59th ANNUAL REPORT 2018-19

राष्ट्रीय प्रौद्योगिकी संस्थान दुर्गापुर

NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR

Mahatma Gandhi Avenue, Durgapur-713209, West Bengal, India

Institute of National Importance under Ministry of Human Resource Development, Government of India

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ANNUAL REPORT
2018-19

(APRIL 01, 2018 – MARCH 31, 2019)

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From

Director's Desk

It is my pleasure to publish the 59th Annual Report 2018-19 of the Institute highlighting the progress in the last financial year.

National Institute of Technology Durgapur is an Institute of National Importance that is fully funded by the MHRD, Government of India. Besides providing quality technical education research and outreach of research are given equal importance in the institute.

After the curricular revision carried out last year, new courses and electives have been introduced. NIT Durgapur has been placed 46th in NIRF ranking and has found its place among the first 100 institutes in overall ranking. The academics of the institute have been strengthened through faculty selection where forty one faculty members have joined the institute.

The Institute has made its mark in its outreach activity through participation in Unnat Bharat Abhiyan (UBA) and Rashtiya Avishkar Abhiyan (RAA) programs.

The Institute has embarked upon the expansion of the Institute infrastructure through the development of Utkarsha Bhavan, to have central research facilities and laboratories.

The sponsored research in the institute has received a boost through several faculty members obtaining projects from DRDO, DST, DBT and MEITY.

I am looking forward to future glory of the institute through new research land marks.

Professor A. Basu
Director
National Institute of Technology Durgapur

PROGRESS AT A GLANCE (2018-2019)

- The B. Tech curriculum and regulation were revised based on the outcome of a workshop where eminent academicians participated.
- The Institute has been actively participating in the TEQIP-III program, after successful completion of TEQIP-II, a World Bank assisted programme for improvement in quality of technical education and research.
- Collaborative activities are in progress with CERN Geneva, and a number of premier universities abroad. Collaborative activities are also in progress with various premier academic and research institutes of India. Faculty visits, students' internship and collaborative research have been taken up. Four pre-final year students did the summer internship at CERN, Geneva.
- The faculty members of the Institute have publication and acceptance of 575 research articles/reviews in peer-reviewed journals, and also published 232 papers in proceedings of national and international conferences in 2018-19.
- 110 sponsored projects are being executed by the faculty members during the financial year.
- 88 PhD degrees were awarded by the Institute in 2018-19.
- Faculty members acted as reviewers for 229 peer-reviewed journals.
- 557 (UG & PG) students were placed through in-campus interviews in the session 2018-2019. In addition to that 106 (UG & PG) students secured more than one job. In 2018-19, 102 companies visited the campus including most of the global players.
- More than 31 workshop/short-term courses and conferences were organized by various departments of the institute.
- 2 GIAN courses were organized by the institute.
- The projects namely, 1250-seated Boys' Hostel and Auditorium has been completed.
- The 14th Convocation of the Institute has been successfully completed on 11 November, 2018. A total number of 804 B.Tech, 274 M.Tech, 20 MBA, 69 MCA, 39 M.Sc. and 69 PhD degrees are awarded in this convocation
- 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.

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 an inclusive growth path that would be beneficial for the students, faculty members and staff.
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 play a significant role 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 encourage undergraduate students in pursuing research at a very early stage by adhering to 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 restructure the academic programmes in keeping pace with the recent development and requirement of the 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 intestify 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,9 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, Metallurgical & Materials Engineering The Institute also 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. 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.

The Institute also offers four semester M. Tech. programme. Total number of M. Tech. programme offered in the year are sixteen. A three-year full time MCA, two-year full time MBA and two-year full time M. Sc. programmes have been on the offer since 2000, 2004 and 2009, respectively with the introduction of two year full time MSW programme in 2017.

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.

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 B. TECH PROGRAMME

Name of the programme	Department	Sanctioned Intake in 2018-2019
Bachelor of Technology in Biotechnology	Biotechnology	60
Bachelor of Technology in Chemical Engineering	Chemical Engineering	60
Bachelor of Technology in Computer Science & Engineering	Computer Science & Engineering	150
Bachelor of Technology in Civil Engineering	Civil Engineering	63
Bachelor of Technology in Electronics & Communication Engineering	Electronics & Communication Engineering	78
Bachelor of Technology in Electrical Engineering	Electrical Engineering	80
Bachelor of Technology in Metallurgical & Materials Engineering	Metallurgical & Materials Engineering	60
Bachelor of Technology in Mechanical Engineering	Mechanical Engineering	149
B.Tech & M.Tech Dual Degree in Biotechnology	Biotechnology	5
B.Tech & M.Tech Dual Degree in Chemical Engineering	Chemical Engineering	5
5 year integrated M.Sc in Chemistry	Chemistry	15
Total		**725**

The students from Andaman & Nicobar Islands were admitted in Supernumerary Quota as was decided by CSAB 2018.

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% and 27% of the total seats are reserved for SC candidates, ST candidates and OBC candidates respectively and 5% of the seats are reserved for PwD candidates also with reservation for female students.

2.6 B. POST-GRADUATE PROGRAMMES

(A) FULL-TIME PROGRAMMES

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

SANCTIONED INTAKE OF M. TECH PROGRAMME

Department	Programme	CCMT	Sponsored	Total
Biotechnology	Biotechnology	16	2	18
Chemical Engineering	Chemical Engineering	16	2	18
Civil Engineering	Geotechnical Engineering	16	2	18
Civil Engineering	Structural Engineering	16	2	18
Computer Science and Engineering	Computer Science and Engineering	64	8	72
Earth and Environmental Studies	Environmental Science and Technology	16	2	18
Electrical Engineering	Power Electronics and Machine Drives	16	2	18
Electrical Engineering	Power Systems	16	2	18
Electronics and Communication Engineering	Microelectronics and VLSI	16	2	18
Electronics and Communication Engineering	**Telecommunication Engineering**	**16**	**2**	**18**
Mathematics	**Operations Research**	**16**	**2**	**18**
Mechanical Engineering	Fluid Mechanics and Heat Transfer	16	2	18

Department	Programme	CCMT	Sponsored	Total
Mechanical Engineering	Machine Design	16	2	18
Mechanical Engineering	Thermal Engineering	16	2	18
Metallurgical and Materials Engineering	Metallurgy and Materials Technology	16	2	18
Physics	Advanced Material Science and Technology	16	2	18
	304	**38**	**342**	

OTHER POST-GRADUATE PROGRAMMES (SANCTIONED INTAKE)

SL. NO.	Specialization (Department)	Full time				Total
		Open	SC	ST	OBC	
1	Master of Business Administration (MBA)	20	7	3	10	40
2	Master of Computer Applications (MCA)	15	5	2	8	30
3	M. Sc. (Physics)	10	3	2	5	20
4	M. Sc. (Chemistry)	10	3	2	5	20
5	M. Sc. (Mathematics)	10	3	2	5	20
6	Master of Social Work (MSW)	8	2	1	4	15
	Total	**73**	**23**	**12**	**37**	**145**

ELIGIBILITY

M.TECH

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.

MCA

Candidates with an aggregate of 60% marks (6.5 CGPA) in Bachelor's degree (Regular Course) of minimum 3-years duration from a recognized university in any discipline, with Mathematics as one of the subjects both in Graduation and 10+2 level are eligible while SC/ST candidates are eligible with 55% marks.

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 in any discipline with minimum 55% marks or 6.0 CGPA in graduation are eligible.

2.7 ADMISSION PROCEDURE

2.7.A. UNDER-GRADUATE PROGRAMMES:

As decided by the Ministry of Human Resource Development, Government of India, 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) published by Central Board of Secondary Education, New Delhi, and the same is executed through counselling by Joint Seat Allocation Authority (JoSAA) / Central Seat Allocation Board (CSAB) under guidance from MHRD, GOI.

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	MCA	NIMCET
4	MBA	CAT score and Institute Level GD/PI
5	M. Sc.	JAM
6	MSW	Graduation results, Institute level test and viva-voce

2.8. STUDENTS

The students find the environment of the Institute conducive not only to exercise their intellectual capability but also to learn 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 Ministry of External Affairs and the Ministry of Human Resource Development, GOI. The students have received many prizes and awards from various other institutes in multi-disciplined 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 the USA.

STUDENTS' RESEARCH ACTIVITIES

EXTRACURRICULAR ACTIVITIES:

I. CENTRE FOR COGNITIVE ACTIVITIES

Centre for Cognitive Activities (CCA), is the technical gymkhana of NIT Durgapur. Comprising of five highly competent cells, CCA, in its true sense, caters to every aspect of what an engineer aspires for. It promotes scientific and technical acumen over various domains such as robotics, entrepreneurship, research, innovation, wed design, creativity and event management. Throughout the year, CCA organizes a galaxy of events and workshops for over-all development and stature of an engineer. The academic year 2017-18 witnessed one of the most successful sessions with over 50 events being accomplished effectively.

Robotics and Arduino are the latest technological disciplines being researched and developed. To contribute in the making of skilful technicians, CCA like every year organised Manual robotics, Semi-Autonomous robotics, Autonomous robotics and Arduino workshops which included theoretical deliverables as well as hands on experience. Followed by an examination-based competition, these workshops witnessed over 500 participants both in and outside NIT Durgapur. The new generation demands further studies and post graduate degrees. Hence, CCA conducted various career counselling sessions with renowned institutions like Career Launcher, Vani and IMS to help our students decide their future career paths in India and abroad. This was followed by test series cum scholarship tests for admissions to these institutions.

CCA believes that the social, economic and political developments of our country need to be compelled and acted upon more quickly. Youth Parliament serves one such purpose where different socio-economic and political agendas currently prevailing in India are discussed and sorted in a scaled down version. A start-up fair was also organised wherein over 11 companies approached for around 20 internship profiles and offered more than 15 internships to our students. Promoting the research and innovative temperament, CCA gives opportunities to various students to present their research papers via its annual magazine COGNITIO. Apart from these, several workshops on Digital Marketing, Autocad, Graphics Design and Business plan were conducted to impart relevant skills to young enthusiasts.

One of the main events among all the year-long activities of the club is the convention of the Annual Techno-Management fest of the institute, Aarohan, which incidentally happens to be the second largest of its kind in Eastern India. Started in the year 2003, it has been leading the light of instilling a culture of science, technology and innovation among the youth of the nation. Aarohan '18 was another big venture for CCA. From over 40 events from different set of disciplines to fully automated science exhibition, Techmela, Aarohan'18 reached greater

heights. Out of over 30 projects in Techmela, the best one was presented at Rashtrapati Bhavan under FINE programme. Inspiratie 6.0, just like other versions of it saw motivational leaders, speakers and entrepreneurs sharing their valuable experiences with the young minds. Tech-Conference on ML and AI chaired by Prof Pabitra Mitra from IIT Kharagpur, Prof. P Bhattacharyya, Director of IIT Patna, Prof. Narendra Ahuja from the University of Illinois and our Director Sir Prof Anupam Basu and Seminar on various energy alternatives, accelerator development and gravitational waves by scientists from BARC marked the success of the technical extravaganza. Adding to these, CCA has always made efforts to conceive more extensive ideas for the development of technical abilities of an individual and betterment of the collective conscience. With visionary ideas and ideologies, CCA will undoubtedly excel in 2018-19 and the sessions to come.

II. GNU/LINUX USERS' GROUP

THE GSOC HEAT

The GNU/ Linux User's Group takes pride in organising GSOC heat which lays the foundation for students to participate and create a space for themselves in Google Summer of Code, a global platform for developing and contributing in Open Source projects. GSOC heat is a last push given from the past GSOCers, they come with Open books of their experience that pull the future ones. It aims to inspire more students to take up this opportunity and be mentored by the ones who have already laboured in the heat.

THE GOOGLE SUMMER OF CODE BARCAMP

Listed officially in Google Summer of Code calendar maintained by Google this workshop aims to guide the potential GSOCers on how to select the organisations, write a successful proposal and to get started with Open Source coding.

INTRODUCTION TO LINUX AND INSTALLATION FEST

To promote an operating system that ensures unrestricted distribution and contribution to all students we organise the introduction to Linux and installation fest where, as the name suggests, students learn basic commands of Linux and how to utilise the source. Not only among the Computer Science students, the need for Linux, is instilled among students of other departments as well.

JUNIOR CODE CRACKER

Organised exclusively for the first years, the Junior Code Cracker is an opportunity for the future coders of our college to compete and exhibit their command over the source code, and also a motivation for the ones unfamiliar with the same. Keeping the prelims, logic based tests the reasoning of the students and gives them ample time to get a hand on a programming language.

WORKSHOPS

In order to keep the students toed on the line with the developing world, a number of workshops are organised by our club, the area being Artificial Intelligence, Machine Learning, topics which govern our generation's future and also Python and Git, skills that are necessary in contributing to almost every open source projects. A Django workshop is also organised which introduces the students to a framework used in creating quality Web Applications. MVC with Ruby on Rails, a techtalk that is organised to open the doors to the platform on which our Online Judge of Code Cracker is built. Other workshops include Insight into Web Extensions, a step-by-step code simplification of a simple to-do-list.

MOZ TOUR

Glug also takes pride to mention MOZILLA REPS WORKSHOP, aimed at creating multiple learning opportunities that are self-directed and self-motivated. Informative speeches given by eminent people working in close association with Mozilla like Biraj Karmakar followed by a hackathon to ensure thorough learning sums up the event.

FOSSEE

GLUG is closely involved with FOSSEE (Free and Open Source Software in Education) to collaboratively conduct workshops, in association with IIT Bombay and Deep Root Linux, Bangalore, to promote the use of FOSS tools to improve the quality of education in our country and also develop new FOSS tools. The workshops are focused on leading technologies like Scilab, LaTex, etc.

SCREENCASTS

Our own Youtube channel, Screencast aims to tutor all the Open Source enthusiasts into a skilled knowledge of data and tool handling, basics of Object Oriented Programming etc. Being an easy access to the students, it runs on the very concept of FOSS. To promote the same, a screencast quiz is also organised.

LINIT

To keep the students updated on the ever updating technology, GLUG publishes its annual FOSS magazine which is a handbook of all the latest developments. Containing articles from the students themselves LINIT, gives them a platform to channelize their technical knowledge into a creative article for every student's perusal.

AAVISHKAR

Our club along with MNTC and SAE organises Aavishkar, the Tech Fest of our college. As the name suggests, this fest is the very arena for innovation and thus our club aims to redefine innovation with a number of online and offline events, including HACKATHON, a prestigious marathon of the software and graphic developers, which inspires some significant contributions to Open Source. While on one hand our events CODE CRACKER, INCANITY and LINCIN ARC give an opportunity to put to test your programming efficiency, FREEMEX gives you the feel of an actual stock market. Organising brain storming events like PERPLEXITY and BEHIND THE SCENES that will require reasoning, to giving all football and cricket fans a chance to create their own teams. FANTASY FOOTBALL and FREEPL, using real time ranking, these events inspire contribution to such projects. Other events include DIGITAL FORTRESS and ONLINE TREASURE HUNT which sharpens a student's ability to Google, a much required skill in today's world. Giving the students a taste of all spheres of developments be it on Ionic, Django or Laravel. Further Ignitia, is another golden batch of Aavishkar which invites speakers whose footprints we all dream to follow, an inspirational session amidst the technology race.

III. MATHS 'N' TECH CLUB

1. Call out Sherlock: A crime scene is depicted and a team work is required to connect the clues and solve the mystery.
2. House Of Cups: House of Cups is a 2-rounds event following a prelims, which puts a test to your logical abilities and your cautious senses. While the first round tends to test your acumen the final round puts a test to your stimuli.
3. Constructo: The participants are given the opportunity to unleash the engineering skills in them and to make a working prototype out of some raw materials. The prototype has to undergo certain tests and winners are decided on their prototype's performance.
4. Cuborita: Cuborita is a team event in which the team is required to deal with a Rubik's cube along with a jenga.
5. Kryptic: It is an event to test your code cracking abilities. It does not require any previous knowledge other than presence of mind.
6. Matrix: This event is based on the ability of rational thinking, making sense of obscure data amid perplexity in puzzles.
7. Tech Charades: Tech Charades is an amalgamation of entertainment and technology where players are required to enact clues revolving around a technical term without using props or words while their teammates strive to guess the answer before the timer runs out.
8. Terrorist Teckdown: It is a test of both speed and skill, as the race is not just within the mind, but extends to the physical world where the team is required

IV. ENTREPRENEURSHIP DEVELOPMENT CELL

EDC (Entrepreneurship Development Cell) NIT Durgapur has been associated with various entrepreneurial activities and promoting innovation inside and outside the college throughout the year.

To maintain a peaceful yet motivating entrepreneurial session to the students of the college, the following events were conducted in 2018-19:

1. E SUMMIT:

For the first ever time in the history of NIT Durgapur, Entrepreneurship Summit was conducted in the month of February 2018 by EDC. The E-Summit 2018 marked a new change in the entrepreneurial and awareness activity in the college.

THE EVENTS INCLUDED:

- E-Talks : EDC had taken up an initiative to organize a series of E-Talks by well-established people from different walks of life. This was organized with a motive to motivate the students at this budding stage of life and also to instill positive the essence of such success stories.
- Big Bouts, was a debate competition between the professors and students.
- FreeMex, was an online game to test investment skills. Each player was given virtual sum to invest in stocks, the one with the highest money at the end wins.
- Auction Arcadia, a fantasy bidding event, ideating at monetary management and implementing the analytical skills to make best decisions and taking up appropriate amount of risk in the worst situations.
- Youth Business Summit, where each participant was assigned a particular position in the boardroom of a company and asked to offer an unique solution to a crisis situation of the respective company.
- A Biz-quiz was organized to test the entrepreneurial and business knowledge of the students.

- We also had the Startup showcase where students pitched their startup ideas in front of angel investor, Mr. Arijit Bhattacharjee (Founder Virtualinfocom).

2. LEARNWISE

EDC presented a systematic design of study 'Learnwise', a significant and unique package developed by Wadhwani foundation which contained several interesting video lectures, systematic hands on assignments, test series, and all of these were made available to the students conveniently via an Android app.

3. PM-YUVA YOJANA (PRADHAN MANTRI-YUVAUDYA MITAVIKAS ABHIYAN)

It aims to create an enabling ecosystem for Entrepreneurship Development through entrepreneurship education and training across the country in select Institutes of Higher Learning (Universities, Colleges and Premier Institutes), schools, Industrial Training Centres (ITIs) and Entrepreneurship Development Centres (EDCs) for over a period of five years. Additionally, students will get easy access to a robust network of peers, mentors incubators, funds and business services through an online platform. Focus will also be on entrepreneurship promotion and social entrepreneurship.

4. LUMINOUS:

To illuminate the college premise on the occasion of Diwali a Diya Rangoli event was organized. In this the participants were asked to make floor designs with diyas. The designs were required to be company logos. Thus the festive feel of Diwali was felt along with a lurking for corporate charm.

5. E-TALES

This was conducted from the 1st to 15th of February where we shared the inspiring stories of various entrepreneurs across the globe. Some noteworthy names included Elon Musk, Jeff Bezos, Azim Premji, Steve Jobs, Kumar Mangalam Birla etc. These stories were shared via our Facebook and Instagram page. The struggle behind the success of such personas are usually overshadowed. Hence, we tried to put forward their stories which would motivate the budding entrepreneurs. Many stories helped the students to realize that failure is bound to be but we shouldn't stop dreaming.

6. ROAD NOT TAKEN

This was an online event inspired by a poem of the same name by Robert Frost. Here, we asked students or would be engineers to click pictures with banners bearing what would they be if they weren't an engineer. We even had a discussion with many engineering students enquiring if this was a choice or compulsion. This event got viral and students from different places started posting their pictures with their actual choice of career. This made students think again about the choices they have made and the various other options which they could indulge in.

V. DEBATING SOCIETY

The official Debating Society of NIT Durgapur transcends the definition of a club or even a congregation of like-minded people. It is rather a necessity in any college as multiple issues and conflicts surround us every day. It is also required to build a consciousness in the college towards issues of national importance and public awareness.

BIG BOUTS - 14TH AUGUST 2018

Another interesting event added to our calendar was Big Bouts, a wrestling match of wits. Based on the knockout system of debating, each participant was given the chance to go directly against their opponents on a topic chosen at random. Very literally the survival of the fittest, it calls for absolute determination and grit. No participant can afford to be complacent for even a second, as the slightest lapse in concentration will result in a knockout punch.

TENDENTIOUS - 22TH SEPTEMBER 2018

With regards to popularising opinions, we launched Tendentious. This event took the college by a storm as we were flooded with entries from every possible direction. The premise was simple, state your most popular or unpopular opinion and prove your uniqueness to your acquaintances. It gained massive traction amongst all the college students, as it gave them a chance to state the unwritten quirks of their surroundings and college. One of our most popular events, it reached a total of 1000 students and contacts everywhere.

VI. PRAKRITI

ABOUT US

We the People of Prakriti- The Techno Environmental Club of NIT Durgapur, strive to make a difference and inculcate the seed of awareness and action in the minds

of prospective engineers to make this environment a sustainable place for every living being. Our motto is to change the notion that "Engineers do not care for the environment" into making every individual on campus, a "Green Engineer, who minimizes the risk of pollution that might be caused with new inventions or breakthrough researches in technology." As a club, we imbibe to the values our Mother Nature has taught us: Perseverance, Sustenance, and Progress. Right from its rootage, Team Prakriti has made true those envisions of the founders of our club and crossed many milestones ever since its onset. We conduct our events throughout the year, reminding and awaking the slumbered minds, the importance of the environment and its preservation.

COURSE OF ACTION

ENSIGNIA (A PROJECT EXHIBITION CUM PRESENTATION)

Over the next few years, climate change coupled with a growing population which is expected to reach 9.7 billion by 2050 will have a dramatic impact on our world and will disrupt our already fragile ecosystem. By 2030, 65% of our population will face a shortage of power and water. Energy consumption is growing at a staggering rate and is projected to increase by as much as 55% by then. This is primarily due to the combined effect of population growth and a dependency on energy-intensive lifestyles. Trends such as urbanization that requires water-intensive activities are putting pressure on already scarce resources. The availability of clean and affordable water for everyone on the planet is becoming a major challenge. It is reported that by 2050 at least one among four peoples will be affected by water stress and severe water shortages. It is up to us to find ways to simultaneously preserve the environment and drive development to ensure that future generations have a better world to live in.

Prakriti- The Techno environmental Club of NIT Durgapur, encourages participants to develop high-quality sustainable solutions that can be used to solve water, power, waste, public health, open innovation etc. related challenges and create a positive impact on the environment.

This event has witnessed mass participation of students from our town and various other colleges like NSHM, NHIT, BC Roy, DIATM etc from all over the West-Bengal.

VILLAGE TRIP

A fifth of the world's population lives in India and two-thirds of these live in villages- You have to go rural to discover India's beating heart. "Village trip" is an exclusive trip by the core members of the club who visit a remote village every year and bring up the solutions to cover the existing environmental problems of that village. It is synonymous to village-adoption and observes the changes and improvements of that particular village. It enables us to get in touch with the roots of our society and to experience the raw beauty of such areas. It teaches about a new culture from the most suited people, as the cultural heritage in remote villages is well preserved.

ENVOICE

Imagine if trees gave free Wi-Fi, we'd all be planting like crazy. Its pity they only give us the oxygen we breathe. It's time to raise our voices for the mother earth. What we are doing to the environment is a mirror reflection of what we are doing to ourselves and to one another. So, let's come forward and speak our hearts out on the present scenario because speaking triggers emotions, which in turn initiate changes. Prakriti, the official environmental club of NIT Durgapur conducts EnVoice , a platform where not only voices will be raised but will also be listened.

EnVoice, as the name suggests is your voice for the environment, gives you an opportunity to speak on the latest environmental issues. Like every year, Prakriti comes up with new and innovative twists to make it more interesting. EnVoice is conducted in two rounds. The first round will be a case study based group discussion among batches of 7-8 participants. Based on individual performances, participants will be selected for the final round. (100+ Participants)

RUNIT (MINI MARATHON)

It's a mini-marathon run of 5 km promoting the cause of preserving of nature and earth's resources. Its main objective is to create awareness on saving forests, saving villages and saving agriculture. Its motive is to choose a route where the participants can joy and realize the need for saving natural resources. Athletes and non-athletes join this marathon which is conducted during mid-February every year to make it a successful event. As it's not about the destination but the journey similarly Forget the miles, just remember the glory to be the part of the "MARATHON" to inspire others by pushing our own limits and boosting our self-confidence. This Marathon gets the participation of athletes associated (300+ Participants)

PLANTATION

During monsoon, when the rains avail the nascences of small saplings, we conduct this event 'Plantation'. Saplings provided by the Forest Department of Durgapur are planted in various areas inside the campus. As nowadays

people are having a habit to live a luxurious life and new cities are born or ready to be made back to back for which a number of trees are cut down, severe damages made to forest, it brings us towards a darkness where, there is no rain, shortages of oxygen and many other problems. So this event is to inspire everyone to join hand to hand to make artificial forests. If each person plants a tree then billions of peoples can make the world green. (200+ Participants)

TREASURE HUNT

Curiosity waits at its peak. The God in the heaven seek. For you to do the hunting Amidst the evil's chanting.

Relive the myth in the search of the treasure of Prakriti's- TREASURE HUNT! Let the hunt begins. Treasure hunt is held during Diwali which gives it a huge audience attraction.

We give the chance to participants to explore the whole campus in an entirely different way. (200+ Participants)

Nature is beautiful and guesses what??? It's everywhere! And though many of us forget the allure of whistling willows and babbling brooks, chances are if you're reading this, you are NOT one of those people. Most likely you are a beautiful lover of nature and because you're, we the environmental club of NIT Durgapur "Prakriti" presents you the chance to showcase your nature love in the form of nature photography. All you have to do is capture the natural beauty of our campus in your cameras and send your entries in our Facebook page through a message. (100+ Participation last year)

SPROUT SNAP

It is an online event mainly conducted for fun. In this, we upload images of trees on our campus on our website and whoever replies with the correct location of the images wins.

We give the chance to participants to explore the whole campus in an entirely different way. (85+ Teams Participated this year)

FOLK TALKS

This online event provides an online debating platform for the enthusiasts to battle out with words on various topics. This is an anonymous platform that would give every point a fair chance of recognition based on the content without revealing their origin. (200+ Participants all around the country)

AWARENESS PROGRAMME

ROLL UP RAGS

This is one of the events we Earth Warriors are tagged, by most of the inhabitants of this campus. We find this as a responsibility to clean up our own home before trying to reform the whole wide world. Our motive for doing this is to have a cleaner and healthier living environment without any academics suffering. Maintaining a clean college environment sets a good example to students to encourage them to potentially make a bigger effort to maintain their environment. Teams are divided among which we, the team our club members along with volunteers from NSS and interested people for the cause try cleaning up the campus from non- degradable plastic and make the work successful.

(250+ Participants)

EARTH HOUR

Earth Hour is a worldwide movement organized for nature. This is an initiative to encourage peoples all across the world to take accountability of their ecological footprint and engage in dialogue and resource exchange that provides real solutions to our environmental challenges. It is held annually encouraging individuals, communities, and businesses to turn off electric lights for one hour, from 8:30 to 9:30epM on a specific day towards the end of March. This is a "star event" where lights-off for one hour is seen as a symbol for the commitment to the planet. The event we organize involves the candle march in and outside of the campus by the students of NIT Durgapur, organized by our team has won many accolades. The lights are put out for an hour during which candle march proceeds. The support provided by the management and of the campus and the professors are praiseworthy. (200+ Participants)

NATURA (ANNUAL MAGAZINE)

The annual magazine of Prakriti, The official techno environmental club of NIT Durgapur. This magazine is basically a summary of all the work as events and projects done by our club throughout the year. Our entire club can be viewed in this magazine. It is published officially on the website of our college and is also circulated by means of social networking sites. This magazine also consists of green art in the form of Poems, Paintings, Photography, Short stories, Collages, Articles provided by the nature lovers to make aware people of this beautiful living world.

It inspires us in setting up bigger goals and achieving higher levels in successive years.

It is mailed personally to all the professors of our college by team Prakriti.

VII. SPIC MACAY 2018-19

SPIC MACAY NIT Durgapur Chapter remains committed to its mission of making students more aware about Indian and world heritage by organising programmes of classical music and dance, folk arts, crafts, yoga, classic cinema screenings, heritage walks, etc. inside the NIT Durgapur. We intend to make the education system more holistic and meaningful and conduct a variety of events throughout the year to achieve that purpose.

Following are some of the events conducted during the academic session of 2018-19 by SPIC MACAY NIT Durgapur Chapter:

ANUBHAV:

SPIC MACAY NIT Durgapur Chapter in association with Bihari More Education Project organised ANUBHAV, an annual art workshop cum competition for the so called underprivileged children on 29th September 2019. We had conducted an art and craft workshop where SPIC MACAY volunteers taught origami skills to children ranging from 7-15 years in age. Following the workshop a competition was organised where the children put all the skills they had learnt to use and produced some beautiful creations. Prizes were also distributed to the best ones. At the end, there were only happy faces all around and it was a privilege to bring a ray of hope and happiness in the lives of these innocent beings.

UTTARAYAN:

UTTARAYAN, the annual kite flying festival was organised by SPIC MACAY NIT Durgapur Chapter on the occasion of Makar Sankranti on 14th January 2019. There was an overwhelming participation of over 110 students in the festival. A fierce battle of kites went on at the Lords Ground for hours before we finally announced the winners. The SPIC MACAY Dance Wing also put up a beautiful dance performance to end the lovely day.

VIRASAT:

VIRASAT, the official cultural extravaganza was organised by SPIC MACAY NIT Durgapur Chapter on 29th-31st March 2019. Comprising of musical evenings, workshops and film screenings, VIRASAT brought together an eclectic assortment of artists of magnanimous stature to NIT Durgapur. Following were the events and concerts conducted during VIRASAT:

EVENTS:

- HERITAGE TOUR TO BISHNUPUR: SPIC MACAY organised a one day heritage tour to Bishnupur on 23rd March 2019. We went around exploring the several ancient temples located in Bishnupur, checked out the beautiful local handicrafts, heard folk songs and even witnessed the process of making the famous Baluchari Sarees. It was quite a joyful and enriching experience for everyone.
- FILM SCREENING: The film screening was organised at the Student Activity Centre on 27th March 2019. We showed one of the most iconic films of Indian cinema, 'Sonar Kella' directed by the legendary Satyajit Ray. A large number of students and professors attended the screening and everyone revelled in the grandeur of this cinematic classic.
- KATHAK WORKSHOP: The Kathak Dance Workshop by Vidushi Saswati Sen, a renowned Kathak dancer was organised on 28th-30th March 2019. The three day workshop was quite successful with a large number of students from schools and colleges in Durgapur and around attending it.

  Smt. Saswati Sen herself supervised the workshop and perfectly guided the students. It was a great learning experience for everyone to have been taught by one of the most well-known names in the world of Kathak.
- PAROKALA SHILPA WORKSHOP: The Parokala Shilpa workshop was organised by Smt. Jayanti Dutta on 29th-31st March 2019 in the Shopping Complex. In the workshop, the students were taught to make splendid artistic pieces from bits of broken glass and turn shards of glasses into pretty and useful things. It was a fun and creatively satisfying workshop and thoroughly enjoyed by everyone.

CONCERTS

- SMT. SASWATI SEN: Smt. Saswati Sen, one of the leading exponents of Kathak and a disciple of Pt. Birju Maharaj, performed at VIRASAT 2019 on 29th March 2019. A Sangeet Natak Academy Awardee, her lyrical grace and rhythmic virtuosity of Kathak left everyone in the auditorium mesmerised and awestruck.
- PREETI PATEL'S TROUPE ANJIKA: Smt. Preeti Patel along with her troupe Anjika performed at VIRASAT 2019 on 30th March 2019. A star in the genre of Manipuri

Dance, Smt. Preeti Patel and her troupe captivated heads and hearts with their powerful performances and bold choreography. It was magical to witness Manipuri extravaganza at its finest.

- DEEN MOHAMMAD AND TROUPE: Preeti Patel's performance was followed by another powerful and mesmerising performance by Deen Mohammad and Troupe all the way from Rajasthan. The performers in traditional Rajasthan attires and women in their vibrant and majestic ghagras delivered a breath-taking folk song and dance performance with the entire crowd swaying to their lively yet serene tunes.
- DR. N. RAJAM: The final day of VIRASAT 2019 witnessed the performance of Dr. N. Rajam, a magical player of the violin. A Padma Shri and Padma Bhushan Awardee, Dr. Rajam is a world renowned figure having performed at prestigious locations in India and abroad in countries like Russia, Netherlands, USA, UK etc. She enchanted one and all present at SAC with the serene and blissful tunes on the violin.
- VISHWA MOHAN BHATT: The final performance at VIRASAT 2019 was by none other than Pt. Vishwa Mohan Bhatt. A Grammy winning Hindustani classical music instrumentalist, Pt. Vishwa Mohan Bhatt is one of India's most innovative musicians having invented the Mohan Veena. He is respected and adored all around the globe. It was truly a huge honour and privilege to witness a Grammy Awardee perform for the very first time at Durgapur.

VIII. ENTERACT CLUB

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 class routines 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, mimes and short films.

The club began its journey on Independence Day, wherein the newly inducted members of the club performed a street play, "TransFormers". Through this "nukkadnatak", the club tried to exhibit the grievances and hardships of the people belonging to the third gender, and how if their potential is utilised, they can be an asset to the society. The club received immense love and appreciation from the college students and others present there.

We, then represented NIT Durgapur in "Rendezvous'17", the cultural fest of IIT Delhi, one of the largest of its kind, wherein students not only from IITs and NITs but also from various other colleges from all over India participated. The club performed a street play and a stage play titled "TransFormers" and "The Story" respectively. "The Story" was a common life play of a parent, who immensely loved his son, just only to see himself get abandoned by him as he becomes old.

Next, the club represented the college in "Spring Fest'18", the cultural fest of IIT Kharagpur, largest in Eastern India. The club performed the stage play "The Story" and a street play titled "Woh Hum Mein se EkHai". Through our street play, we showcased how transgenders are no different from us and deserve a life as unchallenging as ours. The performance was up to the standards we had set for ourselves and thus, we secured the first position in the street play competition.

We then participated in "Carpe-diem'18", the cultural fest of IIM Calcutta, wherein we performed the stage play "The Story" and a street play "Seetimaar", about the WhistleBlower Act which provides a mechanism to investigate alleged corruption and misuse of power by public servants and also protect anyone who exposes alleged wrongdoing in government bodies, projects and offices. We secured the third and first positions in the stage play and street play events respectively.

The club, then gave an opportunity to the first year students to showcase their talent in front of the college. On the occasion of Republic Day, a few first years students performed a street play to spread awareness about the austerity and distress in an orphan's life. The performance was well acknowledged and respected by the crowd.

The club, then organised a special event in the Students Activity Centre, "Enteract Showcase" to perform our stage play "The Story" in front of the college students. Apart from the stage play, two monoacts were presented, one on the struggle of a village girl who was kidnapped and then molested and other on the romance between an inter caste couple.

The newly inducted members of the club, then presented a street play in Junction Mall, titled "Bachat" highlighting the importance of saving the resources 'Mother Earth' has gifted us with.

The club is also active on Youtube and created a few short movies over the year. Through our short movies, we tried to entertain as well as spread awareness about social issues.

Enteract is 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.

IX. RADIO NITROZ

Official Radio Station of NIT Durgapur, Radio Nitroz with the tagline Masti ka dozz was formed in the year 2006-2007 by the students of NIT Durgapur. Radio Nitroz is the 3rd successful LAN/Internet based radio among all IITs and NITs.

The basic agenda of this club is to communicate with the students of the college, be a college media and fill the campus with entertainment, news and fun. Team Nitroz is very popular for radio shows on LAN and the live Dedications that it does for hours every night. Since its formation the club hasn't looked back and the team is able to spread its network across the globe with the latest development in its technical section. It connects with the students on a regular basis through its various shows.

ACTIVITIES OF THE CLUB 2018-19

1. RADIO SHOWS:

It is a LAN-based radio station which plays a mix of Hindi and English songs and can be tuned at www.myradiostream.com/nitroz

The listeners can listen to songs of their interest and dedicate to their loved ones from 10:30 pm - 12:30 am during the entire week. The basic motive of the shows is bring to the students daily news, placement updates, happenings in college. Advertisements regarding the upcoming fest or events of a club is also done here.

2. FUN EVENTS

Radio Nitroz conducts offline events in association with various other clubs of the college. RN Jukebox, RN Excite etc. are some offline platforms for fun activities in the college fests where people participate in huge numbers with extravagant enthusiasm. Students always look up to Radio Nitroz in college fests, for their fun events.

3. RED FM COLLABORATION

Radio Nitroz in collaboration with RED FM 93.5 had organised "College Ke Tashanbaaz", an offline event where the students were allowed to showcase their talents in any field of interest like dancing, singing, comedy, poetry, etc. The event was very successful with a huge participation.

4. WEB SERIES

Listeners can also connect with us through our YouTube channel Radio Nitroz where we bring videos intended for humour and makes the viewer go ROFL!

Video Kahinka is one such venture where you can find these humorous videos. It is all about getting response of the students about few hilariously weird, off the track questions.

We have also made short films and a few You Tube series showcasing the talents of our mates.

The most loved radio show of ours, 'Dil Ki Ek Diary Se' has also been made available in the form of videos in our channel.

5. SUCCESS STORIES

We hold another venture named "Success Stories", here we interview the students with notable achievements in his/her field of interest. We believe that students can connect easily to those of their age group and therefore the journey of one of them Success Stories has become a very popular and is inspiring the lot.

X. NSS

NSS NITD is the National Institute of Technology Durgapur chapter of the National Service Scheme, institutionalized under the Ministry of Youth Affairs& Sports Govt. of India. The Motto of NSS, "Not Me But You", reflects the essence of democratic living and upholds the need for self-less service. NSS helps the students develop appreciation to other person's point of view and also show consideration to other living beings.

In the academic year 2018-19, 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 Annual Camp was organized during April13-15, 2018 at Ranchi Colony, a slum in Durgapur. During this camp free medical check-up and treatment was provided to almost 130 inhabitants. In this endeavour, NSS received the full support of doctors from Mission Hospital, IQ City Hospital, etc. of Durgapur area. Individual doctors also served voluntarily and free of cost in this camp. Painting competition for the children, workshop on skill development, sanitation awareness, etc. were some other activities of the camp.

XI. 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 wing also observed and participated various important days like environment Day, Voters Day, organized rallies, Swachchta programme, tree plantation etc.

Beside above mentioned activities this wing undertake compulsory co-curricular credit courses (XXS-51 & XXS-52) for first two semester students.

XII. INDIAN SOCIETY OF TECHNICAL EDUCATION

STUDENTS CHAPTER NIT DURGAPUR

ISTE NIT Durgapur is the oldest Student Chapter of Eastern India. It nominates projects and papers for the Indian Journal of Technical Education (IJTE) published by the ISTE HQ, New Delhi on quarterly basis with the aim to provide an appropriate platform presenting well considered, meaningful, constructively thought provoking, non-political and non-conventional but critically analyzing and synthesizing present and future aspects of the technical education system supported with meaningful suggestions for solutions, refinement and innovation. It also aims to develop the overall personality of the students and so conducts events like industrial trips.

ISTEis the leading national professional non-profit making Society for the technical education system in our country with the motto of Career Development of teachers and personality Development of Students and allover development of our Technical Education System. At present,ISTE has a very large and efficient membership base consisting of more than 1,02,985 Life Membership,5,54,094 Students Member,2014 Institutional Members including IITs, IISc, NITs and other leading technical institutions.

INDUSTRIAL TRIP

ISTE NIT Durgapur is the oldest Student Chapter of Eastern India. It nominates projects and papers for the Indian Journal of Technical Education (IJTE) published by the ISTE HQ, New Delhi on quarterly basis with the aim to provide an appropriate platform presenting well considered, meaningful, constructively thought provoking, non-political and non-conventional but critically analyzing and synthesizing present and future aspects of the technical education system supported with meaningful suggestions for solutions, refinement and innovation. It also aims to develop the overall personality of the students and so conducts events like industrial trips.

Industrial visit has its own importance in a career of a student who is pursuing a professional degree. It is considered as a part of college curriculum and objective of industrial visit is to provide students an insight regarding internal working of companies. We know, theoretical knowledge is not enough for making a good professional career. With an aim to go beyond academics, industrial visit provides student a practical perspective on the world of work.

The rapid changes that the world is currently going through, coupled with changes in engineering education in this era of 21st century; an opportunity to witness and get hands on experience of the processes and functions of a manufacturing industry or a power generating station is a blessing much sought after especially by the undergraduates as a penultimate before they actually kick-start their career as a young, bright practicing engineers.

In this session, Industrial Trip was held at Indian Oil Corporation Limited (IOCL), Rajbandh Terminal. Many students from core engineering branches participated in this event and made it successful.

ALL INDIA STUDENT'S ENGINEERING CONGRESS (AISEC)

The is our flagship and an annual symposium organized in every even semester aimed at providing students with a professionally sumptuous platform to deepen one's technological competency, scientific temperament and determination to motivate oneself and to keep abreast with cutting edge technology through a cascade of events such as Technical Paper, Presentation, Project Contest, Expert Lectures, Seminars to name a few. In this session AISEC was held on 18th March 2018 under Aavishkar. The Annual Tech Fest of NIT Durgapur. Students from various colleges in Durgapur participated and made this event successful. Professors from CMERI were also the part of jury member along with our Chief Faculty Advisor, Dr. Anita Pal mam.

INTER COLLEGE TECHINCAL MEET(ITM)

ITM is a composition of many events such as group discussion contest,technical quiz contest,technical crossword and quizzes witnessing participation of students from various colleges in and around Durgapur followed by such a fierce competition among its participants resulting

into great coherence of thoughts among the followers of a particular topic of interest giving an opportunity to conserve and debate with the best technical minds in vicinity.

(Nationally Accredited Certificates of Participation and Excellence to be awarded)

COGNITIVE INTELLIGENCE TEST(CIT)

"Show your attitude through your aptitude". ISTE, NIT Durgapur organises a Cognitive intelligence test, a brief aptitude cum reasoning test along the lines of the ongoing recruitment and campus placements so as to provide its participants an experience and a glimpse of actual placement scenario. It is conducted every year in odd semester in NIT Durgapur campus. It is a unique opportunity to showcase student skills through 30 minutes test of aptitude. It is helpful for those students who have ambience of their recruitment. Additionally, the top performers will be awarded with certificates of merits, prizes and goodies.

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. 514 UG students have been placed in the session 2018-2019. Apart from that few students have opted for higher studies in various IITs and IISc. 102 companies visited the campus including MICROSOFT, AMAZON, ORACLE, GOLDMAN SACHS, J.P. MORGAN, AMDOCS, C-DOT, IBM, L&T, TCS, WIPRO, CESC, HSBC, PWC, TATA MOTORS, RELIANCE JIO, HERO MOTOCORP, VEDANTA, RELIANCE INDUSTRIES, IOCL.

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

27 companies visited the campus for M.Tech courses and 29 no of students have been placed in the academic session 2018-2019. Rest of the students have gone for higher studies.

12 companies visited for MCA and 14 students have been placed out of total eligible strength of 34.

11 companies visited for MBA and 18 students have been placed out of total eligible strength of 28.

TRAINING AND ALLIED ACTIVITIES

Industrial Training/ Vocational Training is provided to the students of 3rd year after passing 6th semester. Annexure-III provides the list of companies for each individual branch.

Along with training the department organizes seminars entitled from classroom to boardroom by reputed global players such as TCS, Wipro and IBM.

Student's development activities such as communication and interpersonal skills by reputed organizers are also conducted.

Each year 5 no of students go for Internship in CERN (European Council for Nuclear Research, Switzerland). Foreign universities like ANUS, Singapore also allows NIT students for internship.

2.11 GAMES AND SPORTS:

The Institute lays emphasis on the promotion of sports and games amongst the students as an essential co-curricular activity and also promotes interaction between different NITs and other Engineering colleges of the country.

Student Activity Centre organized Co-Curricular Credit Course (XXS-51 & XXS-52) in Physical Education & Sports . and its allied branches as a compulsory subject in B-Tech, B-Tech & M-Tech (Dual degree) and integrated MSc

COURSES FOR FIRST TWO SEMESTERS.

The Student Activity Centre also provides training facilities to

all students, staff and the family members of the Institute. It has excellent infrastructure facilities for both outdoor and indoor games. Students are trained in various games and sports by well experienced and qualified coaches. The Institute has one central gymnasium equipped with sufficient number of equipments and the playgrounds (The Lords & The Oval) always bubble with outdoor activities like football, cricket, volleyball and athletics. Concrete court facilities are also available in tennis, basketball and badminton. Flood light facility is also provided to some outdoor games. The central playground (The Oval) accommodates an excellent pavilion and facilities for all athletic events.

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, GoI, in its Annual Programme. The Samiti is also active at the town level in coordination with Town Official Language Implementation Committee (TOLIC). The coordinator actively participated in all the regular meetings. He also worked as an active member of the editorial team of the annual magazine " Durgapur Bharti". Hindi Pakhwada 2017 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 for the whole week, i.e. 19 Feb 24 Feb 2018. In this week long celebration the Samiti in collaboration with NSS, played a vital role in the organisation of the event. In this event the focus was not only on Hindi but other languages like Bengali and Telgu were also in focus. Speakers were called from India and abroad to present their views on 'The present state of Bengali Language'. Students not only participated in the programmes in full fervour but also attended the classes that day in their traditional attire to promote their culture along with their mother tongue.

Apart from such events, the Samiti, in coordination with the representative of Department of Official Language, Ministry of Home Affairs, Government of India, conducted courses for Praveen, Prabodh, and Pragya for faculty members and staff at the institute only. The samiti played an instrumental role, with the support of the Director, Prof Anupam Basu, in writing the names of departments and buildings, for the first time, in bilingual i.e. Hindi and English. The process to make Department/section letterheads, envelopes, seals, etc., bilingual is also on. As a result of constant training and persuasion, this academic year witnessed some employees using the Official Language in letters and signatures.

2.14 NOTABLE ACHIEVEMENTS SHOWN IN GRAPHS AND PICTURES:

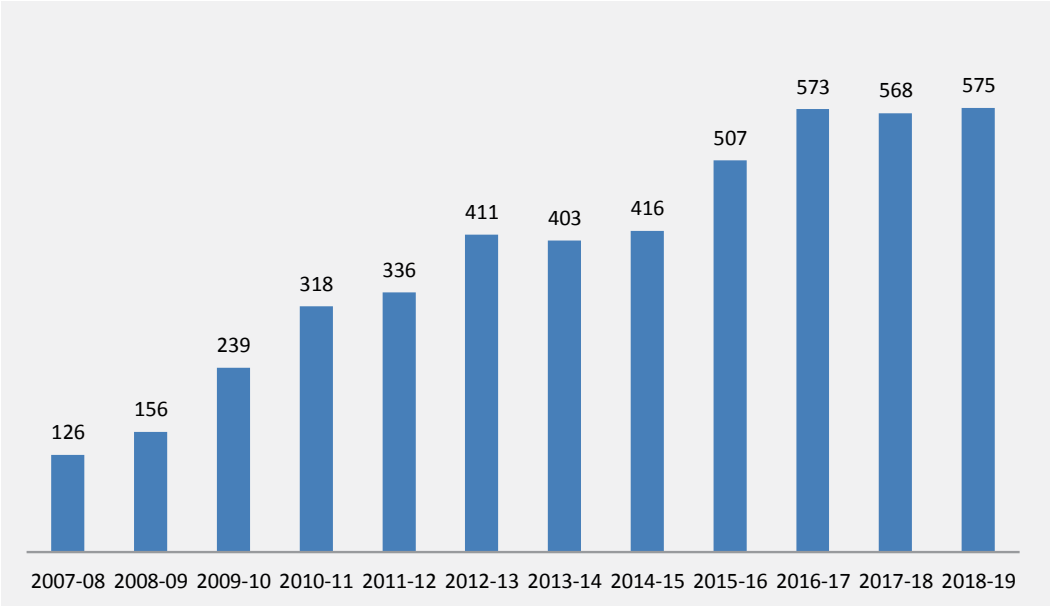

Fig. 1 Publication in journals in the last few years

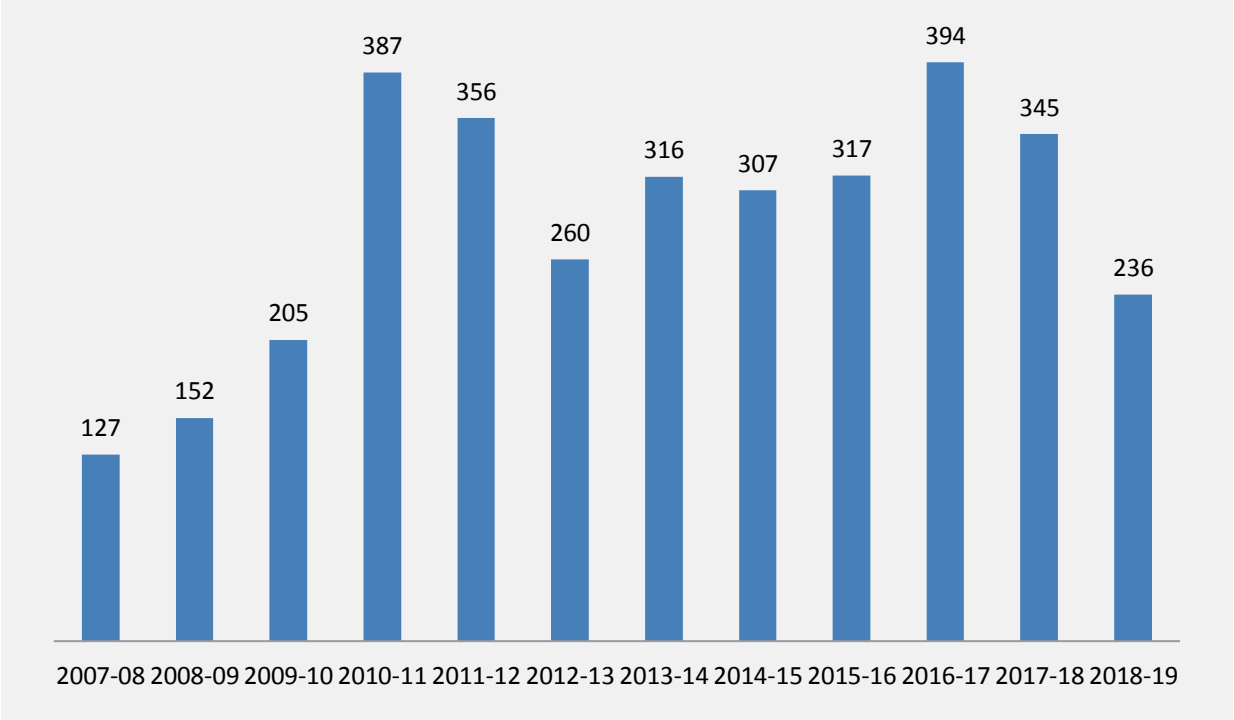

Fig. 2 Presentation in conferences/symposiums in the last few years

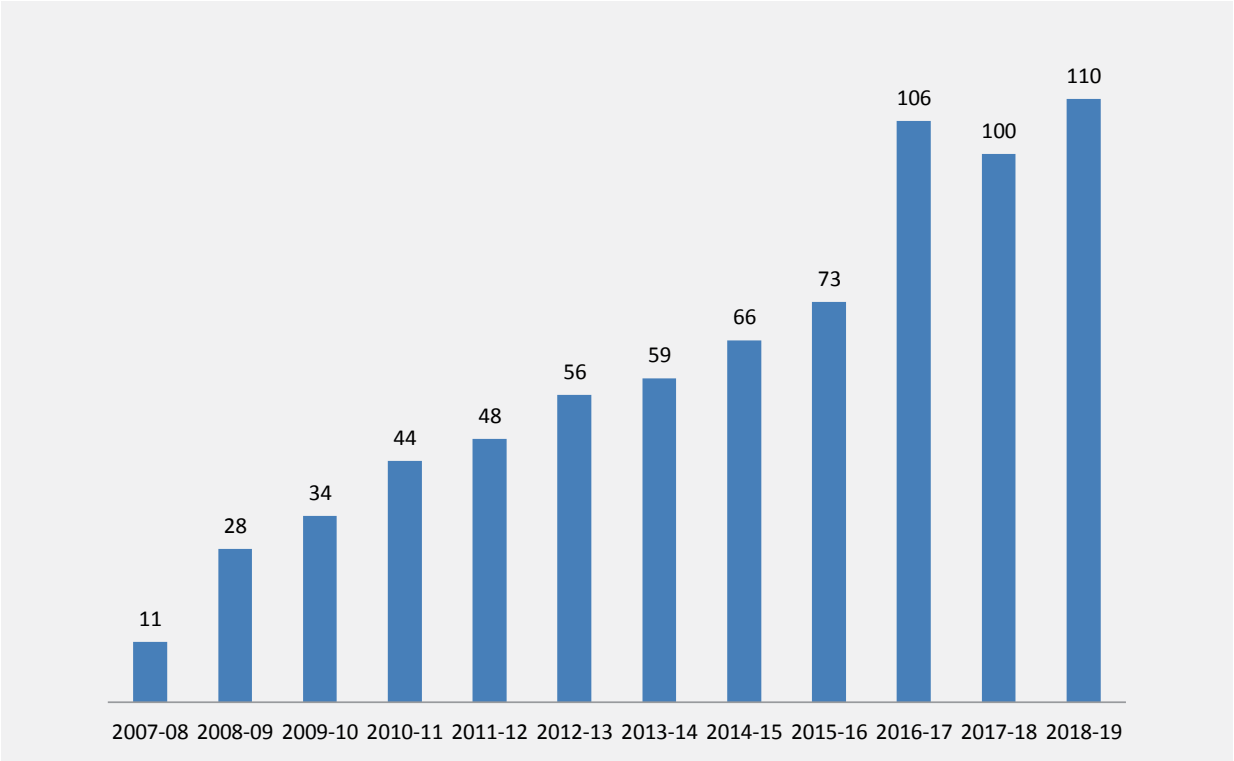

Fig. 3 Number of sponsored projects during the last few years

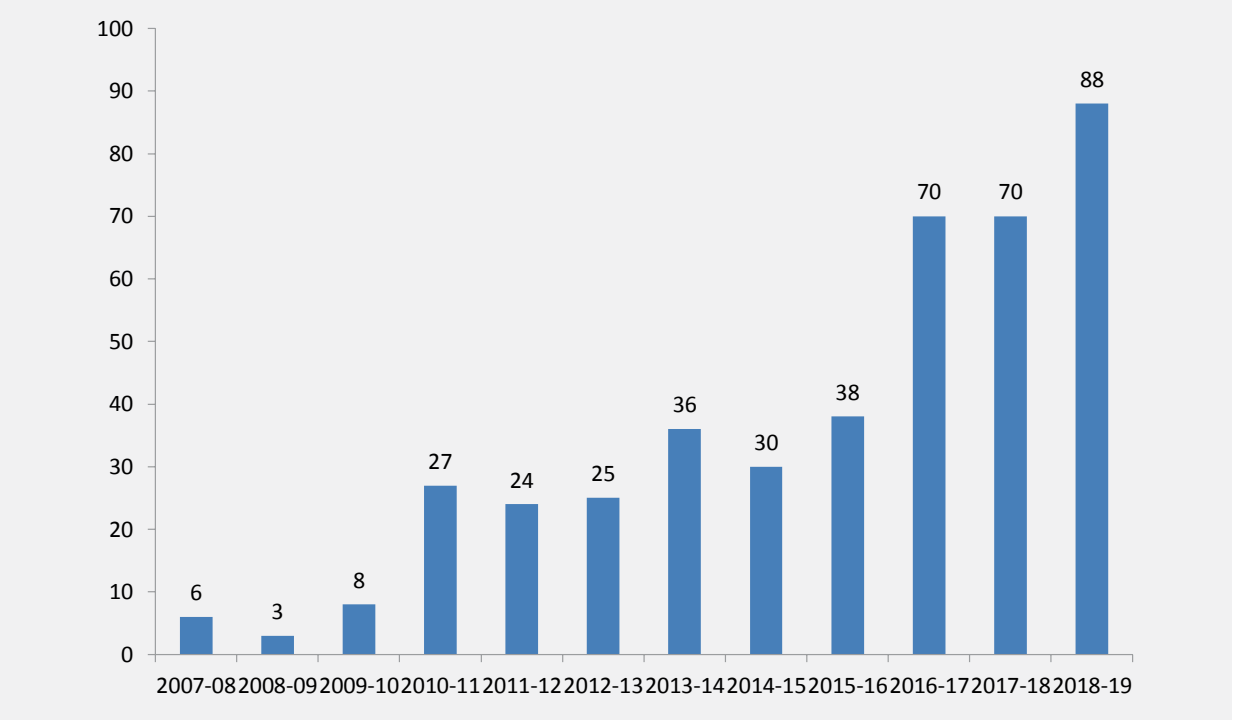

Fig. 4 Number of PhD degrees awarded during the last few years

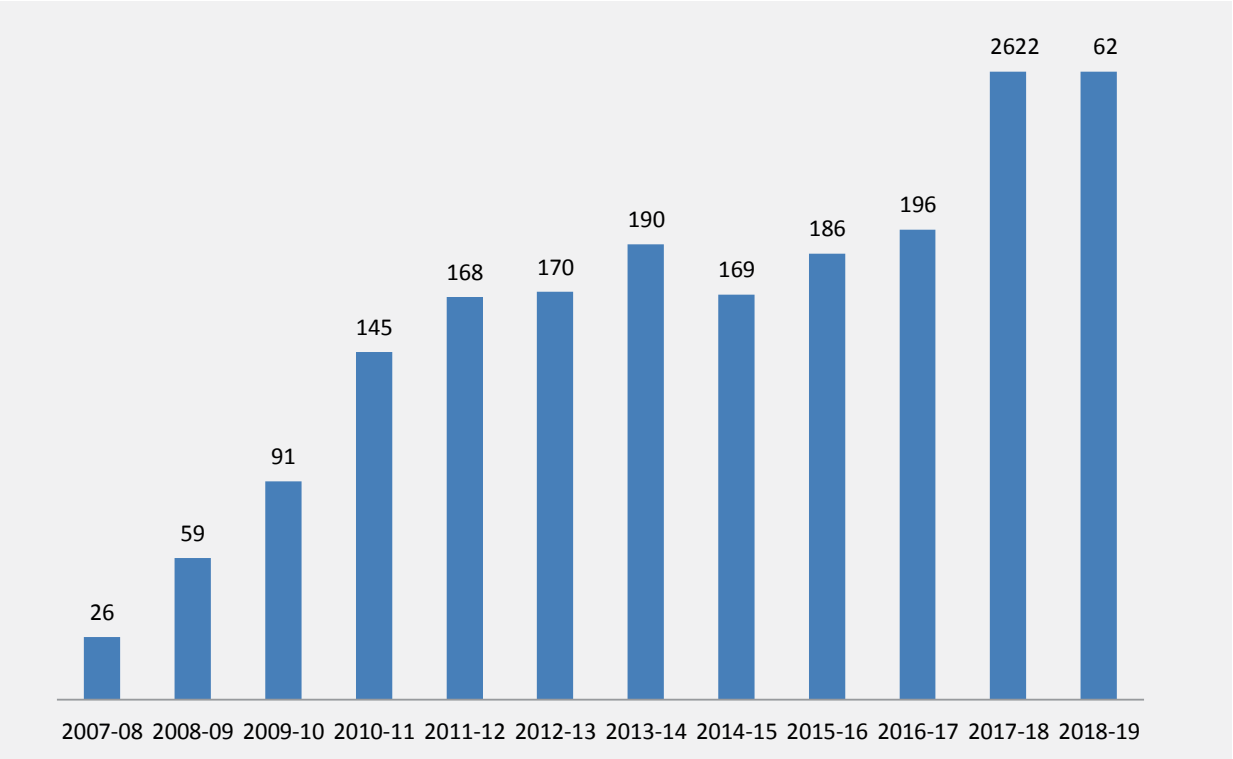

Fig. 5 Reviewers of journals/books during the last few years

Fig. 7 The 14th Convocation

Fig. 9 Independance day Celebrations 2018

Fig. 8 Republic day Celebrations 2019

Fig. 6 Swachhata Pakhwada with I&B Ministry

Fig. 10 Matribhasha Diwas 2019

Fig 11 Language Lab Inauguration by Prof Anupam Basu

Fig13. NSS Contingent for Parade

Fig. 12 Mr U Banerjee, DIG CISF on Anti-Terrorism Day

3.0 THE STAFF

3.1 ACADEMIC STAFF (TEACHING)

DEPARTMENT OF BIOTECHNOLOGY

Sl. No	Name of the post	Name
01	Professor	Aikat Kaustav, Ph.D. Chattopadhyay Sudip, Ph.D. Chaudhuri Surabhi, Ph.D. Dasgupta Mandal Dalia, Ph.D. Dey Apurba, Ph.D. Mukhopadhyay Sudit Sekhar, Ph.D.
02	Associate Professor	Bhattacharjee Ashish, Ph.D. Dutta Debjani, Ph.D. Ghosh Monidipa, Ph.D. Kazy Sufia Khannam, Ph.D. Roy Barman Subhankar, Ph.D.
03	Assistant Professor Department of Chemical Engineering	Barik Amita, Ph.D. De Debojyoti, Ph.D. Mahata Nibedita, Ph.D. Mondal Sudipta, Ph.D. Mukherjee Oindrilla, Ph.D. Saha Sougata, Ph.D.

DEPARTMENT OF CHEMICAL ENGINEERING

Sl. No	Name of the post	Name
01	Professor	Dutta S. Ph.D. Ghanta K.C. Ph.D. Gupta P. Ph.D. Halder G. N. Ph.D. Mandal T. Ph.D. Pal P. Ph.D. Sadhukhan A. K. Ph.D
02	Associate Professor	Lahiri S. K. Ph.D. Mandal M. K. Ph.D. Sikder J. Ph.D.
03	Assistant Professor	Das B. Ph.D. Ghosh Chaudhuri R. Ph.D. Hens. A. Ph.D. Mandal. B. K. Ph.D. Paruya S. Ph.D.

DEPARTMENT OF CHEMISTRY

Sl. No	Name of the post	Name
01	Professor	Maji Milan, PhD Moi Sankar Chandra, PhD Mukhopadhyay Bishnu Prasad, PhD Patra Apurba Kumar, PhD Saha Rajnarayan, PhD Sukul Dipankar, PhD
02	Associate Professor	Chakrabarty Jitamanyu, PhD Panja Sujit Sankar, PhD
03	Assistant Professor	Adhikari Utpal, PhD. Banerjee Deb Ranjan, PhD. Ghosal Subhas, PhD. Saha Tanmoy Kumar, Ph.D

DEPARTMENT OF CIVIL ENGINEERING

Sl. No	Name of the post	Name
01	Professor	Banik Atul Krishna, PhD Bhattacharya Kamal, PhD Bhattacharyya Soumya, PhD Das Amlan, PhD Dwivedi Vijay Kumar, PhD Ray Purnendu, PhD Saha Showmen, PhD Samanta Amiya Kumar, PhD Singha Roy Dilip Kumar, PhD.
02	Associate Professor	Das Diptesh, PhD Datta Aloke Kumar, PhD Nanda Radhikesh Prasad, PhD Pal Supriya, PhD Topdar Pijush, PhD
03	Assistant Professor	Karmakar Somnath, PhD Roy Pronab, PhD

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Sl. No	Name of the post	Name
01	Professor	Pal Tandra, PhD Sanyal Goutam, PhD
02	Associate Professor	Choudhury Subhrabrata, PhD Das Suvrojit, PhD De Tanmay, PhD Nandi Debashish, PhD Nandi Subrata, PhD Roy Suchismita, PhD Sarkar Anirban, Ph.D. Sarker Goutam, PhD

Sl. No	Name of the post	Name
03	Assistant Professor	Bhattacharjee Sanghita, PhD Chakraborty Baisakhi Changder Suvamoy, PhD Choudhury Prasenjit, PhD Dalui Mamata, PhD Das Deepanwita, PhD. Dutta Animesh, Ph.D. Guha Thakurta, Parag Kumar, PhD Howlader Jaydeep, PhD Jana Nanda Dulal, PhD Kisku Dakshina Ranjan, PhD Majhi Subhankar, M.Tech Mitra D, PhD Mukhopadhyay Sajal, PhD Sadhu Sanjib, M.Tech Saha Mousumi, PhD Saha Sujoy, PhD Sen Bibhash, Ph.D Sharma, Abhijit, PhD

COMPUTER CENTRE

Sl. No	Name of the post	Name
01	Professor	Nil
02	Associate Professor	Nil
03	Assistant Professor	Chatterjee Rajib, MTech Saravanan C.,PhD

DEPARTMENT OF EARTH & ENVIRONMENTAL STUDIES

Sl. No	Name of the post	Name
01	Professor	Adhikari Kalyan, PhD Gangopadhyay Aniruddha, PhD
02	Assistant Professor	Mondal Sandip , PhD Ozha Manoj Kumar, PhD

DEPARTMENT OF ELECTRICAL ENGINEERING

Sl. No	Name of the post	Name
01	Professor	Acharjee Parimal, PhD Banerjee Subrata, PhD Ghosh Saradindu, PhD Ghoshal Shakti Prasad, PhD Koley Chiranjib, PhD Mahato Sankar Narayan, PhD Ray Nirmal Kumar, PhD Saha Tapas Kumar, PhD Thakur Siddhartha Shankar, PhD

Sl. No	Name of the post	Name
02	Associate Professor	Bhowmik Partha Sarathee, PhD De Jayati, PhD
03	Assistant Professor	Ahmed Irfan, PhD Barman Jitesh Chandra Bera Tushar Kanti, PhD Bhattacharya Aniruddha, PhD Bhowmik Partha Sarathee, PhD Bohre Aashish Kumar, PhD Das Avinandan De Jayati, PhD Dey Aritro, PhD Dhara Ashis Kumar, PhD Halder Suman, PhD Saha Roy Biman Kumar, PhD Sarkar Supriya, PhD
04	Trainee Teacher	Dey Rajdip

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 Kundu Sumit, PhD Mahanti Gautam Kumar PhD Mahanty Goutam Kr., PhD Mahapatra Rajat, PhD Maji Banshi Badan, PhD Mal Ashis Kumar PhD
02	Associate Professor	Sadhukhan Tapas Aniruddha Chandra PhD Rajib Kar PhD Durbadal Mandal PhD Sanjay Dhar Roy PhD
03 04	Assistant Professor DST Inspire Faculty	Majumder Aurpan Mandal Sujit Kr.PhD Nilanjan Chattaraj PhD Sujit Kr. Mandal PhD Hemanta Kumar Mondal PhD Sapana Ranwa, PhD Pratik Chakraborty PhD
05	Emeritus Professor	Susanta Sen PhD

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCE

Sl. No	Name of the post	Name
01	Professor	Sengupta Partha Pratim, PhD
02	Associate Professor	Banerjee Joydeep, PhD Modak, Arindam, PhD Rai, S. K. PhD
03	Assistant Professor	Chakraborty, Debasis , PhD Banerjee, Sutanuka, PhD

DEPARTMENT OF MANAGEMENT STUDIES

Sl. No	Name of the post	Name
01	Professor	Dutta Avijan Ph.D. Roy Mousumi Ph.D.
02	Associate Professor	Bandyopadhyay Gautam, Ph.D. Banerjee Neelotpaul De, Anupam, Ph.D. Ghosh Amlan, PhD Mandal Kaushik, PhD Pal Durba, PhD
03	Assistant Professor	Paul Ujjwal Kanti Ph.D. Sarkar, Subhadip Ph.D.

DEPARTMENT OF MATHEMATICS

Sl. No	Name of the post	Name
01	Professor	Basu Kajla, PhD Kar Samarjit, PhD Sarkar (Mondal), Seema, PhD
02	Associate Professor	Bagchi Satya, Ph D Dey Lakshmi Kanta, PhD Maitra Sarit, PhD Pal Pinaki, PhD Pal Anita, PhD
03	Assistant Professor	Ali Md Firoz, PhD Gopmandal Partha Pratim, PhD Panigrahi Gautam, PhD

DEPARTMENT OF MECHANICAL ENGINEERING

Sl. No	Name of the post	Name
01	Professor	Basak Indrajit, PhD Banerjee Nilotpal, PhD Halder Biswajit, PhD Mullick Amar Nath, PhD
02	Associate Professor	Biswas Arup Kr. Layek Apurba, PhD Mitra Ambuj Kr PhD Mukhopadhyay Sumit, PhD Hui Nirmal Baran, PhD Puri Asitbaran, PhD Pramanik Achinta Kr, PhD Roy Shibendu Shekhar ,PhD
03	Assistant Professor	Bera Biswajit , PhD Das Asim kr. De Jagannath PhD Karmakar Sujit, PhD Khan Kallol,PhD Mitra Ranjan Kr. PhD Patari Animesh Pramanik Shantanu, PhD Rana Subhash Ch., PhD Barman Rabindra Nath, PhD Sengupta Sayantan PhD Jana Kuntal, PhD Datta Aparesh, Ph.D. Goswami Arjyajyoti, Ph.D. Mishra Chintamani, Ph.D. Mondal Sirshendu, Ph.D
04	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	Pramanik Susanta,PhD Bera Supriya,PhD Ghorai Satadal, PhD Ghosh Madan Mohan,PhD Mondal Manas Kr., PhD Show Bijay Kr, PhD
03	Assistant Professor	Mandal Durbadal, PhD Mallik Manab, PhD Maji Barnali, PhD Mandal Arup Kumar, PhD Yagati Krishna Priya, Ph.D

DEPARTMENT OF PHYSICS

Sl. No	Name of the post	Name
01	Professor	Kumbhakar Pathik, PhD Meikap Ajeet Kr., PhD Chakraborty Amit Kr, PhD
02	Associate Professor	Basu Soumen, PhD Chaudhuri Hirok, PhD Mandal Mrinal Kanti, PhD. Mondal Aniruddha, PhD Sahoo Sukdev, PhD
03	Assistant Professor	Das Soumik, PhD Ghosh Abhijit, PhD Ghosh Sayantari PhD Subramanian Hemachander, Ph.D

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

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 2018-2019SESSION (GENDERWISE):

Vide Annexure 11.8(b) 1.

4.2 A2. ENROLMENT IN B. TECH. PROGRAMMES DURING 2018-2019SESSION (CASTEWISE):

Vide Annexure 11.8(b) 2.

4.2 B1. ENROLMENT IN M. TECH. & M. SC. PROGRAMMES, 2018-2019(GENDER WISE):

Vide Annexure 11.8(b) 3.

4.2 B2. ENROLMENT IN M. TECH. & M. SC. PROGRAMMES, 2018-2019(CASTE WISE):

Vide Annexure 11.8(b) 4.

4.2 C1. ENROLMENT IN MCA PROGRAMME DURING 2018-2019SESSION (GENDER WISE):

Vide Annexure 11.8(b) 5.

4.2 C2. ENROLMENT IN MCA PROGRAMME DURING 2018-2019SESSION (CASTE WISE):

Vide Annexure 11.8(b) 6.

4.2 D1. ENROLMENT IN MBA PROGRAMME DURING 2018-2019SESSION (GENDER WISE):

Vide Annexure 11.8(b) 7.

4.2 D2. ENROLMENT IN MBA PROGRAMME DURING 2018-2019SESSION (CASTE WISE):

Vide Annexure 11.8(b) 8.

4.2 E. ENROLMENT OF RESEARCH SCHOLARS FOR PHD WORK DURING 2018-2019 (FULL TIME & PART TIME):

Vide Annexure 11.8(b) 9.

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	2937
2	B. Tech & M. Tech Dual Degree	8
3	5 Years Integrated M. Sc. Programme	13
4	Master of Technology	477
5	Master of Computer Applications	132
6	Master of Business Administration	48
7	Master of Science	69
8	Master of Social Work	11
9	PhD	697
TOTAL		**4392**

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
Hall-13	Girls	500	440

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

The Institute organized various intra NIT tournaments through out the year in the fields of Football, Volleyball, Basketball, Cricket, Chess, Badminton, Table Tennis, Athletics, yoga and Martial Art.

In the year 2018-2019 Institute participated in the following All India Inter NIT & other Games & Sports meet.

All India Inter NIT Badminton, Table Tennis & yoga (Men & Women) Tournaments organized by NIT Nagpur during September 29 to October 01, 2018.

All India Inter NIT Faculty & Staff tournaments in Badminton, Table Tennis & Chess organized by NIT Goa during December 07-09, 2018.

All India Inter NIT Football (Men) Tournament organized by NIT Rourkela during January 25-27, 2019.

All India Inter NIT Basketball, Volleyball (Men & Women) & Cricket Tournaments organized by NIT Tiruchirappalli during February 20-23, 2019.

All India Inter NIT Hockey (Men) & Chess (Men & Women) Tournaments organized by NIT Agartala during March 08-10, 2019.

All India Inter NIT Track & Field (Men & Women) Meet organized by NIT Warangal during March 22-24, 2019.

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≥ 8.00First class with Distinction; 8.00 > CGPA ≥ 6.50First 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 DURING 2018-19

DEPARTMENT OF BIOTECHNOLOGY

Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
Indian Institute of Technology Kharagpur (Dr. Sufia Kazy)	Environmental Microbiology	Sponsored Research Project
Central Ground Water Board, Kolkata(Dr. Sufia Kazy)	Microbiology of Arsenic Contaminated Groundwater	Sample collection and Research for sponsored project
Borehole Geophysical Research Laboratory, Karad (Dr. Sufia Kazy)	Microbiology of Subsurface Environment underneath the Deccan Traps	Sample collection and Research for sponsored project
Royal Care Hospital (Dr. M. Ghosh)	Provide Patients sample	Sensor mediated disease detection and validation

DEPARTMENT OF CHEMICAL ENGINEERING

Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
Durgapur Steel Plant, Durgapur	Wastewater Treatment	Abatement of pollutants from wastewater
TATA Steel – R&D division, Jamshedpur	Heat transfer	Heat transfer simulation of BOF-hood tube in Fourier Space

DEPARTMENT OF CHEMISTRY

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

DEPARTMENT OF CIVIL ENGINEERING

Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
HIT, Haldia	Research	Joint PhD Supervision

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
Intel	Digital VLSI design	12 month internship for M.Tech (Microelectronics & VLSI) 2nd year students
Nxp semiconductor	VLSI design	6/12 month internship for M.Tech (Microelectronics & VLSI) 2nd year students
Mentor graphics	Tools training	Tool training for for M.Tech (Microelectronics & VLSI) 2nd year students

DEPARTMENT OF MATHEMATICS

Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
Eastern Coalfield Limited Durgapur	Application of Operations Research in Coal Mine Areas.	M. Tech Project Thesis

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	Research and Development
CSIR-NML, Jamshedpur	Metallurgy	Research and Development
Durgapur Steel Plant, Durgapur	Metallurgy	Research and Development
IIEST, Shibpur, WB	Metallurgy	Research and Development

5.4. INNOVATIONS AND TECHNOLOGY TRANSFER

Patent filed during 2018-19

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	26.10.2016
Recombinant Cellobiohydrolases	Sudit Sekhar Mukhopadhyay, Subba Reddy Doda, Nibedita Sarkar, Kaustav Aikat	201731045312	17-12-2017
Amorphous silicon monoxide based nanowire electrode biosensor	Aniruddha Mondal; Monidipa Ghosh; Shyam Murli Manohar Dhar Dwivedi, Chiranjib Ghosh; Sagarika Deepthy, Rini Lahiri.	201931007981	28.02.2019

DEPARTMENT OF CHEMICAL ENGINEERING

Title	Inventors	Application No.	Date of filing
System and method of production of acetic acid from waste cheese whey through a continuous membrane-integrated hybrid process	P.Pal	298502	June 2018
Process for the isolation of polyhydroxyalkenoate and use thereof in enhancing microbial electro catalysis	P. Pal, Krishnaraj Saravanan R.N.C.	299953	Aug2018

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Title	Inventors	Application No.	Date of filing
Personal Authentication Biometric System based on Fingers Structure	Verma Satya Bhushan, Chandran Saravanan	201631012245	07-04-2016
Stand alone Portable Rehabilitation and Assistance System	Arpita Sarkar Goutam Sanyal Somjyoti Majumder	201831026040	12/07/2018

DEPARTMENT OF ELECTRICAL ENGINEERING

Title	Inventors	Application No.	Date of filing
A high gain interleaved buck-boost converter with modified interleaving technique	Niraj Kumar Rana, Subrata Banerjee.	201831020519	31.5.2018
High gain buck-boost converter system with higher efficiency and improved performance	Subrata Banerjee, Niraj Kumar Rana, Malay Ranjan Khuntia.	201831023674	25.6.2018

DEPARTMENT OF METALLURGICAL & MATERIALS ENGINEERING

Title	Inventors	Application No.	Date of filing
An insulation brick and method of preparation thereof	Dr Arup Kumar Mandal & Prof. O.P. Sinha	201811033258	05/09/2018

PATENT AWARDED

Title	Inventors	Application No.	Date of filing
Stable dispersion of surface capped silver nanopowder in hydrophilic medium with enhanced thermal conductivity	M.M. Ghosh, S. Ghosh, and S. K. Pabi	Patent Application (No.: 1068/KOL/2009) filed in India on 17th August, 2009	granted on 22nd June, 2017 with Indian Patent no. 284469.

DEPARTMENT OF PHYSICS

Title	Inventors	Application No.	Date of filing
Bio-Waste Ash Based Low Cost, Light Weight, And Eco-Friendly Self-Rechargeable Battery	1)KARMAKAR, Mr. Srikanta 2)KUMBHAKAR, Mr. Partha 3)PRAMANIK, Mr. Ashim 4) KUMBHAKAR, Prof. Pathik	201931002942 A	24/01/2019
Amorphous Silicon Monoxide Based Nanowire Electrode Biosensor	A Mondal, M Ghosh, S M M D Dwivedi, C Ghosh, S Deepthy, R Lahiri	Application Number: TEMP/E-1/8348 /2019-KOL, Ref. No.: 201931007981.	28/02/2019

5.5 WORKSHOPS/SEMINARS ORGANISED BY THE INSTITUTE (2018-19)

DEPARTMENT OF CHEMICAL ENGINEERING

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Dr. T. Mandal	Extremozymes for Carving better Tomorrow	Dec 17-28, 2018
2	Dr. G. N. Halder.	Principles and Practices of Coalbed Methane and other Unconventional Gases : CMUG-2019	25th-27th March 2019

DEPARTMENT OF CHEMISTRY

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Dr. T. K. Saha (convenor), Dr. R. N.Saha (member), Dr. D. Sukul (Chairman)	A National Level conference entitled as "Recent developments in Chemistry-2018	17.12.18 - 19.12.18

DEPARTMENT OF CIVIL ENGINEERING

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Dr. P. Roy, Dr. P. Pal, Dr. J. Howlader, Dr. Mander Mitra, Dr. K Giri etc.	TEQIP-III Sponsored Short Term Course on Open Source Software in Academia and Research (OSSAR 2018)	August 06-10, 2018
2.	Dr. V. K. Dwivedi, Dr. R.P. Nanada, Dr. P. Roy etc.	Training of Nirman Sahayaks from GP and block level Jr.Engineers on Rural Engg. issues.	December 03-07, 2018
3.	Dr. V. K. Dwivedi, Dr. R.P. Nanada, Dr. P. Roy etc.	Training of Nirman Sahayaks from GP and block level Jr.Engineers on Rural Engg. issues.	December 10-14, 2018
4.	Dr. V. K. Dwivedi, Dr. R.P. Nanada, Dr. P. Roy etc.	Training of Nirman Sahayaks from GP and block level Jr.Engineers on Rural Engg. issues.	December 17-21, 2018

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Prof. Anupam Basu Prof. Dipti Prasad Mukherjee Prof. Bhabotosh Chanda Prof Pabitra Mitra Prof. Jaya Sil Prof. Swagatam Das	Workshop on Recent Trends in Machine Learning and Soft Computing (RTMLSC 2018)	April 16-20, 2018
2.	Dr. Mander Mitra, ISI Kolkata Kinsuk Giri, NITTTR	TEQIP-III Sponsored Short Term Course on Open Source Software in Academia and Research	Aug 06-10, 2018
3.	Prof. Abhijit Das, IIT Kharagpur, Dr. Debrup Chakraborty, ISI Kolkata, Dr. Goutam Pau, ISI Kolkata, Dr. Sandip Chakraborty, IIT Kharagpur	TEQIP-III Sponsored Short Term Course Cryptology	Nov. 12-16, 2018

DEPARTMENT OF ELECTRICAL ENGINEERING

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1.	Prof. S. Banerjee and Prof. S. N. Mahato	Electrical Engineering under the perspective of a Process Industry vis-a-vis Steel Plant	31.08.2018
2.	Prof. N. K. Roy, B. Dutta S K Tripathi	Advancement of Modern Technology in Engineering & Engineering Science	13-11-2018 to19-11-2018
3.	Prof. N. K. Roy, M. Maitra, N. Pal, S. Kar, M. Chakraborty, P. K. Nanda	Recent Trends in Intelligent Systems Design (RTISD 2019)	08-1-2019 to 12.01.2019

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Prof. A. Basu, Prof. N. Mukhopadhyay, Prof. N. Sarkar, Prof. P. Das, Prof. S. Bhaumik	TEQIP III Sponsored Winter School on Advanced Research Methods in Econometrics & Statistics	3-9 December 2018

DEPARTMENT OF MANAGEMENT STUDIES

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Justice Joymalya Bagchi, Dr. Anuttama Banerjee- Dr. Nandita Banerjee Dhawan	Workshop on 'Women in India: Issues at Workplace'	August 18-19, 2018

DEPARTMENT OF MATHEMATICS

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Prof Arnab Basu, IIM Bangalore	Stochastic Game Theory"	25th April 2018
2	Prof. S. Basu, George Washington University, United States of America	A Special Lecture Session on Functional Analysis	13th July, 2018
3	Prof. S. Bhattacharya, Director, BIT Pilani. Prof. Swapan Bhattacharya, Ex-Director, NIT Surathkal & NIT Durgapur. Dr. Apurva Barve, IISER Pune. Prof. A. Goswami, IIT KGP.	Induction training program for Faculty in Universities/colleges/Institutes of Higher Education.	June 30-July21, 2018
4	Dr Imon Paul, IQ City Durgapur. Dr. Goutam Kumar Paul, Indian Statistical Institute Kolkata. Dr Himanshu Singh, CEO, Ismriti Company, Mumbai.	Induction for B.Tech First year students of NIT Durgapur.	July 24-29, 2018
5	Dr. Nandita Dhawan, Jadavpur University Dr. Subhasis Bandyapadhay, IIEST Shibpur Dr. Anutaama Banerjee Justice Joymallya Bagchi, Calcutta High Court	Workshop on Women in India: Issues at Workplace.	August 18-19, 2018
6	Prof. S. Basu, George Washington University, United States of America	A Special Lecture Session on Functional Analysis	17th January, 2019

DEPARTMENT OF MECHANICAL ENGINEERING

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Industry Experts from Kolkata.	Short Term Course on Gearbox Design & Manufacture: Industrial Practice	16 -20 April 2018.
2	Prof. Achintya Mukhopadhya, JU; Dipankar Bandyopadhyay, IIT G	Heat Transfer and Fluid Flow in Mini-channels and Micro-channels	June 13–17, 2018
3	Dr. Anish Roy Chowdhury, Faculties of NIT Durgapur	Student Training Programme on Science and Engineering	August 18-22, 2018
4	R. K. Mitra, N. B. Hui, J. Dey, T. K. Saha, A. Chandra. A. K. Banik, NIT Durgapur	Science and Engineering Computations by Scilab/Matlab (SECSM-2018)	August 18-22, 2018
5	Prof. Massimo Rundo, Italy, Prof. R.N. Maiti, IIT Kharagpur	Advances in Fluid Power Engineering	September 5, 2018
6	D. Sen, Govt. of WB, D. K. Pratihar, IIT Kharagpur, N. Upadhyay, ISIC New Delhi, Akila Surendran, NISH, Trivandrum, P. Lenka, NILD, Kolkata, N. Kishorenath, ASL, Hyderabad, A. Basu, S. S. Roy, NIT Durgapur	Robotics and Assistive Technologies, RAT 2019	January 03-05, 2019

DEPARTMENT OF PHYSICS

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Prof. T. Gangopadhyay (CGCRI Kolkata) Prof. D. P. Ojha (Sambalpur University) Prof. G. C. Bhar (RMVU Belur) Prof. S. Mukhopadhyay (BU Burdwan) Prof. P. Kumbhakar (NIT Durgapur) Prof. T. Ganguly (JU Jadavpur) Dr. M. K. Mandal (NIT Durgapur) Prof. A. K. Meikap (NIT Durgapur) Dr. S. K. Ghosh (Assam University) Dr. P. Roy Choudhuri (IIT Kharagpur) Dr. S. N. Bhaktha (IIT Kharagpur)	TEQIP-III Sponsored SHORT TERM COURSE On Fundamentals of Nanomaterials for Applications in Photonics (FNAP-2018)	April 9-13, 2018
2	Prof. A. Tameev, A.N. Frumkin Institute of Physical Chemistry and Electrochemistry of the Russian Academy of Sciences	Polymers and hybrid composites for the application in electronic and photonic devices (GIAN)	Nonember 5-9, 2018
3	Prof. Umapada Pal, ISI Kolkata Prof. S. Mukhopadhyay, IIT Kharagpur Prof. J. Sil, IIEST, Shibpur, Howrah Prof. S. P. Maity, IIEST, Shibpur, Howrah	TEQIP-III Sponsored short term course on Machine Learning for Image and video Recognition	January 7-11, 2019

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
4	Prof. S K De, IACS Kolkata Prof. D. Behara, NIT Rourkela Prof. A. K. Ghosh, BHU, Varanasi Dr. M. Pal, CSIR-CGCRI, Kolkata Dr. M. Kar, IIT Patna Prof A K Meikap, NIT Durgapur Dr. Sukanta De, Presidency University, Kolkata Dr. S. Sahoo, NIT Durgapur	Fundamentals and Recent Advances in Nanomaterials (FRAN-2019)	January 21-25, 2019.
5	Pro. P. Chakrabarti, Director IIEST Shibpur, Howrah	Nanomaterial and Devices	February 04 2019
6	Prof. T. Gangopadhyay (CGCRI Kolkata) Prof. S. Mukhopadhyay (BU Burdwan) Prof. P. Kumbhakar (NIT Durgapur) Prof. T. Ganguly (JU Jadavpur) Prof. A. Sinha (Kalyani University) Prof. U. Chatterjee (BU Burdwan) Prof. G. C. Bhar (RMVU Belur) Dr. D. Mukherjee (IACS, Kolkata) Prof. A. K. Choudhary (Hyderabad University) Dr. M. K. Mandal (NIT Durgapur) Prof. N. K. Roy (NIT Durgapur) Prof A. K. Meikap (NIT Durgapur) Dr. S. K. Mandal (JCBCAT, Kolkata)	TEQIP-III sponsored SHORT TERM COURSE On Emerging Trends in Photonics and Applications (ETPA-2019)	February 11-15, 2019

CALEDONIAN COLLEGE OF ENGINEERING, MUSCAT, OMAN:

An MOU was signed in 1st April, 2008 between CCEO (Caledonian College of Engineering, Muscat, Oman) and NIT Durgapur and the areas of cooperation are: corporate training, short courses and consultancy services, seminars, workshops and conferences, staff exchange programmes, exchange of students and research and development.

Till date, 16 faculty members of NIT Durgapur visited CCEO for delivering lectures in different departments. Four faculty members from CCEO visited NIT Durgapur.

Seventeen faculty members of CCEO registered for PhD programme at NIT Durgapur and 9 have been awarded the PhD degree.

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 Engineering	Research on sensor mediated disease detection	Ghosh, M., NIT DGP, Estrela, P., Bath University	Joint Research
Bihar Agricultural College, BAU, Sabour	Research on rice – blast pathosystem	Roy-Barman, S., NITD; Prasad,B.D., BAU, Sabour	Joint Research
Borehole Geophysical Research Laboratory, MoES	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, Maharasthra	Research Project
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
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
Central Mechanical Engineering Research Institute (C.M.E.R.I), Durgapur	Research on Environmental Biotechnology	Dey, A., NIT Durgapur and Mondal, B.N.,C.M.E.R.I, Durgapur	Joint Research
Central Mechanical Engineering Research Institute (C.M.E.R.I), Durgapur	Research on 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	Microbial Fuel Cell	Chaudhuri, S., NIT DGP, Arun, R., CSIR-CMERI DGP.	Research
Central Mechanical Engineering Research Institute, Durgapur	Research projects on Biopolymer Development and its Applications	Mahata, N., NIT DGP, Chanda, N., CSIR-CMERI DGP.	Research

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Dept. of Pharmacology IPGME&R, Kolkata	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
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
IARI, New Delhi	Research on Production of Novel Enzymes	Dutta, D., NIT Durgapur, Lata, IARI, New Delhi	Joint research
ICGEB, New Delhi	Signal transduction	Chattopadhyay S. and Sopory, S.K.	Joint research project
IIT 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 Kanpur	Nanotechnology for drug delivery	Chaudhuri, S., Dutta D, NIT Durgapur; Sivakumar, S., IIT Kanpur	Research
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
NIPGR, New Delhi	Signal Transduction	Chattopadhyay S. and Sinha, A.K.	Joint research project
Pondicherry University, Pondicherry	In-silico phytopharmaceutical drug development	Chaudhuri, S., NIT DGP, Pan, A., Pondicherry University.	
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
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., Bisva-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

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
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
Faculteit Industriele Ingenieurswetenschappen, KU Leuven, Campus Groep T Leuven, Leuven, Belgium	Removal of pollutants	Dutta S. NIT Durgapur; Dutta A. (Faculteit Industriele Ingenieurswetenschappen,	Joint Research and publication
IIT Madras, Chennai	Nonlinear dynamics and Multiphase flow	Paruya S..(NITD) Pushpavanam S. (IITM)	Joint R&D proposal for funding, publications
Indian Agricultural Research Institute (IARI), New Delhi	Microalgal bioenergy generation	Halder. G. N.	Research and Publication
Lappeenranta University of Technology, Finland	Sustainable Technology development	Pal,P.& Roy .M. (MS)	Research
National Institute of Technology Agartala (NITA), Tripura	Bio-sequestration of CO2	Halder. G. N.	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

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 S., Saha R. N.	Joint Supervisor for Ph.D Work, Paper publication
CSIR-CMERI	Designing and investigating the effect of organic corrosion inhibitors	Banerjee, P., and Sukul, D	Publication of papers

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
CSIR-CMERI	Arsenic removal	Ruj Biswajit , Debbarma S. R. & 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 Chemistry University of California, Davis, CA 95616, USA	Single Crystal X-ray Crystallography	Olmstead Marilyn M. , Patra A.K.	Single crystal X-ray Diffraction studies on the metal complexes with supporting Schiff base, Amide ligand
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
IISc Bangalore	Development of Microwave absorber	Bose S. and Panja S. S.	Collaborative research
IIT Gandhinagar	Computational support of experimental work	Ghosal S. and Sriram K.	Paper publication (one in 2019)
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	Moi, S. C. & Rocquefelte X. 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	Moi, S. C. & Kubel, F., 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
Johannes Kepler University, Linz	Synthesis of Schiff base ligands and their application	Saha T. K and Monkowius U	Chemical sensing of various analytes by Schiff base ligands
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 G.	Antibacterial and other biological studies on synthesized metal complexes of various Schiff base and amide ligands

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
MNIT, Jaipur, Rajasthan	Instrumental analysis	Saha, T.K , Meher S. K.	Collaboration work, instrumental support of research work
NISER, Bhubaneshwar, Orissa	Single X-ray crystalllography	Saha, T.K, Behera J. N.	Collaboration work, instrumental support of research work
Raghunathpur College	Synthesis and characterisation of Coordination compounds	Biswas B.	Paper publication and guiding Ph.D. students
Vienna University of Technology	Kinetics and inorganic reaction mechanism	Linert W.,Moi S.C.	Biomolecular substitution kinetics in 4d8 and 5d8 metal ion system
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
CSIR-CMERI, Durgapur	Structural Health Monitoring	Datta, A..K. and Topdar, P.	Research
Department of Civil and Environmental Engineering, University of Surrey, UK	Pipe-soil I interaction, Offshore pipelines	Roy, P.	Research
FEFU, Russia	Water Geotechnics	Pal, S	Research
Hohai University, China	Water Geotechnics	Pal, S	Research
Jadavpur University	Water Geotechnics	Pal, S	Research
TPU, Russia	Water resources and Pollution Treatment	Pal, S	Research

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Departament de Ciències de la Computació, Universitat Politècnica de Catalunya Barcelona, Spain	Game Theory and its Applications Cloud, Fog, Healthcare, Crowdsourcing etc.	Fatos Xhafa, Mukherjee , S.	Research
NITTTR Kolkata, India	Biometrics, Computer Vision	Gupta, P., NITTTR Kolkata; Kisku, D. R., NIT Durgapur	Academic Research & Development
CMERI, Durgapur, India	Electrohydrodynamic Inkjet Printing	Murmu, N.C., CSRI-CMERI, Durgapur; Kisku, D.R., NIT Durgapur	Academic Research & Development
Wichita State University, USA	Biometrics, Machine Learning	Rattani, A., WSU; Kisku, D.R.	Research & Development

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 K. (BCKV), Adhikari K. (NIT)	Jointly supervising Ph.D student and publication
ICAR-Central Inland Fisheries Research Institute	Surface water Quality	Nag S. K. (CIFRI), Mondal S. (NIT)	Joint Research and publication
IIT Kharagpur	Geochemistry of uranium bearing ores: proxy to understand U-mineralization	Mishra B. (IIT), Ozha M K (NIT)	Joint Research and publication
IIT Bombay	Metamorphic and Geochronological studies	Pandalai H. P (IIT Bombay), Ozha M K Ozha (NIT)	Joint Research and publication
Gauhati University	Fluid induced alteration of allanite	Bhagabati B (GU), Ozha M K (NIT)	Joint publication

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 (CMERI)	Joint Research
Central Power Research Institute, Bangalore	High Voltage Engineering & Liquid Insulation	Roy, N K (NIT), Dr Thomas (CPRI)	Joint Research
IIT Delhi	Control Systems, Electromagnetic Levitation	Banerjee S (NIT), Nabi M (IIT)	Joint Project
IIT Kharagpur	Power Electronics, Multilevel Converters	Banerjee S (NIT), Chakroborty C (IIT)	Joint Research

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Brno University of Technology, Brno, Czech Republic	Millimetre wave channel modelling	Chandra A	External member of a Czech national project
Vienna University of Technology, Vienna, Austria	Vehicular channel modelling	Chandra A	Joint research
Texas A&M University, Doha, Qatar	Free space optics	Chandra A	Joint research
University at Albany, State University of New York, NY,USA	Game theory for wireless communication	Chandra A	Joint research
Slovak University of Technology, Bratislava, Slovakia	Modelling of optical communication channels	Chandra A	Visiting fellowship
University of A Coruna, A Coruna, Spain	Mobile channel modelling	Chandra A	Joint research

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Chang Gung University Taiwan	Memory Devices	Mahapatra R	Joint research
University of Liverpool, UK	GaN Power Electronics	Mahapatra R	Joint Research
University of Parma Italy	Cellular IoT	Kundu S	Joint Research
IIT Kharagpur	Mixed signal VLSI design	T. K. Bhattacharya, P. Mandal, Dhar A. S.(IIT Kharagpur)	SMDP – C2SD related
University of Calcutta	Chip tape out	Basu S. (SMDP faculty)	SMDP – C2SD related

DEPARTMENT OF MATHEMATICS

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Aliah University, Kolkata	New Topological Indices of Graphs	Pal, A., NIT Durgapur and Nayeem, S.M.A.	Joint Research
Artificial Intelligence and Big Data College, Chongqing College of Electronic Engineering, Chongqing	Fuzzy Graph	Pal A. and Cen Zuo	Joint Research
CIEM, Kolkata	Computational Graph Theory	Pal A. and De N.	Joint Research
Department of Mathematics, Sidhu Kanu Birsa University, WB	Soft Computing	Panigrahi G, NIT DGP and Das, B.	Joint Research
Department of Mathematics, Mugberia College, East Midnapore, WB	Bio Mathematics	Panigrahi G NIT DGP and Maity K.	Joint Research
Dept of Mathematics, Haldia Institute of Technology, East Midnapore, WB	Soft Computing	Panigrahi G NIT Durgapur, and Jana D. HIT, Haldia	Joint Research
Dept of Operations Management, TA PAI Management Institute,Manipal	Management	Panigrahi G, NIT DGP and Chattrejee D.	Joint Research
Dept. of Industrial Engineering and management, Hanyang University, South Corea	Operations Research	Basu K. and Sarkar , B.	Joint Research
Division of Computational Mathematics and Engineering, Institute for Computational Science, Ton DucThang University, Ho Chi Minh City, Vietnam	Fuzzy Graph	Pal A. and Hoang Viet Long	Joint Research
DR. SPM IIIT, Naya Raipur, India	Codes over rings	Bagchi, S, NIT Durgapur and Ramakrishna Bandi, IIIT, Naya Raipur	Joint Research

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Gobinda Prasad Mahavidyalya, Bankura	Operations Research	Basu, K., NIT Durgapur and Mukherjee, S.	Joint Research
Graduate Technological Educational Institute of Western Greece, Greece.	Fuzzy Logic and modelling	Pal A. and M. Voskoglou	Joint Research
ICBM, Carl von Ossietzky University, Germany	Nonlinear Dynamics	Pal, P, NIT Durgapur and Feudel, U. of ICBM, Germany	Joint Research
IIFT Kolkata	Green Supply Chain Management	Pal, A., NIT Durgapur, and Das, P.K	Joint Research
Indian Institute of Technology Kharagpur	Convective Instability	Pal, P, NIT Durgapur and Kumar, K. of IIT Kharagpur	Joint Research
Jadavpur University, Kolkata	Nonlinear Dynamics	Pal, P, NIT Durgapur and Dana, S.K. of JU Kolkata	Joint Research
Jadavpur University, Kolkata	Functional Analysis	Dey, L.K., NIT Durgapur and Das, Pratulananda of Jadavpur University	Joint Research
King Mongkut's University of Technology Thonburi, Thailand	Fixed Point Theory	Dey L.K. and Kumam, P.	Joint Research
Mahadevananda Mahavidyalaya, Monirampore, Barrackpore, WB	Eco-epidemiological models with chaotic dynamics	Sarkar (Mondal), S., NIT Durgapur, Das, K.P., Mahadevananda Mahavidyalaya, Monirampore, Barrackpore, WB & Karmakar, P., W.B.E.S.	Joint Research
Mahadevananda Mahavidyalaya, Monirampore, Barrackpore, WB	A mathematical study of HIV/AIDS epidemic model with special emphasis on chaos and its stabilization.	Sarkar (Mondal), S., NIT Durgapur, Das, K.P., Mahadevananda Mahavidyalaya, Monirampore, Barrackpore, WB	Joint Research
Narajole raj College. Medinipore	Graph Theory	Pal, A., NIT Durgapur, and Rana, A.	Joint Research
Om Dayal Group of Institutions, Howrah.	Fuzzy Graph	Pal A. and Dhrubajyoti Ghosh	Joint Research
Robert Bosch Engineering and business solutions pvt. ltd., Bangalore.	Cryptography	Prof K. Basu and Saraswat, V.	Joint Research
Thapar University, India	Fixed Point Theory	Dey L.K. and Chandok S.	Joint Research
Tianjin University, Tianjin, China	Financial Modelling	Kar S. and Xiaowei Chen	Joint Research
Tsinghua University, Beijing, China	Uncertainty Theory	Kar S. and Baoding Liu	Joint Research
Uludag University, Turkey	Graph Theory	Pal A. and I. N Congul	Joint Research
University of Belgrade, Serbia			

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Functional Analysis	Dey L.K., Damjanovic B., and Radenovic S.	Joint Research	
University of North Bengal, India	Topological Fixed Point Theory	Dey L.K. and Singha, M.	Joint Research
University of Pristina-Kosovska-Mitrovica, Serbia	Fixed Point Theory	Dey, L.K., and Djekic, D.D. of University of Pristina-Kosovska-Mitrovica	Joint Research
Visva Bharati, Santiniketan	Probability Distribution	Sarkar (Mondal), S., NIT Durgapur & Maiti, S.S., Viswa Bharati, Santiniketan	Joint Research
VNU Information Technology Institute, Vietnam National University, Hanoi, Vietnam	Fuzzy Graph	Pal A. and Le Hoang Son	Joint Research

DEPARTMENT OF MECHANICAL ENGINEERING

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Advanced Systems Laboratory	Control System Design	Hui N. B., NIT Durgapur, Taraknath De, ASL Hyderabad	Joint Research & Student training
CMERI, Durgapur, India	Heat Transfer	Pramanick, A. K., NIT Durgapur, Chatterjee, P. K., CMERI Durgapur	Student Exchange
CMERI Durgapur	Robotics	Roy, S.S, NIT Durgapur, Sen, S., Mahapatra, A., Arora, A., CMERI Durgapur	Joint Project
CMERI, Durgapur	Micro-Additive Manufacturing	Roy, S.S, NIT Durgapur, Murmu, N.C, CMERI Durgapur	Joint Project
IISc. Bangalore	Evaporation of sessile droplet	Pramanik, S. NIT Durgapur and Basu, S., IISc Bangalore	Joint research
IIT Kharagpur, India	Droplet Dynamics	Pramanick, A. K., NIT Durgapur, Bandyopadhyay, P. P., IIT Kharagpur	Joint research
IIT Kharagpur, India	Robotics & Manufacturing Automation	Roy, S.S., NIT Durgapur, Pratihar, D.K., IIT Kharagpur	Joint PhD
IIT Kharagpur	Fluid dynamics	Guha, A., IIT Kharagpur, Sengupta , S., NIT Durgapur	Joint Research
IIT Madras	Thermoacoustic instability	Sujith, R I, IIT Madras & Mondal, S. NIT Durgapur	Joint research
Jadavpur University	Energy	Jana, K., NIT Durgapur, De, S., Jadavpur University	Joint research

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Jadavpur University	Flame interaction and lean blowout phenomenon	Mukhopadhyay A. and Sen S., Jadavpur University. Mondal S., NIT Durgapur	Joint research
Shiv Nadar University	Aeroelastic instability	Venkatramani, J. SNU. & Mondal, S. NIT Durgapur	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	Thermodynamics	Pramanick, A. K., NIT Durgapur, Rocha, L. A. O., Universidade Do Vale Do Rio Dos Sinos	Pedagogy

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	Ghosh K.S & Acharya, Saikat Dev CGCRI, Kolkata	Joint Research, Work
CSIR- CGCRI, Kolkata	Biomaterials	Bera S., Mandal, D. & Das M.	Joint Ph.D. student
CSIR-CMERI	Wear-resistant applications	Show B.K.	Joint Project by DST
CSIR-CMERI	Development of self lubricating nano-composite for wear-resistant applications	Show B.K. Mandal N. (CSIR-CMERI), Roy H. (CSIR-CMERI), Mukherjee K. (CSIR-CMERI)	Joint Project by DST
CSIR-National Metallurgical Laboratory, Jamshedpur	Metal casting and Forming, Semi solid processing	Mandal D. & Sahoo K.L (CIR-NML, Jamshedpur)	Research, Joint Ph.D Project Work
CSIR-National Metallurgical Laboratory, Jamshedpur	Mechanical Metallurgy, Low cycle Fatigue	Mandal .D & Bar H.N (CSIR-NML, Jamshedpur)	Research, Joint M.Tech student
CSIR-National Metallurgical Laboratory, Jamshedpur	Utilization of steel plant waste	Mandal A. K. & Nath S. (CSIR-NML, Jamshedpur)	Research, Joint M.Tech. Student
DMRL, Hyderabad	Materials Characterisation	Show B. K. & Sarkar R. (DMRL, Hyderabad)	Research work
Erich Schimdt Institute, Leoben, Austria	Al alloys, Biomaterials	Bera S., Dr. P. Ramaswamy	Joint Research Work, Publications
IIEST Shibpur	Material Science	Bera S. & Sinha A. (IIEST Shibpur)	Research, Joint M.Tech student
IIT Roorke	Al alloy	Bera S. & Das S.	B.Tech. summer internship

DEPARTMENT OF PHYSICS

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Saha Institute of Nuclear Physics, Kolkata, India.	Nonlinear Analysis (Power Spectrum and Wavelet Analysis) of Geochemical Precursory Signals for earthquakes	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
Far Eastern Federal University, Vladivostok, Russia & NIT Durgapur, India	Extraction of metals from fly ash	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
Engineering School of Natural Resources, National Research Tomsk Polytechnic University, Russia	Environmental geochemistry and treatment of organic pollutants in aquatic systems	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
School of Water Resources and Environmental Engineering, East China University of Technology (ECUT), China	Environmental geochemistry and treatment of organic pollutants in aquatic systems	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
Tomsk Branch of Trofimuk Institute of Petroleum Geology and Geophysics of Siberian Branch Russian Academy of Sciences	Environmental geochemistry and treatment of organic pollutants in aquatic systems	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
Federal University of Rio de Janerio, Brazil	Water management and wastewater treatment	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
IIT (ISM) Dhanbad	Applied Optics	Ghosh A.	Collaborative Research
Indian Statistical Institute Kolkata	Machine Learning	Ghosh S.	Joint Research
Indian Institute of Technology Roorkee	Network science and epidemiological flow	Ghosh S.	Joint Publication
Indian Institute of Technology Kanpur	Network science and opinion formation	Ghosh S.	Joint Research and Joint Publication
Bose Institute, Kolkata	Early warning signatures, Statistical Physics and Complex Systems	Ghosh S.	Joint Research and Joint Publication
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
Pondichary University	Ferroelectric Composites	Meikap A. K.	Joint Research

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Burdwan University	Nonlinear Optics	Kumbhakar P.	Joint Research/ publication of paper
Rice University, USA	Nanotechnology	Kumbhakar P.	Joint Research/ publication of paper
CSIR-CGCRI, Kolkata	Photonics	Kumbhakar P.	Book (Ed.) writting
IIT Kharagpur & IISc. Bangalore	Nanoparticles	Kumbhakar P.	Joint research publication
Jadavpur University & INST, Mohali	Energy Devices	Kumbhakar P.	Joint research publication
Visva-Bharati University, Shantiniketan	Polymer nanocomposites	Chakraborty A.K.	Joint Research project/ Publication of paper
Bose Institute, Kolkata	Carbon nanomaterial characterization	Chakraborty A.K.	Collaborative research
IIT, Kharagpur	Gas sensor	Chakraborty A.K.	Collaborative research / Publication of paper
Jagadish Bose National Science Talent Search (JBNSTS), Kolkata	Lead free solder joint interface	Chakraborty A.K.	Research and joint PhD student
CSIR-Central Electrochemical Research Institute (CECRI), Karaikudi	Electrochemistry	Chakraborty A.K.	Visit of PhD student for three months
EMPA, Swiss Federal, Laboratories for Materials, Science & Technology	Graphene reinforced Epoxy composites	Chakraborty A.K.	Joint PhD program through a MOU/ Publication of papers
Sikkim Manipal Institute of Technology (SMIT), Majitar, Sikkim	Graphene based gas sensors	Chakraborty A.K.	Collaborative research/ Publication of Paper
The Open University, Milton Keynes, UK	Graphene based solar cells	Chakraborty A.K.	Several PhD student exchanges/ Publication of Paper
University of Kalyani	Characterization of nanostructured materials	Chakraborty A.K.	Collaborative research
University of Liverpool, United Kingdom	Photoelectrochemical water splitting for hydrogen evolution	Chakraborty A.K.	Joint research project, student and staff exchange/ Publication of Paper
Anhui University of Technology, Anhui, CHINA	Formaldehyde sensor based on doped metal oxides	Chakraborty A.K.	Joint research / Manuscript submitted
Indian Institute of Technology Patna, Patna	VOC sensor	Chakraborty A.K.	Joint research / Publication of Paper
Central University of Jharkhand, Ranchi	Electrochemical sensing	Chakraborty A.K.	Collaborative research, M.Tech thesis guidance
National Institute of Technology, Raipur	Condensed Matter Physics	Sahoo S.	Joint Research
Utkal University, Bhubaneswar	Theoretical High Energy Physics	Sahoo S.	Joint Research

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
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
Federal University of São Carlos, Brazil	Nanoelectronics	Mondal A	Sample characterisation,joint research
IIT Bombay	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
CSIR-CMERI, Durgapur	Multiferroics materials	Basu S.	Joint Research
IACS, Kolkata	Nanomaterials, Multiferroics	Basu S.	Joint Research
Saha Institute of Nuclear Physics, Kolkata, India.	Nonlinear Analysis (Power Spectrum and Wavelet Analysis) of Geochemical Precursory Signals for earthquakes	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
Trofimuk Institute of Petroleum Geology and Geophysics, Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia	Study on Earthquake Precursory signals	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
Federal Research Centre "United Geophysical Service" of the Russian Academy of Sciences, Kamchatka branch (KB GS RAS)	Geochemical effects of strong earthquakes	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
Tomsk Polytechnic University (TPU)	Geochemical effects of strong earthquakes	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
China University of Geosciences, School of Geophysics and Information Technology	Geochemical effects of strong earthquakes	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
Institute of Crustal Dynamics, China Earthquake Administration	Geochemical effects of strong earthquakes	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
Far Eastern Federal University, Vladivostok, Russia & NIT Durgapur, India	Extraction of metals from fly ash	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Russian Academy of Sciences Far Eastern- Branch Institute of chemistry	Treatment process of the electroplating industry sewage	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
Harbin Engineering University	Treatment process of the electroplating industry sewage	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
Engineering School of Natural Resources, National Research Tomsk Polytechnic University	Environmental geochemistry and treatment of organic pollutants in aquatic systems	Chaudhuri H.	Collaborative Research and Joint Research Proposal 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.	Collaborative Research and Joint Research Proposal and Joint Publication
Tomsk Branch of Trofimuk Institute of Petroleum Geology and Geophysics of Siberian Branch Russian Academy of Sciences	Environmental geochemistry and treatment of organic pollutants in aquatic systems	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
Federal University of Rio de Janerio, Brazil	Water management and wastewater treatment	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
University of Twente (UT), Netherland	Wastewater treatment	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
Technical University Delft (TUD), Netherland	Wastewater treatment	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
Fraunhofer Institute for Ceramic Technologies and Systems IKTS (IKTS), Germany	Wastewater treatment	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication
Universidad Autónoma de Madrid (UAM), Spain	Wastewater treatment	Chaudhuri H.	Collaborative Research and Joint Research Proposal and Joint Publication

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 SPECIALLY 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 (2018-2019)

8.2 SOURCES OF FUNDS

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

Expenditure Position for Last Five Years

8.3 EXPENDITURE POSITION FOR LAST THREE YEARS

(Rupees in Lakhs)

Plan head Expenditure		Non-Plan head Expenditure	
2014-15	2495.36	2014-15	7573.72
2015-16	4750.82	2015-16	9028.35
2016-17	6404.46	2016-17	11188.98
2017-18	6414.45	2017-18	12423.47
2018-19	1403.85	2018-19	14814.37

9.0 CENTRAL FACILITIES AND SERVICES

9.1 COMPUTER CENTRE

Sl. No.	Name of the Lab	Area of the Lab
1.	Lab-1	24'X40'
2.	Lab-2	34'X24'
3.	Lab-3	34'X24'
4.	Lab-4	34'X24'
5.	Lab-5	23'X15'
6.	Lab-6	36'X15'
7.	Class Room	28'X16'

Sl. No.	Name of the Lab	Number of System (PC)	Configuration of the System	Software
1.	Lab-1	40 nos. (33 nos. running)	Dell Optiplex 755 Core2 Duo : 1.80GHz, 1 GB RAM (+ 1GB later) & Dell Optiplex 755 Core2 Vpro : 3.0 GHz, 2 GB RAM --- 32 Nos Lenovo Thinkcentre Core i5 Vpro (3.3 GHz; 2GB RAM) ---- 8 Nos.	Windows 10, Office 2013, Turbo C.
2.	Lab-2	30 Nos. (28 nos. running)	Lenovo Thinkcentre Core i5 Vpro (3.3 GHz; 2GB RAM)	Windows 10, Office 2013, Turbo C++, Auto CAD (Free).
3.	Lab-3	30 Nos. (29 nos. running)	Lenovo Thinkcentre Core i5 Vpro (3.3 GHz; 2GB RAM) --- 15 Nos. & HP Elite Desk 800G – Intel core i5; 3.5 GHz; 4 GB RAM --- 15 Nos.	Windows 10, Office 2013, Turbo C++, Auto CAD (Free)
4.	Lab-4	30 Nos. (29 nos. running)	HP Elite Desk 800G – Intel core i5; 3.5 GHz; 4 GB RAM	Windows 10, Office 2013, Turbo C++, MatLab-2016, Ansys.
5.	Lab-5	09 Nos.	HP Elite Desk 800G – Intel core i5; 3.5 GHz; 4 GB RAM	Windows 10, Office 2013, Turbo C++.
6.	Lab-6	NIL	NIL (22 desktops can be accommodated)	NIL

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. The Workshops are modernised periodically by utilizing the grants provided to it under different scheme to update the training. 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.

9.3 LIBRARY

The 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 1000 sq. mtrs. The library has a collection of 1,84,828 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 good collection of reference books for all branches of the Institute. It has a good collection of electronic resources in its Digital Library.

Library has introduced Wi-Fi facility in the reading halls to access e-resources.

The library has a well-equipped photocopying facility. The users can avail of this facility on request. It has also some Audio-Visual equipment like Colour TVs, VCPs, Video Cameras, Direct Projectors, Multimedia Projectors, etc. It has also a good IT infrastructure.

The 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-SodhSindhu) 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).

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).

E-JOURNALS/DATABASES THROUGH E-SODHSINDHU (2018) 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)		

LIBRARY INDIVIDUALLY SUBSCRIBES LEADING PUBLISHERS' JOURNALS AND DATABASES:

1. E-JOURNALS

Sl. No.	Name of Resource	Sl. No.	Name of Resource
1	American Chemical Society (ACS)	8	PNAS Tier – 3
2	Emerald - 310 Journals Package	9	Royal Society of Chemistry (RSC Gold EA)
3	IEEE (IEL Online) Level-2	10	Sage iMeCHe - Material Science & Engineering & Management & Org. Studies
4	ASTM Standards	11	SAE Journal
5	Emerald 310 Journals Collection	12	Taylor and Francis (4 Subject Collection)
6	Elsevier -Science Direct (11 Subject Collection)	13	Wiley Online (25 Journals)
7	Indian Standards (BIS Code)	14	American Concrete Institute (ACI)

2. DATABASES & TOOLS

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

3. BACKFILES OF E-JOURNALS (FROM VOL.1 ISSUE 1 TO TILL DATE)

1. Elsevier Backfiles Collection: Engineering & Technology (164 titles) and Chemical Engineering (36 titles)
2. Royal Society of Chemistry (RSC Gold): Archive 1841-2007
3. Emerald Backfiles Colletion:
   i. Accounting and Economics – 1974-2006 (27 Journals)
   ii. Marketing -1967-2006 (18 Journals)
   iii. 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)

4. LIBRARY SUBSCRIBES E-BOOKS FROM DIFFERENT LEADING PUBLISHERS:

1. Oxford e-Book collection for Mathematics and Physics
2. Springer e-Book Collection, LNCS (Lecture Note in Computer Science) from 1973 to 2016
3. Elsevier e-Books
4. CRC Press

COLLECTIONS:

Total collection of Books, Print journals, etc. are as below (up to 31.03.2018):

(i) Collection	General Book	119896
	Book Bank	40464
	Bound Vol. of Journals	7744
	SC/ST	934
	BIS Code	5072
	Gift	4989
	Misc.	1485
	TEQIP Books	4244
	Total Collection	**1,84,828**
(ii) Print Journals	Subscribed Journal	34
	Gifted	78
	Total	**112**

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-cum-hospital with outdoor and indoor (10 beds) facilities. It is served by two full-time general physicians and supported by part-time specialist physicians; one cardiologist (twice a week), one paediatrician (once a week), one gynaecologist and obstetrician (once a week), one ENT (once a week), one ophthalmologist (once a week) and one dentist (once a week). All faculty members, staff members and their families as well as the students are benefited from the medical unit. The medical unit provides 24 hours emergency service with a well equipped ambulance at its disposal. Inside the campus there is a Post Office catering to the needs of the institute and residents of the campus. There is a shopping complex inside the campus which includes a ration shop, a milk booth, one book shop and some shops providing essential commodities.

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 Institute has Students Activity Centre (SAC) housed in an indoor auditorium, where all the indoor games like badminton, table tennis and chess are played round the year. Three gymnasiums (Separate for boys, girls and guests) have 12 to 16 station exercise machine such as multi-station gym with latest equipments. In the central playfield, The Oval, all major tournaments and matches are played in games like football, cricket, athletics etc. Besides there is one more ground called The Lords adjacent to the hostels, all major non sports activities as well as sports activities are organized in regular manner. There is one concrete tennis and basketball court each and two volleyball court with flood light facilities. All the hostels have their own volleyball & concrete Badminton courts with indoor games facilities like Table Tennis & Carrom boards.

9.8 OTHER FACILITIES LIKE HOSTELS, MESSES AND STAFF QUARTERS

1. The Institute has eight boys' hostels and four hostels for girls' students. Each hostel has a separate mess, managed and run by the members of the mess committee comprising of the students under the supervision of the Mess Managers/ Matrons and overall guidance of the Wardens of the respective hostels. The Institute provides different categories of residential quarters to the faculty, staff and administrative personnel on licence fee basis. One multi-storeyed accommodation (G+8) for faculty members is completed consisting of 32 numbers of quarters. The construction of Prof. S. N. Ray memorial building is completed. Academic Block has also been inaugurated and 4 number 150 seated auditorium are in use for 1st year students. All other auditoriums and class rooms will be ready soon. Expansion and renovation work of Institute Medical Unit cum Hospital is completed. Widening of Road and construction of Drainage network is completed. Construction of New Market Complex is also completed. Newly constructed Chemistry Laboratory-cum-Biotechnology Department and New Guest House are operational. Construction of a 1500 capacity Auditorium is in progress.

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.

1. Yoga (Women) Secured Third Position in All India Inter NIT Meet held at NIT Nagpur.
2. Yoga (Men) Secured Third Position in All India Inter NIT Meet held at NIT Nagpur.
3. Chess (Women) Secured Third Position in All India Inter NIT Meet held at NIT Agartala.
4. Best Athlete (Women) along with several medals in All India Inter NIT Track & Field Meet at NIT Warangal.

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

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. Anupam Basu** 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 Human Resource Development, Shastri Bhawan, New Delhi-110 001	Member
04.	(c)	**Mrs. Darshana M Dabral** JS & FA (IFD) Deptt. of Higher Education, Ministry of Human Resource Development, Shastri Bhawan, New Delhi-110 001	Member

Sl. No.	Nomination Under	Name and Designation of nominated Member	Serve as
05.	(d)	**Mr. Sanjay Jhunjhunwala** 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.(Mrs.) Suchismita Roy,** Professor, Department of Computer Science and Engineering NIT Durgapur	Member
11.	(g)	**Prof. Partha Pratim Chakrabarti** Director, Indian Institute of Technology, Kharagpur India, Pin-721302	Member
12	Section 18 Clause (2)	**Shri Soumya Sen Sharma** Registrar, (From 11th December 2018 to till now) & **Shri U. C. Mukherjee** Registrar (I/C) (up to 10th December 2018)	Secretary

ANNEXURE-11.3(A) FINANCE COMMITTEE

Sl. No.	Name of the Member	Server as
1.	**Prof. Anupam Basu,** Chairperson, Finance Committee, 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 Human Resource Development, Shastri Bhawan, New Delhi-110 001	Member
4.	**Mrs. Darshana M Dabral,** JS & FA (IFD), Ministry of Human Resource Development, Deptt. of Higher Education, Shastri Bhawan, New Delhi-110 001	Member
5.	**Prof. Parthapratim Gupta,** Professor, Department of Chemical Engineering, National Institute of Technology Durgapur Representative of BOG	Member
6.	**Shri Soumya Sen Sharma** Registrar, (From 11th December 2018 to till now) & **Shri U.C. Mukherjee** Registrar (I/C) (up to 10th December 2018)	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	**Dr. Sukhbir Singh Sandhu,** Addl. Secretary (TE), Department of Higher Education, Ministry of Human Resource Development, Shastri Bhawan, New Delhi-110001.	Member
3	**Shri A. K. Singh**, Director (F), Integrated Finance Department (IFD), of Higher Education, Ministry of Human Resource Development, Shastri Bhawan, New Delhi – 110001	Member

Sl. No.	Name of the Member	Server as
4	**Shri Satyaki Sen,** Nominee of BOG, NIT Durgapur CJ 84, Sector – 2, Salt Lake City, Kolkata – 700 091	Member
5	**Shri D. P. Konhar,** (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 D. K. Ujjania,** (Nominee of CPWD, Civil Wing) Superintendent Engineer (Civil), Kolkata Central Electrical Circle – 1, Central Public Works Department (CPWD), 234/4, Acharya J. C. Bose Road, Kolkata – 700 020.	Member
7	**Prof. K. Bhattacharya,** Prof. of CE Department & Dean (P&D), National Institute of Technology Durgapur, Durgapur – 713 209.	Member
8	**Prof. S. Saha,** Professor of Civil Engineering Department & Prof. In-Charge, Maintenance Section, National Institute of Technology Durgapur, Durgapur – 713 209.	Member
9	**Prof. Goutam Sanyal,** Prof. of Computer Application Department, Chairman ITIS Committee, National Institute of Technology Durgapur, Durgapur – 713 209.	Member
10	**Prof. N. K. Roy,** Prof. of Electrical Eng. Department & Convenor (Electrical Works), National Institute of Technology Durgapur, Durgapur – 713 209.	Member
11	**Prof. S. Bhattacharya,** Professor of Civil Engineering Department & Chairman Handing / Taking Over Committee, National Institute of Technology Durgapur, Durgapur – 713 209.	Member

Sl. No.	Name of the Member	Server as
12	**Dr. A. K. Banik,** Associate Professor of CE Department & Convenor (Civil Works), National Institute of Technology Durgapur, Durgapur – 713 209.	Member
13	**Shri Soumya Sen Sharma** Registrar, (From 11th December 2018 to till now) & **Shri U.C. Mukherjee** Registrar (I/C) (up to 10th December 2018)	Member-Secretary

ANNEXURE-11.3(C) LIST OF SENATE MEMBERS

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4	Prof. Ajitava Raychaudhuri, Professor, Dept. of Economics, Jadavpur University Kolkata	ajitava_rc@economics.jdvu.ac.in	91-33-2414-6328
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MATHEMATICS			
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SECRETARY			
83	Mr. Soumya Sen Sharma	registrar@admin.nitdgp.ac.in	9434788102

ANNEXURE - 11.4(A) ONGOING SPONSORED PROJECTS

DEPARTMENT OF BIOTECHNOLOGY

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
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
Use of biological process for production and treatment of important chemicals	Aikat, K. and Chaudhuri, S.	NIT Durgapur (RIG)	20 lakhs	2014
Role of 15-lipoxygenase in the pathogenesis of several diseases	Bhattacharjee, A.	Ramalingaswami Fellowship (DBT)	118.62 lakhs	2012
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
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	32.18 lakhs	2017
Investigation of functional interrelations of bZIP transcription factors: ZBF2/GBF1, HY5 and HYH of light signalling pathways in Arabidopsis thaliana	Chattopadhyay, S.	JC Bose National Fellowship (DST)	68 lakhs	2016
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
Investigation of cross talk between MAP Kinase and light signaling pathways in Arabidopsis thaliana	Chattopadhyay, S. and Sinha, A.K., NIPGR, New Delhi	DST	37 lakhs	2016
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
Approaches for the enhanced production of rapamycin (sirolimus) by Streptomyces hygroscopicus MTCC 4003	Dey, A.	DBT	37.34 Lakhs	2016
FIST program, DST	All Faculty	DST-FIST	1crore 50 lakhs	2017
Exploring lithautotrophic microbial communities in terrestrial biosphere underneath the Deccan Traps at Koyna region, India	Kazy, S.K., NIT Durgapur	14th phase of Census of Deep Life (CoDL) Project, Deep Carbon Observatory (DCO), Carnegie Institution for Science, USA	DNA sequencing project	2018

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
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., NIT Durgapur and Sar, P., IIT Kharagpur	Department of Science and Technology (DST), Govt. of India	~41 Lakhs	2016
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	151.98 Lakhs	2017
Enteropathogens dampen innate immune response through inhibition of macrophage functions	Mahata, N.	NIT Durgapur (RIG)	10 lakhs	2016
Evaluation of the role of Vitamin D in Obesity, Cardiovascular Disease and Diabetes using SiOx/TiO2 nanowire based sensor.	Mondal, A., Ghosh, M., NIT Durgapur	DST-SERB	48.94 lakhs	2017
Design of novel short helical peptide based biosurfactant	Mondal, S.	NIT Durgapur (RIG)	5 lakhs	2019
MCM3AP: A novel S phases replication checkpoint protein and its relation to Fanconi anemia protein	Mukhopadhyay, S.S.	SERB-DST Govt. of India	41.39 lakhs	2017
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
Engineering of cellulase enzymes of Aspergillus fumigates NITDGPKA3 for enhancing their activity	Mukhopadhyay, Aikat, S.S., Bagchi K., A. (University of Kalyani)	DBT-Govt. of India	37.63 lakhs	2017
Investigation of functional connection between cAMP-dependent signaling pathway and MoWISH, a gene encoding a novel GPCR in rice blast fungus	Roy-Barman, S.	DST-SERB	50 lakhs	2018
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

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Reclamation of Steel Industry Wastewater 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
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	31.51 lakhs	2017
Dispersion of modified Starch onto Polymer matrix towards Enhancement of its Biodegradability to reduce the Solid Waste Generation	Halder G.N.	Department of Science and Technology, Government of West Bengal	14.88 lakhs	2016
Targeting the elimination of antineoplastic compounds in hospital wastewaters: novel frontiers in sustainable treatment	Mandal, M.K. and Pal, P.	DBT-INNO INDIGO	209.168lakh	2016
Centre for Technological Excellence in Water Purification (CTEWP)	Mandal, T.	Department of Science and Technology, Govt. of India.	₹ 57,30,000 (Fifty seven lakh thirty thousand only)	June 2019
Nanomembrane based treatment of water for arsenic removal	Pal Parimal & Roy Mousumi	Ministry of Housing & Urban Affairs, Govt. of India	Approved by Dr.R.A. Mashelkar	2018
Forward-osmosis integrated membrane distillation coupled with solar-photocatalytic reactor for textile wastewater treatment: A sustainable approach for commercial exploitation	Sikder, J. and Adhikari, U.	Government of West Bengal Department of Science & Technology and Biotechnology	Rs. 1465800/- (Fourteen lakhs sixty five thousand eight hundred only)	February 2019

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
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	15.38 lakhs	2017
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

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
The Impact of Various Biochars on the Bioaccessibility and Bioaccumulation of Polycyclic Aromatic Hydrocarbons (PAHs) and Potentially Toxic Elements (PTEs) in Contaminated Soil	Gope M & Saha R N (Mentor)	SERB, DST, GOI	19.20	2018
Spatial Distribution of Uranium in Three Districts (South 24 Pargana, Purba Medinipur and Pashchim Medinipur) of West Bengal	Gupta S (B.U.) & Saha R N (Co-PI)	BRNS, DAE, GOI	27.52 lakhs	2018
Investigation of modulation of transcriptional regulation of CAM7 By COP1 and Ca++/ Mg++ during Arabidopsis	Maji M. & Chattopadhyay S.	DST ,Govt. of India	43.26 lahks	2016
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
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
A study on the water molecular dynamics of human Monoamine oxidase (hMAO): An attempt for Inhibitor Design	Mukhopadhyay B. P.	ICMR, Govt. of India	8.4 lakhs	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
Nano porous Transition Metal Based Semiconductors towards Catalysis and in Electrochemical Applications	Roy M & Saha R N (Mentor)	SERB, DST, GOI	19.20	2018
Chemically Modified Polysaccharide linked to Schiff Base Ligand-Metal Complex: a Novel Approach of Investigation towards the Antioxidant and Antitumor Activities	Saha T. K.	SERB, Govt. of India	21.83 lakhs	2017

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
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 Chakrabarty 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
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, Grant No. 254(Sanc.)/ST/P/S&T/4G-07/2017	8.5 Lakhs	2017
Environmental geochemistry and treatment of organic pollutants in aquatic systems in the selected areas of China, India and Russia	Pal S.	DST-Govt. of India under BRICS STI Framework Programme	Rs. 44.08 Lakhs	2019
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

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
An Approach towards Conservation of Birds of West Bengal through creating an Intelligent Bird Identification System	Dr. S. Changder	Science and Technology and Biotechnology Department, Govt. of West Bengal	6,60,000	2019
ADKit: Smartphone Based Artificial Intelligence Enabled Portable Low-cost Anemia Detection Kit based on Observation of Nail and Palm Pallor	Basu, A., Chakraborty D., Roy S., Dalui, M, Sen, B., Kisku, D. R.	Meity, Govt of India	28.94 Lakhs	2018
Design and Development of Electrohydrodynamic Inkjet Printing System	Murmu, N.C. (CSRI-CMERI, Durgapur), Roy, S.S. (Dept. of ME, NIT Durgapur), Kisku, D.R. (Dept. of CSE, NIT Durgapur)	DST/TSG/AMT	116.837 Lakhs	2016

DEPARTMENT OF ELECTRICAL ENGINEERING

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Modeling and Control of Electromagnetic Levitation Devices	Banerjee. S. (Co-PI) with IIT Delhi	SERB-DST	41.64Lakh	
Development of Advanced Power Quality Monitoring System Utilizing Signal and Data Processing Techniques	Bhowmik P. S.	NIT Durgapur	9.68	2016
Improvement of Smart Microgrid Flexibility And Power Quality Using Phasor Measurement Unit	Bhowmik P. S.	SERB-DST	26.4 lakhs	2017
Investigation on nonlinearities associated with cardiovascular regulation linked with lipid metabolism	Halder S.	NIT Durgapur	9.88 Lakh	2016
An Early Warning System for Electrical Power System Utility using Ultra-High Frequency Sensors	Koley C.	SERB, Gov. of India	38.63 lakhs	2017
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. (PI)	MSME, Govt of West Bengal	Rs 34 Lakhs	2017
Creation of Awareness of National Mission On Education Through Information Communication Technology (NMEICT)	Roy. N.K. (PI)	NMEICT, MHRD, Govt of India	Rs 10 Lakhs	2012
ANALYSIS OF DIFFERENT ASPECTS FOR THE CONNECTION OF DISTRIBUTED GENERATIONS TO THE POWER SYSTEM NETWORK	Sarkar. S.	NIT Durgapur	9.5 lakhs	2018
Control of multi Input Converter for Hybrid wind Solar battery based system	Saha T. K. Co. PI: Dey J.	NIWE, under MNRE, Govt. of India	30.71 Lakhs	2017

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
Resistive Random Access Memory using HfO_2 based Hetero-Structures for Flexible Electronics	Mahapatra R.	SERB-DST	45.96 lakhs	2017
Dielectric Engineering on GaN for Sustainable Energy Applications	Mahapatra R.	UGC-UKIERI	9.51 lakhs	2018
Development of Novel Time Modulated Antenna Arrays for the Present Communication Systems	Mandal S. K.	DST-SERB	39.6	2016
C2SD - SMDP	CI - Mal A. K. and Co-CI Mahapatra R	MeitY	95 Lakhs	2016

DEPARTMENT OF EARTH AND ENVIRONMENTAL STUDIES

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Emerging Contaminants and their accumulations in Ecosystem of lower stretch of Hooghly River	Mondal S.	WB-DST	9,97,800	2018
Land subsidence study	Adhikari K, Pal S.	Essar Oil Ltd.	8,00,000	2016
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	Ozha M. K.	Research Initiation Grand, Institute (NITD)	5,00,000	2019

DEPARTMENT OF MATHEMATICS

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Development of doubly-even self-dual binary codes of length 24k	Bagchi S.	SERB, DST, India	15.24 lakh	2017
Development of hybrid numerical tools to study the electrokinetic transport of bio-colloids	Gopmandal P. P.	SERB, India	6.6 lakh	2019
Dual Hamming codes from trace codes over a chain ring	Bagchi S. & Dey L.K.	NBHM, India	3.735 lakh	2019
In depth study of D-generalized metric spaces	Dey L.K.	NBHM, India	1.675 lakh	2016

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Magnetoconvection of low Prandtl-number fluids	Pal P.	SERB, India	21.14 lakh	2016
Nonlinear waves in dusty and quantum plasma	Maitra S.	CSIR, India	441833 (for the starting eleven months)	2019
Over-stability in Rotating Magnetoconvection	Pal P.	SERB, India	6.6 lakh	2018
Study on metric fixed point results with possible applications	Dey L.K.	CSIR, India	7.20 lakh (for second year except overhead)	2018

DEPARTMENT OF MECHANICAL ENGINEERING

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
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
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

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Wear Behaviour of Al-Si Alloys at Room Temperature and at Elevated Temperature	Show B.K.	SERB-DST (Start Up Research Grant (Young Scientist)	Rs.25,07,500/	2015
Development of self-lubricating nano-composite for wear-resistant applications	Show B.K and N. Mandal, H.Roy, K. Mukherjee (CSIR-CMERI)	DST Nanomission	Rs. 81,38,400/-	2017

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Technological awareness and development of Bell and Brass Metal Cluster at Lalbazar, Bankura, through Soft Intervention	Mondal M. K., Mallik M., Roy S. S., Khan K. & Bhowmik P. S.	District Industries Centre (DIC), Bankura, Directorate of MSME, Govt. of West Bengal	8.20 lakh	2017
Technological awareness and development of Fishing Hook Cluster at Lalbazar, Bankura through Soft Intervention	Mallik, M., Roy, S.S., Khan K., Mondal M. K., Mondal S.	DIC, Bankura, Directorate of MSME, Govt. of West Bengal	450000/-	Ongoing
Technological awareness and development of Bell and Brass Metal Cluster at Suklai, Bankura, through Soft Intervention	Khan K., Mallik, M., Mondal M. K., Roy, S.S., Howlader J.	DIC, Bankura, Directorate of MSME, Govt. of West Bengal	820000/-	Ongoing
Technological awareness and development of Maduli Cluster at Birshing, Bankura, through Soft Intervention	Roy, S.S., Mondal M. K., Khan K., Mallik, M., Saha S.	DIC, Bankura, Directorate of MSME, Govt. of West Bengal	1030000/-	Ongoing
Technological awareness and development of Bell and Brass Metal Cluster at Lalbazar, Bankura, through Soft Intervention	Mondal M. K. S.S.Roy, Khan K., Mallik, M. Bhowmik P.S.	DIC, Bankura, Directorate of MSME, Govt. of West Bengal	840000/-	Ongoing
Development of Al-Mg2Si Composite through Novel Equal Channel Angular Squeeze Casting (ECASC) Technique	Mondal M. K.	Science& Engineering Research Board (SERB)	3045000/-	February 2019

DEPARTMENT OF PHYSICS

Title of the Project	Investigator(s)	Sponsoring Organisation	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
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
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

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Investigation of complex dynamics of nonlinear system like Plasmas and Gas-geochemical emissions from hot springs through experiments, nonlinear time series analysis and validation by modelling	Iyengar A. N. Sekar, Janaki, M. S. Chaudhuri H (Implementing Institution:SINP, Kolkata)	SERB, DST Govt. of India	33.01 Lakh	2017-2020
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	2018-2023
Investigation on radioactive profile of geothermal areas	Chaudhuri H (Implementing Institution: NIT Durgapur)	NIT Durgapur, Govt. of India, MHRD	10.00 lakh	2017-2020
Research Project :(International Project under BRICS) Environmental geochemistry and treatment of organic pollutants in aquatic systems in the selected areas of China, India and Russia	PI: Pal, S., Co PI: Chaudhuri, H, Mandal M. K.. Dubey, K., Savichev, O. & Sun Z.	DST Govt. of India	44.08 lakh	2019-2022
Understanding Host-Circuit Interaction & Resource Sharing in Synthetic Biology	Ghosh S (PI)	DST	Rs 35 Lakhs	2019
Development and characterization of semiconductor nanostructures to obtain nanomaterials with enhanced photoluminescence and photocatalytic properties	Kumbhakar P. (PI)	CSIR	Rs.19,17,000	2015
Synthesis of Semiconductor and Metal Nanostructures and the Investigation of Their Role as Active or Passive Scatterer in Random Laser Generation	Kumbhakar P. (PI)	WB-DST	Rs. 14,30,800	2019
Development and haracterization of Magnetodielectric Materials for the use of Substracts in Antenna Miniaturization	MeikapA K (Principal Investigator) &Sahoo S & M K Mandal(Co-Invest)	DST-SERB	Rs.27,75,520.00	2017
Development and characterization of functionalized carbon nanotubes-polymer nanocomposite having enhanced dielectric properties for Charge storage device	Meikap A K (Principal Investigator)	DST-WB	14.46 lakhs	2019
To develop and fabricate an efficient TiO2 nanowire array based UV detector using plasmonic nanoparticles array	Mondal A (Principal Investigator)	CSIR	Rs. 17.9 lakhs	2016

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Evaluation of the role of vitamin D in obesity cardiovascular disease and diabetes using SiOx /TiO2 nanowire based sensor	Mondal A (PI) & Ghosh M (Co- PI)	SERB, DST Govt. of India	Rs. 48.64 lakhs	2017
Research Project :(International Project under BRICS) Environmental geochemistry and treatment of organic pollutants in aquatic systems in the selected areas of China, India and Russia	Pal S, Chaudhuri H,. Mandal M. K. Dubey K, Savichev O, Sun	DST Govt. of India	44.08 lakh	2019-2022
Phenomenology of boson, B meson decays, Higgs boson and new physics	Sahoo S	SERB-DST	Rs. 19 lakhs	December 2016

ANNEXURE - 11.4(B) PROJECTS COMPLETED DURING 2018-19

DEPARTMENT OF BIOTECHNOLOGY

Title of the Project	Investigator(s)	Sponsoring authority
Role of a novel signaling complex in regulating IL-13-induced 15 lipoxygenase expression in monocytes	Bhattacharjee, A.	DST–SERB

DEPARTMENT OF CHEMICAL ENGINEERING

Title of the Project	Investigator(s)	Sponsoring authority
Abatement of Fluoride from Ground Water to Supply Safe Drinking Water to Rural People of West Bengal.	Dutta S. ,Adhikari, K.	DST, Govt. of West Bengal
Phycoremediation of Cyanide from Coke-oven Wastewater and CO2 Sequestration from Waste gas using a Mixed Consortium of Green Algae and Cyanobacteria: An integrated approach	Dutta S., Ghanta K. C.	DST, Govt. of India
Optimization on Defluoridation of Contaminated Groundwater by Bioremediation and Biosorption in Integrated Packed bed Reactor	Halder G.N	DBT, Govt of India
Studies on upgrading of water quality in coal mining area of Meghalaya and Eastern Coal mines by Chemisorption and Bioremediation towards mitigation of unscientific coal mining	Halder, G. N. Mandal, T. and Sikder, J.	DBT, Govt of India
Training SC/ST Community in Selected Rural Areas of Durgapur on Organic Agriculture and Biofertilizer production	Mandal, T.	DST-West Bengal
Nonlinear dynamics of bubble growth and bubble collapse in natural circulation boiling loop	Paruya S.	SERB-DST, Govt. of India

DEPARTMENT OF CHEMISTRY

Title of the Project	Investigator(s)	Sponsoring authority
Nickel Complexes Supported by N,S-Donor Ligands: Relevance to the Active Site of Acetyl CoA Synthase	Patra A. K.	SERB, Govt. of India

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Title of the Project	Investigator(s)	Sponsoring authority
Remote Health: "A Framework for Healthcare Services using Mobile and Sensor-Cloud Technologies" (Sept 2013 – December 2018). [In collaboration with, Jadavpur University Kolkata, University of Calcutta Kolkata, IIEST Shibpur, KIIT Bhubaneswar, FGIET Raibareli]	Sarkar, A. (PI)	Information Technology Research Academy (ITRA) Ministry of Communications and Information Technology, Govt. of India.
Heterogeneous Face Recognition for Law-enforcement	Kisku, D.R.	RIG, NIT Durgapur

DEPARTMENT OF ELECTRICAL ENGINEERING

Title of the Project	Investigator(s)	Sponsoring authority
Control of Stand-alone Induction Generators	Mahato. S. N. Dr	NIT Durgapur
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 MECHANICAL ENGINEERING

Title of the Project	Investigator(s)	Sponsoring authority
Forward and Reverse Modeling of Flow Forming Process: Comparison between FE-based and soft computing-based modeling	Hui N. B., NIT Durgapur	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
Homoclinic bifurcations in fluid systems	Pal, P.	NBHM, India
Graph labeling and its applications	Pal, A.	SERB, DST, India

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Title of the Project	Investigator(s)	Sponsoring authority
Development of ceramic particle dispersed Aluminum alloy composite	Bera S.	DST, India
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

Title of the Project	Investigator(s)	Sponsoring authority
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)
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 ZrB2-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
Impact Assessment Study Of "Various CSR Activities of DSP"	De A Dutta A Ghosh A Banerjee G Mandal K Banerjee N	DSP-Durgapur

DEPARTMENT OF PHYSICS

Title of the Project	Investigator(s)	Sponsoring authority
A unique technique for synthesis of InN Nano-wire assembly for the application of optical sensor	Mondal A (Principal Investigator)	BRNS, DAE
Development and characterization of semiconductor nanostructures to obtain nanomaterials with enhanced photoluminescence and photocatalytic properties	Kumbhakar P. (PI)	CSIR
Polymer nanocomposites with graphene nanoplatelets	Chakraborty A K (PI)	DST-SERB

ANNEXURE–11.4(C)I. RESEARCH PAPERS PUBLISHED IN SCI / SCOPUS / WEB OF SCIENCE JOURNALS DURING 2018-19

DEPARTMENT OF BIOTECHNOLOGY

1 Bajpai, S. , Bajpai,v., Dey, A., Ghosh, S, Jha, M.K. , 2019, Study of adherence kinetics of *Escherichia coli* on cotton knitted fabrics, Indian Chemical Engineer, 61:3, 296-308

2 Basak, B., Fatima, A., Jeon, B-J., Ganguly, A., Chatterjee,P.K., Dey, A., 2018, Process kinetic studies of biohydrogen production by co-fermentation of fruit-vegetable wastes and cottage cheese whey, Energy for Sustainable Development, 47: 39-52.

3 Bobde, K., Momin, H., Bhattacharjee, A., Aikat, K., 2019, Energy Assessment and Enhancement of the lipid yield of indigenous Chlorella sp. KA-24NITD using Taguchi approach. Renewable Energy. 131: 1226-1235.

4 Dhabal, S., Das, P., Biswas, P., Kumari, P., Yakubenko, V.P., Kundu, S., Cathcart, M.K., Kundu, M., Biswas, K., Bhattacharjee, A., 2018, Regulation of monoamine oxidase A (MAO-A) expression, activity and function in IL-13-stimulated monocytes and A549 lung carcinoma cells. J. Biol. Chem., 293(36): 14040-14064.

5 Dodda, S.R., Aich, A., Sarkar, N., Jain, P., Jain,S., Mondal, S., Aikat,K., Mukhopadhyay, S.S., 2018, Journal of Molecular Structure 1156 :105-114

6 Jaiswal N., Hens A., Chatterjee M., Mahata N., Chanda N., 2019, Ethylenediamine assisted functionalization of self-organized poly (D, L-lactide-co-glycolide) patterned surface to enhance cancer cell isolation. Journal of Colloid and Interface Science, 534: 122-130

7 Laha, B., Verma, A.K., Biswas, B., Sengodan, S.K., Rastogi, A., Willard, B., Ghosh, M., 2019, Detection and characterization of an albumin-like protein in Leishmania donovani. Parasitology Research, 118(5):1609-1623.

8 Majumdar, S., Priyadarshinee, R., Kumar, A., Mandal, T., Mandal, D. D., 2019, Exploring *Planococcus sp. TRC1*, a bacterial isolate, for carotenoid pigment production and detoxification of paper mill effluent in immobilized fluidized bed reactor. Journal of Cleaner Production, 211: 1389-1412.*

9 Mitra, R., Dutta, D., 2018. Growth profiling, kinetics and substrate utilization of low-cost dairy waste for production of β-cryptoxanthin by *Kocuria marina* DAGII. Royal Society of Open Sciences, 5: 172318.

10 Mohapatra, B., Kazy,S. K., Sar, P., 2018, Comparative genome analysis of arsenic reducing, hydrocarbon metabolizing groundwater bacterium *Achromobacter* sp. KAs 3-5T explains its competitive edge for survival in aquifer environment, Genomics, doi:10.1016/j.ygeno.2018.11.004. (Elsevier)

11 Pathak U., Das P., Mandal D.D., Datta S., Kumar T., Mandal T. (2019) Study of Ammonia Removal from Simulated Coke Oven Wastewater Using Commercial Charcoal Activated Carbon. In: Ghosh S. (eds) Waste Management and Resource Efficiency. Springer, Singapore, 1197-1205.

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ANNEXURE–11.4(C) II. RESEARCH PAPERS ACCEPTED FOR PUBLICATION IN SCI / SCOPUS / WEB OF SCIENCE

DEPARTMENT OF BIOTECHNOLOGY

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DEPARTMENT OF CHEMISTRY

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DEPARTMENT OF CHEMICAL ENGINEERING

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DEPARTMENT OF MATHEMATICS

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DEPARTMENT OF PHYSICS:

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ANNEXURE – 11.4(C).III RESEARCH PAPERS PUBLISHED IN OTHER PEER-REVIEWED JOURNALS

DEPARTMENT OF CIVIL ENGINEERING

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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DEPARTMENT OF MANAGEMENT STUDIES

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DEPARTMENT OF MATHEMATICS

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ANNEXURE – 11.4(C).IV PAPERS ACCEPTED FOR PUBLICATION IN OTHER PEER-REVIEWED JOURNALS

DEPARTMENT OF CIVIL ENGINEERING

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ANNEXURE – 11.4(D) RESEARCH PAPERS PRESENTED IN CONFERENCES AND PUBLISHED IN PROCEEDINGS

DEPARTMENT OF BIOTECHNOLOGY

1 Augustin, L., Samadarsi, R., Dutta, D,. February 8-9, 2019. Docking studies of Mangiferin as a potential agent against colorectal cancer, 2nd International Conference on Research in Life-Sciences & Healthcare (ICRLSH), Bangkok, Thailand.

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3 Bose, H., Gupta, A., Dutta, A., Roy, A., Mohapatra, B., Kazy, S K., Sar, P., December 09-12, 2018. Exploring the deep, dark biosphere within the crystalline Earth crust below (1500 – 3000 meter) Deccan Traps, India. 59th Annual Conference of Association of Microbiologists of India (AMI), University of Hyderabad, Hyderabad, India, pp.275.

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DEPARTMENT OF CHEMICAL ENGINEERING

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DEPARTMENT OF CHEMISTRY

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ANNEXURE - 11.4(E) VISITS ABROAD DURING 2018-19

DEPARTMENT OF BIOTECHNOLOGY

Name	Name of the Programme	Organized by	Date of the programme
Chattopadhyay, S.	Visiting Scientist, Umea University, Sweden	Umea University	July 1-18, 2018

DEPARTMENT OF CHEMICAL ENGINEERING

Name	Name of the Programme	Organized by	Date of the programme
Pal P	International Conference on Water Resources and Environment,	I-Shou University, Taiwan	17-21 July 2018.

DEPARTMENT OF CIVIL ENGINEERING

Name	Name of the Programme	Organized by	D1ate of the programme
Pal, S.	3rd BRICS Network University Conference at Stellenbosch University, Capetown, South Africa	Department of Higher Education And Training, republic of South Africa	July 5-7, 2018
Pal, S.	BRICS Workshop: Water Environmental Protection and Water Resource Management	College of Environment, Hohai University, China	December 5-6, 2018

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Name	Name of the Programme	Organized by	Date of the programme
Anirban Sarkar	17th International Conference on Computer Information Systems and Industrial Management Applications (CISIM 2018)	Palacký University Olomouc, Czech Republic	Spetember 27-29, 2018
Mukhopadhyay, Sajal	The 32nd IEEE International Conference on Advanced Information Networking and Applications (AINA), Cracow, Poland	IEEE Technical Committee on Distributed Processing (TCDP)	May 16-18, 2018

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Name	Name of the Programme	Organized by	Date of the programme
Chandra, A.	International Symposium on Wireless Communication Systems (ISWCS)	IEEE and EURASIP, Portugal	August 28-31, 2018
Chandra, A.	Research collaboration	Brno University of Technology, Czech Republic	September 01-08, 2018
Kar, R.	ICCMIT 2019, Vienna, Austria	Universal Society for Applied Research	March 26-28, 2019
Mandal, S. K.	International Workshop on Antenna Technology (iWAT 2019)	Florida International University campus, Miami, Florida, USA	March 3-6, 2019

DEPARTMENT OF MANAGEMENT STUDIES

Name	Name of the Programme	Organized by	Date of the programme
Roy M	International conference on Water resources & Environment	I-Shou University, Taiwan	17-21July18

DEPARTMENT OF MATHEMATICS

Name	Name of the Programme	Organized by	Date of the programme
Kar. S	Collaborative Research	Department of Mathematical Sciences, Tsinghua University, China	December 07 – 22, 2018
Pal. A	International Conference on Communication, Management and Information Technology, (ICCMIT 2018)	Universidad Politecnica de Madrid Madrid, Spain	April 02-04, 2018

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Name	Name of the Programme	Organized by	D1ate of the programme
Bera S.	DAAD fellowship	DAAD	May-July 2018
Ghosh M M.	Nanotech France 2019	SETCOR	26-29 June, 2019

DEPARTMENT OF MECHANICAL ENGINEERING

Name	Name of the Programme	Organized by	Date of the programme
Banerjee N.	BRICS network Universities Conference	Hohai University, China	December 3-9, 2018
Pramanick A. K.	Constructal Law & Second Law Conference 2019	Universidade Do Vale Do Rio Dos Sinos (UNISINOS), Proto Alegre, Brazil, 2019.	March 11-13, 2019

ANNEXURE - 11.4(F) PH.D. DEGREE AWARDED DURING 2018-19 SESSION

DEPARTMENT OF BIOTECHNOLOGY

Topic	Investigator	Supervisor(s)
Assessment of Human Epidermal growth Factor 2 (HER2) Biomarker in respect to breast cancer detection and treatment	Deepthy, Sagarika	Ghosh, M.
Enhanced production of Rapamycin with an improved strain of Streptomyces hygroscopicus (NTG-30-27): Its Optimization, Kinetics study and Purification.	Dutta, Subhashish	Dey, A.
Assessment of microbial communities and their bioremediation potentials in petroleum contaminated sludge from oil refineries	Roy, Ajoy	Kazy, S.K.
Molecular and functional characterization of MYC2-regulated ARR16 in *Arabidopsis thaliana*	Srivastava A.K.	Chattopadhyay, S

DEPARTMENT OF CHEMICAL ENGINEERING

Title	Investigator	Supervisors
Experimental study on chromium removal from simulated coalmine wastewater using integrated approach	Banerjee S.	Halder G.N.
Studies on the production of xylitol from lignocellulosic biomass	Bhattacharya A.	Sadhukhan A. K. & Chatterjee P.K. (CSIR-CECRI)
Abatement of Fluoride from Ground Water and Wastewater	Biswas G.	Dutta S. Adhikari K.
Isolation and Characterization of Microalgae from eastern coalmines for biodiesel production under different nutritional modes	Mondal M.	Halder G.N. & Mandal M.K.

DEPARTMENT OF CHEMISTRY

Topic	Investigator	Supervisor(s)
Advance chemical and photochemical pathways to degrade Dyes and industrials affluent: Emphasizing the application Of nanomaterials	Dutta Suvanka	Saha R. N.
Cytotoxic Pt(II) and Pd(II) complexes with heterocyclic carrier ligands: synthesis, characterisation, biological evaluation, kinetics and DFT study	Mitra, Ishani	Moi, S. C.
In vitro anticancer property of Pt(II) and Pd(II) complexes with (N,N) bidentate ligand: kinetics, bioactivity and theoretical study	Mukherjee, Subhajit	Moi, S. C.
Study of selective biomolecules as corrosion inhibitors of metals In acidic media	Pal Aparesh	Sukul D
Synthesis of Low-Dimensional Transition Metal Oxides and the Study of Their Catalytic Activities for the Detoxification of Environmental Contaminanats	Thakur, Indrani	Saha R. N.and Chatterjee S.
Development of Rhodamine-based florescent sensors for physiologically important metal ions ad study of their sensing mechanism	Sikdar Anindita	Panja S S

DEPARTMENT OF CIVIL ENGINEERING

Topic	Investigator	Supervisor(s)
Building Age, Construction Quality and Maintenance Condition on Rapid Visual Screening for Seismic Vulnerability Assessment	Chanu, N.M.	Nanda, R.P.
Characterization and Development of Eco-friendly concrete using Industrial Wastes	Rajesh Kumar, S.	Samanta A.K., Singha Roy D.K.
Structural Investigation using Acoustic Emission Technique	Sen Gupta, S.	Datta A.K., Topdar P.T.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Topic	Investigator	Supervisor(s)
Novel Approach for DDOS Attack Detection and Mitigation in Server Application.	Khundrakpam Johnson Singh	De Tanmay
Travelling Salesman Problem in Different Environments Using Hybrid Evolutionary Computing Algorithms	Khanra A.	Pal T, Maiti M K and Maiti M
Some Network Optimization Models under Diverse Uncertain Environments	Majumder Saibal	Pal T and Kar S
A Study on Design Specification for Component Based Software System	Prasenjit Banerjee	Sarkar , A.
Ontology Driven Domain Specific Software Design	Shreya Banerjee	Sarkar, A.
Dynamics of Citation Collaboration Network	Dr. Paramartha Dutta	Nandi, S., Choudhury, P. & Chakraborty, T. (IIIT Delhi)
Computer Science and Engineering	Dr. Ratnakirt Roy	Changder, S.

DEPARTMENT OF ELECTRICAL ENGINEERING

Topic	Investigator	Supervisor(s)
Some Studies On Accuracy Enhancement Of Different Electrical And Electronic Measurement And Instrumentation Systems	Chatterjee Karunamoy	Mahato S. N., Chattopadhyay S. (NITTR, Kolkata).
Some Studies On Control And Modulation Strategies For Neutral Point Clamped Converters Addressing Capacitor Voltage Balancing	Giri Santu Kumar	Banerjee S, Chakraborty C (IIT Kharagpu)
Modelling And Performance Analysis Of Cascaded Two-Level Inverter Based Grid Connected And Stand-Alone Photovoltaic Systems	Kumar Nayan	Saha T.K., Dey J.
Development Of Uhf Sensor Based Techniques For Detection And Localization Of Partial Discharge Sources In High Voltage Power Systems	Mishra Dipak Kumar	Koley C.and Roy N. K.
Optimized Planning Of Distribution Network With Solar Energy Source, Battery Storage And Dstatcom	Roy Ghatak Sriparna	Acharjee P
Pid Controller Tuning Of Load Frequency Control System Using Soft Computing Techniques	Pain S. G.	Acharjee P.
Detection Of Partial Discharge In High Voltage Equipment Using Fiber-Optic Sensor	Sarkar Badal	Koley C, Roy N. K. and Kumbhakar P.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Topic	Investigator	Supervisor(s)
Synthesis of Mutually Coupled Dipole Antenna Array using Evolutionary Algorithms.	Patidar Hemant	Mahanti G.K.
Enhancing energy efficiency of 802.15.4 networks using relays	Biswas Sankalita	Chandra, A. and Dhar Roy, S.
Relay node placement for maximizing energy efficiency in wireless networks	Ghosh Biswajit	Chandra, A.
Various effects of substrates in the design of Microstrip Antennas and their applications	Roy Bappadittya	Bhattacharjee A.K
Studies on Large-signal and Noise properties of DDR IMPATT diodes: Effect of Reduced ionization rate of charge carriers due to carrier-carrier interactions	Bandyopadhyay Prasit Kumar	Bhattacharjee A.K
Beam Synthesis of Concentric Ring Array and Hexagonal Array Geometries using Evolutionary Algorithms	Mandal Debasis	Bhattacharjee A.K
Discrete Breathers in Split-Ring Resonators based Nonlinear Metamaterials	Mandal Bijoy Kumar	Bhattacharjee A.K
Compact Microstrip Antenna for WLAN/Wi-MAX Applications	Kundu Aparna	Bhattacharjee A.K
Performance Improvement of Antenna Arrays using Evolutionary Optimization	Das Sudipta	Mandal D, Kar R, Ghoshal S P
Optimal Digital IIR Filter Design using Evolutionary Optimization Techniques	Upadhyay Prashant	Mandal D, Kar R, Ghoshal S P
Synthesis of Hybrid Antenna Arrays using Evolutionary Optimization Techniques	Bera Rajesh	Mandal D, Kar R, Ghoshal S P

DEPARTMENT OF EARTH AND ENVIRONMENTAL STUDIES

Topic	Investigator	Supervisor(s)
GIS based land resource evaluation and management for agricultural sustainability in an affected area of coal-fired thermal power plant.	Dr. Adak Subhas	Adhikari, K. & Brahmachari , K.
Reappraisal of the depositional setting of Upper Barakar coal beaing strata from Raniganj Basin, India- a sedimentological, ichnological and coal petrographic approach.	Dr. Sudipto Banerjee	Adhikari, K. & Bandyopadhyay, S.

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

Topic	Investigator	Supervisor(s)
Organizational Culture on Employees Commitment	Dr. A. K. Sinha	Sengupta , P. P. & Bandyopadhyay, G.,
Diaspora and Economic Development	Dr. A. Kahali	Sengupta , P. P.

DEPARTMENT OF MANAGEMENT STUDIES

Topic	Investigator	Supervisor(s)
A study of evolution, growth and decline of small brands of apparels in India	Arora, Naveen	Banerjee,Neelotpaul
A Quest for Relationship among CSR, Marketing Activities and Business Performance: A Cross Industry Comparison on Indian Firm	Banerjee Sujata	Mandal K.
A Study on Predictability of Stock Returns and Behavioral Biases	Banerjee, A.	De, A., Bandyopadhyay, G.
A Study on Predictability of Stock Returns and Behavioral Biases	Banerjee, A.	De, A. & Bandyopadhyay, G.

Topic	Investigator	Supervisor(s)
Forecasting Of Scenario Of Indian Financial Market Using Operations Research Techniques	Banhi Guha	Bandyopadhyay, G.,
Financial Analysis and Planning in Indian Urban Local Self Governments- A Theoretical and Empirical Study	Bhattacharyya, S. R.	De, A.,
Financial Analysis and Planning in Indian Urban Local Self Governments- A Theoretical and Empirical Study	Bhattacharyya, S. R.	De, A.,
Understanding Various Facets of Purchase Involvement; A Study of Burdwan , WB	Dasgupta (Banerjee) Monami	Mandal K.
Sustainable Management Strategy for Micro Small and Medium Enterprises	M.P.Singh	Roy , M.
Impact of Financial Cognition and Mental Accounting on Personal Financial Planning – A Study on Indian Households	Mahapatra, M. S.	De, A.
An empirical study on the impact of social media to facilitate the effectiveness of marketing	Mukherjee, Kaustav	Banerjee,Neelotpaul
An Empirical Investigation Of Credit Rating Of Initial Public Offerings Of Private Sector Undertakings In India	Sanbad Banerjee	Bandyopadhyay, G.,
An empirical analysis on various facets of celebrity endorsement in Indian context	Singh, Ramendra Pratap	Banerjee,Neelotpaul
Assessing The Influence Of Organizational Culture On Employees Commitment: Evidence From Five Homogeneous And Ten Selective Heterogeneous Industry In India	Sinha, A. K.	Bandyopadhyay, G., Sengupta, P.P;
Determining the attitude of Indian young consumers towards online marketing	Ghosh,D	Banerjee,Neelotpaul
The impact of website formation on various facets of business - An empirical study	Dasgupta (Banerjee) Monami	Mondal K.

DEPARTMENT OF MATHEMATICS

Topic	Investigator	Supervisor(s)
A study on fuzzy and complex dynamics with hybrid uncertainty analysis	Abhirup Bandyopadhyay	Kar S.
Analysis of motion trajectory in visual surveillance	Arif Ahmed	Kar S.
Some Optimization problem on Fuzzy Graphs	Dey, Arindam	Pal, A. and Pal, T.
Nonlinear waves in dusty and quantum plasma	Gadadhar Banerjee	Maitra S
Labelling of graphs and Hypergraphs	GhoshPoulomi	Pal, A.
Attribute selection and decision-making using rough set theory	Haresh Kumar Sharma	Kar S.
Modelling of some decision-making problems using fuzzy, rough and hybrid approaches	Jagannath Roy	Kar S.
On some optimal control problems in uncertain environments	Jotindra Nath Roul	Kar S.
On some multi-criteria decision making problems in uncertain paradigms	Kajal Cjatterjee	Kar S.
A study on some network problems under uncertain environment	Kanika Mandal	Basu. K
A study on Fuzzy graph and interval valued fuzzy Graph	Mishra, Sachchidananda	Pal, A.
Time series forecasting using soft computing techniques	Shanoli Samui Pal	Kar S.
Restricted domination problems on graphs.	Sinha Angshu Kumar	Pal, A.
Exploring different real life assignment problems under fuzzy environment	Supriya Kar	Basu, K and Mukherjee. S

DEPARTMENT OF MECHANICAL ENGINEERING

Topic	Investigator	Supervisor(s)
Thermodynamic Analysis and Performance Improvement of Coal-Fired Thermal Power Plants	Khankari Goutam	Karmakar Sujit
Multi-body Dynamic Modeling and Simulation of Six-legged Robots Maneuvering over Varying Terrains	Mahapatra Abhijit	Roy S.S., Pratihar D.K. (IIT Khragpur)

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Topic	Investigator	Supervisor(s)
Assessment of structure -high strain rate deformation behaviour of Materials	Acharya Saikat Deb	Ghosh, K.S. & Mondal, D. K.
Mechanism of microstructural modification and subsequent improvement in properties by semi-solid heat treatment of some non-ferrous alloys.	Bandyopadhyay Biswarup	Bhattacharya A. and Mallik M.
Assessment of Microstructural, Mechanical and Electrochemical Behaviour of Various Dental Amalgams of Various States	Dutta (Chowdhury) Nivedita	Ghosh, K.S.
Development of high strength ductile steels by cyclic heat treatment involving reconstructive and displacive phase transformations	Mishra Alok	Maity, J.
Transient liquid phase diffusion bonding of aluminium based metal matrix composites	Roy Pallab	Maity, J. & Pal, T.K. (Jadavpur University)

DEPARTMENT OF PHYSICS

Topic	Investigator	Supervisor(s)
Synthesis, Optical and Nonlinear Optical Properties of Some Silver Metal Nanostructures	Biswas S.	Kumbhakar P.
Systematic Investigation of the Interface and Load Transfer in Carbon (nanoparticle) Based Epoxy Composites Barbezat M. (EMPA, Switzerland)	Chakraborty S.	Chakraborty A. K.
Indium doped TiO2 thin film and its photocatalytic properties	Sarkar M. B.	Mondal A. & Bhattacharya P.

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.
Cloning and Functional analysis ***Leishmania donovani*** Amastin- like surface Protein	Biswas, Bapi	Ghosh, M.
Dependence of MoWISH on cAMP-dependent signalling pathway	Biswas, Mousumi	Roy-Barman, 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.
Investigation of the possible functional interrelation between Calmodulin7 (CAM7) and Cyclin Dependent Kinase B2 (CDKB2) in Arabidopsis seedling development	Biswas, Srabasthi	Chattopadhyay, S.
Exploration and Exploitation of Microalgae for Sustainable Bio-oil Production	Bobde, Kiran Ashok	Aikat, K.
Potential of β-cryptoxanthin as a cosmecutical	Brahma, D.	Dutta, D
Study of functional polymeric nanoparticles for biomedical application	Chatterjee, Manosree	Mahata, N.

Topic	Investigator	Supervisor(s)
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. and Choudhuri, S.
Role of Src kinase and Pyk2 in Monocyte migration	Das, Pradip	Bhattacharjee, A. and Mukhopadhyay, S.S.
Bioremediation of anthracene	Dasgupta, Arpan	Chaudhuri, 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 application of biopesticides	Ganguly Parna	Chaudhuri S
Extraction, purification and characterization of bioactive compounds from food waste	Gehlot, Sameep	Chaudhuri, S. Bhattacharjee, A., and Dutta, D.
Studies on seed borne mycoflora associated with oilseed (mustard) and cereal crop (rice) of Indo-Gangetic area and their eco-friendly management	Ghosh, Tanmay	Aikat, K.
Dampening of macrophage function in innate immunity through the involvement of pattern recognition receptors (PRRs)	Halder, Sudeshna	Mahata, N.
Development, characterization and optimization of novel drug delivery system against degenerative diseases through statistical modelling	Hazra, Moumita	Dasgupta Mandal, D., and Mandal, T.
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.
Bioremediation & Biosorption of Heavy metals from tannery Effluent	Kumar, Prakash	Aikat, K.
Drug Targeting Nanoparticles in anti-cancer treatment	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.
Exploration of Kocuria marina DAGII for pigment production and environmental sustainability	Mitra, Ruchira	Dutta, D.
Studies on the biological treatment of waste water from starch industry for pollution control	Neogi, Subhaneel	Chatterjee, P.K. and Dey, A.
Investigation of the function of mitogen activated protein kinase in Arabidopsis seedling development	Ojha, Madhusmita	Chattopadhyay, S.
Assessment of biomarker for early stage disease detection and therapeutic analysis	Pal Doel	Ghosh, M.
Exploitation of Valuable productst from isolated microorganism of industrial effluent for their treatment	Pal, Indrani	Dasgupta Mandal, D
Diversity and metabolic potential of indigenous bacteria in petroleum contaminated sludge from oil field: prospects for bioremediation	Pal, Siddhartha	Kazy, S. K.
Regulation of MCP-1-induced calcium-independent phospholipase A2 (iPLA2)-dependent monocyte migration	Pal, Suchandra	Bhattacharjee, A

Topic	Investigator	Supervisor(s)
Identification and characterization of interacting partner of CAM7/ZBF3 in Arabidopsis seedling development	Parvez, S.W.	Chattopadhyay, S. and Mandal, N.C.
Studies on hazardous impact of pollutants on host and its biological remediation.	Ranjan, Jyoti	Dasgupta Mandal, D.
Transposable elements and blast resistance in rice	Raut, Ravindra	Roy-Barman, S.
Engineering of cellulase enzymes of ***Aspergillus fumigatus*** NITDGPKA3 for enhancing their activity and development of recombinant cellulosic ***Saccharomyces cerevisiae*** for bioethanol production from rice straw.	Reddy, Subba Dodda	Mukhopadhyay, S.S. and Aikat, K.
Exploration of Curcuma amada for Bioactive molecules and its Encapsulation for Therapeutic Applications	S Rohini	Dutta, D
LaeA - Its role in molecular pathogenesis of Magnaporthe oryzae	Saha, Pallabi	Roy-Barman, S.
Biodegration 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.
Mitochondrial role of FA protein FANCD2	Singh Kapur, Bishwajit	Mukhopadhyay, S.S.
Regulation of 15-lipoxygenase gene expression and function in monocytes and A549 lung cancer cells.	Swaroop, Surbhi	Bhattacharjee, A and Aikat, K.
Delivery of anticancer phytochemicals and drugs via PDMS nanoparticles	Verma Madhu	Chaudhuri S, Sivakumar S and Dutta D
Fermentative production of Pectinase enzyme by ***Aspergillus*** spp	Verma, Heena	Dey, A. and Goswami, S.

DEPARTMENT OF CHEMICAL ENGINEERING

Topic	Investigator	Supervisor(s)
Phycoremediation of pollutants from wastewater using marine algae	Anjali K. P.	Dutta, S. and Geetha Devi M., National University of Science and Technology, Oman
Microbial Production of Gluconic Acid	Banerjee S.	Pal P.
Production Management through Optimization Strategy	Basu Sanghita	Pal P & Roy M
Numerical Simulation of Bubble Dynamics in Boiling (Thesis Submitted)	Bhati, J.	Paruya, S.
Modeling and Experimental Investigations on Pyrolysis and Oxy-fuel Combustion of Coal	Bhunia S.	Sadhukhan A. K. & Gupta Prof. P.
Removal of fluoride from groundwater using naturally available low cost materials	Bishayee B.	Dutta, S. and Ruj. B., CMERI, Durgapur
Assessment of Indian Coal for Coalbed Methane Production	Chattaraj S.	Halder. G.N.
Centre for Technological Excellence in Water Purification (CTEWP)	Chatterjee A.	Mandal T

Topic	Investigator	Supervisor(s)
Gas-Solid reaction kinetics in converging vertical riser	Dhurandhar R.	Das B
Studies on rotating fludized bed for intensifying drying performance	Dutta S.	Sadhukhan A. K., Chatterjee P. K. Gupta. P.
CO_2 Sequestration using microalgae and assessment of biomolecules production	Ganta U.	Dutta, S. and Ghanta, K. C.
Effect of Waste Plastics on the Physical Structure and Subsequent Anaerobic Digestion of Vegetable Waste Landfill Bed.	Ghosh A.	Das B
Modeling and Experimental Investigation on Pyrolysis and Gasification of Biomass	Kamila B.	Gupta P.
Experimental study on the role of hybrid technique towards treatment of leather industrial waste water for reduction of toxic effects	Kannaujiya M. C.	Mandal T
Biodiesel production through superheated propaanol injection technique	Karmakar B.	Halder. G.N.
Studies and development of suitable treatment strategies to remove 2,4-Dichlorophenoxy acetic acid from contaminated wastewater of agricultural field	Majee S.	Mandal T
Selenium Removal by Nanofiltration	Malhotra Meenakshi	Pal P
Studies on the design and development of plasma Torch for disposal of Municipal Solid Waste	Manna S.	Gupta. P., Chatterjee P. K. and 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.
Investigation on bubble dynamics in natural circulation boiling loop: visualization technique	Naik L., J.	Paruya, S.
Photo-Catalytic membrane for hospital waste water treatment	Pandey, Shailesh Kumar	Mandal M. K. and Pal P
Simultaneous Physicochemical Separation, treatment and reuse of industrial wastes to save the natural resources.	Pathak U.	Mandal T Das Papita Kumar Tarekeswar
Modelling and experimental investigation on Gasification of coal	Prabhakar A.	Sadhukhan A. K. & Gupta Prof. P.
Treatment of Coke Oven Waste Water Using Hybrid Technology	Pramanik. S.	Dutta, S. and Ghanta, K. C.
Treatment of Organic-compounds containing wastewater for biogas generation	Rahaman W. U.	Halder. G.N.
Bioremediation of pollutants from cokeoven wastewater	Rai A.	Dutta, S. and Dr. J. Chakrabarty, Deptt of Chemistry
CFC-Replacement via Pressure Swing Adsorption Technique	Roy Z.	Halder. G.N.
Nonlinear Model Predictive Control of Complex Density Wave Oscillations in Boiling Channe	Roy, K.	Paruya, S.
Nonlinear Phenomena of Bubble Collapse in Subcooled Liquid	Roy, S.	Paruya, S.

Topic	Investigator	Supervisor(s)
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.t	NIL
Study on management of pharmaceutical industrial waste water by Advanced oxidation process	Sarkar K.	Mandal T
Novel Techno-economic Evaluation for Conversion &Re-refining of Used Lubricating Oils to Base Oil	Sarkar S.	Das B
Phycoremediation of Cr(VI) from Wastewater	Sen S.	Dutta, S.
Bioremoval of heavy metals from Industrial Effluent using algae and cyanobacteria	Seragadam P.	Dutta, S. and Ghanta, K. C. and Srinivas B., Gayathri Vidya Parisad College of Engg, Vishakapatnam
Removal of enrofloxacin from aqueous solution	Sharma D. D.	Halder. G.N.
Sorptive removal of anti-inflamatory drug	Show S.	Halder. G.N.
Pyrolysis of Plastic Waste for Recovery of Fuel and Value Added Products	Singh R. K.	Gupta P. Ruj B. Sadhukhan A. K.
Treatment of Saline Water Pollutants by Solar Nano Photo Catalysis	Varghese M. J.	Dutta, S. and Prof. Feroz, National University of Science and Technology, Oman

DEPARTMENT OF CHEMISTRY

Topic	Investigator	Supervisor(s)
Transition Metal Complexes containing imino phenoxy ligand: Synthesis, Characterization and Biological Studies	Banerjee Barsali	Saha T. K.
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.
Modelling Biological Ni Sites with Supporting N, S Donor Ligands	Bhandari Anirban	Patra A. K.
Development of Novel Screening Material for Harmful Electromagnetic Radiation Using Designed Fluorescent Molecules Conjugated with MWNTs and Magnetic Nanoparticles	Biswas Sourav	Panja S S
Development of an Advanced Treatment Scheme for the Degradation of the Toxic Organics Associated with Pharmaceutical Wastewater	Chakraborty Sucharita	Saha R. N.

Topic	Investigator	Supervisor(s)
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.
Design, structural characterization and catalytic activities of a few transition metal complexes with (N,N) & (N,O) donors sites	Chowdhury Biswajit	Maji M., Biswas B. (Rahunathpur College)
Synthesis structural characterisation and materialistic aspects of some transition metal complexes with (N,N) & (N,O) donors ligands	Das Subrata	Maji M., Biswas B. (Rahunathpur College)
A MD Simulation study on the human Monoamine Oxidase structures and its complexes	Dasgupta Subrata	Mukhopadhyay B.P.
Synthesis Characterization and Biocatalytic Activity of Some Transition Metal Complexes with Different polydentate chelators	De Abhranil	Maji M., Biswas B. (Rahunathpur College)
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.
Assessment of chemical and physico-chemical properties of micro and macro algal lipids for biodiesel production	Guha Thakurta Sohini	Chakrabarty J.
Isolation, Purification and Structural Characterization of Polysaccharides from Some Indian Fruits	Hazra Surajit	Adhikari U.
Kinetics and mechanistic study of Pt(II)/Pd(II) metal ion systems with bio-relevant molecules: their bioactivity and theoretical study	Mahata Sujoy	Moi S. C.
Biological Cu Sites Modelling	Mishra, Saikat	Patra, A. K.
Design and synthesis of chromogenic and fluorogenic chemoreceptors for selective sensing of anions	Mondal Amita	Chakrabarty J. and Banerjee, P. (CSIR-CMERI)
Carbon carbon bond formation via Redox Reactions: Green chemistry excercise and role of nano architecture	Mondal Bibhas	Adhikari U.
Removal of Arsenic by modified Adsorbent	Mondal Prasanta	Saha R. N., Ruj B.(CMERI Durgapur) and Debbarma S.R.(CMERI Durgapur)
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.

Topic	Investigator	Supervisor(s)
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.
Treatment of wastewater generating from Chlor-alkali industry by advanced Oxidation Process	Pobi Krishnendu Kr.	Saha R. N.
Bioremediation of pollutants from cokeoven wastewater	Rai Abhilasha	Chakrabarty J. and Dutta, S. (CH)
Nutritional and biochemical importance of changes in fish lipids during preservation and cooking	Sadhu Tithli	Chakrabarty J. and Bhattacharjee, A. (BT)
Development and study of Pyrene-based fluorescent sensors along with their applications	Sarkar Soma	Panja S.S. and Saha R. N.
Anti-corrosive activity of certain bio-relevant molecules: study of synergistic effect	Satpati Sanjoy	Sukul D. and Banerjee P.
Recycling of cooking oil & its evaluation as biodiesel and culinary media	Singh Sunita	Chakrabarty J.
Intermediate identification during photocatalytic oxidation of organic compound	Som, Ipsita	Saha, R. N.
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.
An experimental and theoretical investigation on Pt(II) and Pd(II) complexes: Their cytotoxic activity, kinetics, mechanism and DFT study	Venkata Pera Reddy B	Moi S. C.

DEPARTMENT OF CIVIL ENGINEERING

Topic	Investigator	Supervisor(s)
Investigation on characteristic strength and behaviour of concrete confined with UPVC tube.	Bandyopadhyay, Atrayee	Samanta A.K., Singha Roy D.K.
Study and modelling of highway pavements under dynamic loading	Banerjee, Arijit	Topdar P., Datta, A.K.
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
Optimization of Sustainable integrated municipal solid waste management system through case studies	Chattopadhyay, Arpan	Adhikari, K. & Pal, S
Geo-Information System based assessment of Flood Induced Crop Damages for Crop Insurance Industries - A Case Study of Cuttack District, Odisha, India	Chhabra, Ajeet	Dwivedi, V.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.
Evaluation of the compacted lateritic soil amended with bentonite and flyash used as composite liner material for ash pond sites of thermal power plants	Dutta Mazumdar, Shyamal Kumar	Pal, S
Runoff prediction in Lower Gangetic Basin amid climate change variation	Dey, Kush Kumar	Dwivedi, V.K.

Topic	Investigator	Supervisor(s)
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.
Earthquake response of pile foundation in liquefiable soil	Dutta, S.	Nanda, R.P.
A Study of Progressive Collapse of Steel Frames due to Explosion and Post Explosion Fire	Galal, Mohamed Ahmed	Banik, A.K.
Experimental analysis for plan form development and erosion around an island in a natural stream	Ghosh, Snigdhadip	Dwivedi, V.K.
Retrofitting of Brick panels by Geosynthetic	Khan, H.A.	Nanda, R.P., Das, D.
Modelling of reservoir sedimentation using remote sensed technique	Kumar, Ritesh	Dwivedi, V.K.
Strengthening of RC beam by using Geosynthetics	Majumdar, S.	Saha, S.
Reliability Based Design of Geotechnical Structures under Static and Dynamic Conditions	Mazumdar, Ratul	Banik, A.K., Das, D., Pal, S.
Experimental Investigation on the Strength and Behaviour of Plate Reinforced Concrete Beam	Mondal, Prakash	Singha Roy D.K., Samanta A.K.
Effect of high speed train induced vibration on adjacent structures	Mukherjee, R	Datta, A.K., Topdar P.
Biological treatment of effluents from bulk drug industries	Mukhopadhyay, Miriganka Sekhar	Dwivedi, V.K., Bhattacharya, S., Mukhopadhyay, S.S.
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
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.
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.
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.
Active and passive vibration control of nonlinear flexible systems	Mandal, Saikat	Banik, A.K. & Mitra R. 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)
Studies on Multicast Routing and Wavelength Assignment in WDM Optical Networks [Date of Defense Viva Voce: 23/08/2019]	Subhendu Barat	De Tanmay
Model-wide Solutions to the Issues of Routing and Energy in Delay Tolerant Network [Date of Defense Viva Voce: 26/08/2019]	Priyanka Das	De Tanmay
Efficient Communication between Optical and Wireless Hybrid Networks	Deepa Naik	De Tanmay
Multicast Traffic Grooming Routing and Spectrum Assignment in Elastic Optical Network	Panchali Datta Choudhury	De Tanmay
Studies on Dynamic Traffic grooming in Elastic Optical Networks	Prasanta Majumdar	De Tanmay
Some Studies on Data Communication and Applications in VANETs	Rangaballav Pradhan	De Tanmay
On Some Network Optimization Problems through Evolutionary Algorithms [Jointly supervise with Dr. S. Kar, Dept of Mathematics, NIT DGP]	Joydeep Dutta	De Tanmay
IoT based Indoor Environment Data Modeling and Prediction [Jointly supervise with Dr. S. Saha, Dept of CSE, NIT DGP]	Praveen Kumar Sharma	De Tanmay
On fault-tolerant design of logic circuits in QCA	Kumar, Dharmendra	Mitra, D
Optimization of Wireless Sensor network	Sardar M	Bhattacharya S and Pal T
Pattern Recognition on Robust and Generalized Artificial Neural Network	Mondal Rahul	Pal T and Dey P
Functional Specification for User-Centric Service Oriented Enterprise Architecture Framework	Priyanka Chakraborty	Sarkar A.
Analysis and Specification of an Inter-Cloud Architecture: An Abstraction Model	Gitosree Khan	Sarkar A, Sengupta S.
Modeling of Multi Agent System Dynamics	Rajib Kr. Chatterjee	Sarkar A.
Building a pluggable sharding subsystem for MySQL	Narayanan Venkateswaran	Changder S.
Towards Design and Implementation of Image Denoising Techniques	Aparna Sarkar	Changder S.
Different Text Steganography Algorithms for Secured Information Hiding	Anandaprova Majumder	Changder S.
Soft Computing based approaches towards Information Security using Visual Cryptography.	Ram Barik	Changder S.
A Machine Learning Approach to Assess the Aesthetic Quality of Photographs in a Computational Way.	Soma Debnath	Changder S.
Study and Design of Continuous Authentication Algorithms for Smartphone using Behavioural Biometrics	Rayani Praveen Kumar	Changder S.
Multiparty Computation	Mardi, Dhaneshwar	Howlader, J.
Cloud Computing: A Mechanism design perspective	Bandyopadhyay, Anjan	Mukhopadhyay, S.
Novel Techniques & Analysis for Tourism and Spectrum Trading	Chowdhury, Anil Bikash	Mukhopadhyay, S.
The Impact of Rational and Adversarial Player in Secure Multiparty Computation and its Counteracts.	Mardi, Dhaneshwar	Mukhopadhyay, S. Howlader, J.

Topic	Investigator	Supervisor(s)
On the study of crowdsourcing, participatory sensing, and its applications to healthcare.	Singh, Vikash Kumar	Mukhopadhyay, S.
EHD Inkjet Printing System	Ball, Amit Kumar	Kisku, D.R., Murmu, N.C. (CMERI), Roy, S.S.
Pattern Matching	Dev, Deep Suman	Kisku, D.R.
Cohort Selection for Biometrics Authentication	Garain, Jogendra	Kisku, D.R., Sanyal, G.
Ensemble Face Recognition	Kumar, Dipak	Kisku, D.R.
Manipuri Signature Verification	Longjam, Teressa	Kisku, D.R.
Face Recognition	Rana, Srinibas	Kisku, D.R.

DEPARTMENT OF ELECTRICAL ENGINEERING

Topic	Investigator	Supervisor(s)
Fibre Optic based Partial Discharge detector for High Voltage Power Apparatus	Adhikari Krishanlal	Roy N. K.
Investigation on condition assessment of insulating oils using high k dielectric nanofluids for power transformer application	Arun Ram Prasath R T	Mahato S. N. 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.
Incipient Fault Detection in 3-phase Induction Motor Inverter Drive using Novel Signal Processing and Data	Bandyopadhyaya Indrayudh	Koley C. & Purkait P.
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
Power System	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.
Investigation on the modulations of autonomic nervous System based on metabolic syndrome risk factors	Das Ashis Kumar	Halder S.
Power System	Das Sandip Kumar	Sarkar S
Power System	Das Sourav	Acharjee P.
Design optimization of Electrical Machines	Das Pratyush Prasanna	Mahato S. N.
Instrumentation	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.
Modelling of PMU for Measurement and Islanding detection in Smart Grid	Kumar D.	Bhowmik P. S.
Investigation of Cardio-Pulmonary Data Based on Various Body Postures and Physical Conditions	Kumar Prashant	Halder S.
Power System	Kundu Shubhrajoti	Thakur S S

Topic	Investigator	Supervisor(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
PMU Placement using soft-computing techniques, post-mortem analysis and state estimation with PMU data	Maji Tapas Kumar	Acharjee P.
Power System	Mandal Biswajit	Bhowmik P. 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
Power System	Mehebub Alam	Thakur S. S.
Development of Detection method for Harmonic Compensation of Variable Frequency Drives using Shunt Active Power Filters	Minati Ghosh	Koley C & Roy N K
Design of Full mode Half mode and corrugated substrate integrated waveguide (SIW) band pass filter in microwave band	Moitra S.	Bhowmik P. 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.
Analysis of Heart Rate Variability based on Non-invasive Physiological variables	Mukherjee Mithu	Halder S.
Control and Modulation Strategies of Neutral Point Clamped Inverters for Electric Vehicle Applications	Mukherjee Sarbani	Banerjee S
On Some Aspects of Decoupling Control for MIMO Systems	Pandey Sumit Kumar	Dey J Banerjee S
Instrumentation	Pullabhatla Srikanth	Koley C
Design, Fabrication & testing of some advanced dc-dc switch mode power converters.	Rana Kumar Niroj	Banerjee S
Analysis and Control of Isolated Induction Generators	Ray Sambaran	Mahato S. N. Roy N. K.
Some Studies on Analysis and Control of Stand-Alone Induction Generator	Samajpati Dipanjan	Mahato S. N.
Study on the Dynamics of Solar Wind Speed & Terrestrial Wind Speed Using Statistical Signal Processing Approach	Sarkar Tushnik	Banerjee S Khondekar H M
Optimal Allocation of DG and DSTATCOM in Distribution Networks considering Practical Aspects	Sannigrahi Surajit	Acharjee P.
Model Based Control Framework for Pneumatic Conveying Drying Process	Satpati Biplab	Koley C. & Dutta S. (GKCIT)
Power System	Saw Bikash Kumar	BOHRE A. K.
Generator Modelling and Control for Renewable Energy Applications	Sekhar T. N. S. C.	Saha T. 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.
Discrete Time Sensorless IM Control for Electric Vehicles	Swargiary Manoj	Dey J. &. Saha T. K.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Topic	Investigator	Supervisor(s)
Meta-heuristic optimization algorithms for optimal synthesis of array antenna	Misra Bitan	Mahanti,G.K.
Synthesis of Phase-only reconfigurable array antennas using evolutionary algorithms	Jamunaa D	Mahanti, G.K.
Synthesis of planar array antenna using evolutionary algorithms	Dutta Kailash Pati	Mahanti,G.K.
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.
Performance of relayed hybrid free space optical communication over turbulent channels	Bag Banibrata	Chandra, A.
Performance analysis of free space optical communication channel with transmit and receive diversity	Das Akinchan	Chandra, A.
Use of Soft computing techniques in lesion detection in MR Images	Si Tapas	Bhattacharjee A.K
Change Detection and its applications in monitoring lesions in human body.	Mitra Ankita	Bhattacharjee A.K
Design and Performance Analysis of Slotted antennas for wireless and polarimetric applications.	De Arnab	Bhattacharjee A.K
Efficient Spectrum Utilization for Cognitive Radio Network (CRN) with Distributed Detection	Yadav Kuldeep Kundu, S.	Dhar Roy, S.
D2D Communication with Efficient Radio Resource Management	Ghosh, Sayanti	Dhar Roy, S.
Physical layer security with energy harvesting relays in a Cognitive Radio network	Maji, Pranabesh	Dhar Roy, S. Kundu, S.
Multihop Cognitive Radio Network with RF Energy harvesting	Mandal, Soumen	Dhar Roy, S. Kundu, S.
Studies on Vertical Handoff Algorithms in Next Generation	Reddy, Vamshidhar S.	Dhar Roy, S.
Performance of Cellular IoT Systems	Baranwal, Aloke	Dhar Roy, S. Kundu, S.
Physical layer Security in Cognitive Radio Network with Cooperative Jamming	Sharma S.	Kundu S
Resistive memory devices	Maji S	Mahapatra R
Adiabatic logic circuits	Samanta S	Mahapatra R. and Mal A. K.
Graphene based materials for sensing application	Pal H	Mahapatra R and Chatterjee S
Compact modelling of LD-MOS devices	Sahoo J	Mahapatra R
Dielectric Engineering for GaN HEMT Devices	Das P	Mahapatra R and Chakraborty A K
Gas Sensors	Tiwary P	Mahapatra R and Chakraborty A K
Characterization of Some Defected Ground Structures and their Applications to Planar Antenna Design	Acharjee J.	Mandal S. K., Mandal K. (IRPE, CU)
Studies on Improving Radiation Characteristics of Time- Modulated Antenna Arrays	Mandal, S	Mandal, S. K.

Topic	Investigator	Supervisor(s)
On-chip Antenna : Fabrication and Characterization	Sanjukta Mandal,	Mal, A. K Mahapatra, R Mandal, S. K
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.
On-Chip Antennas for Bio-Telemetry Application	Singh H.	Mandal, S. K.
Study on Design of Multiband Microstrip-Patch Antennas for Wireless Devices	Goswami S.	Mandal, S. K.
Studies on Planar Ultra-wideband and Super wideband Antennas for Emerging Wireless Systems Applicability	Gorai. A.	Ghatak R
Studies on Design and Performance of Planar Ultra-wideband Bandpass Filters	Kumari Puja	Ghatak R
Studies on Substrate Integrated Waveguide based Wideband and Multiband Antennas	Chowdhury Deblina	Ghatak R.
Studies on Broadband and Multiband Planar Antennas Based on Reactive Impedance Surface and Composite Right/Left- Handed Transmission Line	Shyam Sundar Jash	Ghatak R
Studies on Reconfigurable Multiband and Wideband Microwave Bandpass Filters	Bandyopadhyay A	Ghatak R, Mondal. T, ECE Dept., Dr. B C College of Engineering
Optimal Design of Design of CMOS Analog and RF Circuits Using Evolutionary Techniques	Ghosh, Sumalya	Mal A. K.
Design of a VCO based ADC for audio codec applications and modelling it's performance	Panda, Madhusmita	Mal A. K.
CMOS Time Mode Circuits	Ramakrishna, SSMR	Mal A. K.
Enrolled (Title yet not decided)	Samanta S	Mal A. K.

DEPARTMENT OF EARTH AND ENVIRONMENTAL STUDY

Topic	Investigator	Supervisor(s)
Impact of chemical pesticides and fertilizers on the environment as a whole – A case study	Adhikary Mayukh	Gangopadhyay, A. Bramhachari , K.
Optimisation of Sustainable Integrated Municipal Solid Waste Management System through Case Studies.	Arpan Chattopadhyay	Adhikari K. Pal S.
A comprehensive study on Environmental Management System (EMS) as practiced in selected industries in West Bengal, India and its impact on society	Ghosh Bipasha Mridha	Gangopadhyay, A.
Investigation of Emerging Contaminants effect on Hooghly River Ecosystem at Kolkata Stretch, West Bengal	Lokenath Chakraborty	Mondal, S. Nag , S. Kumar
Registration not completed	Nilesh Kr. Meshram	Adhikari K.
Registration not completed	Om Prakash Sudhanksu	Mondal, S.
Removal of fluoride from aqueous solution using modified low cost materials.	Rakesh Kumar	Mondal, S.
Registration not completed	Reeya Ghosh	Ozha M. K.

Topic	Investigator	Supervisor(s)
Hydrochemical and Mineralogical Evaluation of the shallow (<80m) aquifer of Murshidabad District, West Bengal, India	Rhitwik Chatterjee	Adhikari K.
Registration not completed	Susmita Goswami	S. Mondal
Analysis of potential impacts of open cast coal mine on hydrogeological dynamics in Barjora Area, West Bengal, India.	Ujjal Mal	Adhikari K.
Development of Quantitative Tool for Assessment of Regional Sustainability of Coal Mining Area	Vineeta Prasad	Adhikari K.

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

Topic	Investigator	Supervisor(s)
Fantasy and Imagination as Perceived through the Simulated World of Digital Media	Bandyopadhyay, Mita	Modak, A.
Roberto Classo's Ka: A Critical Study	Bhattacharyya, S	Rai, S.K.
Exploration of Parsi culture, Rituals, Rites and their Nostalgia: A Study of Deena Mehta, Perin Barucha, Boman Desai and Farrukh Dhondy	Biswas Ujjwal	Banerjee J.
Image of Women in Select Plays of Mahesh Dattani and Poile Sengupta: A Critical Study	Howlader, Asoke	Modak, A.
Thematic Study of Contemporary Indian English Poets	Karmakar, G	Rai, S.K
DISCERNING THE FAMILIAR - An insight into the women's condition during the Taliban Regime	Mukherjee Marjana	Banerjee J.
Post humanism and Trans humanism in the 21st Century Dystopian Novels	Patra, I	Rai, S.K
Gerontology and Bengali Cinema	Mondal, A.K	Rai, S.K
Post 9/11 Novels and Islam	Paul, S	Rai, S.K
Survival as Triumph in Paul Auster's Novels	Pramanik, Avijit	Modak, A.
The Fictions of Amit Chaudhuri: Creation of a Tradition	Roy Arnab	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.
Postcolonial Study of Derek Walcott	Sengupta , T	Rai, S.K
Voices of the Margin:A feministic reading of the diasporic demarcation and minority discourse in the works of Chitra Banerjee Divakaruni	Sengupta Debalina	Banerjee J.
Foregrounding Social, Moral and Psychodynamic Perspectives of Empathy: A Study of Indian Graphic Novels	Mondal, Kavita	Banerjee,J
ICT and Technical Higher Education in India	Mukherjee, U.C.	Sengupta, P.P.
Remittances and Economic Development in India	Dutta, Ujjal Protim	Sengupta, P.P.
FDI and Economic Performances in Developing Countries	Sinha, Madhabendra	Sengupta, P.P.
Decision Making Process of Farmers	Mukhopadhyay, Partha	Sengupta, P.P.
Risk Management in Industries	Nandi, Anita	Sengupta, P.P.
Marketing Management in Selected Indian Industries Women Empowerment	Lal, Seema	Sengupta, P.P.
Autobiographies of Phenomenal Women in Theatre and Film	Rana, Raju	Banerjee, S.
Women's Question in India in a Transnational Context: Understanding the Problematics and Politics through the Analysis of Women's Narratives (1850-1920)	Kankaria, Lipika	Banerjee, S.

DEPARTMENT OF MANAGEMENT STUDIES

Topic	Investigator	Supervisor(s)
Factors Affecting Investment Behaviour In Mutual Fund Industry-An Indian Perspective	Banerjee Soumya	Bandyopadhyay, G., Ghosh.A.
A Quest for Relationship among CSR, Marketing Activities and Business Performance: A Cross Industry Comparison on Indian Firm	Banerjee Sujata (Submitted)	Mondal K.
A Study on Predictability of Stock Returns and Behavioral Biases	Banerjee, A. (Submitted)	De, A., Bandyopadhyay, G.
Exploring Employee Engagement Vis-à-vis its Correlates among the Employees of Indian Organizations: An Empirical Investigation.	BardhanShravana.	Pal, D.
Economic Sustainability and Strategic Management of Cultural Capital: An Exploratory Study with Special Reference to West Bengal	Basu, A.	De, A.
Production Management through Optimisation strategy	Basu, S.	Roy M., Pal, P.
Role of Product Information on Purchase of Durables A Competitive system on low literacy Urban language in the State of West Bengal	Bhattacharjee, M.,	Bandyopadhyay, G.,
The Market Impact of Corporate News Release: Indian evidence	Bhattacharjee, N.	De, A.
Investor behaviour in Durgapur and Asansol Region	Bhattacharya, Amrita	Dutta
Financial Analysis and Planning in Indian Urban Local Self Governments- A Theoretical and Empirical Study	Bhattacharyya, S. R (Submitted)	De, A.
An Investigation into the applications of Big Data Analysis in Supply Chain management	Biswas, S.,	Bandyopadhyay, G.,
A Study on Workplace Adaptability: An Indian Perspective	Bose Sujata.	Pal D.
Harnessing The Association Between Inherent Interests Of Employees With Key Leadership Competencies For Organisational Development In Indian Industries.	Chaki, MainakRanjan	Bandyopadhyay, G.,
Sustainable Development in Educational Institutions	Chakraborty A.	Roy, M.
Investigating and Forecasting the financial Performance and Operational Efficiency of Indian Paint and allied Industry	Chakraborty, S.,	Bandyopadhyay, G.,
A study on effective management of national economic planning using soft computing based techniques	Chandra, M. M.,	Bandyopadhyay, G., & Banerjee, N.,
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 Rituparna	Mondal K.
A quest for relationship among socio demographic variables and various facets of sales promotion	Chel, Saswati	Mondal K.
Understanding Various Facets of Purchase Involvement; A Study of Burdwan , WB	Dasgupta (Banerjee) Monami (Submitted)	Mondal K.
A Study on Corporate Social Responsibility and its Impact on the Performance of Indian Corporate Sector	Deb, D.	De, A.
Attitude of Indian young generation towards online marketing (PhD defence seminar & viva voce completed)	Ghosh Debasis	Baneerjee Neelotpaul
Frauds in Public Sector Banks of India: A Study to Find out the Factors and Impact	Ghosh, S. K.	De, A.
Determinants of the Pharmaceutical Education Service Quality: An Empirical Quest based on Eastern India	Gupta Hemant	Mondal K.
Estimation of systemic risk and identification of systemically important firms in India	Karmakar, S.,	Bandyopadhyay, G.,

Topic	Investigator	Supervisor(s)
Performance Evaluation and Risk Analysis of Commercial Banks: A Study on SAARC countries	Laha, S.	De, A., Bandyopadhyay, G.
Impact of Financial Cognition and Mental Accounting on Personal Financial Planning – A Study on Indian Households	Mahapatra, M. S. (Submitted)	De, A., Raveendran, J.
An Empirical Quest for Various Aspects of Brand Switching	Maji, S.,	Bandyopadhyay, G.,
Determinants of Property Liability Insurance market in post-reform era and its relationship with economic growth in India	Mukherjee Abhijit	Ghosh Amlan
An empirical study on the impact of social media to facilitate the effectiveness of marketing	Mukherjee, Kaustav (Submitted)	Baneerjee Neelotpaul
A study of evolution, growth and decline of small brands of apparels in India	Naveen Arora (Submitted)	Baneerjee Neelotpaul
Prediction of Nifty 50 for Retail Traders/Investors with Special Emphasis on Technical Analysis"	Paul, Pinaki	Dutta
An Empirical Study on the Nature, Determinants and Consequences of Psychological Capital of a Group of School Teachers in West Bengal.	Paul, Sudip.	Pal, D.
A study on various aspects of consumer behavior in context to different products and services –A comparison between consumers in India and USA	SamantaJyotirmoy	BaneerjeeNeelotpaul
How CSR Can Be Translated Into Various Employee's Outcome And Understanding The Embededness Of Decision Making In Indian Perspective	Samiran Sinha Roy	Ghosh.A.& Bandyopadhyay, G
Exploring Employee Green Behaviour- An Empirical Study on Organizations based in West Bengal	SanyalUjjal.	Pal.D
Registration pending	Sarkar Avijit	Dutta
Sustainable Management Strategies for small scale industries	Singh M.P.	Roy, M
Registration pending	Singh, Pranaykumar	Dutta
An empirical analysis on various facets of celebrity endorsements in Indian context	Singh, RamendraPratap (Submitted)	BaneerjeeNeelotpaul
Assessing The Influence Of Organizational Culture On Employees Commitment: Evidence From Five Homogeneous And Ten Selective Heterogeneous Industry In India	Sinha, A K (Submitted)	Bandyopadhyay, G., Sengupta, P.P;
Analyzing the long term performance of IPO and Developing IPO indexing	Soumen Chatterjee	A. Dutta
Efficiency Analysis of Power Generating Units: A Study on Indian Power Plants	Srivastava. S. K.	De, 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.
Study on Some Inventory Problems	Bhattacharya, Sandipa	Sarkar (Mondal), S.
Codes over rings	Bhowmick, Sanjit	Bagchi, S.&Bandi, R.

Topic	Investigator	Supervisor(s)
Some Transportation Problems in Different Imprecise Environments	Bhowmik, Sarbari	Panigrahi G , Jana D, Maiti M
Fixed point theory and Topology	Chanda, Ankush	Dey, L.K.
Computations in generic model and applications to cryptography	Das, D.	Basu, K.
Some Bio-Mathematical Models In Crisp and Uncertain Environments	De, Anupam	Panigrahi G, MaityKalipada , ManoranjanMaiti
Some Inventory Models with Transportation in Supply Chain	Debnath, Sudeshna	Sarkar (Mondal), S.
Robust optimization in network optimization problems	Dey Sarkar, Debapriya	Basu, K.
Some New Probability Distributions: Properties and Statistical Inferences.	Dey, Mithu	Sarkar (Mondal), S. &Maiti, S.S.
Topological fixed point theory	Garai, Hiranmoy	Dey, L.K.
Nonlinear Differential equations	Ghosh, Arindam	Maitra, S
Magnetoconvective instabilities in liquid metals	Ghosh, Manojit	Pal, P.
Graph labelling and its applications	Ghosh, Sumonta	Pal, A.
Topological fixed point theory	Karmakar, Surajit	Dey, L.K.
Interplay of structure and dynamics in multilayer networks	Khanra, Pitambar	Pal, P.
Models on Dynamical System in Different Environments	Khatua D.	Kar, S.
Train Platform Allocation Problem for a Terminal Railway Station	Kumar R.	Kar, S.
Some Inventory Models for deteriorating/Breakable Items In Different Environment	Kundu, Anindita	Panigrahi G, Das B, Maiti M
Modelling of Some Earthquake Processes in Different Media during Aseismic Period	Kundu, Piu	Sarkar (Mondal), S
Optimal synchronization in complex networks	Kundu, Prosenjit	Pal, P.
Stochasticticity in ecology and epidemiology	Kundu, Soumen	Maitra, S
Data Mining Techniques for social network analysis	Mandal, Shrabanti	Pal, A.
Study of some neutrosophic graphs with applications	Mohanta, Kartick	Pal, A.
Some Theoretical Models of Earthquake Processes due to Finite and Long Faults	Mondal, Debabrata	Sarkar (Mondal), S
Integration theory	Mondal, Pratikshan	Dey, L.K.
Study on some graph invariants and their applications	Mondal, Sourav	Pal, A.
Oscillatory magnetoconvection	Mondal, Sutapa	Pal, P.
RFID Systems: Security and Privacy	Mourya, Pramod Kumar	Bagchi, S.
On Some NP hard problems Using Heuristic Method	Mukherjee, Anupam	Panigrahi G, MaitiManoranjan
Auction Adaptive participatory Sensing	Mukhopadhyay, Jaya	Pal, A.
Collective phenomena in coupled oscillators	Nandan, Mauparna	Pal, P.
Development of effective estimation strategies for Population parameters in sample surveys	Parichha, Partha	Basu, K. and Bandyapadhay A

Topic	Investigator	Supervisor(s)
Centralizer codes	Pal, Joydeb	Bagchi, S.
Mathematical Ecology	Patra Rajesh	Maitra S
A mathematical study of HIV/AIDS epidemic model with special emphasis on chaos and its stabilization.	Roy, A.	Sarkar (Mondal), S., Das, K.P.
A Mathematical Study of Eco-epidemiological Model with Special Emphasis on Chaotic Dynamics and its Controllization	Roy, Prodip	Sarkar (Mondal), S., Das, K.P. & Karmakar, P.
Group codes	Roy, Saikat	Bagchi, S.
Mathematical models of some decision making problems in uncertain environments	S. Bera	Basu, K. and Maiti M and Jana D K
Inventory Management	S. Kar	Basu, K. and Sarkar B
Reliability analysis & optimization of certain systems in deterministic & fuzzy environment	Samanta, A.	Basu, K.
Study of Some Mathematical Behavior of Topological Indices	Sarkar, Prosanta	Pal, A.
Rotating magnetoconvection	Sharma, Lekha	Pal, P.

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.
Designing of Dies and rolls for manufacturing of forged Railway wheels	Chakroborty Mainak	Banerjee Nilotpal
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.
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. , Cjatterjee, 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 Neeranjan	Apurba Layek
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
Performance Analysis Of Solar Air Heater Having Twisted Rib As Artifical Roughness Over The Absorber Plate	Kumar Anup	Apurba Layek
Thermo-Hydraulic Performance Enhancement Of Solar Air Heater Using Winglet Type Vortex Generator	Kumar Amit	Apurba Layek

Topic	Investigator	Supervisor(s)
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.
Active, passive control and dynamic stability of nonlinear flexible systems	Mondal Saikatsuvra	Ranjan Kumar Mitra and Atul Krishna Banik
Experimental Analysis Of Using Raw Vegetable Oil And Its Blends With Diesel In Ci Engine	Roy Debabrata	Apurba Layek
Thermodynamics	Singh Ravi Kant	Pramanick A.K., Rana S. C.
Fluid Flow and heat transfer in micro-channels	Singh Pritam Kumar	Mondal S., Barman R. N.
Development and performance evaluation of self-lubricating ZTA ceramic inserts for high speed machining of steel	Singh Bipin Kumar	Roy S.S., Mandal N.
Optimum Design of Flow Modifier in Tundish of Slab Caster using CFD	Verma Deepak	Mullick A. N.
Study and analysis of nonlinear behaviour 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.
Severe plastic deformation processing of in-situ cast Al–Mg_2Si composites	Bhandari Rahul	Mondal M. K. & Mallik M.
Structure properties correlation of in-situ Al-Mg_2Si 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.
Effect of Strain Induced Melt Activation (SIMA) Process on Microstructure and Mechanical Properties of Al-Si alloys Modified by Al-5Ti-1B Grain Refiner	Choudhary Chandan	Mandal D. & Sahoo K.L (CSIR-NML, Jamshedpur)
Study on mechanical working of reduced pure iron oxide briquettes	Das Ritwik	Pramanik S. & Mondal M. 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.
Detailed study on tribological behaviour of different Al-Si alloys (Tentative)	Hazra Biplab	Show B.K. & Bera S
Low-Cost Synthesis and Characterization of Boron Nitride Reinforced Aluminum Based Metal Matrix Composite	Jaiswal Arvind Kumar	Maji B. & Maity J.
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.
Development of Al-Cu-Ni alloys with novel microstructures	Maity Shubhadeep	Bera S. & Show B.K.

Topic	Investigator	Supervisor(s)
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
Development of high entropy bulk metallic glass for structural and biomedical applications	Paul S	Bera S & Mandal Durbadal
Structure-property correlation on ZrB_2 based ultrahigh temperature ceramic composites.	Paul Tanay Rudra	Mallik Manab & Mondal M. K
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.
Carbon based Metal Sulfide hybrid nanostructures for Energy storage and harvesting: from Synthesis to Applications	Sarkar A.	Bera S. & Chakraborty A. (Physics)
Development of high strength wear resistant low carbon steel by cyclic heat treatment	Subhani Amir Raza	Maity J. & Mondal D. K.

DEPARTMENT OF PHYSICS

Topic	Investigator	Supervisor(s)
Development and Characterization of Polymer-Multiferroic Nanocomposites for Enhance Magneto Dielectric Behavior	Atta S.	Meikap A.K.
Synthesis, Optical and Nonlinear Optical Properties of Some Silver Metal Nanostructures	Biswas Subrata	Kumbhakar P.
Theoretical study of Z' boson, B meson decays, Higgs boson and new physics beyond the standard model	Biswas Swagata	Sahoo S.
Carbon nanotube and graphene based metal oxide composites for supercapacitor applications	Chakrabarty, N	Chakraborty, AK
Interface and load transfer in carbon nanoparticle reinforced epoxy nanocomposites	Chakraborty, S	Chakraborty, AK Barbezat, M (EMPA, Switzerland)
Characterisation and Reliability prediction studies of lead free solder joint interface for electronics application	Char, M	Chakraborty, AK Kar, A (JBNSTS)
Photocatalytic studies using metal oxide and carbon nanostructures for water splitting and purification	Chatterjee, P	Chakraborty, AK
Green Synthesis of Some Nanocrystalline Biomaterials and Study of Gas Sensing Properties of Hydroxyapatite Based Nanocomposites: Their Microstructural and Electrical Characterization	Chatterjee T.	Meikap A.K. Pradhan S.K.
Mg doped TiO_2 Nanostructures on GaAs and Si Substrate for the application of MOS Devices, Deep UV Photodetectors and Breath Sensor for Health Monitoring	Dalal A.	Mondal A.
Development and Characterization of Polymer-Nanocomposites for Enhanced Dielectric Properties	Das A. K.	Meikap A.K
Studies on Generation and Synchronization of Chaos in Discrete Systems	Das A. K.	Mandal M. K.
Synthesis and characterization of graphene by chemical vapor deposition method	Das, B	Chakraborty, AK
Development of Nanosturctured electrocatalyst for low temperature fuel cell and water electrolyzer	Dey S	Basu S

Topic	Investigator	Supervisor(s)
Synthesis of InN nanostructure by unique vapour transport method and development of infrared optical sensor	Dhar Dwivedi S.M.M.	Mondal A.
Studies on Optoelectronic Properties of low dimensional Er-doped In2O3 films and its porous structures	Ghosh Anupam	Mondal A.
Studies on Dynamics of the localized modes of ferroelectric materials with defects	Giri P.	Mandal M. K. & Biswas A.
Graphene/metal oxide nanohybrids for gas sensors	Gupta Chatterjee, S	Chakraborty, AK
Studies on Electrical and Optical Properties of Polymer-Multiferroic Nanocomposites	Halder M.	Meikap A K
Anomalous Electrical Transport Properties of Disordered Solids at low Temperature	Jana R. N.	Meikap A.K.
Sparse Representation of Signals and its Applications	Karmakar J.	Mandal M. K.
Development of metal-oxide based polymer nanocomposites for opto-electronics application	Karmakar R.	Meikap A.K.
Studies on Synthesis, Optical properties and Catalytic Activities of Some Metal oxide and Metal sulfide Nanostructures Materials	Karmakar Srikanta	Kumbhakar P.
Nonlinear analysis on geophysical and geochemical data	Khutia Saroj	Chaudhuri H.
Phenomenology of Z' boson, B mesons and Higgs boson	Kumar Manish	Sahoo S.
Optical Properties of Semiconductor Materials and Its Thin Films and Investigation on their Photo-catalytic properties	Kumbhakar Partha	Kumbhakar P.
Synthesis and Charecterization of multiferroic rare earth orthoferrites nanostructure	Kundu Shovan Kumar	Basu, S
Synthesis of Chemically Modified Zinc Oxide Nano-Structures for detection of Organic Hazards	Maikap A.	Meikap A K Mandal B N
Study on geothermal activities by experimental techniques and nonlinear approaches	Maji Chiranjit	Chaudhuri H.
Phenomenology of Z' boson, B mesons, Higgs boson and new physics	Maji Priya	Sahoo S.
Studies on all-optical conventional and reversible logic processors	Mandal D.	Mandal M. K. & Garai S. K.
Studies of exact solutions and cosmological model based on Einstein-Cartan Theory	Manna Bibekananda	Sahoo S.
Temperature evolution of symmetry energy and the properties of neutron star matter with phenomenological effective interactions	Mohanta S. C.	Sahoo S & Sahoo B
Ring Oscillator and its Applications in Communication Systems	Mondal H.	Mandal M. K.
Investigations on Synthesis, Linear and Nonlinear Optical Properties of Some Carbon Nanomaterials and Nanocomposites	Mondal Koushik	Kumbhakar P.
Fabrication of Erbium doped TiO_2 Thin Flim and Its Nanostructures for the application of UV Photodetectors and Gas Sensors for the purpose of Environmental Monitoring.	Mondal S.	Mondal A.

Topic	Investigator	Supervisor(s)
Wastewater treatment	Mukherjee Suvasree	Chaudhuri H.
Phenomenological implications of Z' boson in B meson mixing and decays	Nayek Priti	Sahoo S.
A complete study on spin polarized nuclear matter and finite nuclei with finite range simple effective interaction	Pal Mahadeb	Sahoo S., Sahoo B & Chakraborty S.
Development of high performance electrodes for supercapacitors and dye sensitized solar cell	Paul, A.	Chakraborty, AK
Investigation On Synthesis, Characterization, Optical Properties of Some Carbon Nanostructured Materials And Its Application	Pramanik Ashim	Kumbhakar P.
Theoretical study of the coexistence of superconductivity, antiferromagnetism and Jahn-Teller distortion in iron based superconductors	Parida P. K.	Sahoo S., & Pradhan B.
Electrical and magnetic properties of Polymer multiferroics nanocomposites	Rana Dhiraj kumar	Basu S
Carbon nanostructure and metal sulphide composites for supercapacitor and solar cell applications	Sarkar, A	Chakraborty, AK Bera, S (MME)
Detection of partial discharge in high voltage equipment using Fiber-optic sensor	Sarkar Badal	Roy N.K., Kole C. & Kumbhakar P.
Synthesis of heterogeneous photocatalyst for degradation of organinc contaminants in waste water	Seal Kankana	Basu S, Mandal M K (Chemical Eng.)
A study on electrical transport properties of some rare earth chromate nanocomposites	Sinha R.	Meikap A.K. Basu S
Metal oxide/hydroxide and graphene hybrid nanostructures for gas sensing application	Tiwari, P	Chakraborty, AK Mahapatra, R (ECE)

ANNEXURE–11.4(H)I PH.D. DEGREE AWARDED TILL 2018-19

Name of the Department	Investigator	Supervisor(s)
Biotechnology	Dr. K. Sinha	Dr. K. Aikat and Prof. S. Datta & Dr. P. Das (both of Jadavpur University)
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

Name of the Department	Investigator	Supervisor(s)
Biotechnology	Dr. A. Roy	Dr. Kazy S. K.
Biotechnology	Dr. S. Deepthy T	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
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

Name of the Department	Investigator	Supervisor(s)
Chemistry	Dr. Sukanya Chandra	Dr. R.N. Saha & Dr. P.Pal
Chemistry	Dr. Alokdut Dutta	Dr. D. Sukul
Chemistry	Dr. Chinmoy Roy	Dr. J. Chakrabarty
Chemistry	Dr. Paromita Choudhuri	Dr. S. S. Panja
Chemistry	Dr. Pialee 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
Chemical Engineering	Dr. S. Mukherjee	Dr.Sinha A.P.
Chemical Engineering	Dr. S. K. Lahiri	Dr.Ghanta K. C
Chemical Engineering	Dr. A. K. Sadhukhan	Dr.Gupta P. & Saha. R. K. (IITKGP)
Chemical Engineering	Dr. M. Sen	Dr.Pal P.
Chemical Engineering	Dr. A.K. Manna	Dr.Pal P.
Chemical Engineering	Dr. S. Chanda	Dr.Saha R. (CY), Pal P.
Chemical Engineering	Dr. D. Mukhopadhyay	Dr.Sarkar J.P. Dutta S.
Chemical Engineering	Dr. M. K. Karmakar	Dr.Haldar S. , Dr.Dutta A. B. (CMERI)
Chemical Engineering	Dr. A. Bhattacharyya	Dr.Dutta S. , Basu S., HIT Kolkata
Chemical Engineering	Dr. S. Chatterjee	Dr.Dutta S. Basu, S. HIT Kolkata
Chemical Engineering	Dr. P. Dey	Dr.Pal P.
Chemical Engineering	Dr. R. Kumar	Dr.Pal P.
Chemical Engineering	Dr. J. Sikder	Dr.Pal P. & Sarkar. J.P.
Chemical Engineering	Dr. R. Thakura	Dr.Pal P.
Chemical Engineering	Dr.P. Sen	Dr.Pal P. & Roy .M.
Chemical Engineering	Dr. M. Geetha Devi	Dr.Dutta S. Feroz S., Dr.Hinai. Ashraf Al-
Chemical Engineering	Dr. J.Nayak	Dr.Pal P.
Chemical Engineering	Dr. S.Chakrabortty	Dr.Pal P., Roy M.
Chemical Engineering	Dr. S. Mondal	Dr.Halder. G. N.
Chemical Engineering	Dr. N. Goswami	Dr.Paruya S.
Chemical Engineering	Dr. A. Karmakar	Dr.Paruya S.
Chemical Engineering	Dr. A. Khan	Dr.Halder. G. N.
Chemical Engineering	Dr. J. Dasgupta	Dr.Sikder J.
Chemical Engineering	Dr. A. Kumar	Dr.Mondal T.
Chemical Engineering	Dr. A. Ali Khan	Dr.Halder. G. N.
Chemical Engineering	Dr. S. Mukherjee	Dr.Halder. G. N.
Chemical Engineering	Dr. S. Banerjee	Dr.Halder. G. N.
Chemical Engineering	Dr. S. H Dhawane	Dr.Halder. G. N.
Chemical Engineering	Dr. M. Mondal	Dr.Halder. G. N.& Mondal M. K.
Chemical Engineering	Dr. S. Goswami	Dr.Mandal T.
Chemical Engineering	Dr. T.i De	Dr.Narayan. C. M. and Sikder J.
Chemical Engineering	Dr. R.N. Krishnaraj	Dr.Pal P., Chandran S. & Berchmans S. (CSIR-CECRI)

Name of the Department	Investigator	Supervisor(s)
Chemical Engineering	Dr. V.C.Dekonda	Dr.Pal P., Kumar R.
Chemical Engineering	Dr. A. Bhattacharya	Dr.Sadhukhan A. K. & Chatterjee P.K. (CSIR-CECRI)
Computer Science and Engineering	Dr. Dhananjay Bhakta	Dr. Goutam Sarker
Computer Science and Engineering	Somenath Mukherjee	Prof. Goutam Sanyal
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	Dr. 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. Sanjay Sengupta	Dr. A.K. Datta & Dr. P. Topdar
Civil Engineering	Dr. N. M. Chanu	Dr. R.P. Nanda
Electrical Engineering	Dr. Arnab Ghosh	Dr.. S. Banerjee
Electrical Engineering	Dr. Santi Gopal Pain	Dr. P. Acharjee,
Electrical Engineering	Dr. Karunamoy Chatterjee	Dr. S. N. Mahato (NIT Durgapur) & Dr. S. Chattopadhyay (NITTR, Kolkata).
Electrical Engineering	Dr. Nayan Kumar	Dr. T. K. Saha & Dr. J. Dey
Electrical Engineering	Dr. Nasim Ali Khan	Dr. S.Ghosh & Dr. S.P.Ghoshal
Electrical Engineering	Dr. Pratap Kumar Panigrahi	Dr. S. Ghosh & Dr. D. R. K. Parhi
Electrical Engineering	Dr. Santu Kumar Giri	Dr. S. Banerjee & Dr. Chandan Chakraborty, IIT Kharagpur
Electrical Engineering	Dr. Badal Sarkar	Dr, C. Koley & N. K. Roy and Prof. P. Kumbhakar
Electrical Engineering	Dr. Sriparna Roy Ghatak	Dr. P. Acharjee
Electrical Engineering	Dr. Dipak Kumar Mishra	Dr. C. Koley and Dr. N. K. Roy
Electrical Engineering	Dr. Dipayan Guha	Dr. S. Banerjee &Dr. P. K. Roy, Kalyani Govt. Engineering College
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
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

Name of the Department	Investigator	Supervisor(s)
Earth and Environmental Studies	Dr. Sudipto Banerjee	K. Adhikari & S. Bandyopadhyay
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.
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.
Electronics and Communication Engineering	Ghosh Biswajit	Chandra, A.
Electronics and Communication Engineering	Sinha Madhumita	Mahapatra, R. and Ghosh R (CMERI)
Electronics and Communication Engineering	Maheshwari Vikas	Kar R, Mandal D, Ghoshal S P
Electronics and Communication Engineering	Saha Suman Kumar	Kar R, Mandal D, Ghoshal S P
Electronics and Communication Engineering	Gopi Ram	Kar R, Mandal D, Ghoshal S P
Electronics and Communication Engineering	De Bishnu Prasad	Kar R, Mandal D, Ghoshal S P
Electronics and Communication Engineering	Das Sudipta	Kar R, Mandal D, Ghoshal S P
Electronics and Communication Engineering	Upadhyay Prashant	Kar R, Mandal D, Ghoshal S P
Electronics and Communication Engineering	Bera Rajesh	Kar R, Mandal D, Ghoshal S P
Electronics and Communication Engineering	Choudhury, Subhrabrata	Mal A. K.
Electronics and Communication Engineering	Todani, Rishi	Mal A. K.
Electronics and Communication Engineering	Howlader, Jaydeep	Mal A. K.
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
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Humanities & Social Sciences	Dr S Banerjee	Dr S.K. Rai
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Humanities & Social Sciences	Dr. J. Chakraborty	Dr. P. P. Sengupta
Humanities & Social Sciences	Dr. A. K. Sinha	Dr. P. P. Sengupta & Dr. G. Bandyopadhyay
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Metallurgical & Materials Engineering	Dr. A. Saha	Dr. D.K Mondal. & Dr. J. Maity
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Management Studies	Banerjee, A	Dr. De, A
Management Studies	Banerjee, S	Dr. Mandal, K
Management Studies	Banerjee, C	Dr. Mandal, K
Management Studies	Banerjee, A.	Dr. De, A. & Dr. Bandyopadhyay, G.
Management Studies	Banerjee, S	Dr. Bandyopadhyay, G
Management Studies	Bhattacharya, S	Dr. Bandyopadhyay, G
Management Studies	Bhattacharyya, S. R.	Dr. De, A.
Management Studies	Biswas, A.	Prof.Roy, M
Management Studies	Chakrabarty, A	Dr. De, A
Management Studies	Chakrabortty S.	Prof.Roy, M &Prof..P.Pal
Management Studies	Chatterjee, T.	Prof. Roy, M
Management Studies	Dasgupta (Banerjee), M	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
Management Studies	Guha, B	Dr. G. Bandyopadhayay
Management Studies	Kaushal, S	Dr. Ghosh Amlan
Management Studies	Khastagir, D.	Prof.Roy, M
Management Studies	M.P.Singh	Prof.M.Roy
Management Studies	Mahapatra, M. S	Dr. De, A.
Management Studies	Majumder, M	Dr. Dutta Avijan
Management Studies	ManojitMitra	Dr.Bandyopadhayay, G
Management Studies	Mukherjee,K	Dr.Banerjee,N
Management Studies	Roy, K	Dr.Mandal, K
Management Studies	Sen, P.	Prof.Roy, M& Prof.P.Pal
Management Studies	Siddhanta, S	Dr.Banerjee,N
Management Studies	Singh,R.P	Dr.Banerjee,N
Management Studies	Thomas, A C	Dr. Dutta Avijan
Management Studies	Upadhyay, A	Dr.Bandyopadhayay, G
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Mathematics	Dr. R. Sircar	Dr. D. N. Mitra

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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
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Mathematics	Dr.A.Das	Dr. K. Basu & Dr D.Banerjee
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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
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. S. Dan	Dr. P. Pal
Mathematics	Dr. Debashis Ghosh	Dr. L. K. Dey
Mathematics	Dr. Utpalendu Adak	Dr. L. K. Dey & Dr. H. K. Samanta
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Mechanical Engineering	Dr. S. C. Nidhi	Dr. S. K. Basu
Mechanical Engineering	Dr. J. Basu	Dr. S. K. Basu
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Physics and ECE	Naorem Khelchand Singh	Mondal A
Physics and ECE	Shubhro	Mondal A
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Physics	S. Choudhury	Meikap AK & Mandal M K
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Physics	S. Chakraborty	Chakraborty AK

ANNEXURE - 11.4(H) II PROPOSED PLAN FOR RESEARCH

DEPARTMENT OF BIOTECHNOLOGY

- Anti-microbials from plant/food sources.
- Assessment on the removal of heavy metals and dye using low cost adsorbents.
- Biosensor
- Biodegradation of pesticides
- Bioenergy
- Biofuels
- Biological pigments
- Bioprospecting microbial diversity for biomolecules
- Bioremediation of oil refinery sludge
- Bioremediation of polyaromatic hydrocarbons, pesticides and textile dye
- Biosurfactant production and application
- Cancer Biology
- Developmental Biology and Signal Transduction
- Disease detection through biosensors
- Drug delivery system
- Ecotoxicology of nanomaterials
- Encapsulation of bioactive compounds
- Environmental Microbiology and Biotechnology
- Host-pathogen interaction in bacterial diseases
- Inflammation and Cell Signaling
- Microbial fermentation
- Microbial genomics and metagenomics
- Microbial production of ethanol using lignocellulosics
- Microbial production of lactic acid, using natural substrates, for production of bioplastic
- Microbiology of arsenic contaminated groundwater
- Microbiology of deep subsurface biosphere
- Molecular mechanism of inflammation
- Molecular Plant Pathology
- Nanobiotechology
- Nanoparticles for heavy metal remediation
- 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
- Protein folding and amyloid
- Screening of Novel Enzymes
- Supramolecular self-assembly

DEPARTMENT OF CHEMICAL ENGINEERING

- Acetic acid production in membrane-integrated bioreactor system
- Arsenic removal by membrane technology
- 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 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 employing
- 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-
- 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
- Diesel Particulate Filter-A CFD Modelling
- 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
- 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
- Kinetic Studies on Biochemical Production of Phosphatic Biofertiliser from Rock Phosphate Ore
- Methane enrichment by TSA technology
- Methanogenesis of low grade Indian coal
- Modeling 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 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
- Multiphase flow
- Nanofiltration
- Noncatalytic Gas-Solid Reactions
- Novel Techno-economic Evaluation for Conversion &Re-refining of Used Lubricating Oils to Base Oil
- Oil Suspension
- Optimization and control
- Optimization of Surface Modification of Natural Adsorbents for its Application towards Remediation of Watercourse Contaminated with Crude Oil and Weathered Oil by Inverse Fluidized Bed
- 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
- 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
- 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

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
- Medicinal Chemistry
- 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

DEPARTMENT OF CIVIL ENGINEERING

- Analysis and design of offshore pipelines
- Bioremediation and Nanotechnology
- Contaminant migration through soil
- Development of Decision Support System for water resource management and
- Development of Smart Concrete Structures.
- Engineering Limnology
- 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
- Impact of Climate change on water resources in a natural stream
- Mix design of pumpable concrete
- Removal of heavy toxic metal from ground water using nanotechnology.
- Rural water management
- Setting up of a centre of low-cost housing facilities.
- Solid waste management
- Structural reliability
- Wind energy Studies
- Pipe-soil interaction
- Reliability in Geotechnical Engineering
- Concrete Technologies
- Structural Control
- Soil-Structure Interaction

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

- Biometrics
- Computer Vision
- 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-Objective Optimization
- Multiprocessor and Multi-core Architecture
- Optimization of Multi-agent-systems
- Pattern Classification
- Semantic web technology
- Theory and applications of Cellular Automata
- VLSI Design and Testing
- Wireless networks
- Fairness issues in automated decision making

DEPARTMENT OF EARTH AND ENVIRONMENTAL STUDY

- 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
- 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
- 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
- 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
- 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
- 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 Ziirconate
- Unification of field forces and to explore some of the unanswered phenomena in nature and science

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

- Antenna Array Synthesis using Evolutionary Algorithms
- Antenna and Microwave 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 5G
- LDMOS Devices
- Millimeter wave channel modelling
- Nanoscale Semiconductor Devices
- Physical Layer Security
- Resistive Memory Devices
- Wireless Communication

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

- Agricultural Economics
- Applied Linguistics
- Cultural Studies
- 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
- Literature and Cinema
- Literature and Religion
- Managerial Economics
- Migration Studies
- Popular Culture
- Population Studies
- Postcolonial Studies
- Subaltern Indigeneous 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,
- Business Environment,
- Capital Market,
- Causes and Impact of Fraud in Banking Sectors
- Corporate Finance
- Corporate Social Responsibility
- Efficiency Measurement with the Help of Data Envelopment Analysis
- Employee Engagement
- Employee Green Behaviour
- Financial market data analysis using soft computing techniques
- Impact of Corporate Social Responsibility
- Insurance Sector,
- Micro-Finance
- Mutual Funds,
- Pension sector,
- Portfolio optimization,
- Product & Brand Management
- Psychological Capital
- Public policy on Financial Services
- Sales & Distribution Management
- Service Marketing
- Stock Market Analysis
- Workplace Adaptability

DEPARTMENT OF MECHANICAL ENGINEERING

- 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
- Condensation in various engineering applications
- Extending the regime of pulsation in model thermal pulse combustor
- Fundamental Principle of Thermodynamics viz., Constructal Law, Law of Motive Force.
- Interacting flame dynamics (Experiment and modelling)
- Micro additive Manufacturing
- Supply chain management
- Soft Robotics & Assistive Technology
- 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 thermal insulation bricks from integrated steel plant waste
- Design and development of nanocomposites for advanced electronic devices
- 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.
- High temperature corrosion behaviour of steel in Industrial environment
- 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.
- Structure-property correlation on ZrB2 based ultra high temperature ceramic composite
- Study of high temperature wear behaviour of different materials.
- Synthesis and characterization of metallic glass matrix composite
- The deformation behaviour of in-situ Al-Mg2Si composites processed by severe plastic deformation
- Thermo-mechanical processing of micro alloyed steels

DEPARTMENT OF MATHEMATICS

- Bio-mathematics
- Coding Theory
- Complex Analysis
- Computational Graph Theory
- Cryptography
- 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 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

- Alternate energy source, Bio-battery, Piezoelectric and Triboelectric effect
- Characterization of optical detector and biosensor
- Darwinian evolution and the emergence of structure-function relationship in biomolecules
- Development and characterization of nanomaterials using laser
- Development of a network of MPGOs (Multi-parametric Geophysical Observatories): Geochemical precursors, Electromagnetic (EM) precursors, seismo-geochemical & seismo-geophysical modeling of earthquake precursors.
- Electrokinetic treatment of soil.
- Emergence of biological information processing in the primordial era
- Fabrication of Li-ion batteries using graphene based anode materials

- Fabrication of nanowire and optical detector
- Glancing angle and oblique angle deposition technique for nanostructure fabrication
- Graphene and high energy physics
- Graphene based low cost solar cells
- Graphene based low-cost highly selective gas sensors
- Graphene-metal oxide nanohybrids for supercapacitors
- Holographic Optical Elements – Design, Fabrication and Application
- Imaging and Non-Imaging Optics
- Integrated and sustainable technology solutions for organic wastewater treatment
- Integrated and sustainable technology solutions for organic wastewater treatment
- Investigation on Geochemical and Geophysical Aspect for Geothermal Exploration and Helium Exploration.
- Investigation on Multi-parametric and Multi-station based Geochemical Precursors for Earthquakes.
- Large scale Extraction of helium from petroleum deposits and hydrothermal gas and its purification
- Laser Application
- Low temperature characterization of nano-composites, conducting polymers and disordered alloys
- Mathematical modeling and nonlinear analysis of geochemical & geophysical data and medical data (EEG signals)
- Measurement of radioactive hazards
- Metal extraction from flash
- Non-linear optical frequency conversion techniques for characterization of non-linear optical materials
- Optical instrumentation
- Optical Interferometry
- Optical Metrology – Solid Mechanics and Fluid Mechanics
- Preparation and characterization of advanced polymer composites with carbon nanostructures
- Simulation studies for background model for double beta decay experiment
- Simulation studies of Carbon Nanotubes and graphene based devices
- Studies on phenomenology of - Boson, B-meson decays and new physics.
- Synchronous communication system, studies on multiphase oscillator, nonlinear dynamics
- Synthesis and Characterization and Study of Optical and Nonlinear Optical Properties of Semiconducting and Metallic Nanoparticles and Quantum Dots
- Synthesis and characterization of nanostructured materials
- Synthesis and properties of carbon nanotube reinforced polymer nanocomposites
- Synthesis of high quality graphene by Chemical vapour deposition method
- Synthesis of Metal Nanoparticles by Laser Ablation and Study of Optical Properties
- Theoretical study of general theory of relativity and cosmology.
- Theoretical study of Higgs boson, massive neutrinos, black holes, gravitational waves, dark matter and dark energy
- Theoretical study of electronic, mechanical and thermal properties of graphene.

ANNEXURE–11.4(I) TESTING & CONSULTANCY SERVICES RENDERED DURING 2018-19

DEPARTMENT OF CIVIL ENGINEERING

Department	Title of the Project	Amount (Total)
Civil Engineering	Burdwan Univ, sports facility (hostel, indoor stadium) augmentation	4.3 Lakh
Civil Engineering	Checking of quality of works in connection with construction of Check Dams/ within the jurisdiction of Kangsaboti (North) division	5.098 lakh
Civil Engineering	Checking of quality of works in connection with construction of Check Dams/ within the jurisdiction of Kangsaboti (South) division	3.545 lakh
Civil Engineering	Checking of quality of works in connection with construction of Check Dams/ within the jurisdiction of Purulia division	3.226 lakh

Department	Title of the Project	Amount (Total)
Civil Engineering	Geotechnical Investigation for proposed building sites of Burdwan real Estate Pvt. Ltd	1.18 Lakh
Civil Engineering	Structural & foundation design vetting of G+9 storied building of M/s Neeraj & Associates	0.826 Lakh
Civil Engineering	Testing & Consultancy to G+4 Bldg WSFL, Asansol Police Commissionarate	0.52 Lakh
Civil Engineering	Testing and consultancy services for expansion of sports facility of Burdwan University	5.074 Lakh
Civil Engineering	Type-II-Testing of cubes, materials, paver blick, fly ash brick etc.	1.365 Lakh
Civil Engineering	Vetting of community hall for Andal block Panchayet, Durgapur	0.25 Lakh
Civil Engineering	Vetting of design & drawing for launching scheme of bridge #77 @Sambalpur-Titlagarh (2 x 45.7M : cantilever method)	0.6 Lakh

DEPARTMENT OF ELECTRICAL ENGINEERING

Department	Title of the Project	Amount (Total)
Electrical Engineering	BDV Testing of Insulating Oil	Rs 4500/

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

DEPARTMENT OF MANAGEMENT STUDIES

Department	Title of the Project	Amount (Total)
Management Studies	Impact Assessment study of CSR activities of DSP	Rs. 2.55 Lakhs

11.5(A) NUMBER OF FACULTY IN POSITION

Name of Department	Professor	Associate Prof	Assistant Professor (Grade I)	Assistant Professor (Grade II)	Trainee Teacher
	In position	In-position	In position		In position
Biotechnology	06	05	03	03	-
Chemical Engg	07	02	03	02	-
Chemistry	06	02	03	01	-
Civil Engineering	09	05	03	-	-
Computer Science & Engineering Computer Centre	06 00	10 01	13 01	01	-
Electrical Engg	08	02	07	04	01
Electronics &.Communication Engineering	07	05	02	03	-
Earth & Environmental Science	02	00	01	01	-
Humanities & Social Science	01	03	01	01	-
Management Studies	02	06	01	01	-
Mathematics	03	05	02	01	-
Mechanical Engineering	08	06	08	06	02

Name of Department	Professor	Associate Prof	Assistant Professor (Grade I)	Assistant Professor (Grade II)	Trainee Teacher
	In position	In-position	In position		In position
Metallurgical & Materials Engg.	02	06	03	02	-
Physics	03	05	00	04	-
T.P.S.W	00	00	-	-	-
Total	**70**	**63**	**51**	**29**	**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 Biotechnology and Biochemical Engineering, Bioenergy, Environmental Biotechnology	kaustav.aikat@bt.nitdgp.ac.in aikatk@yahoo.co.in
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	debojyoti.de@bt.nitdgp.ac.in debojyoti.de1984@gmail.com
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	gmonidipanitd@gmail.com, monidipa.ghosh@bt.nitdgp.ac.in
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	Nanobiotechology, Supramolecular self-assembly, Protein folding and amyloid.	sudipta.mondal@bt.nitdgp.ac.in; sudiptamondal1983@gmail.com

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
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 sudit.mukhopadhyay@bt.nitdgp.ac.in
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 sougatasaha@yahoo.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	kartik.ghanta@che.nitdgp.ac.in kcghanta@yahoo.com 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	parthapratim.gupta@che.nitdgp.ac.in parthgupta2000@yahoo.com
Halder G. N.	Professor	Chemical Engg Thermodynamics, Process Heat Transfer, Environmental Energy	gopinath_haldar@yahoo.co.in gopinathhaldar@gmail.com gopinath.halder@che.nitdgp.ac.in
Hens, A.	Assistant Professor	CFD and Heat Transfer ,Molecular Dynamics Simulation, Microfluidics and Nanotechnology	abhiram.hens@che.nitdgp.ac.in, hens.abhiram@gmail.com
Lahiri, S. K.	Associate Professor	simulation, process modeling, artificial intelligence in process industry, Advance Process Control, soft sensor, slurry flow modeling	sandipkumar.lahiri@che.nitdgp.ac.in
Mandal M. K.	Associate Professor	Membrane Seapartion Processes Petroleum Refinery, Mass Transfer Operation, Modeling, Simulation and Optimization of Process Design	mrinalmandal@gmail.com mrinal_ml78@yahoo.co.in
Mandal T.	Professor	Environmental Bio-Engineering, Bio-Reaction Engineering	tamal.mandal@che.nitdgp.ac.in tamal.nitdgp@gmail.com; tamal_mandal@yahoo.com

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
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.	Professor	Petroleum Refining & Petrochemicals, Mass Transfer, Novel Separations, Membrane Technology, Process Intensification, Environmental Engineering	parimal.pal@che.nitdgp.ac.in parimalpal2000@yahoo.com
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 umuniqueme1@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	debranjan.banerjee@ch.nitdgp.ac.in debranjan2@gmail.com
Chakrabarty Jitamanyu, PhD	Associate Professor	Lipid Chemistry, Food Chemistry, Analytical Chemistry, Cryobiology	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
Mukhopadhyay Bishnu Prasad, PhD	Professor	Bioinformatics – Protein Modelling, Molecular Modelling, Computer Aided Drug Design, Cancer (human) inhibitor Design, Protein Dynamics	bisnu.mukhopadhyay@ch.nitdgp.ac.in bpmk2@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_69@yahoo.com
Saha Rajnarayan, PhD	Professor	Inorganic Chemistry, Environmental Chemistry, Water and wastewater Treatment, Environmental Management	rajnarayan.saha@ch.nitdgp.ac.in rajusaharupa@yahoo.com rnsahanitd@gmail.com

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
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	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 Aloke Kumar, PhD	Associate Professor	Earthquake Engineering, SHM	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	Structural Engineering	somnath.karmakar@ce.nitdgp.ac.in
Nanda Radhikesh Prasad, PhD	Associate Professor	Repair and retrofitting, Disaster management, Earthquake resistant masonary buildings	rpnanda@gmail.com
Pal Supriya, PhD	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	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
Saha Showmen, PhD	Professor	Struct. Engg. &Concrete Structure, Smart Material	soumen.saha@ce.nitdgp.ac.in
Samanta Amiya Kumar, PhD	Professor	Comp. & exp. Mechanics of Concrete/ composite structures	amiyak.samanta@ce.nitdgp.ac.in

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
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
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)
Sanyal Goutam, PhD	Professor and HOD	Biometrics, Image Processing, Computer Vision, Computer network, Information Security	goutam.sanyal@cse.nitdgp.ac.in, nitgsanyal@gmail.com
Pal Tandra, PhD	Professor	Soft Computing	tandra.pal@cse.nitdgp.ac.in tandra.pal@gmail.com
Roy Suchismita, PhD	Associate Professor	Electronic Design Automation, VLSI Testing and Verification, Satisfiability based Simulation Techniques in VLSI Dedign 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
De Tanmay, PhD	Associate Professor	Optical Network, Wireless Sensor Network, Delay Tolerant Network	tanmayd12@gmail.com tanmay.de@cse.nitdgp.ac.in
Nandi Subrata, PhD	Associate Professor	Delay Tolerant Network,Sensor Network,Complex Network.	subrata.nandi@cse.nitdgp.ac.in
Anirban Sarkar, Ph.D.	Associate Professor	Software Engineering, Database System, Service Computing	anirban.sarkar@cse.nitdgp.ac.in sarkar.anirban@gmail.com
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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

DEPARTMENT OF TRAINING PLACEMENT AND STUDENTS' WELFARE

Sl. No	Name of the post	Name
01	Professor	Nil

ANNEXURE – 11.5(C) NEW APPOINTMENT OF FACULTY DURING THE YEAR 2018-19

Sl.No	Name	Department	Designation	Date of Joining
1.	Bhattacharjee Ashish Kr.	Bio-tech	Associate Professor	16.10.2018
2.	Sengupta Sayantan	ME	Assistant Professor	17.10.2018

Sl.No	Name	Department	Designation	Date of Joining
3.	Ghosh Abhijit	Physics	Assistant Professor	26.10.2018
4.	Datta Aaparesh	ME	Assistant Professor	29.10.2018
5.	Bohre Aashish Kr.	EE	Assistant Professor	29.10.2018
6.	Goswami Arjyajyoti	ME	Assistant Professor	29.10.2018
7.	Mandal Arup Kr.	MME	Assistant Professor	01.11.2018
8.	Das Soumik	Physics	Assistant Professor	01.11.2018
9.	Jana Kuntal	ME	Assistant Professor	02.11.2018
10.	Falul Ahmed Irfan Mohd.	EE	Assistant Professor	05.11.2018
11.	Banerjee Sutanuka	HSS	Assistant Professor	06.11.2018
12.	Mishra Chintamani	ME	Assistant Professor	08.11.2018
13.	Ranwa Sapana	ECE	Assistant Professor	12.11.2018
14.	Karmakar Sandip	CSE	Assistant Professor	12.11.2018
15.	Mukherjee Oindrilla	Biotech	Assistant Professor	20.11.2018
16.	Mondal Bikash Kr.	Chemical	Assistant Professor	27.11.2018
17.	Bera Tushar Kanti	EE	Assistant Professor	03.12.2018
18.	Dey Aritro	EE	Assistant Professor	03.12.2018
19.	Hens Abhiram	Chemical	Assistant Professor	04.12.2018
20.	Yagati Krishna Priya	MME	Assistant Professor	05.12.2018
21.	Ozha Manoj Kr.	EES	Assistant Professor	05.12.2018
22.	Saha Roy Biman Kr.	EE	Assistant Professor	07.12.2018
23.	Bhattacharya Aniruddha	EE	Assistant Professor	07.12.2018
24.	Ali Md. Firoz	Math	Assistant Professor	11.12.2018
25.	Gopmandal Partha Pratim	Math	Assistant Professor	12.12.2018
26.	Mondal Hemanta Kr.	ECE	Assistant Professor	14.12.2018
27.	Ghosal Subhas	Chemistry	Assistant Professor	17.12.2018
28.	Saha Sougata	Biotech	Assistant Professor	17.12.2018
29.	Chattaraj Nilanjan	ECE	Assistant Professor	20.12.2018
30.	Dhara Ashis Kr.	EE	Assistant Professor	28.12.2018
31.	Subramanian Hemachander	Physics	Assistant Professor	28.12.2018
32.	Mondal Sirshendu	ME	Assistant Professor	31.12.2018
33.	Ghosh Sayantari	Physics	Assistant Professor	31.12.2018
34.	Chakraborty Debasis	HSS	Assistant Professor	03.01.2019
35.	De Debojyoti	Biotech	Assistant Professor	07.01.2019
36.	Mondal Sudipta	Biotech	Assistant Professor	15.01.2019
37.	Ghorai Satadal	MME	Associate Professor	16.01.2019
38.	Ghosh Chaudhuri Rajib	Chemical	Assistant Professor	30.01.2019
39.	Banerjee Deb Ranjan	Chemistry	Assistant Professor	19.02.2019
40.	Paul Ujjwal Kanti	MS	Assistant Professor	19.03.2019

ANNEXURE – 11.5(D) RETIREMENT, RESIGNATION AND VOLUNTARY RETIREMENT OF FACULTY DURING THE YEAR

Sl. No.	Name	Department	Designation	Date of retirement/ Resignation
1	Majumder M.C	Mech Engg	Professor	31.08.2018
2	Ghosal S.P	Elec. Engg.	Professor	31.12.2018
3	Saha Anup Kr.	Mech Engg.	Professor	31.01.2019
4	Patra Pratik	Civil Engg.	Traînée Teacher	07.08.2018 (Resigned)

ANNEXURE-11.6(A) LIST OF OFFICERS

Registrar	Sen Sharma Soumya
Deputy Registrar	Chattopadhyay Aloke Kr. 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	Vacant
Deputy Librarian	Vacant
Assistant Librarian	Kumar Jitendra
WORKSHOP	
Superintendent	Vacant
REGISTRAR'S SECRETARIAT	
Technical Officer	Saha Santosh Kr.
MEDICAL UNIT-CUM-HOSPITAL	
Senior Medical Officer	Sarkar Banhi Kumar (Dr.)
Medical Officer(s)	Patra Sucharita (Dr.)
	Prabhavati G (Dr.)
ESTATE SECTION	
Security Officer	Bhagat Ajit Kumar

ANEXURE-11.6(B) IN POSITION POSTS OF OFFICERS AND NUMBER IN POSITION

	Sanctioned	In position
Registrar	1	1
Dy. Registrar	4	4
Asstt. Registrar	7	4
Dy. Librarian	1	vacant
Assistant Librarian	1	1
Principal SAS Officer	0	vacant
Sr. SAS Officer	1	vacant
SAS Officer	1	vacant
Principal Scientific/Technical Officer	2	vacant
Sr. Scientific/Technical Officer	1	vacant
Scientific/Technical Officer	3	1
Superintendent Engineer	1	vacant
Executive Engineer(Elect/Civil)	2	1
Senior Medical Officer	1	1
Medical Officer	2	2
Security Officer	1	1
Physical Training Inst.	-	1
	-	-
	-	-
	29	17

ANNEXURE-11.6(C) NUMBER OF TECHNICAL & ADMINISTRATIVE STAFF MEMBERS

Tech. Asstt.	04
Sr. Tech. Asstt.	30
Tech. Asstt. (SG-II)	08
Tech. Asstt. (SG-I)	00
Asstt. Engineer	01
Sr. Library Infor. Asstt.	01
Technician	02
Sr. Technician	00
Technician(SG-II)	02
Laboratory Asstt.	01
Laboratory Asstt.(SG-II)	01
Pharmacist	01
Superintendent	01
Sr. Superintendent	10
Staff Nurse	01
Assistant (SG-I)	02
Assistant (SG-II)	14
Sr. Assistant	03
Junior Assistant	06
Cook	02
Attendant	07
Sr. Attendant	13
Attendant (SG-I)	07

Attendant (SG-II)	04

ANNEXURE-11.6(D) NEW RECRUITMENT OF STAFF

Sl. No	Name	Department	Designation	Date of Joining
01	Sen Sharma Soumya	Establishment	Registrar	11.12.2018

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	Harizon Enait	Maint. Section	Sweeper	30.04.2018
2	Biswas Uttam	Estate Section	Driver	30.04.2018
3	Chaudhury Sudin	Reg. Secretariat	Attendant(SG-I)	31.12.2018
4	Das Suchitra	Dir. Secretariat	Attendant	18.09.2018(Expired)
5	Sing Surendra	ECE	Attendant(SG-I)	21.12.2018(Expired)

ANNEXURE – 11.7(A) FACULTY DEPUTED ON QIP (DOCTORAL PROGRAMME) DURING THIS PERIOD ACADEMIC STAFF (TEACHING)

NIL

ANNEXURE–11.7(B) SEMINARS, SUMMER/WINTER SCHOOLS, SHORT TERM COURSES ATTENDED BY FACULTY MEMBERS DURING 2018-19

DEPARTMENT OF BIOTECHNOLOGY

Sl. No	Name	Name of the Programme	Organized by	Date of the programme
1.	Bhattacharjee, A.	Regional Young Investigators' Meeting	Presidency University Kolkata	5-6 Feb, 2019
2.	De, D.	Regional Young Investigators' Meeting	Presidency University Kolkata	5-6 Feb, 2019
3.	Mukherjee, O.	Regional Young Investigators' Meeting	Presidency University Kolkata	5-6 Feb, 2019

DEPARTMENT OF CHEMICAL ENGINEERING

Sl. No	Name	Name of the Programme	Organized by	Date of the programme
1	Halder G.N	Role of microbes on Health, Agriculture and Environment	NIT Durgapur	June 19-21, 2019
2	Paruya, S.	National Seminar on Challenges in Design, Operation and Maintenance in Process Industries	CUCHAA and CHE Dept., University of Calcutta	December 21-22, 2018

DEPARTMENT OF CIVIL ENGINEERING SL. NO NAME NAME OF THE PROGRAMME ORGANIZED BY DATE OF THE PROGRAMME

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Roy Pronab	TEQIP-III Sponsored Workshop on Recent Trends in Machine Learning and Soft Computing (RTMLSC 2018)	CSE Department, NIT Durgapur	April 16-20, 2018
2	Samanta AK	Wind Effects On Structures	VNIT Nagpur	Dec 29-Nov02, 2018

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Tandra Pal	6th Professional Development Training Program under TEQIP-III	IIM, Kashipur	June 24-28, 2019
2	Howlader, Jaydeep	Global Blockchain Congress	Dept. of Information Technology & Electronic, WestBengal	Dec. 18-19, 2018

DEPARTMENT OF ELECTRICAL ENGINEERING

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1.	Dey Jayati (as Invited Speaker)	TEQIP III sponsored one day seminar on "Application of MATLAB in Control System Design and Analysis"	Dumka Engineering College, Jharkhand	January 31, 2019
2.	Roy N K (as Invited speaker	Short Term Course "***MOOCs, E-content Development and Open Educational Resources***" i during.	UGC-Human Resource Development Centre, BHU Varanas	August 19-25, 2018
3.	Saha Tapas Kumar (as Invited Speaker)	TEQIP III sponsored one day seminar on "Power Electronics and its application in Machine Drives"	Dumka Engineering College, Jharkhand	February 19, 2019

DEPARTMENT OF MANAGEMENT STUDIES

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Bandyopadhyay, Gautam	Machine Learning and Data Analytics	Jadavpur University	26th – 28th, March 2019.

DEPARTMENT OF MATHEMATICS

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Dey, L.K.	International Conference on Recent Advances in Pure and Applied Mathematics (ICRAPAM-2018)	Department of Applied Mathematics, Delhi Technological University	23-25 October, 2018
2	Pal, A.	International Conference on Communication, Management and Information Technology, (ICCMIT 2018)	Universidad Politecnica de Madrid Madrid, Spain	April 02-04, 2018
3.	Pal, A.	Workshop on Women in India : Issues	NIT Durgapur	August 18-19, 2018
5.	Sarkar (Mondal), S.	Workshop on Women in India: Issues at Workplace.	NIT Durgapur	August 18-19, 2018
6.	Sarkar (Mondal), S.	One day Seminar on "Stochastic Game"	Dept. of Maths., NIT Durgapur	25.04.2018

DEPARTMENT OF MECHANICAL ENGINEERING

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Datta A.	7th International Conference and 45th National Fluid Mechanics and Fluid Power Conference (FMFP-2018),	IIT Bombay	10-12 Dec 2018
3.	Mondal S.	International Workshop on Energy, Power and Environment (IWEPE-2019)	NIT Kurukshetra	March 17-19, 2019

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1.	Bera S.	NMD-ATM 2018	Kolkata	Nov 2018

DEPARTMENT OF PHYSICS

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Chakraborty AK	International Conference on Nanostructured Materials and Devices : Attended and delivered Invited Lecture	University of Delhi, New Delhi-110007	December 17 –20, 2018
2	Kumbhakar P.	International conference on Nanostructured Materials & Devices, ICNSMD 2018	University of Delhi	Dec. 17-20, 2018
3	Kumbhakar P.	International conference and expo on innovation in materials science and technology (IMST-2018)	Indian Rubber Institute and Amity University, Kolkata	Dec. 14-16, 2018
4	Sahoo S.	The XXIII DAE-BRNS HEP 2018 Symposium	IIT Chennai	10th – 14th December 2018
5	Sahoo S.	National Seminar on "Random Matrix Theory & its Applications"	Government Autonomous College, Rourkela, Odisha	30th - 31st December, 2018
6	Sahoo S.	Faculty Development Programme on "Rural Immersion and Continuity Engagement: Nai Talim"	NIT Durgapur	10th -16th January, 2019
7	Sahoo S.	International Conference on "Recent Issues in Nuclear and Particle Physics (RINP2)"	Visva-Bharati, Santiniketan, West Bengal	03 – 05 February 2019

ANNEXURE – 11.7(C) TRAINING OF STAFF MEMBERS DURING 2018-19

NIL

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
Bachelor of Technology in Civil Engineering	Civil Engineering

Name of the programme	Department
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	Full / Part time	Duration
Biotechnology	2008	Full Time	2 years
Chemical Engineering	1968	Full Time	2 years
Civil Engineering (Structural Engineering)	1971	Full Time	2 years
Computer Science and Engineering	1996	Full Time	2 years
Electrical Engineering (Electrical System)	1969	Full Time	2 years
Electronics & Communication Engg (Telecommunication Engg)	2005	Full Time	2 years
Electronics & Communication Engg (Microelectronics & VLSI)	2008	Full Time	2 years
Earth & Environmental Studies – Co-ordinating dept. (Environmental Science & Technology)	2008	Full Time	2 years
Mathematics (Operations Research)	1990	Full Time	2 Years
Mechanical Engineering (Machine Design)	1966	Full Time	2 years
Metallurgical and Materials Engineering (Metallurgy and Materials Technology)	1966	Full Time	2 years
Physics (Advanced Materials Science & Technology)	2006	Full Time	2 years
Civil Engineering (Geotechnical Engineering)	2014	Full Time	2 years
Electrical Engineering (Power Electronics and Machine Drives)	2014	Full Time	2 years
Mechanical Engineering (Fluid Mechanics and Heat Transfer)	2014	Full Time	2 years
Mechanical Engineering (Thermal Engineering)	2014	Full Time	2 years

OTHER PROGRAMMES:

Dept. / Programme	Full / Part time	Year of Starting	Duration
Management Studies (MBA)	Full Time	2004	2 Years
Computer Science & Engineering (MCA)	Full Time	2000	3 Years
Physics (M. Sc. in Physics)	Full Time	2009	2 Years
Chemistry (M. Sc. in Chemistry)	Full Time	2009	2 Years
Mathematics (M. Sc. in Mathematics))	Full Time	2010	2 Years
Humanities and Social Sciences (Masters in Social Work)	Full Time	2017	2 Years

ANNEXURE–11.8(B) PROGRAMME-WISE ENROLMENT WITH GENDER AND CASTE BREAK-UP

11.8. (B).1. ENROLMENT IN B.TECH PROGRAMMES, 2018-2019(GENDER WISE):

Enrolment of Indian students in odd semesters of B. Tech. courses, 2018-2019 Gender wise:

Semester	BT		ChE		CE		CSE		ECE		EE		ME		MME		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
B.Tech I	49	15	46	14	55	9	130	24	66	16	68	15	129	21	48	13	591	127
B.Tech III	32	16	50	12	54	5	108	14	60	16	62	14	132	2	48	13	546	92
B.Tech V	19	12	32	20	47	3	141	33	75	19	68	18	126	11	46	7	554	123
B.Tech VII	49	22	45	14	42	7	118	49	68	28	70	21	130	2	52	19	574	162
Total	**149**	**65**	**173**	**60**	**198**	**24**	**497**	**120**	**269**	**79**	**268**	**68**	**517**	**36**	**194**	**52**	**2265**	**504**

(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		ME		MME		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
B.Tech II	45	15	45	13	53	9	127	24	64	16	68	15	126	21	48	13	576	126
B.Tech IV	32	16	50	12	54	5	108	14	60	16	62	14	132	2	48	13	546	92
B.Tech VI	18	12	32	20	47	3	140	33	74	19	67	18	126	11	46	7	550	123
B.Tech VIII	49	22	46	14	42	7	118	49	68	28	71	21	130	2	52	19	576	162
Total	144	65	173	59	196	24	493	120	266	79	268	68	514	36	194	52	2248	503

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

11.8 (B).1. ENROLMENT IN B. TECH & M. TECH DUAL DEGREE PROGRAMMES (ALL STUDENTS), 2018-19 (GENDERWISE):

Semester	BT		ChE		Total	
	M	F	M	F	M	F
Dual Degree I	4	1	3	1	7	2
Dual Degree III	4	1	2	1	6	2
Dual Degree V	0	0	0	0	0	0
Dual Degree VII	0	0	0	0	0	0
Total	**8**	**2**	**5**	**2**	**13**	**4**

(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	4	1	2	1	6	2
Dual Degree IV	4	1	2	1	6	2
Dual Degree VII	0	0	0	0	0	0
Dual Degree VIII	0	0	0	0	0	0
Total	**8**	**2**	**4**	**2**	**12**	**4**

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

11.8 (B).1. ENROLMENT IN INTEGRATED M.SC. PROGRAMMES (ALL STUDENTS), 2018-19 (GENDER WISE):

Semester	Chemistry		Total	
	M	F	M	F
INT M.Sc. I	9	6	9	6
INT M.Sc. III	9	0	9	0
INT M.Sc. V	0	0	0	0
INT M.Sc. VII	0	0	0	0
Total	**18**	**6**	**18**	6

(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	9	5	9	5
INT M.Sc. IV	9	0	9	0
INT M.Sc. VII	0	0	0	0
INT M.Sc. VIII	0	0	0	0
Total	**18**	**5**	**18**	**5**

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

11.8 (B).2. ENROLMENT OF FOREIGN STUDENTS IN B.TECH. PROGRAMMES, 2018-19 (GENDER WISE):

Semester	BT		ChE		CE		CSE		ECE		EE		ME		MME		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
B.Tech I	0	1	1	0	0	0	8	4	2	1	0	1	4	2	0	0	15	9
B.Tech III	1	0	0	1	2	0	8	5	4	1	0	0	5	1	0	0	20	8
B.Tech V	1	0	0	0	1	0	10	1	3	0	3	2	9	0	0	0	27	3
B.Tech VII	0	1	0	0	0	0	7	3	2	1	1	1	2	0	0	0	12	6
Total	**2**	**2**	**1**	**1**	**3**	**0**	**33**	**13**	**11**	**3**	**4**	**4**	**20**	**3**	**0**	**0**	**74**	**26**

(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		ME		MME		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
B.Tech II	0	1	1	0	0	0	8	4	2	1	0	1	4	2	0	0	15	9
B.Tech IV	1	0	0	1	2	0	8	5	4	1	0	0	5	1	0	0	20	8
B.Tech VI	1	0	0	0	1	0	10	1	3	0	3	2	9	0	0	0	27	3
B.Tech VIII	0	1	0	0	0	0	7	3	2	1	1	1	2	0	0	0	12	6
Total	**2**	**2**	**1**	**1**	**3**	**0**	**33**	**13**	**11**	**3**	**4**	**4**	**20**	**3**	**0**	**0**	**74**	**26**

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

11.8.(B).2. ENROLMENT IN B.TECH. PROGRAMMES, 2018-2019 (CASTEWISE)

Dept.	B.Tech					B.TECH					B.TECH					B.TECH				
	I Semester					III Semester					V Semester					VII Semester				
	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT
BT	28	10	4	22	64	17	7	3	20	47	10	6	4	9	29	30	11	6	24	71
ChE	29	9	4	18	60	31	8	5	19	63	24	7	5	16	52	29	6	4	20	59
CE	31	9	5	19	64	23	10	4	20	57	23	5	5	17	50	21	8	5	15	49
CSE	76	24	11	43	154	59	19	8	36	122	80	22	12	48	162	87	22	13	46	168
ECE	42	11	5	24	82	36	12	6	22	76	43	15	6	27	91	47	15	8	26	96
EE	40	13	6	24	83	37	10	6	23	76	39	11	5	26	81	44	13	6	28	91
ME	70	23	12	45	150	67	19	10	38	134	59	20	9	37	125	60	20	9	43	132
MME	24	8	6	23	61	26	11	5	19	61	25	8	5	15	53	29	13	7	22	71
Total	**340**	**107**	**53**	**218**	**718**	**296**	**96**	**47**	**197**	**636**	**303**	**94**	**51**	**195**	**643**	**347**	**108**	**58**	**224**	**737**

11.8.(B).2. ENROLMENT IN B.TECH & M. TECH DUAL DEGREE PROGRAMMES,2018-19 (CASTEWISE)

Dept.	Dual Degree					Dual Degree					Dual Degree					Dual Degree				
	I Semester					III Semester					V Semester					VII Semester				
	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT
BT	2	1	1	1	5	3	1	0	1	5	0	0	0	0	0	0	0	0	0	0
ChE	1	1	0	2	4	1	1	0	1	3	0	0	0	0	0	0	0	0	0	0
Total	**3**	**2**	**1**	**3**	**9**	**4**	**2**	**0**	**2**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

11.8.(B).2. ENROLMENT IN 5 YEAR INTEGRATED M.SC. PROGRAMMES,2018-19 (CASTEWISE)

Dept.	INT M.Sc.					INT M.Sc.					INT M.Sc.					INT M.Sc.				
	I Semester					III Semester					V Semester					VII Semester				
	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT
Chem	6	2	2	5	15	4	2	1	2	9	0	0	0	0	0	0	0	0	0	0
Total	**6**	**2**	**2**	**5**	**15**	**4**	**2**	**1**	**2**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Dept.	B.Tech					B.TECH					B.TECH					B.TECH				
	I Semester					III Semester					V Semester					VII Semester				
	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT
BT	25	9	4	22	60	17	7	3	20	47	10	6	4	9	29	30	11	6	24	71
ChE	28	9	3	18	58	31	8	5	19	63	24	7	5	16	52	29	6	4	21	60
CE	30	8	5	19	62	23	10	4	20	57	22	5	5	16	48	21	8	5	15	49
CSE	75	23	11	42	151	59	18	8	36	121	80	22	12	48	162	87	22	12	46	167
ECE	40	11	5	24	80	34	12	6	22	74	42	15	6	27	90	47	15	8	26	96
EE	40	13	6	24	83	36	10	6	22	74	38	10	5	26	79	45	13	6	28	92
ME	68	23	11	45	147	66	19	10	36	131	59	21	9	37	126	60	20	9	43	132
MME	24	8	6	23	61	26	11	5	18	60	25	8	4	15	52	29	13	7	22	71
Total	**330**	**104**	**51**	**217**	**702**	**292**	**95**	**47**	**193**	**627**	**300**	**94**	**50**	**194**	**638**	**348**	**108**	**57**	**225**	**738**

11.8.(B).2. ENROLMENT IN B.TECH & M. TECH DUAL DEGREE PROGRAMMES,2018-19 (CASTE WISE)

Dept.	Dual Degree					Dual Degree					Dual Degree					Dual Degree				
	II Semester					IV Semester					VI Semester					VIII Semester				
	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT
BT	2	1	1	1	5	4	0	0	1	5	0	0	0	0	0	0	0	0	0	0
ChE	1	0	0	2	3	1	1	0	1	3	0	0	0	0	0	0	0	0	0	0
Total	**3**	**1**	**1**	**3**	**8**	**5**	**1**	**0**	**2**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Dept.	INT M.Sc.					INT M.Sc.					INT M.Sc.					INT M.Sc.				
	II Semester					IV Semester					VI Semester					VIII Semester				
	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT
Chem	6	2	2	4	14	4	2	1	2	9	0	0	0	0	0	0	0	0	0	0
Total	**6**	**2**	**2**	**4**	**14**	**4**	**2**	**1**	**2**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

11.8.(B).3. ENROLMENT IN M.TECH. & M.SC PROGRAMMES, 2018-19 (GENDER WISE)

Semester	BT	CH	CY (CST)	CE (SE)	CE (GE)	CS	CS (HPC)	CS (SE)	EE (PS)	EE (PMD)	EC (TE)	EC (VL)	ES (EST)
M.Tech, I &II	9 (5)	9 (5)	0 (0)	16 (2)	12 (2)	47 (18)	0 (0)	0 (0)	16 (1)	11 (1)	10 (4)	16 (3)	14 (2)
M.Tech, III & IV	8 (3)	5 (1)	0 (0)	13 (4)	12 (4)	14 (4)	0 (0)	5 (1)	13 (4)	13 (3)	7 (1)	13 (7)	11 (3)
M.Tech, V & VI	0 (0)	0 (0)	0 (0)	2 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0)	1 (0)	1 (0)	0 (0)	0 (0)
M.Sc, I &II	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
M.Sc, III & IV	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Semester	HSS (EI)	CS (IT)	MA (OR)	ME (MD)	ME (FMHT)	ME (TE)	MM (MT)	PH (AMS)	M. Sc (CY)	M. Sc (MA)	M. Sc (PH)	TOTAL
M.Tech, I &II	0 (0)	0 (0)	11 (1)	11 (0)	16 (3)	15 (1)	11 (0)	13 (1)	0 (0)	0 (0)	0 (0)	237 (49)
M.Tech, III & IV	12 (1)	7 (2)	13 (4)	13 (0)	11 (0)	14 (1)	11 (0)	15 (3)	0 (0)	0 (0)	0 (0)	210 (46)
M.Tech, V & VI	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	7 (0)
M.Sc, I &II	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	15 (8)	13 (3)	12 (6)	40 (17)
M.Sc, III & IV	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	8 (2)	9 (5)	13 (4)	30 (11)

(Number of female students indicated in parentheses ; the total number is inclusive of the number of female students).
Foreign students –Nil.

11.8.(B).4. ENROLMENT IN M.TECH & M. SC. PROGRAMMES, 2018-19 (CASTEWISE)

Dept. / Year	I & II					III & IV					V & VI				
	OP	SC	ST	OBC	TOTAL	OP	SC	ST	OBC	TOTAL	OP	SC	ST	OBC	TOTAL
BT	4 (2)	3 (1)	1 (1)	1 (1)	9 (5)	3 (1)	3 (1)	0 (0)	2 (1)	8 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
CH	6 (4)	0 (0)	0 (0)	3 (1)	9 (5)	4 (1)	1 (0)	0 (0)	0 (0)	5 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
CY	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
CE (SE)	8 (0)	3 (1)	0 (0)	5 (1)	16 (2)	6 (1)	2 (2)	1 (0)	4 (1)	13 (4)	1 (0)	0 (0)	0 (0)	1 (0)	2 (0)
CE (GT)	3 (1)	3 (0)	0 (0)	6 (1)	12 (1)	7 (3)	2 (0)	0 (0)	3 (1)	12 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
CS	20 (6)	7 (4)	3 (1)	17 (7)	47 (18)	7 (2)	2 (0)	1 (0)	4 (2)	14 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
CS (HPC)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
CS (SE)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (1)	0 (0)	0 (0)	0 (0)	5 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
EE (PS)	5 (0)	2 (0)	1 (0)	8 (1)	16 (1)	4 (0)	1 (0)	1 (1)	7 (3)	13 (4)	1 (0)	0 (0)	0 (0)	0 (0)	1 (0)
EE(PMD)	5 (1)	0 (0)	0 (0)	6 (0)	11 (1)	6 (1)	2 (0)	0 (0)	5 (2)	13 (3)	1 (0)	0 (0)	0 (0)	0 (0)	1 (0)
EC (TE)	6 (2)	0 (0)	0 (0)	4 (2)	10 (4)	5 (1)	2 (0)	0 (0)	0 (0)	7 (1)	1 (0)	0 (0)	0 (0)	0 (0)	1 (0)
EC (VL)	8 (3)	3 (0)	1 (0)	4 (0)	16 (3)	4 (2)	1 (1)	1 (1)	7 (3)	13 (7)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
ES	6 (2)	3 (0)	1 (0)	4 (0)	14 (2)	6 (3)	2 (0)	1 (0)	2 (0)	11 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
HSS (EI)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	8 (0)	0 (0)	1 (0)	3 (1)	12 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
IT	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (1)	0 (0)	1 (0)	2 (1)	7 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
MA (OR)	4 (0)	3 (1)	1 (0)	3 (0)	11 (1)	8 (3)	1 (0)	0 (0)	4 (1)	13 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
ME (MD)	6 (0)	1 (0)	0 (0)	4 (0)	11 (0)	6 (0)	2 (0)	0 (0)	5 (0)	13 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
ME (FMHT)	5 (1)	2 (0)	2 (0)	7 (2)	16 (4)	4 (0)	2 (0)	0 (0)	5 (0)	11 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
ME (TE)	7 (1)	3 (0)	1 (0)	4 (0)	15 (1)	7 (0)	2 (1)	1 (0)	4 (0)	14 (1)	1 (0)	0 (0)	0 (0)	0 (0)	1 (0)
MM (MT)	6 (0)	0 (0)	0 (0)	5 (0)	11 (0)	6 (0)	1 (0)	0 (0)	4 (0)	11 (0)	1 (0)	0 (0)	0 (0)	0 (0)	1 (0)
PH (AMS)	7 (1)	0 (0)	1 (0)	5 (0)	13 (1)	7 (0)	2 (1)	1 (1)	5 (1)	15 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
M.Sc (CY)	7 (3)	3 (2)	1 (0)	4 (3)	15 (8)	3 (1)	2 (1)	0 (0)	3 (0)	8 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
M.Sc (MA)	6 (0)	3 (2)	1 (0)	3 (1)	13 (3)	4 (1)	1 (1)	0 (0)	4 (3)	9 (5)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
M.Sc (PH)	7 (3)	3 (1)	0 (0)	2 (2)	12 (6)	7 (2)	3 (1)	0 (0)	3 (1)	13 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Total	**126 (30)**	**42 (12)**	**14 (2)**	**95 (22)**	**277 (66)**	**121 (24)**	**34 (9)**	**9 (3)**	**76 (21)**	**240 (57)**	**6 (0)**	**0 (0)**	**0 (0)**	**1 (0)**	**7 (0)**

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

11.8(B). 5. . ENROLMENT IN MCA PROGRAMME, 2018-19 (GENDERWISE)

Master of Computer Applications (MCA)	I & II Semester	III & IV Semester	V & VI Semester
	27 (7)	30 (11)	34 (9)

(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, 2018-19 (CASTEWISE)

MCA	MCA II					MCA IV					MCA VI				
	OP	SC	ST	OBC	TOTAL	OP	SC	ST	OBC	TOTAL	OP	SC	ST	OBC	TOTAL
	15 (6)	5 (2)	2 (0)	7 (2)	29 (11)	17 (5)	6 (0)	1 (0)	10 (4)	34 (9)	29 (13)	12 (0)	5 (2)	23 (6)	69 (21)

11.8. (B) 7. ENROLMENT IN MBA PROGRAMMES, 2018-19 (GENDER WISE)

Master of Business Administration (MBA)	I & II Semester	III & IV Semester
	19 (11)	28 (13)

(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, 2018-19 (CASTE WISE)

MBA	MBA I & II					MBA III & IV				
	OP	SC	ST	OBC	TOTAL	OP	SC	ST	OBC	TOTAL
	14 (8)	1 (1)	0 (0)	4 (2)	19 (11)	19 (10)	5 (2)	0 (0)	4 (1)	28 (13)

11.8.(B) 7. ENROLMENT IN MSW PROGRAMME, 2018-19 (GENDER WISE)

Master of Social Work (MSW)	I & II Semester	III & IV Semester
	7 (5)	10 (9)

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

11.8. (B).8. ENROLMENT IN MSW PROGRAMME, 2018-19 (CASTE WISE)

MSW	MSW I & II					MSW III & IV				
	OP	SC	ST	OBC	TOTAL	OP	SC	ST	OBC	TOTAL
	6 (4)	0 (0)	0 (0)	1 (1)	7 (5)	7 (7)	0 (0)	1 (0)	2 (2)	10 (9)

11.8.(B). 9. ENROLMENT OF RESEARCH SCHOLARS FOR PHD DURING 2018-19:

SL. NO.	Branch of Research Study	Gender Break Up		Caste Break Up				Total
		Male	Female	OP	SC	ST	OBC	
1	Biotechnology	17	26	26	9	1	7	43
2	Chemical Engineering	28	26	41	7	1	5	54
3	Chemistry	15	17	25	4	0	3	32
4	Civil Engineering	34	6	28	7	0	5	40
5	Computer Science & Engineering	80	39	90	5	7	17	119
6	Earth & Environmental Studies	9	3	9	0	0	3	12
7	Electrical Engineering	37	7	32	4	1	7	44
8	Electronics & Communications Engineering	58	16	57	8	1	8	74
9	Humanities & Social Sciences	19	12	23	2	0	6	31
10	Management Studies	21	8	27	1	0	1	29
11	Mathematics	40	14	39	7	0	8	54
12	Mechanical Engineering	52	2	36	10	1	7	54
13	Metallurgical & Materials Engineering	18	1	11	3	0	5	19
14	Physics	29	13	29	6	0	7	42
	Total	**457**	**190**	**473**	**73**	**12**	**89**	647

ANNEXURE – 11.8 (C) ADMISSION STATISTICS – UG & PG

11.8 (C) 1. THE NUMBER OF CANDIDATES ADMITTED TO B. TECH. PROGRAMMES FROM RURAL AND URBAN AREA DURING 2018-2019

SL. NO.	STATE	RURAL					URBAN					Overall Total
		OP	OB	SC	ST	TOTAL	OP	OB	SC	ST	TOTAL	
1	Andaman & Nicobar	4	0	2	0	6	8	6	0	0	14	20
2	Andhra Pradesh	28	40	12	6	86	22	16	3	1	42	128
3	Assam	1	1	3	1	6	1	0	0	1	2	8
4	Bihar	18	15	5	0	38	8	6	1	1	16	54
5	Chhattisgarh	0	2	0	1	3	0	0	1	0	1	4
6	Gujarat	2	0	0	0	2	1	0	0	0	1	3
7	Haryana	0	0	0	0	0	0	0	1	0	1	1
8	Jharkhand	2	5	1	5	13	2	2	0	3	7	20
9	Karnataka	0	0	0	1	1	0	0	0	0	0	1
10	Kerala	1	0	0	0	1	0	0	0	0	0	1
11	Madhya Pradesh	0	0	1	0	1	1	0	1	0	2	3
12	Maharashtra	0	0	0	0	0	2	0	0	0	2	2
13	Manipur	0	0	0	1	1	0	0	1	0	1	2
14	Nagaland	0	0	0	1	1	0	0	0	0	0	1
15	Orissa	3	1	1	1	6	9	1	0	0	10	16
16	Rajasthan	4	6	1	2	13	1	0	1	1	3	16
17	Tamil Nadu	0	0	0	0	0	1	0	0	0	1	1
18	Telangana	11	9	1	10	31	8	2	1	2	13	44
19	Tripura	1	0	0	0	1	0	0	0	0	0	1
20	Uttar Pradesh	13	8	11	0	32	17	8	5	0	30	62
21	Uttaranchal	0	1	0	0	1	1	0	0	0	1	2
22	West Bengal	61	42	31	11	145	108	48	23	4	183	328
TOTAL		**149**	**130**	**69**	**40**	**388**	**190**	**89**	**38**	**13**	**330**	**718**

11.8.(C).2. THE NUMBER OF CANDIDATES ADMITTED TO B.TECH & M. TECH DUAL DEGREE PROGRAMME FROM RURAL AND URBAN AREA DURING 2018-2019-1ST YEAR

SL. NO.	STATE	RURAL					URBAN					Overall Total
		OP	OB	SC	ST	TOTAL	OP	OB	SC	ST	TOTAL	
1	Andhra Pradesh	0	0	0	0	0	0	1	0	0	1	1
2	Assam	0	0	0	1	1	0	0	0	0	0	1
3	Uttar Pradesh	0	1	0	0	1	1	0	0	0	1	2
4	West Bengal	1	1	0	0	2	1	0	2	0	3	5
TOTAL		**1**	**2**	**0**	**1**	**4**	**2**	**1**	**2**	**0**	**5**	**9**

11.8.(C).2. THE NUMBER OF CANDIDATES ADMITTED TO INTEGRATED M.SC. PROGRAMME FROM RURAL AND URBAN AREA DURING 2018-2019-1ST YEAR

SL. NO.	STATE	RURAL					URBAN					Overall Total
		OP	OB	SC	ST	TOTAL	OP	OB	SC	ST	TOTAL	
1	Andhra Pradesh	1	0	0	0	1	0	0	0	0	0	1
2	Bihar	0	1	0	0	1	0	0	0	0	0	1
3	Chhattisgarh	0	0	0	2	2	0	0	0	0	0	2
4	Haryana	0	0	1	0	1	0	0	0	0	0	1
5	Orissa	0	0	0	0	0	1	0	0	0	1	1
6	Tripura	0	0	0	0	0	1	0	0	0	1	1
7	Uttar Pradesh	0	1	0	0	1	0	0	0	0	0	1
8	Uttaranchal	0	0	0	0	0	1	0	0	0	1	1
9	West Bengal	1	1	0	0	2	1	2	1	0	4	6
TOTAL		**2**	**3**	**1**	**2**	**8**	**4**	**2**	**1**	**0**	**7**	**15**

11.8.(C).3. THE RANKS (AIR) OBTAINED BY THE FIRST AND THE LAST CANDIDATES ADMITTED TO B.TECH PROGRAMME DURING 2018-2019-1ST YEAR

S L . NO.	STATE	OP		OB		SC		ST	
		1ST	LAST	1ST	LAST	1ST	LAST	1ST	LAST
1	Andaman & Nicobar	33427	291093	291093	659007	342983	666209	0	0
2	Andhra Pradesh	6732	271035	1887	69748	2069	168425	984	249993
3	Assam	14209	15480	144942	144942	50726	87006	771	78746
4	Bihar	6968	70403	3306	79642	61	108992	367561	367561
5	Chhattisgarh	0	0	22421	22421	76491	76491	643521	643521
6	Gujarat	7539	39668	0	0	0	0	0	0
7	Haryana	0	0	0	0	53851	53851	0	0
8	Jharkhand	16192	31589	14465	192415	108571	108571	2094	992352
9	Karnataka	0	0	0	0	0	0	202884	202884
10	Kerala	17045	17045	0	0	0	0	0	0
11	Madhya Pradesh	20422	20422	1925	3211	0	0	0	0
12	Maharashtra	25067	35854	0	0	0	0	0	0
13	Manipur	0	0	0	0	118211	118211	838	838
14	Nagaland	0	0	0	0	0	0	55273	55273
15	Orissa	9769	52601	6734	130900	2851	2851	0	0
16	Rajasthan	15152	25801	5007	70743	85890	107786	634	81992
17	Tamil Nadu	16627	16627	0	0	0	0	0	0
18	Telangana	6870	39453	11383	77255	2976	167778	669	295034
19	Tripura	8201	8201	0	0	0	0	0	0
20	Uttar Pradesh	4453	60803	2359	85519	1405	139583	0	0
21	Uttaranchal	17380	17380	22897	22897	0	0	0	0
22	West Bengal	5022	69366	5118	272703	1353	202602	1922	484650

11.8.(C).3. THE RANKS(AIR) OBTAINED BY THE FIRST AND THE LAST CANDIDATES ADMITTED TO B.TECH & M. TECH DUAL DEGREE PROGRAMME DURING 2018-2019-1ST YEAR

STATE	OP		OB		SC		ST	
	1ST	LAST	1ST	LAST	1ST	LAST	1ST	LAST
Andhra Pradesh	0	0	50923	50923	0	0	0	0
Assam	0	0	0	0	0	0	188329	188329
Uttar Pradesh	49270	49270	99909	99909	0	0	0	0
West Bengal	30069	44835	116153	116153	200317	270925	0	0

11.8.(C).3. THE RANKS(AIR) OBTAINED BY THE FIRST AND THE LAST CANDIDATES ADMITTED TO INTEGRATED M. SC. PROGRAMME DURING 2018-2019-1ST YEAR

SL. NO.	STATE	OP		OB		SC		ST	
		1ST	LAST	1ST	LAST	1ST	LAST	1ST	LAST
1	Andhra Pradesh	46744	46744	0	0	0	0	0	0
2	Bihar	0	0	63618	63618	0	0	0	0
3	Chhattisgarh	0	0	0	0	0	0	578135	590170
4	Haryana	0	0	0	0	171268	171268	0	0
5	Orissa	50103	50103	0	0	0	0	0	0
6	Tripura	62758	62758	0	0	0	0	0	0
7	Uttar Pradesh	0	0	122408	122408	0	0	0	0
8	Uttaranchal	68630	68630	0	0	0	0	0	0
9	West Bengal	75409	114979	63845	329114	320409	320409	0	0

11.8.(C).3. THE RANKS(AIR) OBTAINED BY THE FIRST AND THE LAST CANDIDATES ADMITTED TO B.TECH PROGRAMME DURING 2018-2019-1ST YEAR

BRANCH	OP		OB		SC		ST	
	1ST	LAST	1ST	LAST	1ST	LAST	1ST	LAST
BT	33151	612246	11383	519284	4194	342983	162242	295034
CHE	17159	36246	26777	192415	4634	176297	771	327115
CE	21378	260415	6601	261730	61	136117	838	485467
CSE	4453	207572	1887	67872	1353	112051	634	168217
ECE	8236	164571	3818	492901	1733	104407	3928	461067
EE	9865	227882	5007	508683	74924	666209	81992	304329
ME	12367	45029	5327	935384	2097	125366	984	367561
MME	28514	611542	31590	659007	5508	176303	154265	992352

11.8.(C).3. THE RANKS(AIR) OBTAINED BY THE FIRST AND THE LAST CANDIDATES ADMITTED TO B.TECH & M. TECH DUAL DEGREE PROGRAMME DURING 2018-2019-1ST YEAR

SL. NO.	BRANCH	OP		OB		SC		ST	
		1ST	LAST	1ST	LAST	1ST	LAST	1ST	LAST
1	BT	44835	49270	99909	99909	270925	270925	188329	188329
2	CHE	30069	30069	50923	116153	200317	200317	0	0

11.8.(C).3. THE RANKS(AIR) OBTAINED BY THE FIRST AND THE LAST CANDIDATES ADMITTED TO INTEGRATED M. SC. PROGRAMME DURING 2018-2019-1ST YEAR

SL. NO.	BRANCH	OP		OB		SC		ST	
		1ST	LAST	1ST	LAST	1ST	LAST	1ST	LAST
1	Chem	46744	114979	63618	329114	171268	320409	578135	590170

11.8.(C).4. THE NUMBER OF CANDIDATES ADMITTED TO B. TECH PROGRAMMES FROM VARIOUS ANNUAL INCOME GROUPS DURING 2018-2019 - 1ST YEAR

SL NO.	STATE	Below Rupees 1 lakh	Between Rupees 1 lakh to Rupees 5 lakhs	Above Rupees 5 lakhs	TOTAL
1	Andaman & Nicobar	0	3	17	20
2	Andhra Pradesh	81	13	34	128
3	Assam	3	3	2	8
4	Bihar	24	16	14	54
5	Chhattisgarh	3	0	1	4
6	Gujarat	1	0	2	3
7	Haryana	0	1	0	1
8	Jharkhand	7	2	11	20
9	Karnataka	1	0	0	1
10	Kerala	0	1	0	1
11	Madhya Pradesh	1	0	2	3
12	Maharashtra	0	0	2	2
13	Manipur	1	1	0	2
14	Nagaland	1	0	0	1
15	Orissa	3	6	7	16
16	Rajasthan	5	2	9	16
17	Tamil Nadu	0	0	1	1
18	Telangana	24	9	11	44
19	Tripura	0	0	1	1
20	Uttar Pradesh	30	12	20	62
21	Uttaranchal	0	1	1	2
22	West Bengal	73	88	167	328

11.8.(C).4. THE NUMBER OF CANDIDATES ADMITTED TO B. TECH & M. TECH DUAL DEGREE PROGRAMME FROM VARIOUS ANNUAL INCOME GROUPS DURING 2018-2019 - 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	1	0	0	1
2	Assam	0	1	0	1
3	Uttar Pradesh	1	0	1	2
4	West Bengal	0	3	2	5

11.8.(C).4. THE NUMBER OF CANDIDATES ADMITTED TO INTEGRATED M. SC. PROGRAMME FROM VARIOUS ANNUAL INCOME GROUPS DURING 2018-2019 - 1ST YEAR

S L NO.	STATE	Below Rupees 1 lakh	Between Rupees 1 lakh to Rupees 5 lakhs	Above Rupees 5 lakhs	TOTAL
1	Andhra Pradesh	1	0	0	1
2	Bihar	1	0	0	1
3	Chhattisgarh	1	0	1	2
4	Haryana	1	0	0	1
5	Orissa	0	0	1	1
6	Tripura	0	0	1	1
7	Uttar Pradesh	1	0	0	1
8	Uttaranchal	0	0	1	1
9	West Bengal	1	1	4	6

11.8.(C).5. THE DETAILS OF ADMISSION TO THE PG PROGRAMMES DURING 2018-2019-1ST YEAR

Department	PG Program	OPEN	OBC	SC	ST	TOTAL
Physics	Advanced Material Science & Technology	7	5	0	1	13
Biotechnology	Biotechnology	6	3	1	1	11
Chemical Engineering	Chemical Engineering	7	3	0	0	10
Computer Science & Engineering	Computer Science & Engineering	21	18	10	3	52
Earth and Environmental Studies (Coordinating)	Environmental Science & Technology	6	5	3	1	15
Mechanical Engineering	Fluid Mechanics and Heat Transfer	5	7	2	2	16
Civil Engineering	Geotechnical Engineering	4	7	3	0	14
Mechanical Engineering	Machine Design	7	5	2	0	14
Metallurgical and Materials Engineering	Metallurgy and Materials Technology	7	5	0	0	12
Electronics and Communication Engineering	Microelectronics & VLSI	8	4	3	1	16
Mathematics	Operations Research	4	4	3	1	12
Electrical Engineering	Power Electronics & Machine Drives	7	7	0	0	14
Electrical Engineering	Power Systems	5	8	2	1	16
Civil Engineering	Structural Engineering	8	5	3	0	16
Electronics and Communication Engineering	Telecommunication Engineering	6	4	0	0	10
Mechanical Engineering	Thermal Engineering	7	5	3	1	16
	Total M. Tech.	115	95	35	12	257
Chemistry	MSC in Chemistry	8	4	3	1	16
Physics	MSC in Physics	8	2	3	0	13
Mathematics	MSC in Mathematics with Computer Applications	6	4	3	1	14
Humanities and Social Sciences	Masters in Social Work	6	1	1	0	08
Management Studies	MBA	14	5	1	0	20
Computer Science and Engineering	MCA	14	6	5	2	27
	Total Admission					**355**

11.9(B) AWARDS DURING 2018-19

DEPARTMENT OF CHEMICAL ENGINEERING

Halder G. N. Young Research Scientist Award-EET CRS 5th Faculty Branding Awards-17, Education Expo, New Delhi

Pal P., Chemical Engineering received HIYOSHI ENVIRONMENT AWARD 2018 from Hiyoshi Corporation, Japan in recognition for his work on protection of Environment.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Kisku, D.R. is a recipient of Certificate of Outstanding Contribution in Reviewing conferred by Informatics in Medicine Unlocked, Elsevier, Amsterdam, Netherlands, September 2018.

Kisku, D.R. is a recipient of IEI-FCRIT Excellence Award jointly conferred by The Institution of Engineers (India) & FCRIT, January 2019

DEPARTMENT OF ELECTRICAL ENGINEERING

Prof. S. Banerjee & his team received (i) Best paper award in 3rd Regional Science and Technology Congress (Western Region), DST, WB (ii) 'Outstanding Paper Award' in 26th West Bengal State Science & Technology Congress, 2019.

'Best M.Tech Project Award' at NIT Durgapur in 2018 under supervision of Prof. S. Banerjee.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

1. Dr. A. Chandra received one month fellowship to visit Slovak University of Technology, Bratislava, Slovakia under the National Scholarship Programme of the Slovak Republic (NSP) funded by the Ministry of Education, Science, Research and Sport of the Slovak Republic.
2. Dr. G.K. Mahanti is nominated as Start-up Mentor,Government of Jharkhand
3. Dr. G.K. Mahanti is nominated as Member, Board of Studies of ECE department, Veer Surendra Sai University of Technology (VSSUT), Burla, Odisha
4. Dr. S. Dhar Roy has become Senior Member, IEEE
5. Prof. S. Kundu member Board of studies, Jawaharlal Nehru Technical University, Hyderabad.

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

1. Bera S. – DAAD Summer fellowship

ANNEXURE–11.10 (A) VOCATIONAL TRAINING

SL.NO	NAME OF THE COMPANY	SL.NO	NAME OF THE COMPANY
1	NUVOCO	36	CERN
2	GAIL	37	L & T
3	DALMIA CEMENT	38	TATA MOTORS
4	M. N. DASTUR	39	CLW
5	MICROSOFT	40	WBSEDCL
6	HCL	41	MIDHANI
7	TCS	42	NTPC
8	HDFC BANK	43	MITACS (Canada)
9	NTU (Singapore)	44	ISRO,NRSC
10	SCHNEIDER ELECTRIC	45	VODAFONE INDIA Ltd.
11	BEL	46	COAL INDIA Ltd.
12	MAHINDRA & MAHINDRA	47	ASHOK LEYLAND
13	IIT KHARAGPUR	48	CROMPTON GREAVES
14	MARUTI SUZUKI	49	TOYOTA
15	JSW	50	MECON
16	TIL	51	OYO ROOMS
17	PEPSI CO.	52	KHORANA PROGRAMES
18	ESSAR	53	NIMS (Japan)
19	CMERI DURGAPUR	54	WIPRO
20	IOCL	55	DOUBTNUT

SL.NO	NAME OF THE COMPANY	SL.NO	NAME OF THE COMPANY
21	BAARC	56	MAQ SOFTWARE
22	DRDO	57	JSPL
23	HPCL	58	TATA METALIKS
24	SAIL DSP	59	RIL
25	IISCO	60	EDVIZO
26	TATA METALICKS		
27	CPWD		
28	SHAPOORJI PALLONJI		
29	SIMPLEX		
30	VIZAG STEEL PLANT		
31	DPL		
32	MTNL		
33	BHEL		
34	BSNL		
35	ITC		

ANNEXURE–11.10(B) PLACEMENT STATISTICS DURING 2018 – 2019

Sl. No.	NUMBER OF STUDENTS PLACED (BRANCH WISE)									
	B.Tech									
	BT	CHE	CE	CSE	ECE	EE	IT	ME	MME	TOTAL
Total Company Visited	102									
Eligible Students	68	59	48	88	98	90	84	130	69	734
Total Job Offered	32	47	21	89	86	86	89	120	50	620
Double Jobs	4	11	2	11	15	18	18	18	9	106
Total Placed	28	36	19	78	71	68	71	102	41	514
Percentage Placed	41.18	61.02	39.58	88.64	72.45	75.56	84.52	78.46	59.42	70.03

Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED (BRANCH WISE)																		
			M.Tech Specialization																		
			BT	CE		CHE	CSE			ECE		EE		ME			MME	HSS	PHY	MATH	EES	TOTAL
			BT	GE	SE	CHE	CS	SE	IT	TELE	VLSI	PE	PS	MD	FM	TE	MMT	MSW	AMST	OR	EST	
	Strength		12	14	16	6	15	8	8	9	16	15	15	15	15	16	12	9	15	14	15	245
	Total Placed		0	0	3	0	9	1	5	0	2	0	1	0	0	0	0	6	0	2	0	29
	Total Job Offered		0	0	3	0	11	2	9	0	2	0	1	0	0	0	0	6	0	2	0	36

MCA: 2018-19

[0- CONSIDERED BUT NOT SELECTED]

Sl. No.	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED
	Eligible Students		34
	Total Placed		14
	Total Job Offered		15

Sl. No.	COMPANIES Visited								
1	INFOSYS	26	GREY-B	51	CAPITAL AIM	76	JSW STEEL	101	COLLEGEDUNIA
2	TCS NINJA	27	WIPRO	52	VODAFONE	77	DXCORR	102	RELIANCE NAVAL
3	IBM	28	PWC	53	COGNIZANT	78	NUVOCO		
4	J. P. MORGAN	29	AXIS BANK	54	ELEGANTSHIP	79	GLOCAL HEALTH		
5	GOLDMAN SACHS(PPO)	30	RELIANCE JIO 1	55	HALDIA PETROCHEMICALS	80	TATA METALIKS		
6	TCS	31	M.N. DASTUR	56	SAMSUNG R&D	81	AARTI INDUSTRIES		
7	MICROSOFT	32	EQ TECHNOLOGIC	57	RAO IIT	82	SMS INDIA		
8	AXXELA	33	KPIT	58	TCE	83	M-PHASIS		
9	MAQ SOFTWARE	34	VALUED EPISTEMICS	59	CONDUENT	84	AXIS INSTITUTE		
10	CAPGEMINI	35	NOVARTIS	60	SASKEN	85	TATA IQ		
11	CODENATION	36	SAINT GOBAIN	61	INTELLECT DESIGN	86	HMEL		
12	YODLEE	37	ASHOK LEYLAND	62	Mahindra & Mahindra	87	IOCL		
13	OYO	38	RELIANCE INDUSTRIES	63	AVANTI LEARNING	88	C-DOT		
14	AMDOCS	39	ADOBE	64	TATA TINPLATE	89	IMEG		
15	INFOSYS	40	TATA MOTORS	65	ERICSSON	90	PRADAN		
16	ZS ASSOCIATES	41	TEJAS NETWORK	66	JSL	91	PIRAMAL FOUNDATION		
17	HSBC	42	RELIANCE JIO 2	67	ADITYA BIRLA	92	mTATVA		
18	FACTSET	43	VEDANTA	68	AVANTI FELLOWS	93	SIGMOID		
19	MAHINDRA COMVIVA	44	THERMAX (PPO)	69	RAAM GROUP	94	STELLARIX		
20	MU SIGMA	45	TATA METALIKS (PPO)	70	GENPACT	95	STERLING & WILSON		
21	L&T (Construction)	46	CESC (PPO)	71	UBER	96	ITD CEMENTATION		
22	L&T POWER	47	AMAZON (PPO)	72	DXC TECHNOLOGY	97	WHEELSEYE		
23	OFSS	48	AAKASH INSTITUTE	73	AZIM PREMJI	98	M-JUNCTION		
24	HERO MOTOCORP	49	ABZOOBA	74	DAIMLER	99	VISA STEEL		
25	VIRTUSA	50	PCBL	75	CAPARO	100	QUALCOMM		

ANNEXURE 11.11(A) NON-PLAN GRANT

Non-Plan Grant received in 2018-2019- Rs. 10833.00 Lakhs

ANNEXURE 11.11(B) PLAN GRANT

Plan (General) Grant received in 2018-2019- Rs. 2566.00 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

ANNEXURE 11.12(A) CONSTRUCTION WORK COMPLETED/ IN PROGRESS DURING THE YEAR 2018-19 (PLAN GRANT PROJECT)

1 1250 Seated Boy's Hostel Construction work Internal as well as External finishing work is completed. Handing over of the building is in progress.

2 1500 Seated Auditorium : Work is in progress.

3 Raising of Boundary wall of campus : Work is in progress.

4 Exterior painting of quarters : Work is completed.

5 Relaying and Renovation of Sewer Line : Work is in progress.

6 (a) Construction of concrete pavement road : Work is completed;

(b) Renovation of flexible pavement of campus road : Work is in progress.

7 Construction of conference room & Faculty Room on existing 2nd floor of Mechanical Engineering Department : Work is in progress.

8 Renovation of Central Library : Civil, Electrical & Lift work are in progress.

9 Augmentation of Civil & Electrical facilities of Lecture Halls and Lectures Galleries (LH & LG) : Some of them are in use and work is in progress for others.

10 Construction of boundary wall of 1st year Hostel : Work is completed.

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

Department	Laboratories
Civil Engineering	PG Structural Laboratory, Concrete and Structure Laboratory, Highway Engineering Laboratory, Surveying Laboratory, Environmental Engineering Laboratory, Soil Mechanics Laboratory, Water Resources Engineering Laboratory, Exciter and FFT analyser for Earthquake Laboratory, SHM Laboratory
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 Lsab, Advanced Control Systems Lab, Process Instrumentation Lab, Digital Signal Processing Lab, Embedded Systems Lab, Computation Lab, Electrical Drives Lab
Electronics & Communication Engineering	Advanced Communication Lab (for PG), Computer architecture Lab, Communication Lab, Digital Electronics Lab, Electronics Circuit Lab, Instrumentation Lab, Microprocessor Lab, Microwave Lab, Microwave and Antenna Research Laboratory, Microwave Component Design Laboratory, Network Lab, Nano Device Lab, VLSI Lab,
Mathematics	Computer Laboratory
Mechanical Engineering	Automobile Laboratory, CAD /CAM Laboratory, CFD Laboratory, Fluid Mechanics & Hydraulic Machines Laboratory, Heat Power Laboratory, Machine Computation & Computer Graphics Laboratory, Machine Dynamics Laboratory, Manufacturing Science Laboratory, Metrology Laboratory, Production Eng. Lab. Robotics & AI Laboratory, Simulation 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 has been selected as one of the Mentor Institute under TEQIP III in 2017-18 and got responsibility for mentoring two Institutes: i) Dumka Engg. College, Dumka, Jharkhand and ii) NIT Nagaland as Mentee Institutes. Under TEQIP III, NIT Durgapur has got a sanction of Rs. 7 crore and 3 crore additional for Centre of Excellence (COE) on Advanced Materials. Out of total allocation of 10 crores, 4.4 crores can be utilized for procurement (3.5 crores under TEQIP III and 0.9 crores under COE) and rest for academic activities like students' learning, students' assistantship, faculty & staff development, R & D, Reforms, I-I-I, Mentoring etc. and operating cost. Most of the activities got momentum since financial year 2018-19.

Expenditure in TEQIP III in 2017-18 was about 20 lakhs and in 2018-19 was about 100 lakhs while it will be 491 lakhs by next year due to strengthening of different activities. The procurement of items for 4.25 crores were ordered and out of which, items of Rs. 2.3 crores have been received. The actual expenditure under academic head and IOC is about 2.66 crores.

Twinning activities with Dumka Engg. College are going on quite well while twinning activities with NIT Nagaland needs more attention for improvement.. It can be noted that second performance audit of the Institute has achieved the performance benchmark of Mentor Institute as set by NPIU.

ANNEXURE-11.15 ALUMNI

Centre for Alumni Affairs & International Relations (CAAIR)

The Centre for Alumni Affairs & International Relations (CAAIR) is functioning at the Institute as a nodal centre for maintaining liaison with NIT Durgapur Alumni all across the globe and to involve them in the all-round development and growth of the Institute. NIT Durgapur is proud to have as its Alumni a group of over 25000 Engineers, Technocrats, Scientists, managers and Entrepreneurs. They are our global brand ambassadors. This office promotes and encourages the Alumni to exchange professional knowledge by undertaking and facilitating seminar, lectures and meeting amongst Alumni, students, faculty and others. The office is also entrusted with developing institutional partnership and collaboration with other organization such as universities in India and abroad, academic and research institutes and industries.

The Alumni cell shall have the following broadly identified objectives:

- To establish and maintain contact with Alumni.
- To promote and strengthen engagement, research collaborations and consultancy relationships among students, Alumni and institute.
- To strengthen Industry-Institute-Interaction through our Alumni for the benefit of the students.
- To establish endowments by contribution to extend financial and other assistance to deserving present students and alma maters for educational, research and development purposes.
- To provide common platform for exchange of ideas and disseminating knowledge in Professional area.
- To provide common platform where alumni can submit their accomplishments in the Alumni achievement section.
- To support alumni networking activities and events such as reunions for mutual benefit of the alumni and present students.
- To support Pan NIT activities.
- To perform any other constructive activities leading towards the enhancement of the internship and employment opportunities.

Centre for Alumni Affairs & International Relations (CAAIR) has started an Eminent Alumni Lecture series by distinguished alumni member from Industry, R&D, and academia. We have many alumni members who are doing exceedingly well in academia, research, industries, entrepreneurship and other areas. In line with our objective of giving back to our beloved alma mater, we like to share knowledge and wisdom of these eminent alumni members with the students and faculty. Initially, the lecture series is being delivered in person. We may plan this lecture through conferencing so that we may induct people particularly from abroad.

EMINENT ALUMNI LECTURE

Lec. No.	Date	Speaker		Affiliation	Topics	Venue
1	28.09.2018	Kingshuk Ghosh	1972, BE, Mechanical Engg.	Head, Mechanical Design, CSME, Kolkata	A General Approach to the Design & Manufacturing Practice of Cylindrical Gear Speed Reducers	ME Seminar Room
2	05.10.2018	Rathindranath Maiti	1974, BE, Mechanical Engg.	Former Professor, Dept. of Mechanical Engineering, IIT Kharagpur	Design Evolution of ORBIT Motor	ME Seminar Room
3	26.02.2019	Jaydeb Manna	1993, BE, Electrical Engg.	Indian Oil Corporation Limited	Operations of multi-product cross country Pipelines & it's cathodic protection	Assembly Hall
4	01.03.2019	Hemendranath Bhattacharya	1976, BE, Mechanical Engg.		Mechanical System Design	D M Sen Auditorium
5	01.03.2019	Subir Kumar Saha	1983, BE, Mechanical Engg.	IIT Delhi	Rural Technology	ME Seminar Room

EMINENT EXPERT LECTURE

Lec. No.	Date	Speaker	Affiliation	Topics	Venue
1	27.03.2019	Prof. Sriman Kr. Bhattacharyya	Department of Civil Engineering Deputy Director IIT Kharagpur and Former Director CSIR-Central Building Research Institute, Roorkee	Embracing Industry 4.0 - Emergence of Research Areas	Seminar Room-1, S.N. Roy Memorial Building

INDUSTRY-INSTITUTE INTERACTION

Sl. No.	Date	Speaker	Topics	Venue	Remarks
1	25.07.2018	Debkanti Bandopadhyay	Steel Industry: Global & National Perspectives	ME Seminar Room	
2	04.09.2018	Chinmoy Samajder	Economics of Steel Production	DSP, Durgapur	
3	28.09.2018	Kingshuk Ghosh	Industrial Practice in Designing of Mechanical Drives	NIT Durgapur	TEQIP-III sponsored

CONSULTATION COMMITTEE FOR INDUSTRY-

Institute Interaction has been formed by the senate with following members,

1 Prof. Nilotpal Banerjee- Dean (AA&O) & Chairperson
2 Prof. K. C. Ghanta, Co-ordinator, TEQIP-III, Invited Member
3 Prof. Subrata Banerjee, Convenor Member
4 Prof. Shibendu Shekhar Roy, Associate Dean(AA&O) & Member
5 Mr. S. Chattopadhyaya- General Manger (Power & Electrical), Member
6 Dr. Lipika Dey-TCS Innovation Lab, Member
7 Dr. O.V.Rajan- DYC, Durgapur, Member

The following points were discussed and taken as the major objectives of the committee.

- For curricula revision and development of new curricula, experts from Industry will be invited in every department

of the Institute for improvement of teaching learning processes and to enhance employability of students.

- Invited lectures (as per curricula) from industry experts for UG and PG students are to be increased. Adjunct faculty from industry may be invited subject to approval from competent authority in this regard.
- More number of industry employees are to be encouraged to enrol in ongoing sponsored PG and Industry research programme at NIT Durgapur.
- Faculty members are to be encouraged to undertake more industry sponsored research and consultancy project.
- Exposure to industry for both students and faculty are to be increased by regular visits to industry. Industry practices such as internship & training, educational tour, undertaking industry based project, joint guidance of UG/PG project between faculty and industry expert may be encouraged.
- Memorandum of Understanding (MOU) between NIT Durgapur and some industries like DSP, DVC may be signed for carrying out collaborative activities with mutually agreed terms and conditions.

  Memorandum of Understanding (MOU) between NIT Durgapur and some industries like DSP is under process.
- It is proposed that now onwards, the external committee members from Industry (DSP, DVC & TCS) will deliver lectures in the respective department followed by meeting on the same day for their convenience.
- To strengthen the industry institute interaction programme one coordinator from each department will be nominated by the department who will coordinate the aforesaid activities for his department.

ASOKE SEN DESIGN & INNOVATION CENTRE

Asoke Sen Design & Innovation Centre has been established in the name of Legendary Professor Late Asoke Sen (Former Faculty, Department of Mechanical Engineering, R.E.College Durgapur) in NIT Durgapur which is fully funded by Alumni of this Institute, to promote the culture of innovation among among a wide cross section of students and faculty.

The centre will have the following specific objectives:

- To promote and enhance culture of interdisciplinary design-focused innovation and creativity among students.
- To serve as a place that imparts design based education and practice systematic design through projects.
- To help the students with facilities and administrative support to develop innovative ideas into industrial products.
- To create an ecosystem facilitating students and faculty to take their innovative ideas from class rooms/labs to people.
- To facilitate interdisciplinary design-focused education, research and entrepreneurial activities in order to build partnerships between academics and industry.
- To promote increased interaction and collaborations with institute and R&D organizations world-wide working in the areas of design and innovation.
- To promote, nature and advance the culture of design and innovation in the country leading to significant contributions and breakthroughs impacting quality of human living.
- To develop facilities for fabrication, testing and optimization of prototypes.
- To develop low cost rural technologies to make value additions of rural resources for self-sustainable livelihood and inclusive economic growth including employment generation.
- To conduct training programmes in the related areas for professional skill development.
- To educate our budding engineers on product design and development technologies and specialized skills development by way of conducting workshops, seminars, awareness programs, short term courses and formal or non-formal interactions from time-to-time.
- To Generate Intellectual Properties (IP) in terms of patents and high quality technical publications.
- To constitute a working group of innovators comprising academicians, scientists, Alumni and industry stakeholders, traditional craftsmen and artisans, and social entrepreneurs

NIT Durgapur Students Alumni Cell is a voluntary student body working under the aegis of the Dean (Alumni Affairs and Outreach). This Alumni cell is an integral organ of Centre for Alumni Affairs & International Relations, which is completely dedicated towards fostering the bond between students and alumni and has acted as a common platform for networking and interaction. The Cell helps the alumni in staying connected to their alma mater. Through regular interactions with the students, the alumni get a chance to share their experiences and impart the knowledge they have acquired to the next generation of NITDians. Also, with this interchange, they get a glimpse of the young minds of the nation.

This Student Alumni cell under CAAIR has been instrumental in organising the Eminent Alumni Lecture, Student-Alumni in the campus, Industry-Institute Interaction Program., Reunion of different batches and publishing the annual yearbook. With

the aim of mending the broken link between students and alumni, Alumni Cell launched Alumni-Student Mentorship Program with the belief that close interaction with alumni will help students gather invaluable advice regarding overall development and will also aid them in taking crucial informative life-changing decisions.

By executing alumni-driven initiatives for the benefit of students, assisting Alumni in different cities and branding NITDIAN for organising NITDIAN seminar, various reunions and bridging the connectivity gap between the Institute and alumni allows Alumni Cell volunteers to get an insider's view into the alumni world. It is also working for the betterment of the Institute also motivates students to understand the values created by all well-wishers of NIT Durgapur. Through the efforts of Alumni Cell, alumni of REC/NIT Durgapur are now able to pro-actively contribute towards the betterment of their alma mater.

The Student Alumni Body or Team of Student Volunteers was formed with the aim to involve the students in the Alumni Activities from their student-hood itself. The body is to promote the interests of and understanding between the students of the past, present, and future NIT Durgapur through the programs and services offered by their organization. The objective is to educate the general students with a better understanding of the NIT Durgapur Alumni Network and likewise bring the alumni community up to date with the current student body. It is with the endeavour to promote tradition and unity within the Institute to ultimately preserve a lifelong connection for all those who pass through the portals of NIT Durgapur.

ANNEXURE-11.16 OTHER RELEVANT INFORMATION

ANNEXURE 11.16 (A): BOOKS AUTHORED DURING 2018-19

DEPARTMENT OF BIOTECHNOLOGY

Author	Title of the book	Publisher	Date of Publication
Pal Siddhartha,Roy Ajoy & Kazy Sufia K.	Exploring microbial diversity and function in petroleum hydrocarbon associated environments through omics approaches. Book Chapter In: Surajit Das and Hirak Dash (eds): Microbial Diversity in the Genomic Era	Elsevier	28/9/2018

DEPARTMENT OF CHEMICAL ENGINEERING

Author	Title of the book	Publisher	Date of Publication
Mondal, M. & Halder G. N.	New and Future Developments in Microbial Biotechnology and Bioengineering	Elsevier	21.06.2019
Dhawane S. H, & Halder G. N.	Advances in Feedstock Conversion Technologies for Alternative Fuels and Bioproducts	Elsevier	01.03.2019

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Author	Title of the book	Publisher	Date of Publication
Kisku, D.R., Gupta, P., & Sing, J.K.	Design and Implementation of Healthcare Biometric Systems	IGI Global, USA	January 2019

DEPARTMENT OF MECHANICAL ENGINEERING

Author	Title of the book	Publisher	Date of Publication
Podder, Bikramjit, Katta, Ramesh Kumar, Hui, Nirmal Baran	Manufacturing Analytics for Cold Flow Forming of H30 Aluminium Tubes	LAP Lambert Academic Publishing	2019-06-03

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Author	Title of the book	Publisher	Date of Publication
Acharya, Saikat, Ghosh, K.S., Mondal, D.K. & Mukhopadhyay, A. K.	Book Chapter Title: Design issues in high strain rate dynamic compressive failure of structural ceramics, polymers and composites	Microscopy Applied to Materials Sciences and Life Sciences, Chapter 9, 207, Applied Academic Press, CRC, Francis and Taylor	2018.

DEPARTMENT OF PHYSICS

Author	Title of the book	Publisher	Date of Publication
Editors:Gangopadhyay T., Kumbhakar P. and Mondal M K	Photonics and Fiber Optics: Foundations and Applications.	CRC Press	Accepted 2019

ANNEXURE 11.16 (B).I: REVIEWS OF MANUSCRIPTS FOR PUBLICATION IN JOURNALS (SORT ALPHABETICALLY BY COLUMN 1, SURNAME)

DEPARTMENT OF BIOTECHNOLOGY

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Chaudhuri, S.	Food Research International	Elsevier	September 28, 2018, June 08, 2018, April 29, 2018
Dutta, D.	Preparative Biochemistry & Biotechnology	Taylor and Francis	July 2018
Dutta, D.	LWT - Food Science and Technology	Elsevier	November 2018
Dutta, D.	Journal of Food Science and Technology	Springer	January 2019
Dutta,D.	Biochemistry and Biophysics Reports	Elsevier	January 2019
Kazy, S. K.	Archives of Microbiology	Springer	15/01/2019
Mukherjee, O.	Gut pathogens	BioMed Central Ltd	04.02.2019
Saha, S.	Pharmacognosy Research	Wolters Kluwer - Medknow Publications	25/02/2019

DEPARTMENT OF CHEMICAL ENGINEERING

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Dutta, S.	Journal of Hazardous Materials	Elsevier	Dec 11, 2018
Dutta, S.	Environmental Progress and Sustainable Energy	Springer	Feb 01, 2019
Dutta, S.	Environmental Science and Pollution Research	Springer	July 18, 2018
Dutta, S.	Separation Science and Technology	Taylor and Francis	May 02, 2018
Pal P	International Journal of Env. Sc. & Tech	Springer	1/12/2018
Pal P	Chemical Engineering & Processing: Process Intensification	Elsevier	1/12/2018
Pal P	Biochemical Engg. J.	Elsevier	7/12/2018
Pal P	Chemical Engg. Science	Elsevier	9/12/2018
Pal P	Journal of Env. Management	Elsevier	17/12/2018
Pal P	Water Sci. & Tech	IWA	20/12/2018
Pal P	Chemical Engineering Journal	Elsevier	28/12/2018
Pal P	Aqua	Elsevier	31/12/2018

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Pal P	Separation & purification Technology, Elsevier	Elsevier	14/1/2019
Pal P	Biochemical Engineering Journal	Elsevier	15/1/2019
Pal P	Environmental Tech	Taylor & Francis	28/1/2019
Pal P	Carbon	Elsevier	12/2/2019
Pal P	Journal of Cleaner Production	Elsevier	20/3/2019
Pal P	Water Sci. & Tech	IWA	26/3/2019
Pal P	Separation & purification Technology	Elsevier	26/3/2019
Pal,P.	International Journal of Environmental Science & Technology	Springer	15/4/18
Pal,P.	International Journal of Environmental Science & Technology	Springer	15/4/18
Pal,P.	Separation and Purification Technology	Elsevier	25/4/2018
Pal,P.	Journal: Separation Purification Technology	Elsevier	28/4/2018
Pal,P.	Biochemistry Review	Elsevier	29/4/2018
Pal,P.	Separation and Purification Technology	Elsevier Science	9/5/2018
Pal,P.	Chemical Engineering Science	Elsevier	12/5/2018
Pal,P.	Water Science and Technology	IWA	24/5/2018
Pal,P.	Chemosphere	Elsevier	2/6/2018
Pal,P.	Applied Water Science	Elsevier	11/6/2018
Pal,P.	Chemosphere	Elsevier	14/6/2018
Pal,P.	Biochemical Engineering Journal	Elsevier	20/6/2018
Pal,P.	Environmental Nanotechnology, Monitoring & Management	Elsevier	25/6/ 2018,
Pal,P.	Chemical Engg. & Technology	Wiley	7/7/2018
Pal,P.	Separation and Purification Technology	Elsevier	15/7/2018
Pal,P.	International Journal of Env. Sc. & Tech	Springer	26/7/2018
Pal,P.	Science of the Total Environment	Elsevier	3/8/2018
Pal,P.	Biochemical Engg. Journal	Elsevier	13/8/2018
Pal,P.	Chemical Engg. Journal	Elsevier	24/9/2018
Pal,P.	Chemical Engineering & Processing	Elsevier	30/9/2018
Pal,P.	International Journal of Env. Sc. & Tech	Springer	5/10/2018
Pal,P.	Water Science and Technology	IWA	21/10/2018
Pal,P.	International Journal of Env. Sc. & Tech	Springer	19/11/2018
Pal,P.	Journal of Membrane Science	Elsevier	25/11/2018
Pal,P.	Journal of Cleaner Production	Elsevier	25/11/2018
Paruya, S.	Progress in Nuclear Energy	Elsevier	Feb 8, 2019
Paruya, S.	AIChE Journal	AIChE	July 04, 2018

DEPARTMENT OF CHEMISTRY

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Adhikari Utpal	Material Chemistry and Physics	Elsevier	04.07. 2018
Adhikari Utpal	New Journal of Chemistry	Royal Society of Chemistry	08.02. 2019
Adhikari Utpal	Material Chemistry and Physics	Elsevier	23.03 2018
Chakrabarty J.	Heliyon	Elsevier	04.03 2019
Chakrabarty J.	Spectroscopy Letters	Taylor & Francis	15.10.2018
Moi S. C	J. of Molecular Liquids	Elsevier	30.09.2018
Moi S. C	J. of Physical chemistry	ACS	23.12.2018
Moi S. C.	Chemical Papers	Springer	09.05.2018
Moi S. C.	Research on Chemical Intermediates	Springer	04.05.2018
Moi S. C.	Inorganica chemica acta	Elsevier	16.07.2018
Moi S.C.	RSC Advance	RSC	06.06.2018
Mukhopadhyay B.P.	Journal of Biomolecular Structure & Dynamics	Taylor and Francis	30.04.2018
Mukhopadhyay B.P.	Journal of Biomolecular Structure & Dynamics	Taylor and Francis	03.06.2018
Mukhopadhyay B.P.	Journal of Biomolecular Structure & Dynamics	Taylor and Francis	09.08.2018
Mukhopadhyay B.P.	Journal of Biomolecular Structure & Dynamics	Taylor and Francis	14.09.2018
Mukhopadhyay B.P.	Journal of Biomolecular Structure & Dynamics	Taylor and Francis	15.11.2018
Mukhopadhyay B.P.	Journal of Biomolecular Structure & Dynamics	Taylor and Francis	04.12. 2018
Panja S S	Spectrochimica Acta	Elsevier	26.03.2018
Patra A. K.	Polyhedron	Elsevier	01.03.2018
Saha T. K.	ACS Omega	ACS	11/2018
Sukul D.	J. Molecular Structure	Elsevier	15.03.2018
Sukul D.	J. Adhesion Sci Tech.	Taylor & Francis	20.03.2018

DEPARTMENT OF CIVIL ENGINEERING

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Datta, A.K.	Civil Engineering and Architecture	Horizon Research Publishing (HRPUB) USA	Jan. 30, 2019
Samanta A.K	Asian Journal of Civil Engineering Paper ID : AJCE-D-18-00373	Springer	Sept 2018

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Pal T.	Transactions on fuzzy Systems (TFS-2018-0877)	IEEE	Jan. 04, 2019
Pal T.	Soft Computing (SOCO-D- 18-01179)	Springer Berlin Heidelberg	Jan. 13, 2019
Pal T.	Transactions on fuzzy Systems (TFS-2018-0762)	IEEE	Feb. 11, 2019
Pal T.	Access-2019-06100	IEEE	March 22, 2019
Pal T.	Engineering Science and Technology, an International Journal (JESTCH_2018_517)	Elsevier	July 01, 2018
Pal T.	Engineering Science and Technology, an International Journal JESTCH_2018_591	Elsevier	July 18, 2018
Pal T.	Transactions on Systems, Man and Cybernetics: Systems (SMCA-18-06 0814)	IEEE	August 06, 2018
Pal T.	Transactions on fuzzy Systems (TFS-2018-0623)	IEEE	Sep. 20, 2018
Mukhopadhyay S.	Electronic Commerce Research (ELEC	Springer	Jul 25, 2018.

DEPARTMENT OF ELECTRICAL ENGINEERING

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Acharjee P.	IET Generation, Transmission & Distribution	IET	Aug, 2018
Acharjee P.	IET Generation, Transmission & Distribution	IET	Dec, 2018
Acharjee P.	IEEE Systems Journal	IEEE	Oct, 2018
Acharjee P.	IEEE Transactions on Smart Grid	IEEE	Nov, 2018
Bhattacharya A.	IEEE Transaction on Power System	IEEE	December 2018
Bhattacharya A.	Electric Power Components and Systems	Taylor & Franncis	January 2019
Bhattacharya A.	Applied Soft Computing (Elsevier)	Elsevier	March 2019
Ahmed Irfan	IEEE Transactions on Industrial Electronics	IEEE	Nov, 2018
Bhattacharya A.	Reliability Engineering and System Safety	Elsevier	March 2019
Bhattacharya A.	Applied Energy	Elsevier	March 2019
Bhattacharya A.	Simulation Modelling Practice and Theory	Elsevier	March 2019
Bhattacharya A.	International Journal of Electrical Power and Energy Systems	Elsevier	February 2019
Banerjee S.	IEEE Transactions on Industrial Electronics	IEEE	Dec, 2018
Ghosh S.	Journal of Computational Design and Engineering	Elsevier	August, 2018
Ghosh S.	International Journal of Electrical Power and Energy Systems	Elsevier	March, 2019
Saha T. K.	IEEE Transactions on Industrial Electronics	IEEE	May, 2018
Saha T. K.	IEEE Transactions on Industrial Electronics	IEEE	June, 2018
Saha T. K.	IEEE Transactions on Industrial Electronics	IEEE	July, 2018
Mahato S. N.	Electric Power Components and Systems	Taylor & Franncis	May, 2018
Saha Roy B. K.	International Journal of Electrical Power and Energy Systems	Elsevier	March, 2019

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Mahanti,G.K.	IEEE Transactions on Antennas and Propagation	IEEE	Nov.13,2018
Mahanti,G.K.	IEEE Transactions on Antennas and Propagation	IEEE	Nov.25,2018
Chandra, A.	IEEE Transactions on Vehicular Technology	IEEE	May 04, 2018
Chandra, A.	IEEE Transactions on Vehicular Technology	IEEE	Jul. 22, 2018
Chandra, A.	IEEE Transactions on Vehicular Technology	IEEE	Sep. 06, 2018
Chandra, A.	IEEE Transactions on Vehicular Technology	IEEE	Dec. 29, 2018
Chandra, A.	IEEE Antennas and Wireless Propagation Letters	IEEE	Jul. 22, 2018
Chandra, A.	IEEE Antennas and Wireless Propagation Letters	IEEE	Sep. 17, 2018
Dhar Roy, S.	Physical Communication	Elsevier	April 11, 2018
Dhar Roy, S.	Computer Communications	Elsevier	May 30, 2018
Dhar Roy, S.	IJCS	Wiley	July 6, 2018
Dhar Roy, S.	IEEE Access	IEEE	July 16, 2018
Dhar Roy, S.	IETE Journal of Research	IETE	July 20, 2018
Dhar Roy, S.	Digital Communications and Networks	Elsevier	July 24, 2018
Dhar Roy, S.	IEEE Access	IEEE	July 31,2018
Dhar Roy, S.	IEEE Signal Processing Letters	IEEE	Aug. 20, 2018
Dhar Roy, S.	Heliyon	Elsevier	Aug. 20, 2018
Dhar Roy, S.	China Communications	Elsevier	Sep. 6, 2018

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Dhar Roy, S.	IJCS	Wiley	Oct. 4, 2018
Dhar Roy, S.	IJCS	Wiley	Oct. 30, 2018
Dhar Roy, S.	IEEE Signal Processing Letters	IEEE	Nov. 26, 2018
Dhar Roy, S.	Physical Communication	Elsevier	Nov. 29, 2018
Dhar Roy, S.	IEEE Access	IEEE	Dec. 17, ,2018
Dhar Roy, S.	Digital Communications and Networks	Elsevier	Dec. 20, 2018
Dhar Roy, S.	Ad hoc Networks	Elsevier	Jan. 22, 2019
Dhar Roy, S.	Physical Communication	Elsevier	Feb. 14, 2019
S.Kundu	Computers & Security	Elsevier	March 2019
S.Kundu	Computer Communication	Elsevier	March 2019
S. Kundu	Physical Communication	Elsevier	Nov, 2018
S.Kundu	IETE Journal of Research	Springer	Feb , 2019
S.Kundu	Wireless Communication and Mobile Computing	Hindwai	June, 2018
S.Kundu	IEEE Access	IEEE	Feb, 22, 2019
S.Kundu	IEEE Access	IEEE	Feb, 20, 2019
S.Kundu	IEEE Access	IEEE	Feb,11, 2019
S.Kundu	IEEE Access	IEEE	Jan, 30, 2019
S.Kundu	IEEE Access	IEEE	Jan, 02, 2019
S.Kundu	IEEE Access	IEEE	Nov, 27, 2018
S. Kundu	IEEE Access	IEEE	Oct, 18, 2018
S.Kundu	IEEE Access	IEEE	Oct, 01, 2018
S.Kundu	IEEE Access	IEEE	Sep, 03, 2018
S.Kundu	IEEE Access	IEEE	Aug 25, 2018
S.Kundu	IEEE Access	IEEE	Aug 09, 2018
S.Kundu	IEEE Access	IEEE	Jul 03, 2018
Ghatak R	IEEE Transaction on Antenna and Propagation,	IEEE	2018-19
Ghatak R	IEEE Transaction on Microwave Theory and Techniques	IEEE	2018-19
Ghatak R	IEEE Microwave and Wireless Propagation Letters,	IEEE	2018-19
Ghatak R	IET Microwave Antennas and Propagation,	IET	2018-19
Ghatak R	PIER	PIER	2018-19
Ghatak R	AEUE International journal of Electronics and Communication,	Elsevier	2018-19
Ghatak R	RFMICAE,	RFMICAE,	2018-19
Ghatak R	JEMWA	Taylor Francis	2018-19

DEPARTMENT OF MANAGEMENT STUDIES

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Roy M	Journal of Cleaner Production	Elsevier Science	31July 2018
Roy M	Clean Technology and Environmental Policy	Springer	9 May 2018

DEPARTMENT OF MATHEMATICS

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Bagchi, S.	Computer and security	Elsevier	October, 2018
Dey L.K.	Journal of Fixed Point Theory and Applications	Springer	October, 2018
Dey L.K.	Journal of Analysis	Springer	October, 2018
Dey L.K.	Journal of Function Spaces	Hindawi	January, 2019
Gopmandal, P. P.	Electrophoresis	Wiley	February, 2019
Gopmandal, P. P.	Chemical Physics Letters	Elsevier	March, 2019
Kar, S.	Applied Soft Computing	Elsevier	February, 2018
Maitra S	Contributions to Plasma Physics	Wiley	June, 2018
Maitra S	Europhysics Letters	IOP Science	September, 2018
Pal, A.	Journal of The Egyptian Mathematical Society	Elsevier	November, 2018
Pal, A.	Mathematical Reviews	American Mathematical Society	September, 2018

DEPARTMENT OF MECHANICAL ENGINEERING

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Barman R. N.	International Journal of Heat and Technology	IIETA	2nd August,2018
Barman R. N.	International Journal of Heat and Technology	IIETA	14th August,2018
Datta Aparesh	International Journal of Heat and Mass Transfer	Elsevier	24 December, 2018
Hui N. B.	IEEE Tans. On Mechatronics	IEEE	July, Sept., Nov., 2018, Jan. 2019
Hui N. B.	Economic Modeling	Elsevier	Sept. 2018
Pramanick, Achintya Kumar	International Journal of Heat and Mass Transfer	Elsevier	September, 2018

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Bera S	Materials Performance and Characterization	ASTM International	August 2018
Bera S	Materials Science and Technology	Taylor & Francis	Jan ' 2019
Bera S	Ceramic International	Elsevier	Feb 2019
Ghosh K.S.	Journal of Thermal Analysis and Calorimetry	Elsevier	July, 2018
Ghosh K.S.	Open Chemistry: Effect of Solution pH on Stress Corrosion Cracking Behavior of Mg-Al-Zn Alloys	Elsevier	March, 2019
Mandal, A.K.	Energy Sources, Part A: Recovery, Utilization and Environmental Effects	Taylor and Francis	13.05.2018
Mandal, A.K.	Journal of cleaner Production	Elsvier	15.03.2019

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Mondal, Manas Kumar	Materials Research Express	IOP Publishing	18th April, 2018, 17th November, 2018 and 20th November, 2018
Mondal, Manas Kumar	Steel Research International	Wiley	16th October, 2018
Mondal, Manas Kumar	Journal of Materials Research and Technology	Elsevier	10th August, 2018
Show B.K	Journal of Materials Research	Materials Research Society	August, 2018

DEPARTMENT OF PHYSICS

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Chakraborty, AK	Journal of Nanoparticle Research	Springer	February 14, 2019
Chakraborty, AK	Journal of Solid State Chemistry	Elsevier	December 23, 2018
Chakraborty, AK	Journal of Materials Science: Materials for Electronics	Elsevier	February 13, 2019
Chakraborty, AK	Bulletin of Materials Science	Indian Academy of Science	May 19, 2018
Chakraborty, AK	Journal of Applied Physics	American Institute of Physics	December 16, 2018
Chakraborty, AK	ACS Applied Energy Materials	American Chemical Society	November 30, 2018
Chakraborty, AK	Scientific Reports	Springer Nature	December 11, 2018
Chakraborty, AK	Scientific Reports	Springer Nature	April 4, 2018
Kumbhakar, P.	JOSA B	OSA	April, 2018
Kumbhakar, P.	Sensors & Actuators: B	Elsevier	May, 2018
Kumbhakar, P.	Inorganic Chemistry	ACS	May, 2018
Kumbhakar, P.	Physics E	Elsevier	May, 2018
Kumbhakar, P.	European Journal of Inorganic Chemistry	Wiley	May, 2018
Kumbhakar, P.	Physica Status Solidi A: Applications and Materials Science	Wiley	May, 2018
Kumbhakar, P.	Plasmonics	Springer	June, 2018
Kumbhakar, P.	Opt. Material	Elsevier	Oct., 2018
Kumbhakar, P.	Spectrochemica Acta: Part A	Elsevier	Nov., 2018
Kumbhakar, P.	Photochemical & Photobiological Sciences	RSC	Dec., 2018
Kumbhakar, P.	RSC Advances	RSC	Dec., 2018
Kumbhakar, P.	Optical Engineering	Elsevier	Dec., 2018
Kumbhakar, P.	Spectrochemica Acta: Part A	Elsevier	Jan., 2019
Kumbhakar, P.	ACS Applied Materials & Interfaces	ACS	March 7, 2019
Kumbhakar, P.	J. Mat Science	Springer	March, 2019
Meikap, A K	Synthetic Materials	Elsevier	May 2018
Meikap, A K	Physica B	Elsevier	May 2018
Meikap, A K	Journal of Composite Materials	SAGE	August 2018

Reviewer	Name of the Journal	Publisher	Date (of Final Review)
Meikap, A K	Journal of Themoplastic Composite Materials	SAGE	August 2018
Meikap, A K	Journal of Physics: Condensed Matter	IOP	September 2018
Meikap, A K	Journal of Materials Science: Materials in Electronics	Spinger	September 2018
Meikap, A K	Materials Chemistry and Physics	Elsevier	October 2018
Meikap, A K	Journal of Composite Materials	SAGE	October 2018
Meikap, A K	Journal of Composites Part B:	Elsevier	December 2018
Meikap, A K	Physica B	Elsevier	February 2019
Meikap, A K	Journal of Astronomical Telescopes Instruments and Systems	SPIE	February 2019
Mondal A.	Physics E	Elsevier	Oct 29, 2018
Mondal A.	Nature Communications	Springer Nature	Dec 18, 2018
Mondal A.	Journal of Electronic Materials	Springer	July. 21, 2018 Oct 03, 2018 Nov 14, 2018 Dec 17, 2018 Jan. 08, 2019
Mondal A.	Plasmonics	Elsevier	Aug. 14, 2018
Mondal A.	J. Alloys and Compounds	Elsevier	Oct. 13, 2018
Sahoo S.	Modern Physics Letters A	World Scientific, Singapore	August, 2018
Sahoo S.	Modern Physics Letters B	World Scientific, Singapore	November, 2018

ANNEXURE 11.16 (B).II: REVIEWS OF BOOKS DURING 2018-19

DEPARTMENT OF CHEMICAL ENGINEERING

Reviewer	Name and author of the book	Publisher	Date
Pal P.	Biofilm Engineering, ACS	ACS	1/7/2018
Pal P.	Biosurfactants for Sustainable Remediation Technology, Elsevier Science,	Elsevier	26Sept 2018

DEPARTMENT OF MECHANICAL ENGINEERING

Reviewer	Name and author of the book	Publisher	Date
Pramanick, Achintya Kumar	A. Thess, The Entropy Principle: The Thermodynamics for the Unsatisfied	Springer Verlag	March, 2018

ANNEXURE 11.16 (C). PARTICIPATION IN NATIONAL COMMITTEES/ VISITS DURING 2018-19

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Name of the faculty	Name of the committee	Place of visit	Date
Dutta, A.	MCA	BITS Ranchi	June 2017

DEPARTMENT OF ELECTRICAL ENGINEERING

Name of the faculty	Name of the committee	Place of visit	Date
Roy N K	MHRD Innovation Cell Committee, MHRD Govt of India	Delhi	30.08.2018
Roy N K	PRSG Meeting on E-Learning R&D projects at MeitY, Govt of India	Delhi	13-02-2019
Roy N K	NRCE Workshop (PMMMNMTT), MHRD,, NIEPA, New Delhi	Delhi	18-20 June, 2018

DEPARTMENT OF EARTH AND ENVIRONMENTAL STUDIES

Name of the faculty	Name of the committee	Place of visit	Date
Ozha Manoj	Geological Society of India	DR. T. THIMMAIAH INSTITUTE OF TECHNOLOGY, Kolar, Karnataka	15th February, 2019

DEPARTMENT OF PHYSICS

Name of the faculty	Name of the committee	Place of visit	Date
Mondal A.	NA	Opto Electronics Factory, Raipur, Dehradun	25-28th November 2018.

DEPARTMENT OF MATHEMATICS

Name of the faculty	Name of the committee	Place of visit	Date
Pal, A.	Progress of PhD work	NIT Sikkim	08th Feb, 2019

DEPARTMENT OF MECHANICAL ENGINEERING

Name of the faculty	Name of the committee	Place of visit	Date
Hui N. B.	Technical Committee Member of CCMT 2019	NIT Rourkela	4th Feb. 2019, 25th March 2019
Hui N. B.	Executive Committee Member of Institute of Engineers, Durgapur Local Centre	IEI, Durgapur Local Centre	2018-2020

ANNEXURE 11.16(D): INVITED EXAMINERS/PAPER-SETTERS/BOARD OF STUDIES (SORT ALPHABETICALLY BY COLUMN 1, SURNAME)

DEPARTMENT OF BIOTECHNOLOGY

Name of the faculty	Name of the examination	University/Institute	Date
Aikat, K.	Ph.D thesis evaluation	Andhra University	Submitted report on 10-07-2018

DEPARTMENT OF CHEMICAL ENGINEERING

Name of the faculty	Name of the examination	University/Institute	Date
P.Pal	PhD thesis examination	IIT Delhi	Feb2019
Halder, G. N.	M. Tech	Indian Institute of Technology Kharagpur	02.05.2019

Name of the faculty	Name of the examination	University/Institute	Date
Halder, G. N.	M. Sc and PhD (Environmental Science)	Burdwan University	11.06.2019
Dutta, S.	Paper Setter: Fuels and Combustion	Institution of Engineers (India)	25.06.2018
Das, B	External Examiner	Calcutta University	05-07/06/2018

DEPARTMENT OF CHEMISTRY

Name of the faculty	Name of the examination	University/Institute	Date
Adhikari U.	M.Sc. Chemistry	Kazi Nazrul University, Asansol	21.06.2018
Adhikari U.	M.Sc. Chemistry	Kazi Nazrul University, Asansol	23.03.2018
Adhikari U.	M.Sc. Chemistry	Kazi Nazrul University, Asansol	05.09.2018
Moi S. C	Examiner	KNU, Asansol	03/03/2019
Moi S. C.	Paper setter	Bankura University	12/03/2018
Saha T. K.	External Examiner for M. Sc. Sem-I Practical Examination	Burdwan University	03/2018
Saha T. K.	External Examiner for M. Sc. Sem-I Practical Examination	Burdwan University	04/2018

DEPARTMENT OF CIVIL ENGINEERING

Name of the faculty	Name of the examination	University/Institute	Date
Datta A.K.	Paper setter and examiner of AMIIW Examination	The Indian Institute of Welding	Summer, 2018 and Winter 2018
Pal S.	PhD Viva-Voce	NERIST, Itanagar, Arunachal Pradesh	21.01.2019
Pal S.	Meeting of Ad-hoc B.O.S for CE department of UIT, Burdwan University	Burdwan University	24.04.2018
Roy P.	M.Tech thesis and viva voce at AE & AM Department	IIEST, Shibpur, India	May 21, 2018
Samanta A.K.	PSC	Govt. of Bihar	Dec. 2018

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Name of the faculty	Name of the examination	University/Institute	Date
De T.	Ph.D Thesis	SATHYABAMA UNIVERSITY, Chennai	January, 2019
De T.	MTech IV semester final thesis viva-voce	B.I.T. Mesra, Ranchi.	May 9-10, 2018
Mitra, D.	U.G.Semester Examination of COM. SCIENCE (BCOSGEHC 20A)	Sidho-Kanho-Birsha University, Purulia, West Bengal	March, 2019
Pal T. (Invitee Member)	UG- Board of Studies, Computer Science	Sidho-Kanho-Birsha University, Purulia	28/08/2018
Changder. S	Ph.D Thesis	Styabhama University, Chennai	May 2018

DEPARTMENT OF ELECTRICAL ENGINEERING

Name of the faculty	Name of the examination	University/Institute	Date
Banerjee S	Examiner for conducting PhD Viva-voce examination	Jadavpur University	19.11.2018
Banerjee S	PhD comprehensive examination and M.Tech thesis defense	NIT Manipur	25.05.2018
Banerjee S	Screening and evaluation of R&D project, DST, W.B.	DST, WB	05.12.2018
Banerjee S	M. Tech Thesis Defense	NITTR Kolkata	19.07.2018
Ghosh S	External Expert Member for PhD Pre-submission Seminar	Jadavpur University, Kolkata	18.08.2018
Ghosh S.	External Expert Member for PhD Pre-submission Seminar	Jadavpur University, Kolkata	18.08.2018
Ghosh S	PhD Defence Examination	Gauhati University, Guwahati	19.01.2018
Roy N K	Expert for Evaluation of MTech Thesis	National Institute of Technology, Kurukshetra	18-07-2018

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Name of the faculty	Name of the examination	University/Institute	Date
Mahanti,G.K.	M.Tech thesis examiner	NIT,Kurukshetra	07.07.2018
Mahanti,G.K.	Ph.D thesis examiner	NIT,Patna	13.10.2018
Mahapatra R	Ph.D thesis examiner	IIT Bombay	06.04.2018
Kundu. S	PhD thesis evaluator	IIT Bombay	May 2018
Kundu S	PhD thesis evaluator	NIT Silchar	Dec 2018
Ghatak R.	M.Tech (Microwave) Viva	The University of Burdwan	2018-19 odd sem and even sem
Ghatak R.	Member of Board of Studies of ECE Dept.	BIT Mesra	2017-19
Ghatak R.	Member of Board of Studies of ECE Dept.	UIT Burdwan University	2017-19

DEPARTMENT OF MATHEMATICS

Name of the faculty	Name of the examination	University/Institute	Date
Bagchi, S.	B.Sc (Honours) Mathematics	Burwan University	November, 2018
Basu K	PhD thesis examiner	Central University of Hydrabad	December, 2018

DEPARTMENT OF MECHANICAL ENGINEERING

Name of the faculty	Name of the examination	University/Institute	Date
Banerjee N.	Conducted Ph.D Viva –voce of Sri Ashis Kumar Gupta at Delhi Technological University (DTU).	DTU, New Delhi	July 2018
Banerjee N.	Acted as Expert member for the selection of Project fellow at Department of Mechanical Engineering at ISM Dhanbad.	ISM, Dhanbad	Dec 2018
Hui N. B.	SPARC Project Proposal	Govt. of India	Jan. 2019
Hui N. B.	Question Paper on Robotics	VFSTR UNIVERSITY, VADLAMUDI,	April 2019
Mondal S.	M.E. Thesis evaluation	Jadavpur University	June, 2019
Roy S.S.	Member of the Board of Examiners and Viva-voce for MTech Thesis in the School of Mechatronics on at IIEST Shibpur	IIEST Shibpur	May 22, 2018

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Name of the faculty	Name of the examination	University/Institute	Date
Bera S.	M.Tech. (Question setter and examiner)	NIFFT Ranchi	May 2018
Mondal, M. K.	External examiner of sessional examination and viva voce	Asansol Polytechnic	5th December 2018
Show B.K	External examiner of sessional examination and viva voce	Asansol Polytechnic	29th June 2018
Show B.K	External examiner of sessional examination and viva voce	Asansol Polytechnic	5th December 2018

DEPARTMENT OF MANAGEMENT STUDIES

Name of the faculty	Name of the examination	University/Institute	Date
Dutta A.	B Tech (Dairy Technology) Ist semester examination	West Bengal University of Animal & Fishery Sciences	December 2018
De A.	Acted as a paper-setter for the practical questions of the paper titled 'Business Mathematics and Statistics II (BCHGE440P)' for the semester IV	St. Xavier's College (Autonomous), Kolkata	2018-19.

DEPARTMENT OF PHYSICS

Name of the faculty	Name of the examination	University/Institute	Date
Chakraborty, AK	Member, Board of Studies for Physics	Netaji Subhash Open University, Kalyani, WB	November 30, 2018
Chakraborty, AK	PhD (pre-submission)	ISERC, Visvabharati University	April 18, 2017
Kumbhakar P.	Post Graduate Board of Studies in Physics	Kazi Nazrul University, Asansol	Jan. 2019
Kumbhakar P.	External Expert Member of the Doctoral Committee of Dept. of Physics	Burdwan University	June 2018
Kumbhakar P.	Examination of Ph.D. Thesis & PhD Viva Voce	University of Visva Bharati	May 2018
Kumbhakar P.	Examination of Ph.D. Thesis	Jadavpur University	Aug., 2018
Kumbhakar P.	Evaluation of project and dissertation of 2 year M.Sc (Appl. Phys.)	IIT (ISM, Dhanbad)	May , 2018
Kumbhakar P.	PhD Viva-Voce Examination	Burdwan University, Burdwan	August, 2018
Mandal M. K.	M. Sc. Physics	Burdwan University	May-June 2018
Meikap A. K.	Conducting Viva-Voce Examination of Ph.D. candidate	Vidyasagar University	April 4,2018
Meikap A. K.	External Expert for Board of Research Studies in Physics	Kazi Nazrul University, Asansol	April 18, 2018
Meikap A. K.	Integrated M.Phil/Ph.D. student selection	Kazi Nazrul University, Asansol	November 28, 2018
Meikap A. K.	External Expert for Board of Research Studies in Physics	Kazi Nazrul University, Asansol	November 1, 2018
Meikap A. K.	External Expert for Board of Research Studies in Physics	Kazi Nazrul University, Asansol	January 9, 2019
Meikap A. K.	Paper setter & Examiner	The Indian Institute of Metal, Kolkata	2018-2019
Meikap A. K.	Paper Setter	Burdwan University, Burdwan	2018-2019

Name of the faculty	Name of the examination	University/Institute	Date
Mondal A.	PhD (pre-submission)	Anna University, Chenni.	March 01, 2019
Mondal A.	Conducting grand viva Examination of M.Sc 2nd and 4th Semester	Kazi Nazrul University, Asansol	13th and 14th August, 2018
Sahoo S.	B. Tech., 1st Sem Question Paper Setter	Veera Surendra Sai University of Technology, Burla, Odisha	September, 2018
Sahoo S.	B. Tech., 1st Sem Question Paper Setter	KIIT, Bhubaneswar, Odisha	October, 2018
Sahoo S.	B. Tech., 2nd Sem Question Paper Setter	Veera Surendra Sai University of Technology, Burla, Odisha	March, 2019
Sahoo S.	Examiner for Physics Practical/Viva Voce of MAKAUT	DIATM, Durgapur	29th November and 1st December 2018

ANNEXURE 11.16 (E): INVITED EXPERTS IN SELECTION COMMITTEE (SORT ALPHABETICALLY BY COLUMN 1, SURNAME)

DEPARTMENT OF CHEMICAL ENGINEERING

Name of the faculty	Discipline	University/Institute	Date
Halder. G. N.	Chemical Engg	Indian Institute of Technology (ISM) Dhanbad	12.01.2018
Halder. G. N.	Chemical Engg	Indian Institute of Technology (ISM) Dhanbad	12.01.2018

DEPARTMENT OF CHEMISTRY

Name of the faculty	Discipline	University/Institute	Date
Mukhopadhyay B.P.	Chemistry	CMERI-Durgapur	21-06-2018
Mukhopadhyay B.P.	Chemistry	The University of Burdwan	27.07.2018
Mukhopadhyay B.P.	Chemistry	CMERI-Durgapur	23-11-2018
Patra, Apurba K.	Chemistry	DAV Model School Durgapur	17.03.2018
Sukul D.	Chemistry	DAV Model School Durgapur	17.03.2018

DEPARTMENT OF CIVIL ENGINEERING

Name of the faculty	Discipline	University/Institute	Date
Pal, S.	Civil Engineering	Sanaka Educational Trust's Group of Institutions, Durgapur	28.08.2018

DEPARTMENT OF ELECTRICAL ENGINEERING

Name of the faculty	Discipline	University/Institute	Date
Banerjee S	Electrical	CSIR-CMERI, Durgapur	30.05.2018 & 31.05.2018
Banerjee S	Electrical	CSIR-CMERI, Durgapur	21.6.2018
Ghosh S	Technical Personnel	CSIR- CMERI	23.11.2018
Mahato S. N.	Electrical	Institute of Engineering and Technology, Malandighi, Durgapur-12	15.07.2018
Mahato S. N.	Electrical	Bankura Unnayani Institute of Engineering	07.08.2018

DEPARTMENT OF MANAGEMENT STUDIES

Name of the faculty	Discipline	University/Institute	Date
Bandyopadhyay G.	Management courses	Kazi Nazrul University	19th September, 2018
Bandyopadhyay G.	Management	St. Xavier's University, Kolkata	16th Nov, 2018
De A.	To act as a panellist for MBA admission process-219	Birla Institute of Management Technology,	9th December, 2018
Roy M	Staff promotion	CSIR-CMERI	Sept2018, Nov2018

DEPARTMENT OF MECHANICAL ENGINEERING

Name of the faculty	Discipline	University/Institute	Date
Roy S. S.	Member of the selection committee for PhD programme under Academy of Scientific and Innovative Research (AcSIR)	CSIR-CMERI Durgapur	July 10-12, 2018
Roy S. S.	Member of the selection committee for admission to PGDAMT under AcSIR	CSIR-CMERI Durgapur	July 24, 2018
Roy S. S.	Member of the selection committee meeting for PhD (Engg.) programme in the Engineering under AcSIR	CSIR-CMERI Durgapur	December 12, 2018

DEPARTMENT OF MATHEMATICS

Name of the faculty	Discipline	University/Institute	Date
Sarkar (Mondal), S.	Mathematics	Bidhannagar College, (Govt. of W.B.), Kolkata	December 18-19, 2018
Sarkar (Mondal), S.	Mathematics	Invited expert for selection of faculties in Netaji Subhas Open University, Salt Lake, Kolkata	May 21-22, 2018

DEPARTMENT OF PHYSICS

Name of the faculty	Discipline	University/Institute	Date
Chakraborty A.K.	Member, Selection Committee for selection of JBSNSTS Fellows (UG level)	Jagadish Bose National Science Talent Search(JBNSTS), Kolkata	September 15-16, 2018
Meikap, A. K.	Member of Selection Committee for recruitment of Professor, Associate Professor and Assistant Professor of the Department of Physics	NIT Jamshedpur	April 14-15, 2018
Meikap, A. K.	Member of Selection Committee for recruitment of Assistant Professor of the Department of Physics	Kazi Nazrul University, Asansol	February 1 2019

ANNEXURE 11.16 (F): INVITED LECTURES

DEPARTMENT OF BIOTECHNOLOGY

Name of the faculty	Title of the lecture	Programme	Place	Date
Dutta, D.,	Role of Nutraceuticals in Human Health	ONE WEEK SHORT TERM COURSE On Advancement of Modern Technology in Engineering & Engineering Science (AMTEES 2018)	NIT Durgapur	NOVEMBER 13-19, 2018
Roy-Barman, S.	WISH, a novel pathogenesis-related GPCR gene in rice blast fungus	Biotechnological Initiatives for Crop Improvement	BAU, Sabour	Dec 08 – 09, 2018

DEPARTMENT OF CHEMICAL ENGINEERING

Name of the faculty	Title of the lecture	Programme	Place	Date
Halder G.N	Assessment of biomass and lipid productivity of microalgae isolated from Indian Coalmines	Role of microbes on Health, Agriculture and Environment	NIT Durgapur	June 19-21, 2019
Paruya S.	Chebyshev Methods for Solving Differential Equations using MATLAB	A Short-Term Course on Matlab and Simulink for Technical Computing	Mechanical Engineering Dept., NIT Durgapur	January 15-19, 2018

DEPARTMENT OF CHEMISTRY

Name of the faculty	Title of the lecture	Programme	Place	Date
Adhikari U.	Green Chemistry	Invited Lecture	Bidhan Chandra College, Asansol	12.12.2018
Chakrabarty J.	Biodisel	Recent Developments in Nonlinear Dynamics and its Application (CRDNDA-18)	Durgapur Govt. College, Durgapur	13.03.2019
Moi S. C.	Designing, Synthesis, characterization of Pt(II) and Pd(II) based anticancer agents: their kinetics, Bioactivity and theoretical study	National symposium sponsored by DST, Government of India	Raiganj University, North Dinajpur, WB	23.03.2018
Moi S. C.	Superior normal cell viability of Pt(II) complexes than cisplatin with benzimidazole as carrier ligand: Synthesis, DNA binding, anticancer property and computational study	World Cancer Submit and Drug Discovery and Drug Delivery Congress	Science City, Kolkata, India	22.09.2018
Moi S. C.	Anticancer activity of newly designed Pt(II) and Pd(II) based complexes: their in vitro kinetics, bioactivity and theoretical study	RDC-18, NIT Durgapur	NIT Durgapur	17.12.2018
Moi S. C.	Bio-molecules and their interaction with newly designed Pt(II) and Pd(II) based anticancer agents: their in vitro kinetics, Bioactivity and theoretical study	Invited lecture	Durgapur Govt college	27.09.2018
Patra, A.	Model Complexes Shedding Light on Conflicting Mechanisms of CuNiR	Symposium on "Frontiers in Inorganic Chemistry-II (FIC-II)"	IACS Kolkata	March 7-9, 2018

DEPARTMENT OF CIVIL ENGINEERING

Name of the faculty	Title of the lecture	Programme	Place	Date
Pal, S.	Efficacy Assessment of Earthquake Resistant Geo-Composite Liner for Waste Containment Structures - Some Studies	National Workshop on "Geo-Systems and Geo-Materials (GSGM-2019)	NIT Jamshedpur	07.06.2019
Pal, S.	Design of foundation of different structures in Thermal Power Plant	Induction Level Training Program for the Junior Engineers of BRBCL, a subsidiary of NTPC	National Power Training Institute, Durgapur	23.05.2019

Name of the faculty	Title of the lecture	Programme	Place	Date
Pal, S.	Earthquake Resistance Geo Composite Liner for Waste Contamination Structure	UGC-HRDC sponsored refresher course on "Disaster Management: Water and Environmental Sanitation"	Jadavpur University	28.01.2019
Pal, S.	Assessment and Management of Contaminated Site: A Case Study in the State of West Bengal	Workshop on "Contaminated Sites: Subsurface Investigations and Remediation"	India Habitat Centre (IHC), New Delhi	12-13th July 2018
Roy, P.	Matlab Vs Scilab	TEQIP-III sponsored Student Training Programme on 'Science and Engineering Computations by Scilab/ Matlab	NIT Durgapur	August 19, 2018
Roy, P.	"Construction Materials & Concrete Technology" and "Design of Concrete Structures (Slabs, beam, column, footing)	Training Programme of Nirman Sahayak and Block Level Junior Engineers of Govt. of West Bengal	NIT Durgapur	Dec. 3,4,13,14,17,18-2018
Roy, P.	The Effect of Correlation of Shear Strength Parameters of Soil for Probabilistic Analysis of Cantilever Sheet Pile	TEQIP Sponsored 5 days Workshop on " Recent Trends on Remediation of Contaminated Water bodies and Soil	NIT Durgapur	March 26, 2019

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Name of the faculty	Title of the lecture	Programme	Place	Date
Choudhury, P. Choudhury, P.	Role of Data Analytics in E-Commerce Role of Data Analytics in Decision Making	Invited as Resource Person in Applied Econometric Workshop Invited as Resource Person in Data Analysis using Python Workshop	Department of Commerce, Sikkim University Department of Computer Application, SIT Siliguri	20-26 March 2017 29-30 September 2018
Changder.S	Cryptography & Network Security and its applications	Invited Lectures	SIT, Siliguri, West Bengal, India.	13-14th August 2018
Changder.S	Nooks and Perils of Wildlife Conservation, organized by	Invited Lectures	Durgapur Government College, KNU	10th October 2018
Changder.S	Recent Trends in Machine Learning and Soft Computing (RTMLSC 2018),	Invited Lectures	NIT Durgapur	16-20th April, 2018
Howlader, J.	Attacks on Asymmetric Encryption (RSA)	Workshop on Cryptography and Network Security	Jalpaiguri Govt. Engineering College	March 12, 2018
Howlader, J.	Secret Sharing & Multiparty Computation.	Workshop on Cryptography and Network Security	Jalpaiguri Govt. Engineering College	March 13, 2018

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Name of the faculty	Title of the lecture	Programme	Place	Date
Mahanti, G.K.	Meta-heuristic optimization algorithms for synthesis of array antenna	Invited speaker on AICTE QIP sponsored short term course on Recent Advancement s in Signal Processing, Microwave and VLSI	Dept. of ETCE, Veer Surendra Sai University of Technology (VSSUT), Burla, Odisha	06.06.2018
Chandra, A.	Simulating wireless communication systems with MATLAB	One Day Seminar on Applications of MATLAB in Communication Engineering (AMCE-2018)	NSHM Knowledge Campus, Durgapur	05.10.2018
Mahanti, G.K.	Teaching learning based optimization algorithm(TLBO) for synthesis of multiple concentric ring array antenna	One Day Seminar on Applications of MATLAB in Communication Engineering (AMCE-2018)	NSHM Knowledge Campus, Durgapur	05.10.2018
Mahapatra R.	Challenges and Innovations in MOS Devices and Technology	Bose-Tagore National Advanced Workshop on Condensed Matter Physics: Theory and Experiment, Visva Bharati, Shantiniketan	Visva Bharati, Shantiniketan	04.08.2018
Ghatak R.	Antenna Design: An Inverse Optimization Problem	GIAN Programme	NIT Durgapur	19.6.2018
Ghatak R.	ICT based education	Workshop on MOOCS, e-content development and open educational resources held at the HRDC of the University of Burdwan	University of Burdwan	5.11.2018
Ghatak R.	Enabling ICT Based Education and Harnessing it's Efficacy	Workshop on MOOCS, e-content development and open educational resources	A K Dasgupta Center for planning and Development of the Visva Bharati University	6.02. 2019

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

Name of the faculty	Title of the lecture	Programme	Place	Date
Banerjee, S.	Recalling the Women Stalwarts in Science	Perspectives of Women in Science: Explorations and Experiences	D M SEN Auditorium, NITD	28.02.2019
Banerjee, S.	Women and Science: Discovering the New Horizon	Exposure Tour of Girl Students to NIT Campus	D M SEN Auditorium, NITD	18.03.2019

DEPARTMENT OF MANAGEMENT STUDIES

Name of the faculty	Title of the lecture	Programme	Place	Date
Bandyopadhyay G.	lecture on Research Methodology	lecture on Research Methodology Workshop	New Alipore College	17th March '2018
Bandyopadhyay	Faculty development Program (FDP)	lecture on Faculty development Program (FDP)	J.D. Birla Institute(JDBI)	20thApril,2018

Name of the faculty	Title of the lecture	Programme	Place	Date
G.	How to prepare A Project Report	Workshop for MBA 2nd Semester Students	Bharatiya Vidya Bhavan Institute	18thMay'2018
Bandyopadhyay	Theory and Application of Econometrics Models with Software Packages	Lecture on Theory and Application of Econometrics Models with Software Packages	Bhawanipur Education Society College	17th Nov, 2018
G.	Data Analytics	lecture on Data Analytics	St. Xavier's University, Kolkata	1st Dec, 2018
Bandyopadhyay	Use of Software for Statistical Analysis such as SPSS	lecture on Use of Software for Statistical Analysis such as SPSS	Brainware University	5th Jan, 2019
G.	lecture on Advanced Research Methodology	lecture on Advanced Research Methodology Workshop	Army Institute Of Management	19th Jan, 2019
De A.	Making Power Point Presentation & Requisite for Effective Presentation, Case Based Presentations Related to Industries With Key Messages for Effective Decision Making	Orientation Course for CA students	Durgapur Branch of the Institute of Chartered Accountants of India (ICAI)	21st & 23rd June, 2018
De A.	Advanced Excel	Advanced Information Technology Training Programme students	Durgapur Branch of the Institute of Chartered Accountants of India (ICAI)	22nd, 23rd & 24th December, 2018
De A.	Making Power Point Presentation & Requisite for Effective Presentation, Case Based Presentations Related to Industries With Key Messages for Effective Decision Making	Orientation Course for CA students	Durgapur Branch of the Institute of Chartered Accountants of India (ICAI)	26th & 29th December, 2018
De A.	Making Power Point Presentation & Requisite for Effective Presentation, Case Based Presentations Related to Industries With Key Messages for Effective Decision Making	Orientation Course for CA students	Durgapur Branch of the Institute of Chartered Accountants of India (ICAI)	22nd & 23rd February, 2019
Mandal K.	Conjoint Analysis	TEQIP III Sponsored Winter School on Advanced Research Methods in Econometrics and Statistics	NIT Durgapur	5th Dec, 2018

Name of the faculty	Title of the lecture	Programme	Place	Date
Pal D.	'Time and Stress Management'.	Induction Training Program for Faculty in Universities/ Colleges/Institutes of Higher Education, 30 June- 21 July, 2018 organized by Teaching Learning Centre Indian Institute of Technology Kharagpur In collaboration with National Institute of Technology, Durgapur	NIT Durgapur	16th July, 2018
Dutta A.	Research Methods in Finance	TEQIP III SponsorWinter School on Advanced Research Methods in Econometrics and Statistics-	NIT Durgapur	4 December 2018
Ghosh A.	"What is expected from you"	Orientation Programme for MBA students	NSHM Knowledge campus, Durgapur	13th August 2018

DEPARTMENT OF MATHEMATICS

Name of the Faculty	Title of the lecture	Programme	Place	Date
Sarkar (Mondal) S.	Linear Programming	National Seminar on Pure and Applied Mathematics	St. Mary's College, Shillong.	September 19-20, 2018

DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING

Name of the faculty	Title of the lecture	Programme	Place	Date
Mandal A.K.	Development of high strength and weather resistant metallic charge material for BF/EAF use	Invited lecture under Industry-Academic interaction	Indian Institute of Metals, Durgapur Chapter	14.05.19

DEPARTMENT OF MECHANICAL ENGINEERING

Name of the faculty	Title of the lecture	Programme	Place	Date
Hui N. B.	Matlab Simulink	TEQIP-II sponsored	NIT Durgapur	August 20, 2018
Karmakar S.	Power Plant Engineering and its Application	Interaction Programme with 4th Year Mechanical Engineering Students	Asansol Engineering College	Feb. 5, 2019
Mitra R. K.	Matlab and Simulink for Technical Computing	TEQIP-III sponsored	NIT Durgapur	January 15–19, 2018
Mitra R. K.	Student Training Programme on Science and Engineering Computations by Scilab/ Matlab (SECSM-2018)	TEQIP-III sponsored	NIT Durgapur	August 18-22, 2018
Mondal S.	Mitigation of Thermoacoustic Instability using a concept from syncronization theory: Amplitude death	International Workshop on Energy, Power and Environment (IWEPE-2019)	NIT Kurukshetra	March 17-19, 2019

Name of the faculty	Title of the lecture	Programme	Place	Date
Roy S.S.	Current and Future Trends of Additive Manufacturing in Macro and Micro Level Applications	International Symposium on 3D Printing Technology (IS3DPT)-2018	IEM, Kolkata	April 21, 2018
Roy S.S.		All India seminar on "Sustainable Development in Manufacturing Process & Impact on Environment"	DIATM, Durgapur	May 3, 2018
Roy S.S.		World Telecommunication & Information Society Day	IEI, Asansol Local Centre	May 17, 2018

DEPARTMENT OF PHYSICS

Name of the faculty	Title of the lecture	Programme	Place	Date
Chakraborty AK	Metal sulfide and carbon nanostructure based novel electrodes for DSSC and supercapacitors	International Conference on Nano-structured Materials and Devices	University of Delhi, New Delhi	December 17-20, 2018
Ghosh, A.	Laser Application in Solid Mechanics	Short Term Course on "Fundamentals and Recent Advances in Nanomaterials (FRAN – 2019)" Delivered a Lecture	NIT Durgapur	January 21-25, 2019
Kumbhakar P.	Techniques of Synthesis, Characterization and Measurements of Linear and Nonlinear Optical Properties of Some Nanostructured Materials for Applications in Photonics Devices	TEQIP-III sponsored Short Term Course on Fundamentals of Nanomaterials for Applications in Photonics (FNAP 2018), April 9-13, 2019	NIT Durgapur	April 11, 2018
Kumbhakar P.	Introduction to Photonics and Leadership skills in Digital India-I	TEQIP-III sponsored Pedagogy Training of Faculty members during July 8-10, 2018	Dumka Engg. College at Dumka	July 10, 2018
Kumbhakar P.	Fabrication of Some Semiconductor and 2D Nanostructured Materials with Enhanced Photoluminescence, Photocatalytic and Nonlinear Optical Properties for Photonic Applications	National Conference on Condensed Matter Physics, Condensed Matter Days 2018, Aug. 29-31, 2018	Dept. of Physics, B.U. Golapbag, B.U., Burdwan	Aug. 29, 2018
Kumbhakar P.	Fundamentals and Recent Advancements in Synthesis, Optical Properties and Applications of Some Novel 2D Nanostructured Materials	3nd RC in Nanoscience & Technology	HRDC, Golapbag, Burdwan University, Burdwan	22.09.2018
Kumbhakar P.	Plenary Talk in the Technical Session for the students of Physical Sciences and Earth Science	Annual General Science Fest, Scientia-2018	Assam University, Assam	27th September, 2018
Kumbhakar P.	Laser and its Applications in Real Life	Bose 125 Outreach Programme, entitled, "Prof S. N. Bose: A Role Model for Indian Academicians and Scientists"	Durgapur Women's College, Durgapur	Oct 5, 2018

Name of the faculty	Title of the lecture	Programme	Place	Date
Kumbhakar P.	Fundamentals and Applications of Laser in Synthesis and Determination of Nonlinear Optical Properties of Some Novel Nanostructured Materials	Seminar on the topic entitled "Advanced Spectroscopy and its applications to various fields"	Burdwan Raj College	Nov. 16, 2018
Kumbhakar P.	Nonlinear Optical Effects and Optical Limiting Properties of Semiconductor Nanoparticles and 2D Nanocomposites	Two days workshop on "Laser Technology for Tactical Communication"	Jadavpur University	Dec. 11, 2018
Kumbhakar P.	Development of 2D Nanostructured Materials for Nonlinear Optical and Photocatalytic Applications	International conference cum Expo on "Innovation in Materials Science & Technology, IMST-2018"	Amity University, Kolkata	Dec. 14-16, 2018
Kumbhakar P.	Green Synthesized Carbon Nanostructured Materials for Photonic Applications	"International conference on Nanostructured Materials & Devices, ICNSMD2018"	University of Delhi	Dec. 17-20, 2018
Kumbhakar P.	Some Fundamentals and Recent Advances in Linear and Nonlinear Optical Properties of Some Novel Semiconductor Nanoparticles and 2D Nanocomposites	TEQIP-III Sponsored Short Term Course on Fundamentals and Recent Advances in Nanomaterials (FRAN – 2019), 21-25 January, 2019	NIT Durgapur	Jan 23, 2019
Kumbhakar P.	Applications of Laser in Search of God Particle	One day Seminar on "Optics for Sustainable Development" on at	Nadiha Birbhanpur High School, Durgapur, 713201	5 th. Feb., 2019
Kumbhakar P.	Fundamentals and Recent Advances in Optical Properties of Some Semiconductor Nanoparticles and 2D Nanocomposites	TEQIP-III Sponsored SHORT TERM COURSE on Emerging Trends in Photonics and Applications (ETPA-2019)	NIT Durgapur	Feb. 11-15, 2019
Meikap A.K.	Anomalous Transport Properties in Disordered Solids at Low Temperature	TEQIP III sponsored short term course on "Fundamentals of Nanomaterials for Applications in Photonics (FNAP-2018)	NIT Durgapur	April 9-13, 2018
Meikap A.K.	Electrical Transport Properties of Polymer Nanocomposites	UGC sponsored 3rd Refresher Course in "Nano-Science & Nano- Technology"	Burdwan University	September 22, 2018
Meikap A.K.	Anomalous Electrical Transport Behaviour in Disordered Conductors and Quantum Well at Low Temperature	One day seminar on "Advanced Engineering Materials"	Dumka Engineering College	January 30 2019
Mondal A.	Syhthesis of metal oxide nanowires and their applications	National conference on recent development in nanoscience & nanotechnology	Jadavpur University	29th January 2019.
Mondal A.	Nanowire and thin film based photodetector	National Level Workshop on Recent trends in nanoelectronics	National Institute of Technology, Nagaland	26-28th April 2018.

Name of the faculty	Title of the lecture	Programme	Place	Date
Sahoo S.	Recent Trends in High Energy Physics	National Seminar on "Recent Trends in Applied Sciences and Humanities"	DIATM, Durgapur	11th April, 2018
Sahoo S.	Some current issues in high energy physics	National Seminar on "Random Matrix Theory & its Applications"	Government Autonomous College, Rourkela, Odisha	30th December, 2018

ANNEXURE 11.16 (G): SESSION CHAIR/CONVENOR (SORT ALPHABETICALLY BY COLUMN 1, SURNAME)

DEPARTMENT OF BIOTECHNOLOGY

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Roy-Barman, S.	Co-Chair	Biotechnological Initiatives for Crop Improvement	BAU, Sabour		Dec 08 – 09, 2018

DEPARTMENT OF CHEMICAL ENGINEERING

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Dutta, S.	Session Chair	All India Workshop on Principles and Practices of Coalbed Methane and other Unconventional Gases (CMUG 2019)	NIT Durgapur	---	March 26, 2019
Dutta, S.	Session Chair	TEQIP Sponsored five days workshop on "Recent Trends on Remediation of Contaminated Water bodies and Soil" at NIT Durgapur, West Bengal, India, during March 25–29, 2019	NIT Durgapur	----	March 29, 2019
Halder G.N	Session chair	Role of microbes on Health, Agriculture and Environment	Mizoram University, Aizawl	Bioenergy	June 19-21, 2019
Halder G.N	Session chair	Combat Air Pollution : Learning from Cases and the Epic Mahabharata	Jadavpur University	Solid waste management	June 5, 2019
Pal P.	Session Chair	International Conference on Water Resources and Environment	Taiwan I-Shou University		17-21 July 2018

DEPARTMENT OF CHEMISTRY

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Chakrabarty J	Session Chair	Recent Developments in Nonlinear Dynamics and its Application (CRDNDA-18)	Durgapur Govt. College, Durgapur	Pre-lunch section on 13.03.2019	13.03.2019
Moi S. C.	Section chair	Two days SERB-DST sponsored National seminar.	TDB College Ranigang , West Bengal	1st day after lunch section	5th March'2018

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Moi S. C.	Section chair	National symposium sponsored by DST, Government of India.	Raiganj University, North Dinajpur, WB	After lunch section on 21 st March'18	21 st March 2018

DEPARTMENT OF CIVIL ENGINEERING

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Pal, S.	Session Chair	Workshop on Recent Trends on Remediation of Contaminated Water Bodies and Soil	NIT Durgapur	Pre Lunch	29.06.2019

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Chandra, A.	Session Chair	International Symposium on Wireless Communication Systems (ISWCS)	Lisbon, Portugal	Wa3: Millimetre Waves	29.08.2018

DEPARTMENT OF MATHEMATICS

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Pal, A.	Session Chair	Application of Optimization Techniques to Engineering & Management Sciences	NSHM Durgapur		15^{th}-16^{th} November, 2018

DEPARTMENT OF MECHANICAL ENGINEERING

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Mitra R. K.	Session Chair	2nd International Conference on Advances in Dynamics Vibration and Control-2018	NIT Durgapur	G6a	6-8th June 2018

DEPARTMENT OF MANAGEMENT STUDIES

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Dutta Avijan	Session Chair	International Business Research Conference	DSMS Durgapur	Track- Management	8th March, 2019
Mandal Kaushik	Session Chair	ICMBP 2018-19	Alliah University	Track- Marketing	17th Jan, 2019
Roy M	Session Chair	International Conference of Water Resources & environment	I-Shou University Taiwan	IV	18.7.18

DEPARTMENT OF PHYSICS

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Chakraborty, A K	Session Chair	International Conference on Nanostructured Materials & Devices (ICNSMD)	University of Delhi, New Delhi	Session 5 (Graphene), Hall A	Dec. 18, 2018

ANNEXURE 11.16(H) LIST MOUS SIGNED WITH FOREIGN GOVERNMENTS 2018-19

Name of Institute	Year	MoU signed with foreign Governments/ foreign institutions and date of signing.	Subject	Action Taken
National Institute of Technology Durgapur, West Bengal , India PIN- 713209	2018-2019	Federal University of Rio De Janeiro, Brazil Date of signing: 03th May, 2018	Exchange of faculty and students, exchange of information, academic materials, publications, joint research activities, participation in academic conferences and seminars, short-term academic programs etc.	Joint BRICS proposal initiated.
		Hohai University, China Date of signing: 05th December, 2018	Exchange of faculty, students, research scholars & staffs, exchange and sharing of teaching and academic materials, publications, reference and other pertinent information etc.	Joint Book Publication is in progress.
		Centre for Rural Development & Technology, IIT Delhi. Date of signing: 06th March, 2019	Rural Technology.	Collaborative Research proposal is under progress.
		CSIR-Institute of Genomics and Integrative Biology (IGIB), New Delhi Date of signing:20th February, 2019	Joint research activities in various field of interests such as Optimization, Machine Learning Techniques, Big-data Analysis, Computation under Uncertaintyetc.	Collaborative Research proposal is under progress.
		Jawaharlal Nehru University, New Delhi Date of signing: 18th March, 2019	Biotechnology	Collaborative Research proposal is under progress.

ANNEXURE 11.17 OTHER INFORMATION

DEPARTMENT OF CHEMISTRY

1 Dr. S.C. Moi has won Best speaker award in World Cancer Submit and Drug Discovery and Drug Delivery Congress (Invited Talk) (an International Conference) in Science City Kolkata, WB, India, 20-22nd September'2018.

DEPARTMENT OF CHEMICAL ENGINEERING

1 Mr. Somnath Chowdhury, M.Tech in Chemical Engineering from NIT Durgapur in 2019, has won Best Project award for his M.Tech dissertation on 'Experimental investigation on enrofloxacin expulsion through adsorption, ultrafiltration and bioremediation: modelling and optimization' under the guidance of Prof. Tamal Mandal, Prof. Gopinath Halder Dr. Jaya Sikder.

2 Prof. Sushmita Dutta Selected as a Member of the Editorial Board of the Journal of Environmental Engg. and Landscape Management (Taylor and Francis) in Jan, 2019

3 Hari H. Desai, Best M. Tech. Thesis on "Modeling of Bubble Growth in Binary Liquid Mixtures", awarded by IIChE in CHEMCON 2018, supervised by Swapan Paruya.

4 Hari H. Desai, Best M. Tech. Thesis on "Modeling of Bubble Growth in Binary Liquid Mixtures", awarded by NIT Durgapur, 2018, supervised by Swapan Paruya.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

1 Pal, Tandra: Member of the executive committee of IEEE Computational Intelligence Society, Kolkata Chapter for the year 2018.

2 Pal, T: Vice Chair of the executive committee of IEEE Computational Intelligence Society, Kolkata Chapter for the year 2019.

3 Pal, T: Lecture titled "Regularization and Generalization of ANN" on 20.04.2018 in the TEQIP-II Sponsored Workshop in RTMLSC-2018 held during April 16-20, 2018.

4 Mitra, D. served as Track Co-chair (Track: Emerging Technologies) of IEEE Region 10 Symposium (TENSYMP 2019).

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

1 Chakraborty, D. acted as 'Discussant' in 10th E-conference 26-27 March, 2019 Organised by Department of Economics and UGC DRS (SAP II), The University of Burdwan.

DEPARTMENT OF PHYSICS

1 Prof A K Meikap Ph.D. thesis examiner of University of Kalyani, Kalyani.

2 Prof A K Meikap Ph.D. thesis examiner of National Institute of Technology Raipur.

3 Prof A K Meikap Ph.D. thesis examiner of Burdwan University, Burdwan.

4 Prof. P. Kumbhakar acted as Subject Expert of Physics in Performance Enhancement Programme (Physics) for Sr. Secondary Teachers of various DAV Public/Model Schools, WB Zone, DAV Model School, Durgapur on 12.05.2018.

5 Prof. P. Kumbhakar, Dept of Physics on July 31st, 2018 acted as Mentor Speaker, TINKER FEST@ATL, DAV Model School Durgapur

6 Prof. P. Kumbhakar, Dept of Physics acted as member of the T&PC for setting up the cylinder Type ultracapacitor cell Fabrication Assembly Line at CSIR-Central Mechanical Engineering Research Institute Durgapur

7 Prof. P. Kumbhakar, Dept. of Physics acted as a Resource Person in One day Seminar on "Advanced Engineered Materials" jointly organized by Dumka Engg. College & NIT Durgapur under Twining Activity of TEQIP-III at Dumka Engg. College, Dumka, Jharkhand, on 30 th Jan., 2019.

8 Dr. S. Sahoo chaired a session on 11th April, 2018 in the National Seminar on "Recent Trends in Applied Sciences and Humanities" at Durgapur Institute of Advanced Technology & Management (DIATM), Durgapur which was held during 10–12 April, 2018.

9 Dr. S. Sahoo acted as an OBSERVER for the State Govt. Common Entrance Test conducted by Association of Minority Professional Academic Institutes (CEE-AMPAI-2017-WB) held on 13/05/2018 (Sunday) at Dr. B. C. Roy Engineering College, Durgapur - 713206.

10 Dr. S. Sahoo acted as an evaluator (Judge) for projects presented by Child Scientists (Age group 10–17) in the District Level Congress of the 26th National Children's Science Congress, 2018 held at DAV Model School, Durgapur on 7th October, 2018.

DEPARTMENT OF MANAGEMENT STUDIES

1 Anupam De Acted as an observer for the UGC NET JULY, 2018 held on July 8, 2018.

2 Avijan Dutta Startup mentor at Insticram Systems Private Limited .The Company started by a group of NIT students. The company has developed an educational mobile app platform called YoursOwn. This can be used to connect all stakeholders of the Institute. It will make administrative work very simple and easier.

3 Kaushik Mandal Received Emerald Best paper for the paper "Mandal, K., Roy, K. In search of power perception facets' of Distribution channel partners of the emerging market- An empirical analysis. 21-22 Dec. 2018" in Convergence 2018, IFIM-Bangalore. (Kaushik Mandal)

DEPARTMENT OF MECHANICAL ENGINEERING

1 Goswami Arjyajyoti along with two professors from other department was part of a team from NIT Durgapur to visit Tata Research Development and Design Centre (TRDDC) Pune on 22 January 2019. The agenda of the visit was to explore possible future collaborations with TRDDC. In this relation few proposals have been submitted to TRDDC and they are under consideration.

2 Pramanick Achintya Kumar was a Member of the Scientific Committee, Constuctal and Second Law Conference 2019, 11-13 March 2019, Porto Alegre, Brazil.

3 Barman R N organized the 1st International Conference on Clean And Renewable Energy (ICCARE 2019), July 10-12, 2019, Sponsored by TEQIP III & CSIR.

4 Mondal Sirshendu is in the editorial team for a monograph, "Dynamics and Control of Energy Systems" to be published by Springer.

राष्ट्रीय प्रौद्योगिकी संस्थान दुर्गापुर

NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR

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