAL (F)	9,859,650.00	11,293,203.00
GRAND TOTAL (A+B+C+D+E+F)	13,147,132.00	14,391,824.00



Schedule to Income & Expenditure Account for the year ended 31.3.2021

SCHEDULE 14- PRIOR PERIOD INCOME

(Amount in Rupees)

	Current Year	Previous Year
1. Academic Receipts	-	-
2. Income From Investments	-	-
3. Interest Earned	-	-
4. Other Incomes	-	-
Total		

SCHEDULE 15 - STAFF PAYMENTS & BENEFITS

(Amount in Rupees)

	Current Year	Previous Year
a) Salaries and Wages	599,681,212.00	607,284,053.00
b) Allowances and Bonus	-	-
c) Contribution to Provident Fund	-	-
d) Contribution to Other Fund(specify)	-	-
e) Pension & Gratuity charges	192,693,672.00	223,216,271.00
f) Staff Welfare Expenses	-	-
g) Retirement and Terminal Benefits	-	-
h) LTC facility	139,141.00	2,225,422.00
i) Medical facility	11,410,136.00	15,039,570.00
j) Children Education Allowance	5,642,790.00	5,711,085.00
k) TA/DA expenses	6,211,358.00	12,561,336.00
l) Others (specify)	-	-
i) New Pensioner Scheme Employer Contribution	35,574,512.00	24,403,915.00
ii) Scholarship to Institute Research Scholar	46,183,632.72	81,758,731.00
iii) Scholarship (M.Tech)	63,181,679.00	56,150,121.00
TOTAL	960,718,132.72	1,028,350,504.00

SCHEDULE 16 - ACADEMIC EXPENSES

(Amount in Rupees)

	Current Year	Previous Year
a) Laboratory expenses	-	-
b) Field work/Participation	-	-
c) Seminar/Workshop	4,71,660.00	3,14,378.00
d) Payment to visiting faculty	-	-
e) Examination	31,91,930.00	4,06,05,179.34
f) Student Welfare Expenses	-	9,17,674.00
g) Admission expenses	76,335.00	7,20,547.00
h) Convocation expenses/college week	18,53,992.00	35,51,174.00
i) Publications	-	-
j) Stipend/means-cum-merit scholarship	-	-
k) Subscription expenses	-	-
l) Library Journal	9,40,979.00	-
m) Republic Day & Independence Day expenses	1,31,461.00	2,61,043.00
n) Registration Fees	1,21,103.00	1,23,820.00
o) CCB-Counselling (CSAB)	4,00,000.00	-
TOTAL	71,87,460.00	4,64,93,815.34



NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR

Schedule to Income & Expenditure Account for the year ended 31.3.2021

SCHEDULE 17 - ADMINISTRATIVE AND GENERAL EXPENSES

(Amount in Rupees)

	Current Year	Previous Year
a) Electricity expenses	22,774,184.00	39,026,326.00
b) Water Charges	1,670,363.00	1,388,594.00
c) Insurance	2,485,812.00	3,080,348.00
d) Rent, Rates and Taxes(including property tax)	-	9,072,000.00
e) Postage & Telegram	111,394.00	240,660.00
f) Telephone & Internet charges	730,811.00	1,557,300.00
g) Printing and Stationary	134,993.00	3,351,709.00
h) Travelling & Conveyance expenses	-	-
i) Expenses on Seminar/Workshops	-	-
j) Medical Expenses for Students	-	10,936.00
k) Auditors Remuneration	-	1,374,750.00
l) Professional charges	-	-
m) Advertisement & Publicity	510,991.00	716,879.00
n) Magazines & Journals	-	-
o) Others(specify)	-	-
i) Ambulance Charges	1,704,840.00	1,789,538.00
ii) Bank Charges	157,280.26	46,232.15
iii) Bank charges of Pension A/c	-	-
iv) Campus interview	75,190.00	233,117.00
v) Consultancy Works	321,896.00	250,165.00
vi) Contingencies to Institute Research Scholar	4,233,695.00	3,917,952.00
vii) Computer Network & Bandwidth	746,188.00	3,697,522.00
viii) Departmental Operating Cost	2,595,129.00	6,172,145.00
ix) Drug & Medicine for hospital	400,912.00	2,530,881.00
x) Extra-curricular activities	1,617,844.00	7,659,462.00
xi) Upgradation of Inst. Automation Software	913,372.00	1,037,226.00
xii) Faculty Amenities	495,500.00	1,022,135.00
xiii) Faculty Professional Development	12,846,205.00	8,055,373.00
xiv) Fuel for DG Set	274,896.00	765,446.00
xv) General Store Materials	177,205.00	1,571,550.00
xvi) Hostel Employees Welfare Account	3,187,392.00	2,427,619.00
xvii) Law and Legal Expenses	532,980.00	3,177,320.00
xviii) Meeting Expenses	9,192.00	814,876.00
xix) Miscellaneous Expenses	253,958.00	856,137.26
xx) Extra-curricular activities	-	-
xxi) Office Expenses	293,946.00	486,278.00
xxii) Outsourcing	141,279,592.00	155,196,982.00
xxiii) Rent for Cell at New Delhi	350,000.00	350,000.00
xiv) Remuneration to specialist (Physician)	4,041,955.00	5,555,129.00
xxv) Testing and consultancy expenditure	-	1,205,248.00
xxvi) Accreditation of Engineering Courses	59,000.00	-
xxvii) Consumable Charges	2,572,713.00	4,680,168.00
xxviii) Expenses for college Guest	-	-
xxix) Guest House Expenditure	753,195.00	741,856.00
xxx) Training & Upgradation of Staff	5,613.00	-
xxxi) Membership of professional societies	17,000.00	-
xxxii) Pension Subscription	-	-
xxxiii) Library Charges	-	2,000.00
xxxiv) Hostel Fees from Students	-	-
xxxv) COVID-19 Expenses	908,482.00	-
TOTAL	209,243,718.26	274,061,859.41



Schedule to Income & Expenditure Account for the year ended 31.3.2021

SCHEDULE 18 - TRANSPORTATION EXPENSES

(Amount in Rupees)

	Current Year	Previous Year
1. Vehicles (owned by educational institution)		
a) Running expenses	-	-
b) Repairs & Maintenance	-	-
c) Insurance expenses	-	-
2. Vehicles taken on rent/lease		
a) Rent/Lease expenses	1,697,261.00	2,785,305.00
TOTAL	1,697,261.00	2,785,305.00

SCHEDULE 19 - REPAIRS & MAINTENANCE

(Amount in Rupees)

	Current Year	Previous Year
a) Building	7,536,300.00	17,803,842.00
b) Furniture & fixtures	249,314.00	153,232.00
c) Plant & Machinery	-	-
d) Office Equipments	7,695,180.00	18,985,010.00
e) Cleaning materials & services	-	-
f) Others(specify)		
Contingencies: Medical	250,142.00	246,951.00
Maintenance of Electrical Installation	5,448,167.00	3,874,497.00
Maintenance of College Computer	9,638.00	-
Contingencies: Maintenance	62,485.00	80,402.00
Main. Of Road Drains, & Internal telephone system.	-	1,470,181.00
TOTAL	21,251,226.00	42,614,115.00

SCHEDULE 20-FINANCE COSTS

(Amount in Rupees)

	Current Year	Previous Year
a) Interest on fixed loans	-	-
b) Interest on other loans-HEFA	971,742.00	-
c) Bank charges	-	-
d) Others (specify)	-	-
TOTAL	971,742.00	-





Schedule to Income & Expenditure Account for the year ended 31.3.2021

SCHEDULE 21- OTHER EXPENSES

(Amount in Rupees)

	Current Year	Previous Year
a) Provision for Bad and Doubtful Debts/Advances	-	-
b) Irrecoverable Balances Written-off	-	-
c) others(specify) CCMT-NIMCET	403,600.00	-
TOTAL	403,600.00	-

SCHEDULE 22- PRIOR PERIOD EXPENSES

(Amount in Rupees)

	Current Year	Previous Year
a) Prior Period Expense	1,785,546.00	-
b) others(specify)	-	-
TOTAL	1,785,546.00	-



ANNEXURE TO THE BALANCE SHEET AS ON 31.03.2021

1. CORPUS FUND

(Amount in Rupees)

	Opening Balance	Add: During the yr.	Less: During the yr	Closing Balance
A. Corpus Fund	665,633,963.90	25,842,916.30	101,114,097.88	590,362,782.32
TOTAL	665,633,963.90	25,842,916.30	101,114,097.88	590,362,782.32

B. GENERAL FUND

(Amount in Rupees)

	Opening Balance	Add: During the yr.	Less: During the yr	Closing Balance
1. Capital Reserve				
Grant for establishment of Book Bank	102,380.00	-	-	102,380.00
Grant from UNESCO, Equip and Furniture	3,171,384.19	-	-	3,171,384.19
Repayment of loan capitalised	3,885,828.00	-	-	3,885,828.00
2. General Reserve				
Interest on investment of Corpus Fund	15,159,029.00	4,985,316.00	-	20,144,345.00
Interest on investment of General Fund	-	-	-	-
Interest on investment Misc Fund	9,151,324.00	1,390,633.00	-	10,541,957.00
Interest on investment Maint. Fund	-	-	-	-
Interest on Saving A/c Corpus Fund	21,666.00	4,831.00	-	26,497.00
Interest on Saving A/c Dep Fund	42,879.00	8,308.00	-	51,187.00
Interest on savings A/c Maint. Fund	24,592.00	5,641.00	-	30,233.00
Interest on savings A/c Staff Dev Fund	30,542.00	9,878.00	-	40,420.00
Revenue fund capitalised	10,080,598.91	-	-	10,080,598.91
Interest on investment of Donation	-	-	-	-
3. Special Reserve				
Collection of rent upto 1983-84	800,513.44	-	-	800,513.44
Testing and consultancy fees	-	-	-	-
Opening Grant in Aid, GOI, Non-recurring/ Plan	4,810,142,248.50	53,500,000.00	-	4,863,642,248.50
TOTAL	4,852,612,985.04	59,904,607.00	-	4,912,517,592.04
Add/Deduct: Balance of net income/ (expenditure) transferred from the Income and Expenditure Account	452,144,801.27	-	222,362,967.07	674,507,768.34
TOTAL	452,144,801.27	-	222,362,967.07	674,507,768.34
GRAND TOTAL	5,970,391,750.21	85,747,523.30	323,477,064.95	6,177,388,142.70





ANNEXURE TO THE BALANCE SHEET AS ON 31.03.2021

2. DESIGNATED/EARMARKED/ENDOWMENT FUNDS

A. RESTRICTED FUND

(Amount in Rupees)

	Opening Balance	Add: During the yr.	Less: During the yr	Closing Balance
Grant from GOI				
Grant from GOI for Architect fee	100,000.00	-	-	100,000.00
Grant-in-aid GOI Centre of Excellence	30,952,123.00	-	-	30,952,123.00
Grant-in-aid GOI Computer Centre	13,748,000.00	-	-	13,748,000.00
Grant-in-aid GOI CSE	13,774,000.00	-	-	13,774,000.00
Grant-in-aid GOI Different Sources	4,233,000.00	-	-	4,233,000.00
Grant-in-aid GOI Electric Degree Course	9,011,000.00	-	-	9,011,000.00
Grant -in-aid GOI Env,Eng.	1,000,000.00	-	-	1,000,000.00
Grant -in-aid GOI, Equipment and Furniture	28,615,710.63	-	-	28,615,710.63
Grant-in-aid GOI, Inds.Instt. Interaction	730,426.04	-	-	730,426.04
Grant-in-aid GOI, Institutional Work	3,800,000.00	-	-	3,800,000.00
Grant-in-aid GOI, Mod.Lab	29,158,000.00	-	-	29,158,000.00
Grant-in-aid GOI, Renovation	25,487,000.00	-	-	25,487,000.00
Grant-in-aid,GOO,VSATwith ERNET	1,300,000.00	-	-	1,300,000.00
Grant-in-aid,GOI & WB,Motor Vehicle	571,944.42	-	-	571,944.42
Grant-in-aid,GOWB,Land & Dev.	11,049,042.35	-	-	11,049,042.35
Grant-in-aid, GOI, Over Sight Comm. Non-Plan	321,725,000.00	-	-	321,725,000.00
Grant-in-aid, GOI, Over Sight Comm. Plan	646,400,000.00	-	-	646,400,000.00
Grant-in-aid, GOI, TEQIP-I (Net Bal. adjusting Rev Exp.)	185,154,978.00	-	-	185,154,978.00
Grant-in-aid,AICTE Research (Others)	520,000.00	-	-	520,000.00
Grant-in-aid,GOI,Research Grant	6,226,783.83	-	-	6,226,783.83
Grant-in-aid,UGC,Sanskrit Language	100,000.00	-	-	100,000.00
Grant-in-aid, AICTE (QIP Policy)	79,500.00	-	-	79,500.00
Information Technology Fund	1,825,134.25	-	-	1,825,134.25
MCA Course Fund	3,810,974.45	-	-	3,810,974.45
M.Tech, Corrosion Science	1,367,552.93	-	-	1,367,552.93
Other Scholarship (Provision)	12,141,912.58	-	-	12,141,912.58
TOTAL	1,352,882,082.48	-	-	1,352,882,082.48



ANNEXURE TO THE BALANCE SHEET AS ON 31.03.2021

2. DESIGNATED/EARMARKED/ENDOWMENT FUNDS (Contd.....)

B. EARMARKED/ENDOWMENT FUND

(Amount in Rupees)

	Opening Balance	Add: During the yr.	Less: During the yr	Closing Balance
Donation Fund				
Donation -AM Das	99,104.90	12,448.00	2,448.00	109,104.90
Donation- DM Sen	812,177.60	80,928.00	17,041.00	876,064.60
Donation - DV Sitabai	150,000.00	-	-	150,000.00
Donation-SN Banerjee (Kalyanshewari Mer)	28,238.00	-	-	28,238.00
Donation-S Pal Chowdhury	134,747.00	11,473.00	-	146,220.00
Donation-S Saha	54,150.00	4,139.00	-	58,289.00
Donation-Prof. D K Pal	242,180.00	17,408.00	-	259,588.00
Donation-Prof. M S Sinha	300,000.00	-	-	300,000.00
Donation-Prof. T K Sinha	150,000.00	-	-	150,000.00
Donation- Parpatidevi Chnadumal Memo	162,500.00	-	-	162,500.00
Donation - S.N.Roy	48,000.00	-	-	48,000.00
Donation - Anirban Mondal	604,740.00	48,490.00	10,830.00	642,400.00
TOTAL	2,785,837.50	174,886.00	30,319.00	2,930,404.50
Others				
Depreciation Fund	55,240,310.00	3,978,789.00	967,749.00	58,251,350.00
Hostel Employee Welfare Fund	700,643.99	-	-	700,643.99
Maintenance Fund	58,413,036.00	3,124,163.00	965,069.00	60,572,130.00
New Pension Scheme fund	27,459,066.50	-	-	27,459,066.50
NIMSET Fund	2,119,922.00	264,219.00	-	2,384,141.00
Student aid fund	5,093,958.54	446,395.00	18,751.00	5,521,602.54
Staff Dev.Fund	59,665,100.00	4,316,004.00	1,016,040.00	62,965,064.00
Steel Chair Professor Fund	680,073.00	-	-	680,073.00
TOTAL	209,372,110.03	12,129,570.00	2,967,609.00	218,534,071.03
GRAND TOTAL(A+B)	1,565,040,030.01	12,304,456.00	2,997,928.00	1,574,346,558.01





ANNEXURE TO THE BALANCE SHEET AS ON 31.03.2021

4. CURRENT LIABILITIES & PROVISIONS

(Amount in Rupees)

	CURRENT YEAR		PREVIOUS YEAR	
A. CURRENT LIABILITIES				
1. Deposits from Staff				
Security Deposit from Staff (L)	500.00		500.00	
Advance from Staff				
Fraternity				
Group Insurance	404,757.69		407,970.69	
CTD/RD	1,767,028.82		1,961,452.82	
Centre Expenses	335,807.00	2,508,093.51	335,807.00	2,705,730.51
2. Deposits from Students				
Students Health Home	1,691,170.50		1,691,170.50	
Medical Exam. Fees	44,245.00		44,245.00	
Mess Caution Money	6,658,851.66		6,658,851.66	
Mess Entrance Fees	2,168,398.00		2,168,398.00	
Mess A/c Hall-9 Payable	528,000.00		528,000.00	
Excess deposit from students	87,511.20		87,511.20	
College Caution Money	2,252,229.52		2,252,229.52	
Athletic Club Fund	835,206.00	14,265,611.88	835,206.00	14,265,611.88
3. Sundry Creditors				
a) For Goods & Services				
Multipurpose Co-Opt. Society	2,000.00		2,000.00	
Liability For Capital Asset	161,509.00		161,509.00	
EMD/SD for suppliers	20,833,234.42		28,448,746.42	
Security deposit from contractors	1,416,163.00		1,416,163.00	
EMD/SD for suppliers - TEQIP-I	482,133.00	22,895,039.42	482,133.00	30,510,551.42
b) Others				
Building and other Capital work Payable	148,914.88		148,914.88	
PWD (Burdwan Div.) payable	1,423,862.40	1,572,777.28	1,423,862.40	1,572,777.28
4. Advances Received	-		-	
5. Interest accrued but not due on:				
a) Secured Loans /borrowings	-		-	
b) Unsecured Loans /borrowings	-		-	
6. Statutory Liabilities(GPF, TDS, WC TAX, CPF, GIS, NPS):				
a) Overdue	-		-	
b) Others				
Professional Tax	147,973.00		156,273.00	
Professional Tax (hostel emp.)	16,310.00		16,310.00	
Education Cess	5,000.00		5,000.00	
Workers Welfare Cess	-		-	
GST / GOODS AND SERVICE TAX	-	169,283.00	297,276.21	474,859.21
7. Other Current liabilities				
a) Salaries				
Outstanding liabilities- Salary & others	79,221,118.62	79,221,118.62	87,837,888.62	87,837,888.62
b) Receipts against sponsored projects				
Project - SK Chatterjee	-		2,421.00	
PMGSY Training Project	-		243,223.00	



ANNEXURE TO THE BALANCE SHEET AS ON 31.03.2021

4. CURRENT LIABILITIES & PROVISIONS (Contd....)

(Amount in Rupees)

	CURRENT YEAR		PREVIOUS YEAR	
Project DST Green Tech Chemical	-		200,000.00	
Project - Ramalingaswami Fellow	-		-	
Project Others	-		28,396,453.56	
SRCC Fund A/c	56,124,258.78	56,124,258.78	-	28,842,097.56
c) Receipts against sponsored fellowships & scholarships				
a) Other Scholarship	-		37,962.43	
b) NSS A/C	-	-	-	37,962.43
d) Unutilised Grants	-		-	
e) Other funds	-		-	
i) Pension & Gratuity Fund	48,315,945.75		43,225,728.75	
ii) Class Projects	12,679.65		12,679.65	
iii) Cultural Club Fund	-		-	
iv) Contributory Provident Fund	97,698,663.19		97,698,663.19	
v) General Provident Fund	396,192,255.48		261,810,340.60	
vi) Interest of GPF Investment	325,398,664.00		317,829,690.00	
vii) Interest on Savings Bank A/C-GPF	13,710,825.68		10,104,645.68	
viii) Interest on Inv.Pension Aid Fund Invest.	57,944,184.00		53,448,142.00	
ix) Interest on TEQIP-I Bank A/c	515,174.00		446,660.00	
x) Interest on savings Bank A/c-Pension & Gratuity	3,087,468.97	942,875,860.72	2,985,356.97	787,561,906.84
g) Other Liabilities	-		-	
Festival Advances (hostel employee)	20,280.00		20,280.00	
Group Insurance (Hostel employee)	1,828.00		1,828.00	
Advances for scooter / Bi-cycle	698,883.00		548,986.00	
Fraternity	3,462.00			
GKCIET, Malda	-		1,047,264.00	
Voyage Money	15,501.00		15,501.00	
Co-Op Credit Society Ltd.	-	739,954.00	-	1,633,859.00
TOTAL (A)		1,120,371,997.21		955,443,244.75
B. PROVISIONS				
1. For Taxation				
2. Gratuity		-		
3. Super Annuation/Pension				
4. Accumulated leave Encashment				
5. Expenses payable				
6. Trade Warranties/Claims				
7. Others (Specify)				
TOTAL (B)		-		-
TOTAL (A+B)		1,120,371,997.21		955,443,244.75





ANNEXURE TO THE BALANCE SHEET AS ON 31.03.2021

5. Investment of Earmarked/Endowment Fund

(Amount in Rupees)

	Current Year	Previous Year
Investment donation (AM Das)	135,524.00	127,917.00
Investment donation (DM Sen)	995,140.00	921,832.00
Investment donation (D K Pal)	282,987.00	265,579.00
Investment donation(Airvan Mondal)	632,843.00	593,910.00
Investment donation (SN Banerjee)	28,030.00	26,306.00
Investment donation (S Palchowdhury)	153,478.00	142,005.00
Investment donation (NG & H SAHA)	66,296.00	62,157.00
Investment - Corpus Fund	165,161,771.00	157,394,074.00
Investment -Maintenance Fund	56,238,174.00	55,974,767.00
Investment -NIMSET	2,384,141.00	2,119,922.00
Investment- Staff Development Fund	58,352,249.00	57,012,209.00
Investment-Depreciation Fund	53,935,355.00	52,707,269.00
Investment - Students Aid Fund	3,912,326.00	3,562,729.00
Investment - Fixed Deposit- TEQIP-I	911,343.00	850,245.00
TOTAL (A)	343,189,657.00	331,760,921.00
Investment of Miscellaneous funds		
Investment to SBI, REC Branch	16,705,253.00	15,662,130.00
Investment -Hostel Employee welfare fund	140,780.00	131,989.00
Investment- Mess Caution Money	3,162,840.00	2,977,284.00
Investment -Pension aid fund	117,997,275.00	111,564,290.00
Investment -Student Caution Money	2,391,466.00	2,391,466.00
Investment- Testing and Consultancy	2,550,459.00	2,399,020.00
Investment to General Provident Fund	581,379,769.00	573,810,795.00
Investment to General Fund	1,048,193,584.00	987,735,204.00
Investment to New Pension Scheme	16,878,626.00	16,878,626.00
TOTAL (B)	1,789,400,052.00	1,713,550,804.00
GRAND TOTAL (A+B)	2,132,589,709.00	2,045,311,725.00

6. Bank Balances

(Amount in Rupees)

	Current Year	Previous Year
With Schedule Banks		
SBI 1A Rec A/c	1,949,153,530.78	1,906,473,480.96
SBI, GPF Savings Bank A/c	150,315,796.16	107,048,405.16
SBI Continuing Edu. Centre Sav Bank A/c	-	-
SBI Pension & Gratuity Sav. Bank A/c	18,535,686.36	17,197,099.36
SBI College Caution Money	8,687.82	8,687.82
Canara Bank Savings Bank A/c No-5494	1,922,422.60	1,865,709.60
Canara Bank Extn. Counter Savings Bank A/c	119,815,005.12	42,342,689.71
SBI New Pension Scheme Bank A/c	9,859,275.25	12,756,028.25
Canara Bank A/c No-1111	163,685.00	158,854.00
Canara Bank A/c No-1113	281,575.00	273,267.00
Canara Bank A/c No-1114	191,129.00	185,488.00
Canara Bank A/cNo-1115	334,740.00	324,862.00
Canara Bank TEQIP-I	251,299.00	243,883.00
TOTAL	2,250,832,832.09	2,088,878,454.86



ANNEXURE TO THE BALANCE SHEET AS ON 31.03.2021

7. LOANS, ADVANCES & DEPOSITS

(Amount in Rupees)

	Current Year		Previous Year	
1. Advances to employees: (Non- interest bearing)				
a) Salary				
Temporary advance to staff	-		-	
Temporary Advance	2,521,203.09	2,521,203.09	5,870,294.09	5,870,294.09
b) Festival				
Festival Advances	239,719.39	239,719.39	239,719.39	239,719.39
c) LTC				
Advance for LTC (Home)	-		-	
Advance for LTC (NER)	(600.00)		(600.00)	
Advance for LTC (J & K)	82,680.00	82,080.00	82,680.00	82,080.00
d) Medical Advance				
Advances for marriage/treatment	63,795.50		63,795.50	
Temporary Advance to staff for medical treatment	180,167.00	243,962.50	180,167.00	243,962.50
e) Others (to be specified)				
Advances to hostel employee	221,159.00		221,159.00	
CPF Excess transfer	-		339,092.00	
CTD/RD Receivable	27,721.00		27,721.00	
GPF for hospital staff	-		216,360.00	
Imprest Advances to staff	18,375.00		33,375.00	
Co-Op Credit Society Ltd.	504,118.77		504,118.77	
Workers Welfare Cess	21,275.00		21,275.00	
Fraternity	-		78,798.00	
NSS A/C	100,326.00	892,974.77	100,326.00	1,542,224.77
2. Long Term Advances to employees: (Interest bearing)				
a) Vehicle Loan				
b) Home Loan	-		-	
c) Others (to be specified)				
Advance for Computer to Employees	441,696.00	441,696.00	360,272.00	360,272.00
3. Advances and other amounts recoverable in cash or in kind or for value to be received				
a) On Capital account				
Advance to supplier	-		-	
b) To suppliers	424,048.40		424,048.40	
c) Others				
Library Caution Money	804,871.00		-	
Income Tax deposit	18,337,076.31		20,779,553.21	
Goods & Service Tax Deposit	158,293.85		-	
Service Tax Deposit	1,770,037.00		2,007,730.00	
SRCC Account	27,893,831.22		2,813,985.00	
Deposit to Open Bank Account of Hall-9	1,000.00		1,000.00	
Centre Expenses (BU) Recoverable	112,750.91		112,750.91	
Hostel employee welfare fund recoverable	11,899.00		11,899.00	
Income tax recoverable	111,400.00		111,400.00	
Mess account recoverable	329,307.04		329,307.04	
CPWD Advance for Completed Project	74,600,000.00		-	
NIT Durgapur Interest repayment account	5,000.00		5,000.00	
NIT Durgapur principal repayment account	5,000.00	124,564,514.73	5,000.00	26,601,673.56





ANNEXURE TO THE BALANCE SHEET AS ON 31.03.2021

(Amount in Rupees)

	Current Year		Previous Year	
4. Prepaid expenses				
a) Insurance	-		-	
b) Other expenses				
Prepaid expenses for computer Network & Band	-	-	496,350.00	496,350.00
5. Deposits				
a) Telephone				
DET -Durgapur for Telephone	7,000.00		7,000.00	
b) Lease Rent	-		-	
c) Electricity				
DPL- Electric Connection at Bidhannagar	450.00		450.00	
d) AICTE, if applicable	-		-	
e) MCI, if applicable	-		-	
f) Others (to be specified)				
DSP- Preparation of College Oval ground	12,050.00		12,050.00	
NICL- For transit insurance	600.00	20,100.00	600.00	20,100.00
6. Income Accrued				
a) On Investment from earmarked/ endowment fund				
Accrued Interest on Invst.-Corpus Fund	3,844,820.00		2,782,381.00	
Accrued Interest on Invst.-Depreciation fund	2,750,703.00		967,749.00	
Accrued Interest on Investment- Donation Anirvan Mondal	9,557.00		10,830.00	
Accrued Interest on Investment- Student aid Fund	96,798.00		18,751.00	
Accrued Interest on Invst.-Maint Fund	2,860,756.00		965,069.00	
Accrued Interest on Invst.-Staff Dev Fund	2,975,964.00		1,016,040.00	
Accrued Interst on Investment-Donation Am Das	4,841.00		2,448.00	
Accrued Interst on Investment-Donation Dm Sen	7,620.00		-	
b) On investment-others				
Accrued Interest on Invst.-Pension aid fund	5,090,217.00		1,936,943.00	
Accrued Interest on Invst.-General Fund	20,267,937.00		18,003,991.00	
c) On loans and advances	-		17,041.00	
d) Others (includes income due unrealized Rs....)	-	37,909,213.00	-	25,721,243.00
7. Other receivables				
a) Sales Tax and works contact Tax	33,155.46		33,155.46	
b) Projects Namami Gange	15,101.00		15,101.00	
c) Project - MOES HILLIUM Project	4,471,998.00		4,471,998.00	
d) TEQIP-II	415,500.00		-	
e) Income Tax TDS/TCS Refundable	2,991,939.46		-	
f) Receivable from NPS to 1A Rec.	11,171,132.00		11,171,132.00	
g) Project Ramalingswami Fellow	371,494.00		371,494.00	
h) Other Scholarship	1,141,873.57		-	
h) HEFA Principal Loan	54,725,048.00	75,337,241.49	-	16,062,880.46
8. Claims Receivable		-		-
TOTAL		242,252,704.97		77,240,799.77



SCHEDULE TO RECEIPTS AND PAYMENT ACCOUNTS

(Amount in Rupees)

Particulars	Current Year	Previous Year
I. Opening Balances		
a) Cash Balances	-	-
b) Bank Balances		
i. In Current Account		
SBI 1A Rec A/c	1,906,473,480.96	1,384,813,217.93
ii. In Deposit Account		
SBI College Caution Money	8,687.82	338,051.82
SBI New Pension Scheme Bank A/c	12,756,028.25	8,336,933.25
	12,764,716.07	8,674,985.07
iii. In Savings Account		
SBI, GPF Savings Bank A/c	107,048,405.16	76,438,583.66
SBI Continuing Edu. Centre Sav Bank A/c	-	597,148.26
SBI Pension & Gratuity Sav. Bank A/c	17,197,099.36	3,651,677.86
Canara Bank Savings Bank A/c No-5494	1,865,709.60	1,803,147.60
Canara Bank Extn. Counter Savings Bank A/c	42,342,689.71	40,051,715.93
Canara Bank A/c No-1111	158,854.00	153,527.00
Canara Bank A/c No-1113	273,267.00	264,104.00
Canara Bank A/c No-1114	185,488.00	179,268.00
Canara Bank A/c No-1115	324,862.00	313,969.00
Canara Bank TEQIP-I	243,883.00	235,704.00
	169,640,257.83	123,688,845.31
II. Grants Received		
a) From Government of India		
GRANT IN AID - GOI - PLAN	53,500,000.00	249,152,000.00
GRANT IN AID - GOI - NON PLAN	1,131,516,742.00	1,472,600,000.00
	1,185,016,742.00	1,721,752,000.00
b) From State Government	-	-
c) From other sources (details)	-	-
III. Academic Receipts		
REGISTRATION FOR PHD	539,500.00	-
CCB COUNSELLING (CSAB)	320,200.00	448,000.00
TUTION FEES	213,403,094.41	291,644,860.02
INSTITUTE FEES	7,309,494.00	8,325,883.18
MIGRATION FEES	1,000.00	500.00
EDUCATION VERIFICATION	162,500.00	409,500.00
PROVISIONAL CERTIFICATE FEES	-	8,000.00
REGISTRATION FEES	9,650.00	-
EXAMINATION FEES	200,000.00	-
HOSTEL FEES FROM STUDENTS	15,653,222.64	-
TRANSCRIPTION FEES	1,500.00	22,500.00
	237,600,161.05	300,859,243.20



SCHEDULE TO RECEIPTS AND PAYMENT ACCOUNTS

(Amount in Rupees)

Particulars	Current Year	Previous Year
IV. Receipts against Earmarked/ Endowment Funds	-	-
V. Receipts against Sponsored Projects/ Schemes		
SRCC	12,857,765.50	53,499,266.00
PROJECT OTHERS	700,000.00	3,214,818.00
	13,557,765.50	56,714,084.00
VI. Receipts against sponsored Fellowships and Scholarships		
Other Scholarship	138,950.00	18,770,368.00
Scholarship to Institute Research Scholar	36,499,087.78	2,889,236.00
Scholarship M Tech	377,818.00	-
	37,015,855.78	21,659,604.00
VII. Income on Investments from:		
a) Earmarked/ Endowment Funds		
STAFF DEVELOPMENT FUND	-	1,302,296.00
MAINTENANCE FUND	-	1,302,296.00
DEPRECIATION FUND	-	1,302,298.00
STUDENT AID FUND	-	22,000.00
	-	3,928,890.00
b) Other Investments		
INTEREST ON GPF GENERAL FUND INVESTMENT	29,013,977.00	95,279.00
INTEREST ON PENSION AID FUND INVESTMENT	-	683,511.00
	29,013,977.00	778,790.00
VIII. Interest received on		
a) Bank Deposits		
INTEREST FROM TEQIP-I BANK/FD A/C	7,416.00	46,335.00
INTEREST ON GPF INVESTMENT	-	253,155.00
INTEREST ON BANK A/C- CANARA EXTN	1,806,069.00	-
	1,813,485.00	299,490.00
b) Loans and advances	-	-
c) Saving Bank accounts		
INTEREST ON SAVINGS BANK-GPF	3,606,180.00	2,952,953.00
INTEREST ON SAVINGS BANK-PENSION A/C	102,112.00	404,682.00
INTEREST ON SAVINGS ACCOUNT	105,004,766.00	94,643,718.00
INTEREST ON SAVINGS BANK- CANARA BENACHITY	56,731.00	62,562.00
INTEREST ON SAVINGS BANK- CONT EDU CENT	-	7,694.00
INTEREST ON SAVINGS BANK- NEW PENSION	389,009.00	335,895.00
INTEREST ON SAVINGS A/C DEPRECIATION FUND	8,308.00	9,163.00
INTEREST ON SAVINGS A/C CORPUS FUND	4,831.00	5,327.00
INTEREST ON SAVINGS A/C STAFF DEV	9,878.00	10,893.00
INTEREST ON SAVINGS A/C MAINT FUND	5,641.00	6,220.00
	109,187,456.00	98,439,107.00
IX. Investments encashed		
CTD/RD	467,976.00	540,195.00



SCHEDULE TO RECEIPTS AND PAYMENT ACCOUNTS

(Amount in Rupees)

Particulars	Current Year	Previous Year
X. Term Deposits with Scheduled banks encashed	-	-
XI. Other Income (including Prior Period Income)		
GUEST HOUSE INCOME	71,626.00	526,209.00
ELECTRIC CHARGES FROM STAFF	2,108,627.00	1,920,019.00
OVERHEAD CHARGES OF PROJECTS	52,482.00	223,000.00
GARRAGE RENT	360.00	390.00
WATER CHARGES RECOVERED	247,380.00	49,632.00
SALE OF TENDER, APPLICATION FORM, XEROX COUPON	504,450.00	395,050.00
LIQUIDATED DAMAGES	148,317.00	59,339.00
PENAL CHARGES	15,000.00	-
SALE OF SALVAGE ETC	-	348,600.00
ELECTRIC CHARGES AND COLLECTION OF ROOM RENT	3,995,887.00	4,992,608.54
ASSESSED RENT/LICENCED FEES FROM STAFF	1,167,881.00	1,178,602.00
LEASE MONEY	-	914,124.00
INCOME FROM TESTING AND CONSULTANCY	-	4,522.00
TESTING AND CONSULTANCY ACCOUNT	435,324.00	-
	8,747,334.00	10,612,095.54
XII. Deposits and Advances		
EMD/SD FOR SUPPLIER	4,018,346.00	9,990,593.00
ABHIJIT GHOSH, DEPT. OF PHYSICS	15,000.00	
ACHINTA KR PRAMANIK, ME DEPTT	-	100,000.00
ADVANCE FOR COMPUTER TO EMPLOYEES	113,576.00	85,953.00
ADVANCE FOR SCOOTER / BI-CYCLE	149,897.00	149,047.00
AJIT KR BHAGAT, SECURITY OFFICER	75.00	3,518.00
AMIYA KR SARDAR (ASSTT REGISTRAR)	-	166,000.00
AMIYA KUMAR SAMANTA, CIVIL ENGG	-	8,365.00
ANIMESH DUTTA, IT	-	8,321.00
ANIRUDDHA MONDAL, PHYSICS DEPTT	45,000.00	1,612.00
ANITA PAL, MATH	-	150,000.00
ANUPAM BAGACHI, SUPERINTENDENT	-	7,000.00
ANUPAM BASU	-	316,496.00
APURBA DEY, BIO-TECH	-	1,068.00
ASIT KUMAR, DY. REGISTRAR(ESTABLISHMENT)	10,630.00	40,000.00
AVINASH ROY, 3RD YEAR B TECH	-	180,000.00
BIKASH DAS, LDA	-	4,148.00
BIMAL DAS, CHEMICAL ENGG	11,400.00	
C SARVANAN	-	77,000.00
CHINTA MANI MISHRA	7,444.00	
CO-OP CREDIT SOCIETY LTD	6,902,921.00	6,224,024.00
DAKSHINA RANJAN KISKU, CSE	-	5,340.00
DEBASISH MONDAL, ASSTT REGISTRAR(HOSTEL)	-	55,555.00
DIPANKAR SUKUL, ASS PROF, CHEMISTRY	-	6,144.00
DIPTESH DAS, CIVIL ENGG	-	92,175.00





SCHEDULE TO RECEIPTS AND PAYMENT ACCOUNTS

(Amount in Rupees)

Particulars	Current Year	Previous Year
HILLOL MUKHERJEE, PTI	-	13,669.00
HIROK CHOWDHURY	-	57,000.00
INDRAJIT BASAK, ME DEPTT	37,317.00	
INDRANIL BHATTACHARYE	-	26,180.00
IRFAN AHMED, EE DEPTT	-	59,827.00
JAYA SIKDER, CHEMICAL ENGG	-	45,402.00
JAYDEEP HAWLADER	-	3,750.00
JITAMANYU CHAKRABORTY	-	25,000.00
JITENDRA KUMAR , ASSTANT LIBRARIAN	-	375.00
KAJLA BASU	-	1,219.00
KAKALI GANGULY, STAFF NURSE	-	7,718.00
KALYAN ADHIKARY, GEOLOGY	-	25,801.00
KAZY SUFIA KHANNAM	-	14,151.00
MEHENDI BASU, 3RD YEAR B TECH	-	180,000.00
MONIDIPA GHOSH, BIO-TECH	-	175,000.00
NANDA DULAL JANA, IT	-	689.00
NEELOTPAUL BANERJEE, HOD DMS	-	9,855.00
NILANJAN CHATTARAJ	-	65,000.00
NILOTPAL BANERJEE, PROF OF ME AND DEAN (AAO)	-	3,497.00
NIRMAL BARAN HUI	-	34,338.00
PINAKI PAL, MATH	-	117,000.00
POULOMEE GHOSH, 3RD YEAR B TECH	-	180,000.00
PRIME MINISTER RELIEF FUND	2,749,862.00	
RABINDRA NATH BARMAN, ME DEPT.	45,000.00	7,990.00
RAJ NARAYAN SAHA, CHEMISTRY	20,000.00	20,000.00
RECEIVABLE ACCOUNT	-	186,100,000.00
RUDRA BANERJEE, STUDENT	-	180,000.00
SAJAL MUKHOPADHYAY, IT	-	65,000.00
SAMARJIT KAR	-	5,434.00
SANDIP DAS	-	18,000.00
SANDIP MONDAL, EES DEPTT	-	296.00
SANGHITA BHATTACHARJEE	-	55,000.00
SANJAY DHAR ROY, ECE	-	8,606.00
SANKAR CHANDRA MOI	-	19,626.00
SANTOSH KUMAR SAHA, TECH OFFICER	7,610.00	
SAYON BHATTACHARYA, ASSTT REGISTRAR(LEGAL)	-	10,000.00
SHOWMEN SAHA, CIVIL	6,845.00	14,001.00
SIBENDU SEKHAR ROY	-	5,258.00
SUBHAMOY CHONGDER	-	3,525.00
SUBRATA CHAKRABORTY	-	532.00
SUBRATA NANDI	-	13.00
SUMAN HALDER	-	9,771.00
SUPRIYA SARKAR, ELECT. ENGG DEPTT	-	15,000.00



SCHEDULE TO RECEIPTS AND PAYMENT ACCOUNTS

(Amount in Rupees)

Particulars	Current Year	Previous Year
SURABHI CHOUDHURY	-	1,322.00
SUSMITA DUTTA, CHEMICAL	-	20,000.00
SUVROJIT DAS	-	500.00
TAMAL MONDAL	-	100,000.00
TANMOY DEY, AP	-	30,000.00
TANMOY SANTRA, SR ASSTT	25,000.00	
TAPAS KUMAR LAIK	-	464,690.00
TEMPORARY ADVANCE TO STAFF	-	9,192.00
IMP.ADV.- BISWAJIT HALDER	1,045.00	
IMP.ADV.- HILLOL MUKHERJEE, PTI	24.00	
IMP.ADV.- JOYDEEP BANERJEE	12,564.00	5,099.00
IMP.ADV.- KALLOL KHAN, ASSO. PROF OF ME	-	
IMP.ADV.- N K ROY	-	
IMP.ADV.- PATHIK KUMBHAKAR	-	
IMP.ADV.- PINAKI PAL	-	
IMP.ADV.- R N SAHA	-	
IMP.ADV.- U C MUKHERJEE, DR REG(FANDA)	330.00	
IMP.ADV.-A DAS, ASST.REGISTRAR(AUDIT)	-	
IMP.ADV.-ABHIJIT GHOSH, PHYSICS	630.00	
IMP.ADV.-AJIT KUMAR MEIKAP	-	
IMP.ADV.-ANIRBAN SARKAR, DCA	7,131.00	
IMP.ADV.-ANIRUDDHA BHATTACHARYA, WARDEN HALL-06.	360.00	
IMP.ADV.-ASHIS KR MAL,ECE	-	
IMP.ADV.-ASIT KUMAR, DY. REGISTRAR(ESTB)	6,172.00	
IMP.ADV.- A K CHATTOPADHYAY, DY. REG.(P&S)	-	38.00
IMP.ADV.-B K SARKAR, MED OFFICER	-	
IMP.ADV.-BIKASH KUMAR MONDAL WARDEN HALL-9	7,250.00	
IMP.ADV.-CHINTA MANI MISHRA WARDEN HALL-4	13,870.00	
IMP.ADV.-CHIRANJIB KOLEY, EE DEPT.	-	
IMP.ADV.-DAKSHINA RANJAN KISKU, WARDEN HALL-12	694.00	
IMP.ADV.-DEBASHISH MANDAL, ASSTT REGISTRAR	-	
IMP.ADV.-DHRUBAJYOTI ROY	-	
IMP.ADV.-GOPINATH HALDER	-	
IMP.ADV.-JITENDRA KUMAR, LIBRARY	780.00	
IMP.ADV.-KALYAN ADHIKARY, GEOLOGY	1,131.00	
IMP.ADV.-MANAB MALLIK, MME	8,861.00	3,488.00
IMP.ADV.-NANDA DULAL JANA, CSE	1,999.00	
IMP.ADV.-NILOTPAL BANERJEE, MECH ENGG	7,500.00	
IMP.ADV.-OINDRILLA MUKHERJEE, WARDEN HALL-10	-	
IMP.ADV.-RAJAT MAHAPATRA	341.00	642.00
IMP.ADV.-S S THAKUR, EE	-	
IMP.ADV.-SANDIP MOMDAL, EES	5,065.00	
IMP.ADV.-SANGHITA BHATTACHARJEE, WARDEN HALL-07.	8,615.00	





SCHEDULE TO RECEIPTS AND PAYMENT ACCOUNTS

(Amount in Rupees)

Particulars	Current Year	Previous Year
IMP.ADV.-SANTOSH KR SAHA, TECH OFFICER	-	
IMP.ADV.-SEEMA SARKAR(MONDAL), MATH	7,251.00	15,000.00
IMP.ADV.-SHOWMEN SAHA	13,411.00	
IMP.ADV.-SURABHI CHOUDHURI, BIO TECH	-	
IMP.ADV.-SUVAMOY CHONGDER	9,800.00	
IMP.ADV.-TANDRA PAL (CSE)	5,341.00	-
	14,286,088.00	205,905,853.00
XIII. Miscellaneous Receipts including Statutory Receipts		
GST/ GOODS & SERVICE TAX	-	479,813.00
XIV. Any other Receipts		
HEFA INTEREST A/C	-	1,230,807.00
SERVICE TAX	237,693.00	-
GPF LOAN ACCOUNT	291,570.00	146,934.00
GROUP INSURANCE	-	112,135.00
FRATERNITY	82,260.00	77,240.00
OTHER RECEIPT	3,663,310.00	558,940.00
PENSION SUBSCRIPTION	1,235,185.00	-
CORPUS FUND (INSTITUTIONAL)	-	1,302,299.00
GPF SUBSCRIPTIONS	68,390,700.00	57,543,148.00
	73,900,718.00	60,971,503.00

I. Expenses		
a) Establishment Expenses		
GPF FINAL PAYMENT	33,510,001.00	34,808,451.00
GENERAL PROVIDENT FUND	70,000.00	-
OUTSTANDING SALARIES AND OTHERS	70,968,117.00	63,253,964.00
EPF CONTRIBUTION TO HOSTEL EMPLOYEES	1,012,558.00	-
PROFESSIONAL TAX	8,700.00	67,250.00
NEW PENSION SCHEME SUBSCRIPTION	7,954,580.00	3,339,443.00
PENSION SUBSCRIPTION	-	378,971.00
PENSION AND GRATUITY CHARGES	180,655,639.00	205,300,524.00
NEW PENSION SCHEME EMPLOYER CONTRIBUTION	29,319,004.00	24,403,915.00
LEAVE SALARY	6,902,934.00	14,338,004.00
PAY AND ALLOWANCE - LOP	-	-9,497.00
LTC EXPENDITURE (NER)	1,300.00	-
LTC EXPENDITURE (ALL INDIA)	137,841.00	2,170,703.00
TRAINING AND UPGRADATION OF STAFF	5,613.00	-
STAFF AMENITIES	-	83,662.00
PAY AND ALLOWANCE - HOSTEL EMPLOYEES	6,420,949.00	6,426,216.00
PAY AND ALLOWANCE	535,464,123.00	536,130,891.00
MEDICAL REIMBURSEMENT TO STAFF	11,095,107.00	14,890,781.00
TA TO STAFF	4,621,099.00	6,700,616.00
CHILDREN EDUCATION ALLOWANCE	5,642,790.00	5,711,085.00
LTC EXPENDITURE (HOME)	-	54,719.00



SCHEDULE TO RECEIPTS AND PAYMENT ACCOUNTS

(Amount in Rupees)

Particulars	Current Year	Previous Year
FACULTY PROFESSIONAL DEVELOPMENT	12,739,315.00	7,637,441.00
CONTRIBUTION TO PENSION AND GRATUITY FUND	-	25,000.00
DAILY WAGES/CONTRACT WORKERS	2,297,274.00	2,448,829.00
	908,826,944.00	928,160,968.00
b) Academic Expenses		
TESTING AND CONSULTANCY ACCOUNT	-	1,205,248.00
CCB COUNSELLING (CSAB)	720,200.00	648,000.00
TUTION FEES	4,312,196.00	468,061.00
INSTITUTE FEES	-	120,900.00
INSURANCE CHARGES FOR STUDENTS	-	2,774,724.00
REGISTRATION FEES	130,753.00	123,820.00
ADMISSION FEES	76,335.00	720,547.00
MEDICAL EXAMINATION FEE	-	2,430.00
LIBRARY CHARGES FOR STUDENTS	-	2,000.00
HOSTEL FEES FROM STUDENTS	-	17,617.00
CONVOCATION A/C	1,853,992.00	2,637,254.00
INTER NIT MEET	97,525.00	522,849.00
LIBRARY JOURNAL	940,979.00	
STUDENTS AMENITIES	-	237,336.00
CELEBRATION OF INDEPENDANCE AND REPUBLIC DAY	126,461.00	64,900.00
CELEBRATION OF COLLEGE WEEK	-	874,021.00
EXAMINATION EXPENDITURE	3,182,560.00	40,605,179.34
CONFERENCE AND SEMINAR	49,121.00	64,470.00
CCB-AIEEE 2010	-	30,000.00
	11,490,122.00	51,119,356.34

c) Administrative Expenses		
HEFA INTEREST A/C	971,742.00	-
CONSUMABLE CHARGES	2,572,713.00	4,664,242.00
DEPT. OPT COST-ECE	118,593.00	339,148.00
DEPT. OPT COST-DEAN (STUDENT WELFARE)	52,668.00	-
RENT FOR CELL AT NEW DELHI	-	350,000.00
DEPT. OPT COST-HALL-5	-	29,000.00
DEPT. OPT COST-REGISTRAR OFFICE	44,580.00	85,605.00
TA AND PAPER PRE. TO FOR SEM.AND CONF.	-	71,351.00
FACULTIES AMENITIES	10,500.00	
AUDIT FEES	-	1,374,750.00
OUTSOURCING	141,279,592.00	147,509,974.00
TA AND REMU. TO VISITING LECTURER	655,467.00	1,168,799.00
DEPT. OPT COST-HALL-7	-	30,000.00
DEPT. OPT COST-ESTATE	237,417.00	482,560.00
TELEPHONE CHARGES	730,811.00	1,557,300.00
DEPT. OPT COST-INTERNAL TELEPHONE	56,090.00	59,752.00
RENT, RATES AND TAXES	-	9,072,000.00
AMBULANCE CHARGES	1,704,840.00	1,789,538.00





SCHEDULE TO RECEIPTS AND PAYMENT ACCOUNTS

(Amount in Rupees)

Particulars	Current Year	Previous Year
MISC. CHARGES	-153,383.00	-421,376.00
COMPUTER NETWORK AND BANDWIDTH	249,838.00	3,201,172.00
ACCREDITATION OF ENGINEERING COURSES	59,000.00	
TA AND REMUNERATION TO EXPERT/BOARD MEM	935,388.00	3,425,251.00
DEPT. OPT COST-CSE	-	286,367.00
MISC. EXPENSES	40,675.00	856,137.26
DEPT. OPT COST-PHYSICS	9,224.00	247,070.00
DEPT. OPT COST-DEAN (RESEARCH AND CONSULTANCY)	-	42,540.00
DEPT. OPT COST-COMPUTER CENTRE	10,000.00	14,778.00
WATER CHARGES TO DMC	584,500.00	688,000.00
WATER CHARGES TO DSP	113,596.00	533,594.00
ADVERTISEMENT EXPENSES	510,991.00	716,879.00
BANK CHARGES, COMMISSION AND INTEREST	157,280.26	42,426.65
TA TO CANDIDATE	-	217,200.00
DEPT. OPT COST-LIBRARY	118,825.00	173,886.00
DEPT. OPT COST-HALL-6	-	13,800.00
POSTAGE AND TELEGRAPH	111,394.00	240,660.00
CONTINGENCY TO INSTITUTE RESEARCH SCHOLAR	4,233,695.00	3,917,952.00
DEPT. OPT COST-WORKSHOP	38,700.00	39,163.00
DEPT. OPT COST-STORES	58,653.00	
PRINTING AND STATIONERY A/C	134,993.00	3,351,709.00
DEPT. OPT COST-ACADEMIC SECTION	58,523.00	69,989.00
INSURANCE CHARGES	2,485,812.00	305,624.00
DEPT. OPT COST-HALL-11	-	34,654.00
DEPT. OPT COST-FACULTY WELFARE	-	3,540.00
DEPT. OPT COST-WARDEN	74,418.00	91,603.00
DEPT. OPT COST-CIVIL ENGG	14,825.00	356,793.00
DEPT. OPT COST-MME DEPT	177,236.00	397,015.00
DEPT. OPT COST-DIRECTOR OFFICE	29,208.00	59,066.00
UPGRADATION OF INSTITUTE AUTOMATION	913,372.00	1,037,226.00
DEPT. OPT COST-CHEMICAL	150,944.00	254,543.00
DEPT. OPT COST-BIO TECH	49,256.00	401,965.00
FUEL FOR DG SET	274,896.00	765,446.00
LEGAL EXPENSES	532,980.00	3,177,320.00
DEPT. OPT COST-PTI	21,517.00	20,825.00
DEPT. OPT COST-CHEMISTRY (PG)	350,000.00	9,544.00
DEPT. OPT COST-HALL-8	17,000.00	15,000.00
OFFICE EXPENSES	219,597.00	405,028.00
DEPT. OPT COST-DIRECTOR BUNGLOW	44,252.00	60,631.00
DEPT. OPT COST-HUMANITIES	70,344.00	41,859.00
DEPT. OPT COST-PERSONNEL SECTION	96,986.00	180,388.00
DRUGS AND MEDICINE FOR HOSPITAL	380,912.00	2,530,881.00
DEPT. OPT COST-STUDENTS WELFARE	-	66,997.00
CONSULTANCY WORKS	321,896.00	250,165.00
DEPT. OPT COST-HALL-3	20,870.00	55,290.00



SCHEDULE TO RECEIPTS AND PAYMENT ACCOUNTS

(Amount in Rupees)

Particulars	Current Year	Previous Year
HOSTEL EMPLOYEES WELFARE A/C	2,174,834.00	2,427,619.00
WATER CHARGES EXPENDITURE	972,267.00	167,000.00
REMUNERATION TO SPECIALIST (PHYSICIAN)	4,041,955.00	5,180,129.00
DEPT. OPT COST-HALL-9	-	27,614.00
DEPT. OPT COST-SCIENCE MUSEUM 31.03.34	-	15,297.00
EXTRA CURRICULAR ACTIVITIES	1,612,722.00	7,448,825.00
DEPT. OPT COST-HALL-1	-	29,865.00
GENERAL STORES MATERIAL	177,205.00	1,571,550.00
MEETING EXPENSES	10,000.00	486,461.00
GUEST HOUSE EXPENDITURE	743,416.00	727,383.00
DEPT. OPT COST-MATHEMATICS	38,623.00	18,650.00
DEPT. OPT COST-MECH ENGG	58,110.00	168,516.00
DEPT. OPT COST-CHEMISTRY	81,321.00	687,688.00
MEDICAL EXPENSES FOR STUDENTS	-	10,936.00
DEPT. OPT COST-ELEC.ENGG.	118,223.00	378,363.00
ELECTRIC CHARGES TO DSP/DVC	20,737,666.00	39,026,326.00
DEPT. OPT COST-AUDIT SECTION	10,000.00	9,065.00
DEPT. OPT COST-EARTH AND ENVIN.SCI	35,460.00	76,541.00
DEPT. OPT COST-HALL-13	-	15,000.00
CAMPUS INTERVIEW	75,190.00	233,117.00
COVID-19 EXPENSES	658,557.00	
DEPT. OPT COST-ALUMNI AFFAIR OUTREACH	-	18,940.00
DEPT. OPT COST-HALL-12	-	4,499.00
DEPT. OPT COST-ACCOUNTS SECTION	86,157.00	148,653.00
BANK CHARGES OF PENSION A/C	-	3,805.50
	193,584,932.26	255,644,462.41

d) Transportation Expenses		
TA AND REGN FOR SEMINAR/CONF. IN INDIA AND ABROD	-	919,525.00
TA TO STAFF FOR MEDICAL PURPOSE	-	600.00
HIRE CHARGES OF CAR FROM OUTSIDE	1,429,437.00	2,785,305.00
	1,429,437.00	3,705,430.00

e) Repairs & Maintenances		
PETTY RENOVATION/REPAIR	-	-
CIVIL MAINTENANCE - STAFF QRTS	2,753,681.00	5,034,746.00
MAINT OF COLLEGE FURNITURE	249,314.00	153,232.00
MAINT. OF ROAD DRAIN AND CULVERT	-	1,470,181.00
CONTINGENCY - MAINTENANCE	27,741.00	80,402.00
MAINTENANCE OF ELECTRICAL INSTALLATION	5,448,167.00	2,317,691.00
CONTINGENCY FOR MEDICAL UNIT	250,142.00	223,951.00
CIVIL MAINTENANCE - HOSTEL	2,708,554.00	7,615,123.00
ELECTRIAL MAINTENANCE - STAFF QRTS	-	31,153.00
ELECTRICAL MAINTENANCE- INST. BLDG	-	1,097,580.00
MAINTENANCE OF COLLEGE EQUIPMENT	9,638.00	18,985,010.00



SCHEDULE TO RECEIPTS AND PAYMENT ACCOUNTS

(Amount in Rupees)

Particulars	Current Year	Previous Year
MAINTENANCE OF COLLEGE EQUIPMENT	7,693,989.00	-
CIVIL MAINTENANCE- INST. BLDG	2,074,065.00	4,797,880.00
	21,215,291.00	41,806,949.00

f) Prior period expenses	-	-
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II. Payments against Earmarked/ Endowment Funds		
HOSTEL EMPLOYEES WELFARE FUND	-	1,038,840.00

III. Payments against Sponsored Projects/ Schemes		
SRCC	14,152,054.00	67,110,314.00
PROJECT OTHERS	1,404,670.00	6,924,468.00
TEQIP- II	415,500.00	-
PROJECT RAMALINGASWAMI FELLOW	-	167,097.00
	15,972,224.00	74,201,879.00

IV. Payments against sponsored Fellowships and Scholarships		
SCHOLARSHIP TO INSTITUTE RESEARCH SCHOLAR	78,231,947.00	84,647,967.00
SCHOLARSHIP M TECH	63,559,497.00	56,150,121.00
OTHER SCHOLARSHIP	1,318,786.00	2,591,136.00
	143,110,230.00	143,389,224.00

V. Investments and Deposits made		
a) Out of Earmarked/Endowments Funds	-	-
b) Out of own funds (Investment- Others)		
INVESTMENT- PENSION AID FUND	-	683,511.00
INVESTMENT- GENERAL FUND	12,616,046.00	41,456,719.00
INVESTMENT- GENERAL PROVIDENT FUND	-	253,155.00
	12,616,046.00	42,393,385.00

VI. Term Deposits with Scheduled Banks		
CTD/RD	662,400.00	492,363.00

VII. Expenditure on Fixed Assets and Capital Works-in-Progress		
a) Fixed Assets		
RENOVATION OF ACADEMIC BUILDING	-	1,486,411.00
ELECTRICAL SUB-STATION	-	635,436.00
FURNITURE FOR BIO-TECH DEPTT	-	9,800.00
EQUIPMENT- ELECTRICAL ENGG DEPTT	-	177,329.00
LIBRARY JOURNAL (ASSETS)	-	398,287.00
EQUIPMENT- MECHANICAL ENGG. DEPTT	-	9,400.00
EQUIPMENT - ESTATE DEPTT	-	48,075.00
EQUIPMENT FOR INSTITUTE-PLANT MACHINERY	25,223,763.00	13,412,124.00
RESEARCH INITIATION GRANT	6,046,652.00	3,640,128.00
FURNITURE FOR INSTITUTE	1,284,648.00	6,791,976.00



SCHEDULE TO RECEIPTS AND PAYMENT ACCOUNTS

(Amount in Rupees)

Particulars	Current Year	Previous Year
COMPUTERS AND COMPUTER PERIPHERALS FOR INSTITUTE	19,476,765.00	14,258,720.00
E-BOOKS, E-JOURNAL, DATA BASE	47,061,675.22	11,734,796.00
BLDG. AND OTHER CAPITAL WORKS (A)	-	4,733,794.00
EQUIPMENT- HUMANITIES DEPTT	-	2,939,696.00
LIBRARY BOOKS	1,082,187.00	4,554,253.00
COMPUTER PERIPHERALS FOR COMP. CENTRE	-	18,757.00
CENTRE OF EXCELLENCE	282,000.00	-
	100,457,690.22	64,848,982.00

b) Capital Works-in-Progress		
CPWD PROJECTS ONGOING	11,000,000.00	213,803,865.00

VIII. Other Payments including statutory payments		
INCOME TAX	7,446,573.00	15,551,611.44
SERVICE TAX	-	238,639.00
GST/ GOODS & SERVICE TAX	261,950.62	-
	7,708,523.62	15,790,250.44

IX. Refunds of grants	-	-
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X. Deposits and Advances		
EMD/SD FOR SUPPLIER	11,633,174.00	6,105,071.00
ABHIJIT GHOSH, DEPT. OF PHYSICS		15,000.00
ADVANCE FOR COMPUTER TO EMPLOYEES	145,000.00	224,000.00
AJIT KR BHAGAT, SECURITY OFFICER		370,150.00
AJIT KUMAR MAIKAP, PHYSICS		10,000.00
AMIT LAKRA, JR. ASST.		20,000.00
AMIYA KR SARDAR (ASSTT REGISTRAR)		246,000.00
AMIYA KUMAR SAMANTA, CIVIL ENGG		28,365.00
ANIMESH DUTTA, IT		57,000.00
ANIRBAN SARKAR		10,000.00
ANIRUDDHA MONDAL, PHYSICS DEPTT		63,500.00
ANITA PAL, MATH		150,000.00
ANUP KUMAR ADHIKARY, TECH ASSTT.		50,000.00
ANUPAM BAGACHI, SUPERINTENDENT		7,000.00
ANUPAM BASU		296,496.00
APURBA DEY, BIO-TECH		61,610.00
APURBA LAYEK		20,000.00
ARUN CHARLES MINZ, JR. ASSISTANT		30,000.00
ASHIS MAL, ECE		20,000.00
ASHUTOSH DAS, ASSTT REGISTRAR(AUDIT)		5,000.00
ASIT KUMAR, DY. REGISTRAR(ESTABLISHMENT)	20,000.00	70,000.00
AVIJAN DUTTA, MBA		10,000.00
AVINASH ROY, 3RD YEAR B TECH		180,000.00
BANHI KUMAR SARKAR, MEDICAL OFFICER		20,000.00



SCHEDULE TO RECEIPTS AND PAYMENT ACCOUNTS

(Amount in Rupees)

Particulars	Current Year	Previous Year
BARNALI MAJI, BIOTECH		15,000.00
BIKASH DAS, LDA		20,000.00
BIMAL DAS, CHEMICAL ENGG		15,000.00
C SARVANAN		77,000.00
CHINTA MANI MISHRA		15,000.00
CHIRANJIB KOLEY		20,000.00
CO-OP CREDIT SOCIETY LTD	6,959,492.00	6,782,758.00
DAKSHINA RANJAN KISKU, CSE		15,000.00
DALIA DASGUPTA		20,000.00
DEBASISH DUTTA	5,000.00	
DEBASHISH MANDAL, ASSISTANT REGISTRAR REGISTRAR SECRETARIATE		10,000.00
DEBASISH MONDAL, ASSTT REGISTRAR(HOSTEL)		325,000.00
DEEPANWITA DAPTARI DAS, IT		15,000.00
DHRUBAJYOTI RAY, DY REGISTRAR		10,000.00
DIPANKAR NASKAR, JR. ASST		175,000.00
DIPANKAR SUKUL, ASS PROF, CHEMISTRY		20,000.00
DIPTESH DAS, CIVIL ENGG	60,000.00	282,000.00
GOPINATH HALDER, CHEMICAL		20,000.00
HILLOL MUKHERJEE, PTI		43,100.00
HIROK CHOWDHURY		42,000.00
INDRANIL BHATTACHARYE		50,000.00
IRFAN AHMED, EE DEPTT		90,000.00
JAYA SIKDER, CHEMICAL ENGG		55,000.00
JAYDEEP HAWLADER		5,000.00
JITENDRA KUMAR, ASSTANT LIBRARIAN		10,000.00
KAJLA BASU		10,000.00
KAKALI GANGULY, STAFF NURSE	50,000.00	-
KALYAN ADHIKARY, GEOLOGY		50,000.00
KAZY SUFIA KHANNAM		100,000.00
LIBRARY CAUTION MONEY (PG)	206,000.00	183,000.00
MADAN MOHAN GHOSH, MME DEPTT		30,000.00
MEHENDI BASU, 3RD YEAR B TECH		180,000.00
MONIDIPA GHOSH, BIO-TECH		175,000.00
MOUSUMI SAHA		15,000.00
N K RAY, EE		10,000.00
NANDA DULAL JANA, IT		15,000.00
NEELOTPAL BANERJEE, HOD DMS		10,000.00
NILANJAN CHATTARAJ		65,000.00
NILOTPAL BANERJEE, PROF OF ME AND DEAN (AAO)		10,000.00
NIRMAL BARAN HUI		200,000.00
PARIMAL ACHARJEE, EE		54,500.00
PARTHA PRATIM SENGUPTA		10,000.00
PATHIK KUMBHAKAR, PHYSICS		15,000.00
PINAKI PAL, MATH		137,000.00



SCHEDULE TO RECEIPTS AND PAYMENT ACCOUNTS

(Amount in Rupees)

Particulars	Current Year	Previous Year
POULOMEE GHOSH, 3RD YEAR B TECH		180,000.00
PRIME MINISTER RELIEF FUND	2,749,862.00	-
RABINDRA NATH BARMAN, ME DEPT.		60,000.00
RAJ NARAYAN SAHA, CHEMISTRY		29,949.00
RUDRA BANERJEE, STUDENT		180,000.00
RUPALI DUTTA, PERSONNEL SEC		25,000.00
S S THAKUR, EE		20,000.00
SAJAL BISWAS		14,881.00
SAJAL MUKHOPADHYAY, IT		65,000.00
SAMARJIT KAR		20,000.00
SANDIP DAS	45,000.00	70,000.00
SANDIP MONDAL, EES DEPTT		30,926.00
SANGHITA BHATTACHARJEE		55,000.00
SANJAY DHAR ROY, ECE		15,000.00
SANKAR CHANDRA MOI		150,000.00
SANTOSH KUMAR SAHA, TECH OFFICER	80,000.00	10,000.00
SAYON BHATTACHARYA, ASSTT REGISTRAR (LEGAL)		10,000.00
SHOWMEN SAHA, CIVIL		70,000.00
SHRI KRISHAN RAI, AP, HUMANITIES		45,000.00
SIBENDU SEKHAR ROY		40,000.00
SOUMITRA BANERJEE		40,000.00
SUBHAMOY CHONGDER		75,000.00
SUBHANKAR ROY BARMAN, BIO-TECH		50,000.00
SUBRATA CHAKRABORTY		90,000.00
SUBRATA NANDI		70,000.00
SUDIPTA KUMAR DAS		2,538.00
SUDIT S MUKHOPADHYAY, BIO-TECH		23,600.00
SUMAN HALDER		15,000.00
SUMANTA ROY, EEC		2,538.00
SUPRIYA SARKAR, ELECT. ENGG DEPTT		15,000.00
SURABHI CHOUDHURY		20,000.00
SUSMITA DUTTA, CHEMICAL		20,000.00
SUVROJIT DAS		113,500.00
TANDRA PAL (DEBROY)		20,000.00
TANMOY DEY, AP		30,000.00
TAPAS KUMAR LAIK		180,000.00
TAPAS SAHA, ELECTRICAL ENGG		10,000.00
TEMPORARY ADVANCE TO STAFF		25,000.00
TIMIR B GOLUI	60,000.00	65,000.00
TUHIN DUTTA		100,000.00
U C MUKHERJEE, DY REGISTRAR (FANDA)		10,000.00
IMP. ADV.- MADAN MOHAN GHOSH, HOD MME DEPT.	20,000.00	
IMP. ADV.- A C MINZ	10,000.00	
IMP. ADV.- AJIT KR BHAGAT, ESTATE	20,000.00	
IMP. ADV.- AMIYA KR SAMANTA	20,000.00	
IMP. ADV.- APURBA LAYEK	20,000.00	





SCHEDULE TO RECEIPTS AND PAYMENT ACCOUNTS

(Amount in Rupees)

Particulars	Current Year	Previous Year
IMP.ADV.- BISWAJIT HALDER	10,000.00	
IMP.ADV.- HILLOL MUKHERJEE, PTI	10,000.00	
IMP.ADV.- JOYDEEP BANERJEE	20,000.00	20,000.00
IMP.ADV.- KALLOL KHAN, ASSO. PROF OF ME	10,000.00	10,000.00
IMP.ADV.- N K ROY	10,000.00	
IMP.ADV.- PATHIK KUMBHAKAR	10,000.00	
IMP.ADV.- PINAKI PAL	20,000.00	
IMP.ADV.- R N SAHA	20,000.00	
IMP.ADV.- U C MUKHERJEE, DR REG(FANDA)	10,000.00	
IMP.ADV.-A DAS, ASST.REGISTRAR(AUDIT)	5,000.00	
IMP.ADV.-ABHIJIT GHOSH, PHYSICS	15,000.00	
IMP.ADV.-AJIT KUMAR MEIKAP	10,000.00	
IMP.ADV.-ANIRBAN SARKAR, DCA	10,000.00	
IMP.ADV.-ANIRUDDHA BHATTACHARYA, WARDEN HALL-06.	15,000.00	
IMP.ADV.-ASHIS KR MAL,ECE	20,000.00	
IMP.ADV.-ASIT KUMAR, DY. REGISTRAR(ESTB)	30,000.00	
IMP.ADV.-B K SARKAR, MED OFFICER	20,000.00	
IMP.ADV.-BIKASH KUMAR MONDAL WARDEN HALL-9	15,000.00	
IMP.ADV.-CHINTA MANI MISHRA WARDEN HALL-4	15,000.00	
IMP.ADV.-CHIRANJIB KOLEY, EE DEPT.	20,000.00	
IMP.ADV.-DAKSHINA RANJAN KISKU, WARDEN HALL-12	15,000.00	
IMP.ADV.-DEBASHISH MANDAL, ASSTT REGISTRAR	10,000.00	
IMP.ADV.-DHRUBAJYOTI ROY	10,000.00	
IMP.ADV.-GOPINATH HALDER	20,000.00	
IMP.ADV.-JITENDRA KUMAR, LIBRARY	10,000.00	
IMP.ADV.-KALYAN ADHIKARY, GEOLOGY	10,000.00	
IMP.ADV.-MANAB MALLIK, MME	15,000.00	15,000.00
IMP.ADV.-NANDA DULAL JANA, CSE	15,000.00	
IMP.ADV.-NILOTPAL BANERJEE, MECH ENGG	10,000.00	
IMP.ADV.-OINDRILLA MUKHERJEE, WARDEN HALL-10	15,000.00	
IMP.ADV.-RAJAT MAHAPATRA	10,000.00	10,000.00
IMP.ADV.-S S THAKUR, EE	40,000.00	
IMP.ADV.-SANDIP MOMDAL, EES	15,000.00	
IMP.ADV.-SAPANA RANWA, ECE	-	15,000.00
IMP.ADV.-SANGHITA BHATTACHARJEE, WARDEN HALL-07.	15,000.00	
IMP.ADV.-SANTOSH KR SAHA, TECH OFFICER	5,000.00	
IMP.ADV.-SEEMA SARKAR(MONDAL), MATH	15,000.00	15,000.00
IMP.ADV.-SHOWMEN SAHA	20,000.00	
IMP.ADV.-SURABHI CHOUDHURI, BIO TECH	20,000.00	
IMP.ADV.-SUVAMOY CHONGDER	15,000.00	
IMP.ADV.-TANDRA PAL (CSE)	20,000.00	-
	22,703,528.00	19,623,482.00



SCHEDULE TO RECEIPTS AND PAYMENT ACCOUNTS

(Amount in Rupees)

Particulars	Current Year	Previous Year
XI. Other Payments		
NIT DURGAPUR PRINCIPAL REPAYMENT ACCOUNT	-	5,000.00
NIT DURGAPUR INTEREST REPAYMENT ACCOUNT	-	5,000.00
NSS A/C	-	157,200.00
GPF LOAN ACCOUNT	469,000.00	377,840.00
GROUP INSURANCE	3,213.00	
HEFA PRINCIPAL LOAN	97,000,000.00	48,500,000.00
CCMT- NIMSET	403,600.00	-
INVESTMENT (TEQIP-I)	-	38,156.00
GKCIET MALDA ALL EXP. NON REC-REC	-	6,136,629.00
	97,875,813.00	55,219,825.00
XII. Closing Balances		
a) Cash Balances	-	-
b) Bank Balances		
i. In Current Account		
SBI 1A Rec A/c	1,949,153,530.78	1,906,473,480.96
ii. In Deposit Account		
SBI College Caution Money	8,687.82	8,687.82
SBI New Pension Scheme Bank A/c	9,859,275.25	12,756,028.25
	9,867,963.07	12,764,716.07
iii. In Savings Account		
SBI, GPF Savings Bank A/c	150,315,796.16	107,048,405.16
SBI Continuing Edu. Centre Sav Bank A/c	-	-
SBI Pension & Gratuity Sav. Bank A/c	18,535,686.36	17,197,099.36
Canara Bank Savings Bank A/c No-5494	1,922,422.60	1,865,709.60
Canara Bank Extn. Counter Savings Bank A/c	119,815,005.12	42,342,689.71
Canara Bank A/c No-1111	163,685.00	158,854.00
Canara Bank A/c No-1113	281,575.00	273,267.00
Canara Bank A/c No-1114	191,129.00	185,488.00
Canara Bank A/c No-1115	334,740.00	324,862.00
Canara Bank TEQIP-I	251,299.00	243,883.00
	291,811,338.24	169,640,257.83

NPS TIER - I ACCOUNT

RECEIPTS & PAYMENTS ACCOUNT FOR THE FINANCIAL YEAR 2020-21

Receipts	Amount(Rs.)	Payments	Amount(Rs.)
Opening Balance as on 01/04/2020	12,756,028.25	Investment	58,638,008.00
NPS Tier-I Account		Withdrawal/Refund to NSDL	
Own Subscription	23,063,496.00		
University Contribution	32,288,750.00	Closing Balance as on 31/03/2021	9,859,275.25
Interest on Savings Bank A/c	389,009.00		
	68,497,283.25		68,497,283.25

Joint Registrar (F&A)

Registrar

Director



PROVIDENT FUND ACCOUNT

RECEIPTS AND PAYMENT ACCOUNTS FOR THE FINANCIAL YEAR 2020-2021

Receipts	Amount(Rs.)	Payment	Amount(Rs.)
Opening Balance as on 01/04/2020			
SBI Branch-I		GPF Withdrawal	33,510,001.00
GPF Subscription	107,048,405.16	GPF Adv	469,000.00
CPF Subscription	73,348,642.00	NPS Tier-II	-
GPF Adv Refund	-	Institute Contribution Withdrawal	-
CPF Institute Contribution	291,570.00		
NPS Tier-II Account	-		
Investment Encashed	-	Investment during the year	-
Interest Received	-	Closing Balance	
	3,606,180.00	SBI Branch-I	150,315,796.16
	184,294,797.16		184,294,797.16

Joint Registrar (F&A)

Registrar

Director



PROVIDENT FUND ACCOUNT

INCOME AND EXPENDIYURE ACCOUNTS FOR THE FINANCIAL YEAR 2020-2021

		(Amount in Rupees)	
Expenditure	Amount(Rs.)	Income	Amount(Rs.)
Interest Credited to: GPF/CPF	-	Interest earned on Investment	7,568,974.00
Institute Contribution	-	Add: Interest accrued	-
NPS Tier-II Account	-	Add: Tax recovered on Interest-Refund to be obtained	3,606,180.00
Excess of Income over Expenditure	11,175,154.00	Add: Interest on SB	-
		Less: Interest accrued	
	11,175,154.00		11,175,154.00

Joint Registrar (F&A)

Registrar

Director



NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR

PROVIDENT FUND ACCOUNT

BALANCE SHEET AS AT 31st MARCH, 2021

Liabilities	Amount(Rs.)	Amount(Rs.)	Assets	Amount(Rs.)	Amount(Rs.)
GPF/CPF			Investment		581,379,769.00
Opening Balance			Int Accrued		3,606,180.00
General Provident Fund	261,810,340.60		Subscription Due		-
INTEREST ON GPF INVESTMENT	317,829,690.00		GPF/CPF		-
INTEREST ON SAVINGS BANK-GPF	10,104,645.68		UC due to CPF		-
Add: Subscription	589,744,676.28		NPS-II		-
	135,007,366.88		Tax recovered from		-
Add: Surplus transfer from Income & Expenditure Account	11,175,154.00		Interest on Investments		-
	735,927,197.16		Pending refund from		-
			Income Tax Department		
Less: Subscription	625,452.00		Cash at Bank		150,315,796.16
			SBI Branch-I		
					735,301,745.16

(Amount in Rupees)

Joint Registrar (F&A)

Registrar

Director





LIST OF INVESTMENT AS ON 31-03-2021

GENERAL FUND (NIT Durgapur Society)

(Amount in Rupees)

Sl no	Name of the Bank	FD No	Date of Invstment	Date of Maturity	Rate%	Principal Amount (Rs.)	Interest (Rs.)	Matured Value (Rs.)
1	SBI	32938044537	09-06-2020	09-06-2022	5.1%	18,365,974.00	1,959,093.00	20,325,067.00
2	SBI	36962196537	17-03-2021	15-06-2022	5.00%	6,314,777.00	403,528.00	6,718,305.00
3	SBI	36961111361	17-03-2021	15-06-2022	5.00%	12,040,366.00	769,406.00	12,809,772.00
4	SBI	36964267407	18-03-2021	16-06-2022	5.00%	6,279,447.00	401,270.00	6,680,717.00
5	SBI	36964266298	18-03-2021	16-06-2022	5.00%	12,040,373.00	769,406.00	12,809,779.00
6	SBI	31798608464	12-04-2011	12-04-2015	8.25%	6,899,885.00	587,095.00	7,486,980.00
7	SBI	36964286714	18-03-2021	16-06-2022	5.00%	12,040,373.00	769,406.00	12,809,779.00
8	SBI	36964287821	18-03-2021	16-06-2022	5.00%	2,087,161.00	133,374.00	2,220,535.00
9	Canara Bank	8569401001741/1	08-03-2021	18-03-2024	5.50%	14,000,000.00	2,517,805.00	16,517,805.00
10	Canara Bank	8569401001748/1	12-03-2021	21-03-2024	5.50%	14,000,000.00	2,515,320.00	16,515,320.00
11	Canara Bank	8569401001753/1	18-03-2021	30-03-2024	5.50%	14,000,000.00	2,522,776.00	16,522,776.00
12	Canara Bank	8569401001757/1	20-03-2021	28-03-2024	5.50%	14,000,000.00	2,512,835.00	16,512,835.00
13	Canara Bank	8569401001761/1	23-03-2021	29-03-2024	5.50%	14,000,000.00	2,507,864.00	16,507,864.00
14	Canara Bank	8569401001758/1	22-03-2021	12-04-2024	5.50%	15,000,000.00	2,726,939.00	17,726,939.00
15	Canara Bank	8569401001755/1	19-03-2021	04-04-2024	5.50%	15,000,000.00	2,713,625.00	17,713,625.00
16	Canara Bank	8569401001750/1	17-03-2021	22-03-2024	5.50%	15,000,000.00	2,684,335.00	17,684,335.00
17	Canara Bank	8569401001743/1	10-03-2021	21-03-2024	5.50%	15,000,000.00	2,700,311.00	17,700,311.00
18	Canara Bank	8569401001747/1	11-03-2021	26-03-2024	5.50%	16,000,000.00	2,891,694.00	18,891,694.00
19	Canara Bank	8569401001742/1	09-03-2021	29-03-2024	5.50%	16,000,000.00	2,905,895.00	18,905,895.00
20	Canara Bank	8569401001762/1	24-03-2021	31-03-2024	5.50%	6,488,659.00	1,163,486.00	7,652,145.00
21	SBI	34616550432	23-10-2020	23-10-2021	4.90%	15,034,797.00	750,353.00	15,785,150.00
22	SBI	36974898328	25-03-2021	23-06-2022	5.00%	12,040,426.00	769,410.00	12,809,836.00
23	SBI	36974856285	25-03-2021	23-06-2022	5.00%	10,944,148.00	699,355.00	11,643,503.00
24	SBI	36974901579	25-03-2021	23-06-2022	5.00%	10,672,369.00	681,988.00	11,354,357.00
25	SBI	36974856944	25-03-2021	23-06-2022	5.00%	12,040,426.00	769,410.00	12,809,836.00
26	SBI	36974899740	25-03-2021	23-06-2022	5.00%	12,040,426.00	769,410.00	12,809,836.00
27	SBI	36974903009	25-03-2021	23-06-2022	5.00%	10,672,369.00	681,988.00	11,354,357.00
28	SBI	36976479213	26-03-2021	24-06-2022	5.00%	12,547,397.00	801,806.00	13,349,203.00
29	SBI	36976480014	30-06-2017	28-09-2018	6.90%	8,020,592.00	714,028.00	8,734,620.00
30	HDFC BANK Limited	50300448881497	20-07-2020	21-07-2021	5.25%	19,900,000.00	1,067,172.00	20,967,172.00
31	HDFC BANK Limited	50300448881343	20-07-2020	22-07-2021	5.25%	19,650,589.00	1,056,774.00	20,707,363.00
32	CANARA BANK	0186401000012/3	16-03-2013	16-03-2023	9.05%	83,149.00	42,934.00	203,475.00
33	SBI	36976477045	16-03-2021	24-06-2022	5.00%	12,547,397.00	801,806.00	13,349,203.00
34	SBI	36976481937	26-03-2021	24-06-2022	6.25%	10,165,410.00	649,592.00	10,815,002.00
35	SBI	38599485649	12-07-2020	12-07-2021	5.10%	126,719.00	6,587.00	133,306.00
36	SBI	38606727721	16-07-2020	16-07-2021	5.10%	1,193,900.00	62,063.00	1,255,963.00
37	CANARA BANK	0186401002130/4	19-12-2020	19-12-2023	5.5%	3,092,314.00	550,643.00	3,642,957.00
38	CANARA BANK	0186401000009/15	13-12-2020	13-12-2021	5.25%	31,622.00	1,693.00	33,315.00
39	CANARA BANK	0186401002710/10	11-12-2020	11-12-2021	5.25%	329,102.00	17,621.00	346,723.00
40	CANARA BANK	0186401002705/6	06-12-2020	06-12-2021	5.25%	302,041.00	16,171.00	318,212.00
41	CANARA BANK	0186401002706/6	09-12-2020	09-12-2021	5.25%	500,820.00	26,816.00	527,636.00
42	CANARA BANK	0186401002704/6	04-12-2020	04-12-2021	5.25%	329,874.00	17,662.00	347,536.00
43	CANARA BANK	0186401002707/6	13-12-2020	13-12-2021	5.25%	250,022.00	13,387.00	263,409.00
44	CANARA BANK	8569401000835/27	02-02-2021	02-02-2022	5.25%	2,945,108.00	157,690.00	3,102,798.00
45	CANARA BANK	8569401000306/7	12-04-2021	12-04-2022	5.25%	13,428,303.00	712,006.00	14,140,309.00
46	CANARA BANK	8569401000107/9	12-04-2021	12-04-2022	5.25%	1,394,062.00	73,917.00	1,467,979.00
47	ORIENTAL BANK OF COMMERCE	03043031079826	06-03-2021	07-03-2022	3.25%	45,407,725.00	1,498,011.00	46,905,736.00
48	CANARA BANK	8569401001017/1	01-07-2020	01-07-2022	5.50%	6,567,145.00	758,124.00	7,325,269.00
49	CANARA BANK	8569401001018/1	01-07-2020	01-07-2022	5.50%	6,567,145.00	758,124.00	7,325,269.00
50	CANARA BANK	8569401001019/1	01-07-2020	01-07-2022	5.50%	6,567,145.00	758,124.00	7,325,269.00
51	CANARA BANK	8569401001020/1	01-07-2020	01-07-2022	5.50%	6,567,145.00	758,124.00	7,325,269.00
52	CANARA BANK	8569401001021/1	01-07-2020	01-07-2022	5.50%	6,567,145.00	758,124.00	7,325,269.00
53	CANARA BANK	8569401001022/1	01-07-2020	01-07-2022	5.50%	9,128,963.00	1,053,865.00	10,182,828.00
54	CANARA BANK	8569401001282/2	01-03-2021	01-03-2022	5.20%	5,693,305.00	301,875.00	5,995,180.00
55	CANARA BANK	8569401001282/3	01-03-2021	01-03-2022	5.20%	5,989,357.00	317,573.00	6,306,930.00
56	CANARA BANK	8569401000835/35	11-02-2021	11-02-2022	5.20%	6,936,423.00	367,789.00	7,304,212.00
57	SBI	38599487249	12-07-2020	12-07-2021	5.10%	278,068.00	14,455.00	292,523.00



LIST OF INVESTMENT AS ON 31-03-2021

GENERAL FUND (NIT Durgapur Society) Contd....

(Amount in Rupees)

Sl no	Name of the Bank	FD No	Date of Invstment	Date of Maturity	Rate%	Principal Amount (Rs.)	Interest (Rs.)	Matured Value (Rs.)
58	CANARA BANK	8569401000948/1	03-02-2021	03-02-2022	5.25%	7,035,646.00	376,708.00	7,412,354.00
59	CANARA BANK	8569401000948/2	03-02-2021	03-02-2022	5.25%	8,195,636.00	434,601.00	8,630,237.00
60	CANARA BANK	8569401000949/1	03-02-2021	03-02-2022	5.25%	7,035,646.00	376,708.00	7,412,354.00
61	CANARA BANK	8569401000949/2	03-02-2021	03-02-2022	5.25%	8,191,636.00	438,601.00	8,630,237.00
62	CANARA BANK	8569401000950/1	03-02-2021	03-02-2022	5.25%	7,035,646.00	376,708.00	7,412,354.00
63	CANARA BANK	8569401000950/2	03-02-2021	03-02-2022	5.25%	8,191,636.00	438,601.00	8,630,237.00
64	CANARA BANK	8569401000951/1	03-02-2021	03-02-2022	5.25%	7,035,646.00	376,708.00	7,412,354.00
65	CANARA BANK	8569401000951/2	03-02-2021	03-02-2022	5.25%	8,191,636.00	438,601.00	8,630,237.00
66	CANARA BANK	8569401000952/1	03-02-2021	03-02-2022	5.25%	7,035,646.00	376,708.00	7,412,354.00
67	CANARA BANK	8569401000952/2	03-02-2021	03-02-2022	5.25%	8,191,636.00	438,601.00	8,630,237.00
68	CANARA BANK	8569401000953/1	03-02-2021	03-02-2022	5.25%	7,035,646.00	376,708.00	7,412,354.00
69	CANARA BANK	8569401000953/2	03-02-2021	03-02-2022	5.25%	8,191,636.00	438,601.00	8,630,237.00
70	CANARA BANK	8569401000954/1	03-02-2021	03-02-2022	5.25%	7,035,646.00	376,708.00	7,412,354.00
71	CANARA BANK	8569401000954/2	03-02-2021	03-02-2022	5.25%	8,191,636.00	438,602.00	8,630,238.00
72	CANARA BANK	8569401000835/25	30-01-2021	30-01-2022	5.25%	977,123.00	52,318.00	1,029,441.00
73	CANARA BANK	0186401000009/8	16-03-2013	16-03-2023	9.05%	862,639.00	1,248,343.00	2,110,982.00
74	ALLAHABAD BANK	50535051910	20-11-2020	21-11-2021	5.10%	8,389,681.00	437,360.00	8,827,041.00
75	ALLAHABAD BANK	50535052506	20-11-2020	21-11-2021	5.10%	6,481,924.00	337,907.00	6,819,831.00
76	ALLAHABAD BANK	50534888756	19-11-2020	20-11-2021	5.10%	8,387,505.00	437,246.00	8,824,751.00
77	ALLAHABAD BANK	50534320828	19-11-2020	20-11-2021	5.10%	6,475,115.00	337,552.00	6,812,667.00
78	ALLAHABAD BANK	50534888654	19-11-2020	20-11-2021	5.10%	8,387,505.00	437,246.00	8,824,751.00
79	ALLAHABAD BANK	50534320760	19-11-2020	20-11-2021	5.10%	6,475,115.00	337,552.00	6,812,667.00
80	ALLAHABAD BANK	50534641774	19-11-2020	20-11-2021	5.10%	8,385,217.00	437,127.00	8,822,344.00
81	ALLAHABAD BANK	50506616343	31-10-2020	28-07-2021	4.45%	6,465,518.00	216,383.00	6,681,901.00
82	ALLAHABAD BANK	50534641741	19-11-2020	20-11-2021	5.10%	8,385,217.00	437,127.00	8,822,344.00
83	ALLAHABAD BANK	50534632963	19-11-2020	20-11-2021	5.10%	6,477,327.00	337,667.00	6,814,994.00
84	ALLAHABAD BANK	50506479712	31-10-2020	20-11-2021	5.10%	8,380,614.00	436,887.00	8,817,501.00
85	ALLAHABAD BANK	50534435794	19-11-2020	20-11-2021	5.10%	6,476,264.00	337,612.00	6,813,876.00
86	ALLAHABAD BANK	50534435727	19-11-2020	20-11-2021	5.10%	8,380,756.00	436,895.00	8,817,651.00
87	ALLAHABAD BANK	50534632929	19-11-2020	20-11-2021	5.10%	6,477,327.00	337,667.00	6,814,994.00
88	ALLAHABAD BANK	50534320919	19-11-2020	20-11-2021	5.10%	569,048.00	29,665.00	598,713.00
89	ALLAHABAD BANK	50508749767	24-11-2020	21-08-2021	4.40%	546,306.00	18,076.00	564,382.00
90	ALLAHABAD BANK	50508749825	22-11-2020	19-08-2021	4.40%	367,278.00	12,152.00	379,430.00
91	SBI	36976474634	26-03-2021	24-06-2022	5.00%	12,547,397.00	801,806.00	13,349,203.00
92	SBI	36976476154	26-03-2021	24-06-2022	5.00%	12,547,397.00	801,806.00	13,349,203.00
93	SBI	36976475480	26-03-2021	24-06-2022	5.00%	12,547,397.00	801,806.00	13,349,203.00
94	SBI	36976480897	26-03-2021	24-06-2022	5.00%	3,512,184.00	224,436.00	3,736,620.00
95	SBI	35207072472	02-09-2020	02-12-2021	5.10%	2,373,832.00	196,723.00	2,529,072.00
96	CANARA BANK	8569413000127/1	24-02-2020	01-09-2021	6.00%	9,887,251.00	937,236.00	10,824,487.00
97	CANARA BANK	8569413000128/1	24-02-2020	01-09-2021	6.00%	9,887,251.00	937,236.00	10,824,487.00
98	CANARA BANK	8569413000129/1	24-02-2020	01-09-2021	6.00%	9,887,251.00	937,236.00	10,824,487.00
99	CANARA BANK	8569413000130/1	24-02-2020	01-09-2021	6.00%	9,887,251.00	937,236.00	10,824,487.00
100	CANARA BANK	8569413000131/1	24-02-2020	01-09-2021	6.00%	9,887,251.00	937,236.00	10,824,487.00
101	CANARA BANK	8569413000132/1	24-02-2020	01-09-2021	6.00%	9,887,251.00	937,236.00	10,824,487.00
102	CANARA BANK	8569413000133/1	24-02-2020	01-09-2021	6.00%	9,887,251.00	937,236.00	10,824,487.00
103	CANARA BANK	8569413000134/1	24-02-2020	01-09-2021	6.00%	9,887,251.00	937,236.00	10,824,487.00
104	CANARA BANK	8569413000135/1	24-02-2020	01-09-2021	6.00%	9,887,251.00	937,236.00	10,824,487.00
105	CANARA BANK	8569413000136/1	24-02-2020	01-09-2021	6.00%	9,887,251.00	937,236.00	10,824,487.00
106	CANARA BANK	8569413000137/1	24-02-2020	01-09-2021	6.00%	9,887,251.00	937,236.00	10,824,487.00
107	CANARA BANK	8569413000138/1	24-02-2020	01-09-2021	6.00%	4,894,189.00	463,931.00	5,358,120.00
108	CANARA BANK	8569401001314/1	28-05-2019	28-05-2020	6.75%	312,453.00	21,631.00	334,084.00
109	ALLAHABAD BANK	50508749869	20-11-2020	17-08-2021	4.40%	496,662.00	16,433.00	513,095.00
110	CANARA BANK	8569413000262	09-10-2018	16-04-2020	7.10%	9,000,000.00	1,016,629.00	10,016,629.00
111	CANARA BANK	8569413000263	09-10-2018	16-04-2020	7.10%	9,000,000.00	1,016,629.00	10,016,629.00
112	CANARA BANK	8569413000264	09-10-2018	16-04-2020	7.10%	9,000,000.00	1,016,629.00	10,016,629.00
113	CANARA BANK	8569413000265	09-10-2018	16-04-2020	7.10%	9,000,000.00	1,016,629.00	10,016,629.00
114	CANARA BANK	8569413000266	09-10-2018	16-04-2020	7.10%	9,000,000.00	1,016,629.00	10,016,629.00
115	CANARA BANK	8569413000267	09-10-2018	16-04-2020	7.10%	9,000,000.00	1,016,629.00	10,016,629.00
116	CANARA BANK	8569413000268	09-10-2018	16-04-2020	7.10%	9,000,000.00	1,016,629.00	10,016,629.00
117	CANARA BANK	8569413000269	09-10-2018	16-04-2020	7.10%	9,000,000.00	1,016,629.00	10,016,629.00

**LIST OF INVESTMENT AS ON 31-03-2021****GENERAL FUND (NIT Durgapur Society) Contd....**

(Amount in Rupees)

Sl no	Name of the Bank	FD No	Date of Invstment	Date of Maturity	Rate%	Principal Amount (Rs.)	Interest (Rs.)	Matured Value (Rs.)
118	CANARA BANK	8569413000270	09-10-2018	16-04-2020	7.10%	9,000,000.00	1,016,629.00	10,016,629.00
119	CANARA BANK	8569413000271	09-10-2018	16-04-2020	7.10%	9,000,000.00	1,016,629.00	10,016,629.00
120	ORIENTAL BANK OF COMMERCE	3043031080327	26-04-2020	26-04-2021	3.25%	21,489,900.00	996,824.00	22,486,724.00
121	ORIENTAL BANK OF COMMERCE	3043031080334	26-04-2020	26-04-2021	3.25%	21,489,900.00	1,012,206.00	22,502,106.00
122	SBI	38442035542	08-05-2021	09-05-2022	5.00%	554,688.00	28,339.00	583,027.00
123	SBI	38442034763	08-05-2021	09-05-2022	5.00%	505,400.00	25,821.00	531,221.00
124	SBI	38442034139	08-05-2021	09-05-2022	5.00%	555,004.00	28,355.00	583,359.00
125	SBI	38442028477	08-05-2021	09-05-2022	5.00%	555,004.00	28,355.00	583,359.00
TOTAL-						1,048,193,584.00		

PENSION & GRATUITY FUND

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt.	Date of Matur	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	CANARA BANK	8569401001308/1	20-05-2020	20-05-2021	6.00%	2,611,178.00	153,412.00	2,764,590.00
2	SBI	31086874115	01-08-2020	01-08-2021	5.10%	1,659,278.00	86,255.00	1,745,533.00
3	SBI	31986875346	13-07-2020	13-07-2021	5.10%	1,650,892.00	85,819.00	1,736,711.00
4	SBI	31721424363	15-01-2021	15-01-2022	5.00%	631,002.00	32,147.00	663,149.00
5	CANARA BANK	0186401002708/6	25-10-2020	25-10-2021	5.3%	6,175,389.00	333,859.00	6,509,248.00
6	CANARA BANK	0186401002709/6	25-10-2020	25-10-2021	5.3%	6,175,389.00	333,859.00	6,509,248.00
7	SBI	38606723432	16-07-2020	16-07-2021	5.10%	6,389,432.00	332,146.00	6,721,578.00
8	SBI	38606726625	16-07-2020	16-07-2021	5.10%	9,025,078.00	469,157.00	9,494,235.00
9	SBI	38606731432	16-07-2020	16-07-2021	5.10%	6,389,432.00	332,146.00	6,721,578.00
10	SBI	38599488209	12-07-2020	12-07-2021	5.10%	6,426,483.00	334,072.00	6,760,555.00
11	CANARA BANK	0186401002198/8	12-04-2020	12-04-2021	6.00%	51,563,191.00	2,626,904.00	54,190,095.00
12	CANARA BANK	8569401001309/1	20-05-2020	20-05-2021	6.50%	2,889,357.00	169,756.00	3,059,113.00
13	CANARA BANK	8569413000171/1	08-03-2020	14-09-2021	6.00%	8,536,306.00	809,135.00	9,345,441.00
14	CANARA BANK	8569413000172/1	08-03-2020	14-09-2021	6.00%	7,874,868.00	746,440.00	8,621,308.00
TOTAL-						117,997,275.00		

GENERAL PROVIDEND FUND

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt.	Date of Matur	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	SBI	10894407558	21-03-2021	19-06-2022	5.00%	7,856,735.00	502,063.00	8,358,798.00
2	SBI	10894407547	21-03-2021	19-06-2022	5.00%	7,839,331.00	500,950.00	8,340,281.00
3	CANARA BANK	8569413000082/1	27-03-2021	03-10-2022	5.20%	12,121,026.00	990,666.00	13,111,692.00
4	CANARA BANK	8569413000082/2	27-03-2021	03-10-2022	6.00%	12,121,026.00	990,666.00	13,111,692.00
5	ALLAHABAD BANK	50507245900	01-11-2020	29-07-2021	4.5%	6,594,435.00	220,697.00	6,815,132.00
6	CANARA BANK	8569401000907/1	01-01-2021	01-01-2022	5.3%	12,030,325.00	644,135.00	12,674,460.00
7	ALLAHABAD BANK	50506479326	31-10-2020	28-07-2021	4.5%	2,990,646.00	100,089.00	3,090,735.00
8	CANARA BANK	8569401000908/1	01-01-2021	01-01-2022	5.3%	2,923,111.00	156,511.00	3,079,622.00
9	CANARA BANK	8569401000992/1	04-04-2020	04-04-2021	6.5%	709,496.00	44,653.00	754,149.00
10	CANARA BANK	8569413000170/1	06-03-2020	12-09-2021	6.0%	10,068,017.00	954,324.00	11,022,341.00
11	SBI	38606730686	16-07-2020	16-07-2021	5.1%	4,336,163.00	225,410.00	4,561,573.00
12	Punjab National Bank	319700U100000079	03-10-2019	10-04-2021	6.60%	50,000,000.00	5,228,553.00	55,228,553.00
13	Punjab National Bank	319700U100000060	03-10-2019	10-04-2021	6.60%	50,000,000.00	5,228,553.00	55,228,553.00
14	Punjab National Bank	319700U100000051	03-10-2019	10-04-2021	6.60%	50,000,000.00	5,228,553.00	55,228,553.00
15	Punjab National Bank	319700U100000042	03-10-2019	10-04-2021	6.60%	50,000,000.00	5,228,553.00	55,228,553.00
16	Punjab National Bank	319700U100000033	03-10-2019	10-04-2021	6.60%	50,000,000.00	5,228,553.00	55,228,553.00
17	Punjab National Bank	319700U100000088	03-10-2019	10-04-2021	6.60%	28,722,166.00	3,003,507.00	31,725,673.00
18	AXIS BANK LTD	919040077017212	25-09-2019	25-09-2022	7.00%	20,000,000.00	4,488,363.00	24,488,363.00
19	AXIS BANK LTD	919040077015119	25-09-2019	25-08-2022	7.00%	20,000,000.00	4,488,363.00	24,488,363.00
20	AXIS BANK LTD	919040077013964	25-09-2019	25-08-2022	7.00%	20,000,000.00	4,488,363.00	24,488,363.00
21	AXIS BANK LTD	919040077018257	25-09-2019	25-08-2022	7.00%	18,850,943.00	4,230,494.00	23,081,437.00
22	Axis Bank Ltd	919040081492591	21-10-2019	21-03-2022	7.00%	15,000,000.00	2,733,216.00	17,733,216.00



LIST OF INVESTMENT AS ON 31-03-2021

GENERAL PROVIDEND FUND

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt.	Date of Matur	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
23	Axis Bank Ltd	919040081491022	21-10-2019	21-03-2022	7.00%	15,000,000.00	2,733,216.00	17,733,216.00
24	Axis Bank Ltd	919040081489692	21-10-2019	21-03-2022	7.00%	13,554,115.00	2,469,755.00	16,023,870.00
25	ICICI BANK LTD	018813008464	21-10-2019	20-10-2021	7.00%	15,000,000.00	2,229,167.00	17,229,167.00
26	ICICI BANK LTD	018813008463	21-10-2019	20-10-2021	7.00%	15,000,000.00	2,229,167.00	17,229,167.00
27	ICICI BANK LTD	018813008465	21-10-2019	20-10-2021	7.00%	13,563,144.00	2,019,305.00	15,582,449.00
28	CANARA BANK	8569401001313/1	28-05-2020	28-05-2021	6.75%	4,031,346.00	236,850.00	4,268,196.00
29	CANARA BANK	8569401000956/1	08-02-2021	08-02-2022	5.20%	7,035,646.00	373,049.00	7,408,695.00
30	CANARA BANK	8569401000956/2	08-02-2021	08-02-2022	5.20%	8,827,040.00	468,034.00	9,295,074.00
31	CANARA BANK	8569413000082/6	11-02-2020	30-04-2021	6.00%	10,887,490.00	818,156.00	11,705,646.00
32	CANARA BANK	8569401001024/1	05-07-2020	05-07-2022	5.50%	745,602.00	86,074.00	831,676.00
33	CANARA BANK	8569413000082/5	11-02-2020	30-04-2021	6.00%	3,526,951.00	265,038.00	3,791,989.00
34	ALLAHABAD BANK	50506446379	31-10-2020	28-07-2021	4.45%	10,042,748.00	336,103.00	10,378,851.00
35	ALLAHABAD BANK	50506446787	20-11-2020	20-11-2021	5.10%	10,058,432.00	524,353.00	10,582,785.00
36	Canara Bank	8569401000909/1	01-01-2021	01-01-2022	5.25%	71,613.00	3,834.00	75,447.00
37	CANARA BANK	8569401001343/1	14-08-2020	13-08-2021	5.40%	1,872,222.00	103,166.00	1,975,388.00
					TOTAL	581,379,769.00		

KALYANESWARI DEVI S PALCHOUDHURY

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	SBI	30589907004	18-03-2021	16-06-2022	5.00%	153,478.00	9,808.00	163,286.00

CORPUS FUND

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	CANARA BANK	8569413000151/1	04-03-2020	10-09-2021	6.00%	8,651,345.00	820,039.00	9,471,384.00
2	CANARA BANK	8569413000152/1	04-03-2020	10-09-2021	6.00%	8,651,345.00	820,039.00	9,471,384.00
3	CANARA BANK	8569413000153/1	04-03-2020	10-09-2021	6.00%	8,651,345.00	820,039.00	9,471,384.00
4	CANARA BANK	8569413000154/1	04-03-2020	10-09-2021	6.00%	8,651,345.00	820,039.00	9,471,384.00
5	CANARA BANK	8569413000155/1	04-03-2020	10-09-2021	6.00%	8,651,345.00	820,039.00	9,471,384.00
6	CANARA BANK	8569413000156/1	04-03-2020	10-09-2021	6.00%	8,651,345.00	820,039.00	9,471,384.00
7	CANARA BANK	8569413000157/1	04-03-2020	10-09-2021	6.00%	8,651,345.00	820,039.00	9,471,384.00
8	CANARA BANK	8569413000158/1	04-03-2020	10-09-2021	6.00%	1,623,849.00	153,921.00	1,777,770.00
9	CANARA BANK	8569401000307/7	13-04-2020	14-04-2021	6.75%	6,689,872.00	400,026.00	7,089,898.00
10	SBI	36962190422	17-03-2021	15-06-2022	5.00%	12,140,490.00	775,804.00	12,916,294.00
11	SBI	36961108846	17-03-2021	15-06-2022	5.00%	12,040,366.00	769,406.00	12,809,772.00
12	SBI	36961108085	17-03-2021	15-06-2022	5.00%	12,040,366.00	769,406.00	12,809,772.00
13	SBI	36961107194	17-03-2021	15-06-2022	5.00%	12,040,366.00	769,406.00	12,809,772.00
14	SBI	36961109872	17-03-2021	15-06-2022	5.00%	12,040,366.00	769,406.00	12,809,772.00
15	SBI	36961110572	17-03-2021	15-06-2022	5.00%	12,040,366.00	769,406.00	12,809,772.00
16	SBI	36961112332	17-03-2021	15-06-2022	5.00%	12,040,366.00	769,406.00	12,809,772.00
17	SBI	36961095891	17-03-2021	15-06-2021	5.00%	5,079,988.00	324,622.00	5,404,610.00
18	CANARA BANK	8569413000329/1	05-10-2020	13-04-2022	5.25%	2,374,153.00	195,880.00	2,570,033.00
19	CANARA BANK	8569413000326/1	04-10-2020	12-04-2022	5.25%	4,451,808.00	367,483.00	4,819,291.00
					TOTAL-	165,161,771.00		

A M DAS DONATION

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	SBI	31324773597	05-08-2020	05-08-2021	5.10%	116,662.00	6,065.00	122,727.00
2	SBI	10894402980	15-09-2019	15-09-2022	6.25%	18,862.00	3,857.00	22,719.00
					TOTAL-	135,524.00		





LIST OF INVESTMENT AS ON 31-03-2021

D.M.SEN DONATION

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	SBI	31798609864	05-06-2021	05-06-2022	5.00%	3,30,000.00	16,812.00	3,46,812.00
2	SBI	31715984287	08-01-2021	08-01-2022	5.00%	6,65,140.00	33,886.00	6,99,026.00
					TOTAL-	9,95,140.00		

MAINTENANCE FUND

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	CANARA BANK	8569401000310/7	13-04-2020	14-04-2021	6.75%	4,068,383.00	243,276.00	4,311,659.00
2	CANARA BANK	8569413000145/1	04-03-2020	10-09-2021	6.00%	8,651,345.00	820,039.00	9,471,384.00
3	CANARA BANK	8569413000146/1	04-03-2020	10-09-2021	6.00%	8,651,345.00	820,039.00	9,471,384.00
4	CANARA BANK	8569413000147/1	04-03-2020	10-09-2021	6.00%	8,651,345.00	820,039.00	9,471,384.00
5	CANARA BANK	8569413000148/1	04-03-2020	10-09-2021	6.00%	8,651,345.00	820,039.00	9,471,384.00
6	CANARA BANK	8569413000149/1	04-03-2020	10-09-2021	6.00%	8,651,345.00	820,039.00	9,471,384.00
7	CANARA BANK	8569413000150/1	04-03-2020	10-09-2021	6.00%	8,913,066.00	844,848.00	9,757,914.00
					TOTAL-	56,238,174.00		

NEW PENSION SCHEME

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	CANARA BANK	8569413000213	08-01-2020	16-07-2021	6.00%	6,271,503.00	594,491.00	6,865,994.00
2	CANARA BANK	8569413000214	08-01-2020	16-07-2021	6.00%	10,561,721.00	1,001,172.00	11,562,893.00
3	CANARA BANK	8569413000215	08-01-2020	16-07-2021	6.00%	45,402.00	4,303.00	49,705.00
					TOTAL-	16,878,626.00		

STAFF DEVELOPMENT FUND

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	Canara Bank	8569413000163/1	04-03-2020	10-09-2021	6.00%	86,51,345.00	8,20,039.00	94,71,384.00
2	Canara Bank	8569413000164/1	04-03-2020	10-09-2021	6.00%	86,51,345.00	8,20,039.00	94,71,384.00
3	Canara Bank	8569413000165/1	04-03-2020	10-09-2021	6.00%	86,51,345.00	8,20,039.00	94,71,384.00
4	Canara Bank	8569413000166/1	04-03-2020	10-09-2021	6.00%	86,51,345.00	8,20,039.00	94,71,384.00
5	Canara Bank	8569413000167/1	04-03-2020	10-09-2021	6.00%	30,49,873.00	2,89,090.00	33,38,963.00
6	Canara Bank	8569401000308/14	13-04-2020	14-04-2021	6.75%	49,60,852.00	2,96,638.00	52,57,490.00
7	Canara Bank	8569401000308/13	13-04-2020	15-04-2021	6.75%	1,57,36,144.00	9,40,957.00	1,66,77,101.00
					TOTAL-	5,83,52,249.00		

DEPRECIATION FUND

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	Canara Bank	8569413000159/1	04-03-2020	10-09-2021	6.00%	8,596,939.00	814,883.00	9,411,822.00
2	Canara Bank	8569413000160/1	04-03-2020	10-09-2021	6.00%	8,596,939.00	814,883.00	9,411,822.00
3	Canara Bank	8569413000161/1	04-03-2020	10-09-2021	6.00%	8,596,939.00	814,883.00	9,411,822.00
4	Canara Bank	8569413000162/1	04-03-2020	10-09-2021	6.00%	9,176,692.00	869,838.00	10,046,530.00
5	Canara Bank	8569401000309/14	13-04-2020	14-04-2021	6.75%	3,234,707.00	171,889.00	3,406,596.00
6	Canara Bank	8569401000309/13	13-04-2020	14-04-2021	6.75%	15,733,139.00	836,039.00	16,569,178.00
					TOTAL-	53,935,355.00		



LIST OF INVESTMENT AS ON 31-03-2021

MESS CAUTION MONEY

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	Canara Bank	8569401001282/1	01-03-2021	01-03-2022	5.20%	3,162,840.00	167,702.00	3,330,542.00

COLLEGE CAUTION MONEY

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	SBI	33397784293	31-01-2019	31-01-2022	6.80%	2,391,466.00	536,160.00	2,927,626.00

HOSTEL EMPLOYEE WELFARE FUND

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	SBI	30508153312	26-09-2020	26-09-2021	4.90%	140,780.00	7,026.00	147,806.00

SPECIAL FUND CONSULTANCY SERVICE

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	SBI	32050982046	26-09-2020	26-09-2021	4.9%	25,50,459.00	1,27,288.00	26,77,747.00

STUDENT AID FUND

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	CANARA BANK	8569401001634/1	09-10-2020	09-10-2021	5.30%	28,38,182.00	1,53,440.00	29,91,622.00
2	SBI	32050980832	26-09-2020	26-09-2021	4.90%	9,09,148.00	45,374.00	9,54,522.00
3	SBI	11520066763	14-09-2020	14-09-2021	4.90%	1,64,996.00	8,235.00	1,73,231.00
					TOTAL	39,12,326.00		

S P & R B CHUDHURY M FUND

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	SBI	30589914602	09-11-2020	09-11-2021	4.90%	28,030.00	1,399.00	29,429.00

RE COLLEGE DURGAPUR

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	SBI	34036945869	11-09-2020	11-09-2021	4.90%	1,67,05,253.00	8,33,722.00	1,75,38,975.00

Prof. D. K. PAL GOLD MEDAL

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	CANARA BANK	0186401001324/13	20-11-2020	20-11-2021	5.25%	2,82,987.00	15,151.00	2,98,138.00



**LIST OF INVESTMENT AS ON 31-03-2021****NG and H SAHA MEMORIAL SCHOLARSHIP**

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	CANARA BANK	8569401000882/6	05-11-2020	05-11-2021	5.30%	66,296.00	3,584.00	69,880.00

ANIRVAN MANDAL MEMO SCHOLARSHIP

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	CANARA BANK	8569401001076/1	16-12-2020	16-12-2021	5.25%	6,32,843.00	33,884.00	6,66,727.00

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	SBI	38599489575	12-07-2020	12-07-2021	5.10%	9,11,343.00	47,375.00	9,58,718.00

NIMCET, NIT DURGAPUR

(Amount in Rupees)

Sl no	Name of the Bank	KD/FD No	Date of Invt/	Date of Maturity	Rate%	Amount (Rs.)	Interest (Rs.)	Matured Value
1	CANARA BANK	8569433000001/1	08-03-2021	09-03-2022	5.20%	2,36,479.00	12,573.00	2,49,052.00
2	SBI	32465428383	07-04-2021	07-04-2022	5.00%	21,47,662.00	1,09,413.00	22,57,075.00
					TOTAL-	23,84,141.00		



SCHEDULE – 23 SIGNIFICANT ACCOUNTING POLICIES

NOTES ON ACCOUNTS:

1. National Institute of Technology Durgapur is an Autonomous body. The Institute is fully financed by the Department of Higher Education, Ministry of Education, Government of India through plan and Non-Plan Grants. The Plan Grants are used for Development of General Activities (including SC/ST) purpose whereas the Non-Plan Grants are used for meeting the day-to-day expenditure including the salaries of employees of the Institute.
2. **Financial Statements -**
The Institute prepared the following Financial Statements i.e. Balance Sheet, Income & Expenditure Account and Receipt & Payment Account for the period 2020-21. The format of Accounts prepared as desired by the Ministry of Education, Government of India in consultation with Comptroller and Auditor General India and approved by the Government of India.
3. **Accounting Concept-**
The financial statement have been prepared under Historical Cost Convention unless otherwise stated and on the principal of ongoing concern method.
4. **Accounting Basis –**
The account is prepared under accrual basis of accounting. Government grants and subsidies are accounted for on accrual basis if reasonable assurance obtained for its definite future receipts.
5. **Investment Accounting -**
Investments are valued at Cost. Interest receivable on the fixed deposits held as investments is accounted for under accrual basis.
6. **Government Grants and Subsidies –**
Government Grants / Subsidies receivable during the year under Plan head are being treated as Capital Receipts and accounting for under Corpus Fund. Government Grants / Subsidies receivable during the year under Non-Plan head are being treated as Revenue receipts and accounted for as income under the head Grants & Donations.
7. **Fixed Assets Accounting -**
Fixed assets are valued at a cost of acquisition inclusive of Inward expenses and incidental, condemned and unserviceable assets are written off and in accounts as and when arise adjusted.
8. **Depreciation Accounting –**
A. Depreciation has been provided on the fixed assets procured by the Institute under Straight Line method and at the following rates –



Sl.No.	Particulars	Rate of Depreciation (p.a.)
I.	Building	2%
II.	Plant, Machineries & Equipments	5%
III.	Vehicles	10%
IV.	Furniture & Fixture	7.5%
V.	Office Equipments	7.5%
VI.	Computer Peripherals	20%
VII.	Electrical Installation	5%
VIII.	Library Books	10%
IX.	E-Journals	40%
X.	Computer Software	40%

B. While providing depreciation, the rates have been considered as specified in the MHRD Act. Depreciation is provided for the whole year on additions during the year.

9. **Provident Fund Accounting -**

The Provident Fund Account is merged with Institute's Main Account.

10. Balance of net Income/Expenditure transferred from the Income and expenditure account to Corpus Fund as per the format.

11. Previous year figures have been rearranged and regrouped wherever deemed necessary.

Joint Registrar (F&A)

Registrar

Director



**Scanned copy of
Separate Audit
Report of the
Annual Account
for the year
2020-2021**



सत्यमेव जयते

SPEED POST



**भारतीय लेखा तथा लेखा-परीक्षा विभाग
महा निदेशक, लेखा-परीक्षा का कार्यालय,
केन्द्रीय, कोलकाता**

**INDIAN AUDIT AND ACCOUNTS DEPARTMENT
OFFICE OF THE DIRECTOR GENERAL OF AUDIT,
CENTRAL, KOLKATA.**

No: OA II (AB)/AR/2020-21/NITD/472

Date: 10.01.2022

A copy of the Separate Audit Report, alongwith Annexure, on the accounts of the National Institute of Technology, Durgapur, for the financial year 2020-21, is forwarded to **the Director, National Institute of Technology, Durgapur -713209**, for information and necessary action.

In this regard, it has been observed that, despite their having been highlighted, in previous Audit Reports certain lacunae still remain unrectified. A number of such persistent irregularities have been reported vide Para Nos. 1.1.1, 1.1.2, 1.2.3, 3.5, 3.6, 3.7, 3.8, 3.10, 3.11 and 3.12 of the current Audit Report. I am to request you to rectify these irregularities at the earliest, since non-compliance may lead to the possibility of issuance of a negative certificate during the next audit.

Arrangement may please be made for preparation of Hindi Version of the Separate Audit Report, with Annexure, at your end, and for sending the same directly to the Ministry.

It may please be ensured that the Audited Accounts and the Separate Audit Report, along with Annexure, are placed before the apex body, for consideration and adoption, before the same are sent to the Government for being placed in the Parliament.

A copy of the printed Annual Report, for the financial year 2020-21 (both English and Hindi Version), containing the Audited Accounts and the Separate Audit Report, along with Annexure, as laid before the Parliament, may please be forwarded to this office, for necessary action at this end.

Encl.: As stated

Dy. Director (Inspection)

जि. आई. प्रेस बिल्डिंग, 8 किरण शंकर राय रोड (1म मंजिल), कोलकाता-700001
Govt. of India Press Building. 8, Kiran Sankar Roy Road, Kolkata - 700001
Phone : 2254-0221, (Gram: ACCOUNTCENT) POST BOX : 2699, Fax No.: 033 22135377



सत्यमेव जयते

दीपक नारायण
Deepak Narain

SPEED POST

CONFIDENTIAL

महानिदेशक लेखापरीक्षा, केन्द्रीय, कोलकाता
गवर्नमेंट ऑफ़ इण्डिया प्रेस बिल्डिंग (इस्ट विंग), प्रथम तल
8, किरण शंकर रॉय रोड, कोलकाता-700 001

Director General of Audit, Central, Kolkata
Government of India Press Building (East Wing), 1st Floor
8, Kiran Sankar Roy Road, Kolkata-700 001

D.O No.: OA-II(AB)/AR/2020-21/NITD/47/
Date: 10th January, 2022

Dear Sir,

I am to forward herewith the Separate Audit Report, in the prescribed format, on the accounts of the **National Institute of Technology, Durgapur**, for the financial year 2020-21. A copy of the annual accounts of the organisation, for the financial year 2020-21, is also enclosed.

2. In this regard, it has been observed that, certain lacunae still remain unrectified, despite having been highlighted, in previous Audit Reports. Some of these lacunae/ persistent irregularities find mention under Paragraph Numbers 1.1.1, 1.1.2, 1.2.3, 3.5, 3.6, 3.7, 3.8, 3.10, 3.11 and 3.12 of the current Audit Report. I would, accordingly, request that the Ministry may kindly consider advising NIT, Durgapur, to rectify these irregularities at the earliest, in order to avoid the possibility of issuance of a negative certificate, during the next audit.

3. A copy of the Separate Audit Report (both English and Hindi Version), as presented before the Parliament, may please be forwarded to this office, for necessary action at this end.

4. The dates of laying of the audited accounts and the Separate Audit Report, for the financial year 2020-21, on the Tables of both the Houses of Parliament, may also please be communicated to this office.

with regards,

Yours sincerely,

Enclosure: as stated

Shri K Sanjay Murthy,
Secretary,
Ministry of Culture,
Department of Culture, 127-C, Shastri Bhavan,
NEW DELHI - 110001

दू.भा./Tel : 033 2213 5373 / 5374 / फैक्स /Fax No.:033 2213 5377 / ई-मेल / E-mail : narainD@cag.gov.in



Separate Audit Report of the Comptroller & Auditor General of India, on the Accounts of the National Institute of Technology, Durgapur, for the financial year ended 31 March 2021

We have audited the attached Balance Sheet of the National Institute of Technology, Durgapur, as at 31 March 2021, the Income and Expenditure Account and Receipts and Payments Account, for the year ended on that date, under Section-19(2) of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971, read with Section 22(2) of the National Institutes of Technology Act, 2007. These financial statements are the responsibility of the Institute's management. Our responsibility is to express an opinion on these financial statements, based on our audit.

2. This Separate Audit Report contains the comments of the Comptroller and Auditor General of India (CAG) on the accounting treatment only, with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on financial transactions, with regard to compliance with the Law, Rules and Regulations (i.e., Propriety and Regularity aspects) and efficiency-cum-performance aspects, etc., if any, are reported through Inspection Reports/CAG's Audit Reports separately.

3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

4. Based on our audit, we report that:



- i. We have obtained all the information and explanations, which, to the best of our knowledge and belief, were necessary for the purpose of our audit;
- ii. The Balance Sheet and Income and Expenditure Account/Receipts and Payments Account, dealt with by this report, have been drawn in the revised format of Accounts prescribed by the Ministry of Education (erstwhile Ministry of Human Resource Development), Government of India, for Central Education Institutions, vide order No.29-4/2012-PD dated 17 April 2015.
- iii. In our opinion, proper books of accounts and other relevant records have been maintained by the National Institute of Technology, Durgapur, as required, insofar as it appears from our examination of such books.
- iv. We further report that:

Comments on Accounts

A. Balance Sheet

1.1 Liabilities

1.1.1 Designated/ Earmarked/Endowment Funds (Schedule-2): ₹157.43 crore

Despite mention in the previous year's audit report, the above head was overstated, as the 'New Pension Scheme' fund balance, amounting to ₹2.75 crore, was again included under the 'Earmarked Funds' (Schedule-2), instead of being shown under a separate account, attached with the annual accounts, in violation of the Format of Accounts prescribed by the MoE (erstwhile MHRD). This further resulted in overstatement of 'Current Assets' (Schedule-7) by ₹2.75 crore.

1.1.2 Current Liabilities and Provisions (Schedule-3): ₹112.62 crore

Despite mention in the previous year's audit report, and in violation of the Format of Accounts approved by MoE, the above head was overstated by ₹83.30 crore. This was due to inclusion of the fund balances and interest of the 'General Provident Fund' (₹73.53 crore) as well as the 'Contributory Provident Fund' (₹9.77 crore), instead of showing these balances and interest in a separate account. This further resulted in overstatement of the 'Current Assets' (Schedule-7) by ₹83.30 crore.



1.2 Assets

1.2.1 Investments – Others (Schedule – 6): ₹213.26 crore

The above head was understated by an amount of ₹1.85 crore, during the financial year 2020-21, due to exhibition of investments, against the ‘General Fund’, being shown as ₹10.49 crore, instead of being shown as ₹12.34 crore. This further resulted in understatement of the ‘Current Liabilities and Provisions’ (Schedule-3), by the same amount.

1.2.2 Current Assets (Schedule – 7): ₹225.08 crore

The above head was understated by an amount of ₹10.02 crore, due to non-exhibiting the closing balances of two separate savings bank accounts for: (i) the Sponsored Research Consultancy Cell (SRCC) and (ii) Continuing Education Programme (CEP), as on 31 March 2021. This further resulted in understatement of the ‘Current Liabilities and Provisions’ (Schedule-3), by the same amount.

1.2.3 Loans, Advances and Deposits (Schedule-8): ₹24.23 crore

(i) Despite mention in the previous financial year’s audit report, the above head was overstated by ₹1.12 crore, as subscriptions and contributions, for the New Pension Scheme, were paid from the ‘1A Rec A/c’, instead of being paid from the ‘SBI New Pension Scheme Bank A/c’, and the said amount was, thereafter, shown as ‘Receivable from NPS to IA Rec A/c’. This further resulted in understatement of the ‘Current Assets’ (Schedule-7), by an amount of ₹1.12 crore, as on 31 March 2021.

(ii) The above head was understated by ₹6.21 crore, due to non-inclusion of ‘Refundable Income Tax’ of ₹2.77 crore and ‘License Fee & Electricity charges’ of ₹3.44 crore, receivable during the financial year 2020-21. This also resulted in understatement of the ‘Corpus/ Capital Fund’ (Schedule-1), by the same amount.



B. Income and Expenditure Account

2.1 Expenditure

2.1.1 Depreciation (Schedule-4): ₹13.85 crore

The above head was understated by ₹10.05 lakh, due to the following:

- (i) Depreciation was overcharged by ₹0.14 lakh (@5% of ₹2.82 lakh), due to inclusion of expenditure of ₹2.82 lakh, incurred towards Scholarship and HRA to Research Scholars, as 'Plant, Machineries and Equipment', under 'Fixed Assets'(Schedule-4), instead of accounting for the same as 'Revenue Expenditure'.
- (ii) Depreciation was overcharged by ₹0.34 lakh (₹0.33 lakh + ₹0.01 lakh) [@20% of ₹1.67 lakh + @5% of ₹0.28 lakh], due to booking of revenue expenditure amounting to ₹1.95 lakh [Cable Connection: ₹0.45 lakh and Wi-Fi maintenance: ₹1.50 lakh], as capital expenditure, under the sub-heads 'Computer and Peripherals' (₹1.67 lakh) and 'Plant, Machineries and Equipment' (₹0.28 lakh), under 'Fixed Assets'(Schedule-4).
- (iii) Depreciation was undercharged by ₹0.09 lakh [@7.5% of ₹3.54 lakh – @5% of ₹3.54 lakh], due to inclusion of expenditure incurred towards purchase of UPS, amounting to ₹3.54 lakh, under the head 'Plant, Machineries and Equipment', instead of accounting for the same under the head 'Furniture & Fixtures', in terms of MoE guidelines.
- (iv) Depreciation was undercharged by ₹10.44 lakh, due to inclusion of expenditure incurred towards purchase of Software, amounting to Rs. 43.85 lakh, under the heads 'Computers/Peripherals' (₹32.70 lakh) and 'Plant, Machineries and Equipment' (₹11.15 lakh), instead of accounting for the same under the head 'Computer Software'.

This further resulted in overstatement of the surplus (being the excess of Income over Expenditure), by the same amount.



C. General

3.1 As per the Bank Reconciliation Statement, during the financial years 2008-09 to 2019-20, 'receipts' of ₹157.27 lakh were recorded in the Cash Book, but had not been credited in the Institute's bank account (SBI Account No: 11520034072), till 31 March 2021. The Institute needs to take necessary steps to review the same, for further action, at the earliest.

3.2 As per the Bank Reconciliation Statement, during the financial years 2009-10 to 2016-17, ₹13.93 lakh was debited from the Institute's Bank Account (SBI Account No: 11520034072), but had not been entered in the Cash Book, till 31 March 2021. The Institute needs to take necessary steps to review the same, for further action, at the earliest.

3.3 As per the Bank Reconciliation Statement, during the financial years 2016-17 to 2018-19, there was incorrect recording of ₹9.43 lakh in the Cash Book. However, the same had not been rectified till 31 March 2021.

3.4 As per the Bank Reconciliation Statement, the Institute had not taken into account ₹64.17 lakh (Time-barred cheques: ₹19.48 lakh and receipts credited in bank account No: 11520034072: ₹44.69 lakh), pertaining to the financial years 2008-09 to 2018-19, in the Cash Book, as on 31 March 2021. This needs to be reconciled at the earliest.

3.5 Despite mention in the previous financial year's audit report, in deviation from the Format of Accounts prescribed by MoE, three reserve funds, with a total balance of ₹4.91 crore, were again created under the head 'Corpus/Capital Fund' (Schedule-1).

3.6 Despite mention in the previous financial year's Audit Report, the schedule of 'Endowment Funds' (Schedule-2) was not prepared as per the format approved by MoE. Moreover, the opening balance of interest earned, and the total accumulated interest, were not exhibited.

3.7 Despite mention in the previous financial year's Audit Report, the Institute did not prepare 'Schedule – 3C (Unspent Grants)' and 'Schedule – 10 (Grants/ Subsidies)', as per the format of



accounts prescribed by MoE. Thus, the unspent balance of grants received under the Capital, Revenue and Specific Purpose heads, as well as the interest earned thereon, were not exhibited separately.

3.8 No actuarial provision was made towards retirement benefits and leave encashment, in term of Accounting Standard 15 and the Format of Accounts prescribed by MoE.

3.9 In violation of the Format of Accounts prescribed by the MoE, certain items of accounts (such as Tuition fee, Admission fee, Registration fee, Training and Placement fee, Library charge, Students Activity Fund), were not shown separately in the Annual Accounts.

3.10 Despite mention in the previous financial year's Audit Report, and in violation of Accounting Standard-5, the impact on the annual accounts was not disclosed in the 'Notes to Accounts', even though the method of depreciation had been changed, from the 'Written Down Method', to the 'Straight Line Method', from the financial year 2018-19.

3.11 The Annual Accounts exhibited a balance of ₹158.39 lakh, comprising of 'deposits from students' (₹142.66 lakh) and 'Sundry Creditors (Others)' (₹15.73 lakh), under 'Current Liabilities' (Schedule-3), both of which relate to amounts that are very old. Despite mention in the previous financial year's audit report, the Institute did not take appropriate action in this regard.

3.12 A balance of ₹4.65 lakh was shown under 'Advances and other amounts recoverable in cash or in kind or for value to be received (Others)', under 'Loans, Advances and Deposits (Schedule-8)'. As the concerned amounts are more than 10 years old, chances of their recovery appear to be remote. Despite mention in the previous financial year's Audit Report, the Institute did not take necessary steps, to review the need to write-off these long pending receivable amounts.

3.13 As on 31.3.2020, balances of 95 Sponsored Projects, under the SRCC, were shown as being ₹734.43 lakh, in a separate Annexure to the Annual Accounts of NIT, Durgapur, for the financial year 2019-20. However, in the annual accounts for the financial year 2020-21, the opening balances of Sponsored Projects, under the SRCC, were shown as ₹836.44 lakh, under Schedule 3A. The



discrepancy of ₹102.01 lakh needs to be rectified. Further, no disclosure, on the value of assets acquired out of the SRCC Fund, was made in the Annual Accounts.

3.14 A balance of ₹10.25 lakh, as exhibited under 'Current Liabilities', relates to amounts which are more than five years old. The need to write-off these long pending liabilities needs to be reviewed.

3.15 A balance of ₹7.64 lakh, which was more than five years old, was shown under 'Current Assets'. Chances of recovery of this amount appear to be remote. As such, the need to write-off these receivables needs to be reviewed.

D. Grants-in-Aid

The National Institute of Technology, Durgapur, is mainly financed by grants from the Government of India (GoI). For the financial year 2020-21, it received grants from the GoI, amounting to ₹118.50 crore [Revenue: ₹113.05 crore, Capital: ₹5.35 crore and HEFA¹ Interest: ₹0.10 crore (OH-31)]. In addition, it had an opening balance of ₹24.05 crore (Revenue: ₹18.56 crore and Capital: ₹5.49 crore), from the previous financial year's unspent grants. Out of the total grants of ₹142.55 crore (₹24.05 crore + ₹118.50 crore) so available, it spent ₹132 crore (Revenue: ₹123.43 crore and Capital: ₹8.57 crore), leaving an unspent balance of ₹10.55 crore (Revenue: ₹8.18 crore and Capital: ₹2.37 crore), as on 31 March 2021.

E. Net Effect

The net effect of the comments given in preceding paragraphs was that both - the Assets, as well as Liabilities - were overstated by ₹67.97 crore, as at 31 March 2021, and the Excess of Income over Expenditure was overstated by ₹0.01 crore, for the year ended 31 March 2021.

F. Management Letter

Deficiencies not included in the Audit Report have been brought to the notice of the Director, NIT, Durgapur, through a management letter, issued separately, for remedial/corrective action.

¹Higher Education Financing Agency



v. Subject to our observations in the preceding paragraphs, we report that the Balance Sheet, Income and Expenditure Account and Receipts and Payments Account, dealt with by this report, are in agreement with the books of accounts.

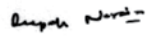
vi. In our opinion, and to the best of our information, and according to the explanations given to us, the said financial statements, read together with the Accounting Policies and Notes on Accounts, and subject to the significant matters stated above and other matters mentioned in the Annexure to this Separate Audit Report, give a true and fair view, in conformity with accounting principles generally accepted in India.

i. insofar as it relates to the Balance Sheet, of the state of affairs of the National Institute of Technology, Durgapur, as at 31 March 2021 and

ii. insofar as it relates to Income and Expenditure Account, of the surplus, for the year ended on that date.

For and on behalf of the C&AG of India

Place: Kolkata
Date: 10.01.2022


(Deepak Narain)
Director General of Audit
(Central) Kolkata



Annexure

A. Adequacy of the Internal Audit System

The Internal Audit System is inadequate, on account of the following:

- a) There is no Internal Audit Manual, for use in the Internal Audit Wing.
- b) The Internal Audit Wing functions as a pre-checker of all bills, before payments are made to vendors. The Wing did not, however, prepare any Internal Audit Report.

B. Adequacy of the Internal Control System

The Internal Control System of the Institute, is inadequate, in the following areas:

- a) The Institute did not obtain bank balance certificates in respect of its Fixed Deposits, as at the end of the financial year, in order to verify the actual value of its Investments, during the accounting period.
- b) The Institute did not review its long outstanding liabilities / receivables, with a view to providing appropriate accounting treatment in their regard.
- c) The Fixed Asset Register is not being tallied with the financial accounts, on a periodic basis. Further, basic information in regard to Fixed Assets, such as the rates of depreciation, estimated life spans, accumulated depreciation, estimated salvage values etc., are not available in the Register.
- d) There is no procedure in place, for verification of the Fixed Assets of the Institute, on a periodic basis.

C. Physical verification of Fixed Assets and Inventory

The Institute did not conduct physical verification of its Fixed Assets, during the financial year 2020-21.

D. Regularity in payment of Statutory Dues:

The Institute was regular in payment of its statutory dues, for the financial year 2020-21.



राष्ट्रीय प्रौद्योगिकी संस्थान दुर्गापुर NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR

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

