51st ANNUAL REPORT
2010-2011

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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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Progress at a Glance (2010–2011)

- The Institute successfully participated in the World Bank assisted TEQIP as a lead institution, An Impact Assessment Survey sponsored by NPIU, Noida placed NIT Durgapur at the top among the NITs and eighth among 127 participating institutions in the country. It has also been selected in TEQIP-II.
- NIT Durgapur implemented the third and the last phase of reservation for OBC students (27%) and the annual intake in B. Tech. programmes increased from 676 to 800 in the 2010-11 session. Similar increase was also implemented in M. Tech., MBA and MCA programmes.
- A new M. Sc. programme in Mathematics with Computer Applications was introduced in the session 2010-11.
- 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.
- Department of Computer Science and Engineering was selected in the FIST programme of Department of Science and Technology, Government of India.
- Department of Electronics & Communication Engineering was selected in the FIST programme of Department of Science and Technology, Government of India.
- Forty four sponsored projects are being executed by the faculty members presently.
- The faculty members of the Institute have publication and acceptance of 318 papers in peer-reviewed journals and also published 387 papers in proceedings of national and international conferences in 2010-11 vis-a-vis 239 and 205 in 2009-10.
- The number of reviewers in peer-reviewed journals and books increased from 91 to 145.
- The number of registered PhD scholars increased from 212 to 227 in the last one year.
- Twenty seven scholars were awarded PhD degree by the Institute in 2010-11.
- Twenty four new faculty members joined the Institute in 2010-11.
- Out of 492 B. Tech. students, 445 have been placed through in-campus interviews in the session 2010-2011. In addition, 147 students got their second job.
- In 2010-11 four pre-final year students did the summer internship at CERN, Geneva and one student carried out collaborative M. Tech. programme with CERN, Geneva. Six students did internship in Germany, including DAAD and six students went to NUS, Singapore for internship. Altogether, 30 students participated in summer internship abroad in different universities including Massachusetts Institute of Technology, University of Michigan, Dearborn, ETH, Zurich, etc. Three students presented papers in international conferences abroad.
- The Institute organized "INSPPIRE" programme, sponsored by DST. Hundred and ninety six school students participated in the programme where 14 eminent scientists from different parts of the country addressed them.
- The Sixth Convocation of the Institute was held on September 18, 2010 in which Professor Paolo Giubellino, the Spokesperson, ALICE (LHC), CERN, Geneva delivered the Convocation Address as the Chief Guest. Dr. John van Wyhe, Director, *The Complete Work of Charles Darwin Online*, National University of Singapore Bye - Fellow, Christ's College, Cambridge, UK, was the Guest of Honour. Shri Rathindramohan Roy, Hon'ble Mayor, Durgapur Municipal Corporation and Shri Satish Chandra Tewari, Principal Secretary, Department of Higher Education, Government of West Bengal, were the Distinguished Guests. Professor Bikash Sinha, Chairman, Board of Governors, presided over the function.
- A project on renewable energy has been implememted in collaboration with West Bengal Green Energy Development Corporation Ltd., which includes installation of solar powered street and garden lights and installation of flat plate collectors to produce hot water directly from sunlight. The hot water is used by the students and also for cooking purpose in the kitchen.

ANNUAL REPORT 2010–2011

1.0 INTRODUCTION

1.1 Mission Statement

The mission of the Institute is to spread education amongst the students coming from all over India and overseas with diverse social and cultural backgrounds to make them enlightened, enriched, and efficient, so that they can cater to the need of the country, society, and the human race.

1.2 Objectives

- To modernise the existing laboratories by procuring state-of-the-art equipment
- To set up new laboratories in the emerging areas
- To develop competency of the faculty, officers and staff through training programmes
- To improve teaching-learning process
- To foster research and consultancy
- To collaborate with other institutions and industries
- To revamp the existing curriculum and syllabus of undergraduate and postgraduate programmes with emphasis on market-driven and need-based courses.

1.3 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 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.

1.4 New Initiatives

NIT Durgapur successfullt participated in the World Bank-funded Technical Education Quality Improvement Programme (TEQIP) as a lead institute and improved its academic infrastructure and quality of human resources. Over the last few years NIT Durgapur gradually evolved from a teaching-centric institution to an institution focusing on both teaching and reearch. 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 in 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, Oman, National University of Singapore, and many other academic institutions all over the world and industries like Durgapur Steel Plant. Internship was arranged for the undergraduate students in CERN, Geneva, Germany (DAAD programme) and NUS Singapore. New M. Tech. programmes in Biotechnology and Environmental Science and Technology and M.Sc. programmes in Physics, Chemistry and Mathematics with Computer Applications were also introduced. 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.

2.0 AN OVERVIEW

2.1 Historical Background

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

It started with only four branches of engineering: Civil, Mechanical, Metallurgy, and Electrical Engineering for undergraduate studies in 1960. Chemical Engineering was started in 1964. At present, the Institute offers nine B. Tech. programmes and fifteen M. Tech. programmes, many of which are industry-oriented. 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 NH 2, and there is a military airport at Panagarh, only 20 km from Durgapur. 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 Bachelor of Technology programmes in Bio-Technology, Chemical Engineering, Civil Engineering, Computer Science & Engineering, Electronics & Communication Engineering, Electrical Engineering, Information Technology, Mechanical Engineering and Metallurgical & Materials Engineering. The duration of each programme is four academic years. Each academic year spreading over the period from 1st July to 30th June of the next year is divided into two semesters of about eighteen weeks.

It also offers four and six semesters M. Tech. programmes. Total number of M. Tech. courses is fifteen.
A three-year full time MCA programme has been on the offer since the year 2000.
A two year full time MBA programme has been on the offer since the year 2004.
Two year full-time M. Sc. programmes in Physics and Chemistry have been on the offer since 2009.
Two year full-time M. Sc. programme in Mathematics has been on the offer since 2010.

2.6 Programmes Offered

2.6 A. Under-Graduate Programmes

The Institute provides Instruction in the following courses leading to eight-semester (four-year) B. Tech. degree (full-time only).

Departments		Degree Offered	Sanctioned Intake
1	Biotechnology	B. Tech.	92
2	Chemical Engineering	B. Tech.	62
3	Civil Engineering	B. Tech.	62
4	Computer Science & Engineering	B. Tech.	92
5	Electrical Engineering	B. Tech.	92
6	Electronics & Communication Engineering	B. Tech.	92
7	Information Technology	B. Tech.	92
8	Mechanical Engineering	B. Tech.	139
9	Metallurgical & Materials Engineering	B. Tech.	77
Total			800

Fifty percent of the seats are reserved for candidates from West Bengal. 3% of the seats are reserved for physically handicapped candidates from West Bengal. Sons or wards of the employees of paramilitary forces, who have been permanently disabled or killed during hostilities, are given sympathetic consideration subject to fulfilment of eligibility criteria. Admission in these categories is in addition to the sanctioned intake. The remaining 50% seats have been allotted to different states and union territories on population basis. Fifteen, 7.5 and 27% of the total seats are reserved for SC, ST and OBC candidates respectively. In addition, 60 – 70 seats are filled up by foreign students nominated by the Government of India under various schemes.

2.6 B. Post-Graduate Programmes

(a) Full-time programmes

The Institute offers 15 (fifteen) four-semester M. Tech. programmes, six-semester MCA, four semester MBA and 3 four-semester M. Sc. Programmes.

(b) Part-time programmes

The Institute offers six-semester part-time postgraduate programmes leading to M. Tech. degree in eight specializations as mentioned in the table hereunder.

Eligibility

M. Tech. Programmes:

(i) Departments of Chemical, Civil, Electrical and Mechanical Engineering: B.E. / B. Tech in respective branch of Engineering; or equivalent AMIE (I), AMIIChE, etc. with two years of professional experience.

(ii) Department of Computer Science & Engineering: BE/ B. Tech in CSE, Information Technology, Electronics, Electrical Engineering; or equivalent AMIE (I) in respective branch with two years of professional experience.

(iii) Department of Electronics & Communication Engineering: (a) Specialization in *Telecommunication Engg*: B.E./ B. Tech. or equivalent degree in ECE. (b) Specialization in *Microelectronics & VLSI*: B.E./ B. Tech. or equivalent degree in ECE/ CSE/EE/ Electronics & Instrumentation Engineering.

(iv) Department of Information Technology: B.E./ B. Tech. in IT/ CSE/ ECE/ EE or Instrumentation Engineering.

(v) Department of Metallurgical & Materials Engineering: (a) Specialization in *Materials Engineering*: BE / B. Tech. in Metallurgical & Materials Engineering, Mechanical Engineering and M. Sc. in

Applied Physics; or equivalent AMIE (I), AMIIM, etc. with two years of professional experience. (b) Specialization in *Industrial Metallurgy*: B.E./ B. Tech. or equivalent in Metallurgical & Materials Engineering, Mechanical Engineering and Production Engineering; or equivalent AMIE (I), AMIIM, etc. with two years of professional experience.

(vi) Department of Chemistry (Corrosion Science and Technology): M. Sc. in Chemistry (Pure/applied) or BE/ B. Tech. in Chemical Engineering; or AIC (I) with two years of professional experience.

(vii) Department of Physics (Advanced Materials Science and Technology): M. Sc in Physics/ Applied Physics/ Electronics or BE/ B. Tech. in Metallurgical Engg. / Materials Engg./ Electronics & Communication Engg. /Mechanical Engg. /Electronics Engg. / Instrumentation Engg. with at least 55% marks or equivalent grade.

(viii) Department of Mathematics (Operations Research): Degree in any branch of Engineering / Technology/ MCA / M. Sc or equivalent AMIE (I), IIM (I), etc. with two years of professional experience with Mathematics in graduation level.

(ix) Department of Biotechnology: B. Tech degree in Biotechnology/ Bioinformatics/ Biochemical Engineering/ Food Technology/ Chemical Engineering/ Pharmacy having 65% marks from any recognized University/ Institute.

(x) Department of Geology (Coordinating department for Environmental Science & Technology): B. Tech./ B.E. in Chemical / Civil/ Mechanical/ Metallurgical / Biotechnology/ Lather Tech./ Food Tech. / Environmental / Pharmacy/ Agricultural / Mining/ Biochemical Engineering with 60% marks; M. Sc. in Environmental Sc./ Chemistry/ Physics/ Geology/ Bio-sciences/ Agricultural Sc. with 55% marks [with mathematics as one of the subject at least up to Higher Secondary level (10+2 Examination)].

M.Sc. Programmes:

Three-year regular B. Sc. (Hons./ Pass) with minimum 55% marks in the relevant subject.

Sanctioned intake of the Post-Graduate Programmes:

M. Tech.

SL. NO.	Specialization (Department)	Full time Non-sponsored				Full time Sponsored	Part time	Total
		Open	SC	ST	OBC			
1	Biotechnology (Biotechnology)	08	02	01	04	05	00	20
2	Chemical Engineering (Chemical Engineering)	05	03	01	04	05	05	23
3	Corrosion Science & Technology (Chemistry)	05	03	01	04	05	05	23
4	Structural Engineering (Civil Engineering)	05	03	01	04	05	05	23
5	Information Technology (Computer Science & Engineering)	10	03	01	04	05	00	23
6	Electrical System (Electrical Engineering)	05	03	01	04	05	05	23
7	Telecommunication Engineering (Electronics & Communication Engineering)	10	03	01	04	05	00	23
8	Microelectronics & VLSI (Electronics & Communication Engineering)	10	03	01	04	05	00	23
9	Environmental Science & Technology (Geology: Coordinating department)	08	02	01	04	05	00	20
10	Information Security (Information Technology)	10	03	01	04	05	00	23
11	Operations Research (Mathematics)	05	03	01	04	05	05	23
12	Design & Production Engineering (Mechanical Engineering)	05	03	01	04	05	05	23
13	Industrial Metallurgy (Metallurgical & Materials Engineering)	05	03	01	04	05	05	23
14	Physical Metallurgy (Metallurgical & Materials & Engineering)	05	03	01	04	05	05	23
15	Advanced Materials Science & Technology (Physics)	10	03	01	04	05	00	23
	TOTAL	**106**	**43**	**15**	**60**	**75**	**40**	**339**

Other Post-Graduate Programmes:

SL. NO.	Specialization (Department)	Full time				Total
		Open	SC	ST	OBC	
1	Master of Business Administration (MBA)	46	14	7	25	**92**
2	Master of Computer Applications (MCA)	46	14	7	25	**92**
3	M. Sc. (Physics)	10	3	2	5	**20**
4	M. Sc. (Chemistry)	10	3	2	5	**20**
5	M. Sc. (Mathematics with Computer Applications)	10	3	2	5	**20**
		122	**37**	**20**	**65**	**244**

2.7 Admission Procedure

2.7 A. Under-Graduate Programmes:

Students are admitted exclusively through All India Engineering Entrance Examination (AIEEE) conducted by Central Board of Secondary Education (CBSE), New Delhi. The Seat Distribution Matrix is guided by Ministry of Human Resource Development (MHRD), Government of India.

2.7 B. Post-Graduate Programmes:

There are seven types of post- graduate students. Mode of Admission is detailed hereunder.

Sl No	Types of Student	Mode of Admission
1	Full Time GATE (M. Tech.)	GATE score and Institute level viva-voce
2	Full Time self-sponsored Non-GATE (M. Tech.)	B. Tech./eqv results, Institute level test and viva-voce
3	Full Time Sponsored (M. Tech.)	B. Tech./eqv results, Institute level test and viva-voce
4	Part Time (M. Tech.)	B. Tech./eqv results, Institute level test and viva-voce
5	MCA	NIMCET rank
6	MBA	CAT/MAT/XAT score and Institute Level GDPI
7	M. Sc.	B.Sc. results, Institute level test and viva-voce

2.8 Students

Seven hundred and seventy nine students were admitted in under graduate courses in the year 2010. Half of the students came from the state of West Bengal and rest of the students came from the other twenty seven states of India. In addition to the said figure, thirty nine students were admitted from foreign countries like Afganistan, Bangladesh, Bhutan, Maldives, Namibia, Nepal, Oman, Portugal, Qatar, Tanzania, Thiland.

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 free market economy India is a part of the global village, not confined to its territory that we see in text books of Geography. Our students researching in higher academic institutions and working in multinational companies have already made their marks in that global village.

In the year 2010-11, the students of under graduate and post graduate levels of the Institute has excelled not only in academics but also in every field one can think of. The NIT Durgapur is proud of producing the brains more than 90% of which gets employed by campus interview itself. Some of the alumni are in the higher ranks in the organisational hierarchy of the corporate sectors in Europe and the USA.

In 2010-11 four pre-final year students did the summer internship at CERN, Geneva and one student carried out collaborative M. Tech. programme with CERN, Geneva. Six students did internship in Germany, including DAAD and six students went to NUS, Singapore for internship. Altogether, 30 students participated in summer internship abroad in different universities including Massachusetts Institute of Technology, University of Michigan, Dearborn, ETH, Zurich, etc. Three students presented papers in international conferences abroad.

Extracurricular Activities:

i. Centre for Cognitive Activities

CCA, the Centre for Cognitive Activities, is the focal point where convergence of all technical and scientific endeavours of the students materialises. As the technical gymkhana of the Institute, this club is a revolution which bridges the gap between knowledge and application. Bulk of the extracurricular activities held in the college all the year round are organised by the CCA , with the objective of probing the dark recesses of the human mind so that the grey cells are stimulated to create, conceptualise and

evolve, triggering a rebellion of the new age mind against baseless conventions and meek acceptance.

The ultimate focus of the CCA is the organisation of the annual techno-management fest of the Institute, AAROHAN, and to make it bigger and better with each passing year. In addition to this, CCA conducts various innovative events all through the year, to inculcate and unleash intuitive ideas and skills, guiding the students to create an environment to produce a quality resource pool. CCA provides the students, especially the newest entrants to the tech arena, a sound platform to test their strengths in various technical and scientific fields, aids them in their endeavours to achieve, and also helps them in preparing for life after college.

As the strongest link in this chain of technological advancement, CCA successfully organised the 8th edition of AAROHAN. Aarohan 2011 saw immense participation from all over the country with all leading institutes like the IITs, IIMs, etc participating. From down south to far west, Aarohan saw enthusiastic participation from all regions of the country. Breathtaking shows, branch specific events, invigorating guest lectures were the high points of the programme.

ii. SAE- Society for Automotive Engineering (NIT Durgapur Chapter)

SAE is a communion of students who have passion and vision in the field of automotive engineering and are bound with a common aim of making a mark in the automotive world. Club activities are held throughout the year that give the fresh talents in this Institute a place to hone their skills and master it too. The annual Auto fest of SAE students' chapter "*Motor Zundung*" was a hugely successful endeavour, complete with a number of innovative platforms. The SAE also organized a robotics workshop, '*Mobi Botics'* in association with IIT Delhi, *Emanagineer*, *AUTONEX* and IC engine workshop. The SAE team won the first prize in *Junkyard Wars* competition at IIT Guwahati in September 2010. The activities of *IEEE Students' Branch* include a Microcontroller based automation event "*Dig the change*", a circuit design event, an event for eco-friendly technical innovations called 'Eco-huts', summer workshop on Lab view and invited talks.

iii. IEEE Students' Chapter

The activities of *IEEE Students' chapter* include a Microcontroller based automation event "*Dig the change*", a circuit design event, an event for eco-friendly technical innovations called 'Eco-huts', summer workshop on Lab view and invited talks.

iv. GNU/Linux Users' Group

GNU/Linux Users' Group, NIT Durgapur was formed to popularise Linux and Open Source softwares beyond the silicon branches and to the masses in common. *GLUG* organized the annual National Technical Symposium *Mukti* which included events such as *Brainmesh*, the web designing contest, *InCanity*, the C programming contest, *Linquizitor*, the technical quiz, *ImaGIMP*, *Kaffeine Wars*, the Java programming contest, etc., which are all on Linux platforms using open source software.The other activities include various workshops, install fests and Codecracker (our online programming competition - designed and run by the students!). Also, our association with IOTA and the West Bengal Government strengthens our resolve to become the software backbone of the Institute and spread awareness about FOSS.

v. Maths n Tech club

The Maths 'N' Tech Club was formed in the year 2004 with the aim of promoting mathematics and technology among the students. The second edition of *Ank* was organized by *Maths 'N' Tech Club* during September 03-05, 2010 with resplendent reception and massive participation. Other annual events of the club include *Hourglass*, *War of the Branches*, *Darwinia* (at *Aarohan*), *Media Cryptex Booth* (at *Mukti*) and Sudoku championships.

vi. Music Club

The Music Club is a haven for all music lovers of the college. The club organises several musical events throughout the year. The members participate in the cultural festivals of various colleges. The Music Club conducted *NIT Idol*, a solo singing competition, and *Rockophonix*, a band

competition during *RECSTACY 2010*. In *Ank 2010 Quiztune*, a fun-filled musical quiz was organized.

vii. Chayanika

Chayanika is a congregation of talent which explores the roots of our rich Indian heritage and culture, organizing a wide spectrum of cultural events in order to uplift the cultural ambience, putting a check on the erosion of values.

viii. PRAKRITI

PRAKRITI, the environmental club of NIT Durgapur conducted *ruNIT*, a mini marathon, *Greenart*, a poster making competition, environment related essay competition, awareness programme in nearby village of Hatedoba and plantation and cleaning drive in the campus.

ix. Enteract Club

Enteract Club, the official Drama Club of NIT Durgapur. Working successfully for last 3 years, we have established the culture of acting in this technical institute. It has been arranging Drama events in Recstacy and have showcased the performances at Teachers' Day, Independence Day, Republic Day and during some fests at our Institute. They also worked with the NSS and have staged some plays in nearby villages spreading awareness among people about the ill effects of addiction.

x. Dance Club

The Dance Club participated in IIT Kharagpur's Springfest, DSP Trade Fair, Teacher's Day Celebration, Street Dancing, *Aarohan* Cultural Nite, Independence Day and Republic Day celebrations.

xi. RADIO NITROZ

Running successfully for 4 years, RADIO NITROZ is NIT Durgapur's very own Campus Radio Station. During the 3-4 hour transmission in the evening from Monday to Friday, the campus people are kept updated with campus news, interesting shows, and live discussions. The aim of this programme is to help the audience share their attitudes and views on a common platform.

xii. Literary Circle

The flagbearers of Creativity and Imagination of the Institute, the Literary Circle has been making inroads into various fields since its inception in 1995. With activities ranging from organising Verve, an annual literary-cum-youth fest of NITD, one of the biggest of its kind and the bi-annual 'Dejavu',the official newsletter of the Institute and StarTalk, a panel discussion with celebrities, and 'EPISODE' , the yearbook of the institute , "LC" is one of the most active clubs of the campus. With a plethora of talents working tirelessly, success has been a path taken by means of words and words alone.

xiii. Quiz Inc

Quiz Inc is the official quiz club of NIT Durgapur. Throughout the year it organizes various events, both intra-college and inter-college quizzes, that are not only popular but have been widely acclaimed.

xiv. NSS

The students of NIT Durgapur are always responsive to the needs of the society at large and participate in community services regularly through the NSS unit of NIT Durgapur. Various medical camps and surveys were held. NSS also set up a stall for selling items made by the handicapped children from *HOPE*.

2.9 Examination & Evaluation

The Institute follows semester system of examination.

The undergraduate courses are of eight-semester (four year) duration. The Institute has been upgraded to National Institute of Technology, Durgapur with Deemed University status and grade system of evaluation has been adopted for the undergraduate 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 the CGPA indicates the academic performance of the student from the beginning upto the current semester. They are conferred with the degree of Bachelor of Technology (B. Tech.) at the completion of the course.

The postgraduate engineering courses are of four-semester duration for the full-time students and six-semester duration for the part-time students and lead to the degree of Master of Technology (M. Tech.). All the students of these postgraduate courses are evaluated by Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA).

The Master of Computer Applications (MCA) course is of six-semester duration and the students are evaluated by Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA).

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 the students are evaluated by Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA).

2.10 Placement

The Institute provides employment opportunities to the students through the Department of Training, Placement, and Students Welfare headed by a Professor, 581 (UG & PG) students have been placed in the academic session 2010-2011. In addition to that 171 (UG & PG) students got a 2nd job. Most of the global players, eg MICROSOFT, IOCL, HPCL, HAL, CIL, C-DOT, NTPC, VIZAG STEEL,IDBI, BANK OF BARODA, NMDC, MECON, HP, NOVELL, TEJAS NETWORK, WIPRO, IBM, L&T, TCS, MiSYS, MIND TREE, SAMSUNG, ONMOBILE, VEDANTA, CESC, MAHINDRA & MAHINDRA, TATA STEEL, TATA MOTORS, HUL, LAFARGE, VOLVO, ESSAR GROUP, SCHNEIDER ELECTRIC, AMW LTD. and many more were the recruiters in recent past who visited the campus for recruitment of the bright students.

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.

The Department of Physical Training 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 three gymnasiums equipped with sufficient number of equipment, and the playgrounds (The Lords & The Oval) always bubble with outdoor activities like football, cricket, basketball and athletics. Concrete court facilities are also available in tennis, basketball and badminton. Flood light facility is provided to all the outdoor games. The central playground (The Oval) accommodates a standard athletic track, 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 3.1 & 3.2.

2.13 Notable Achievements using Graphs, Charts, Diagrams:

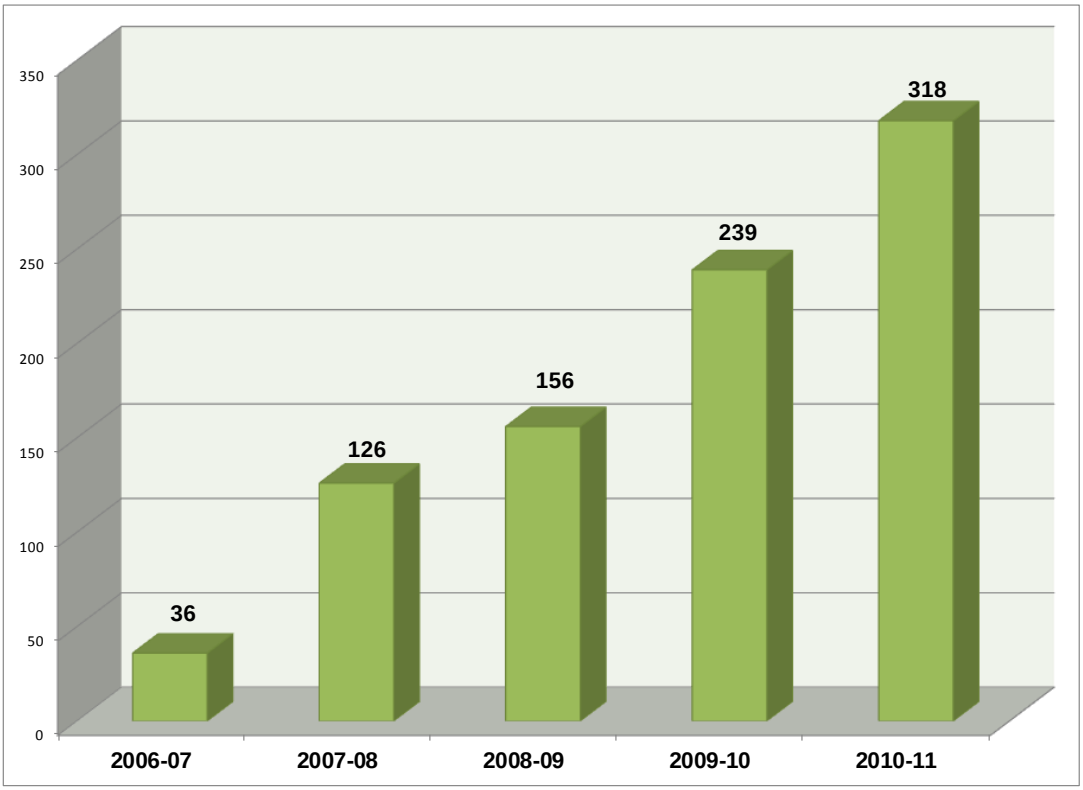

Fig. 1 Publication in journals in the last five years

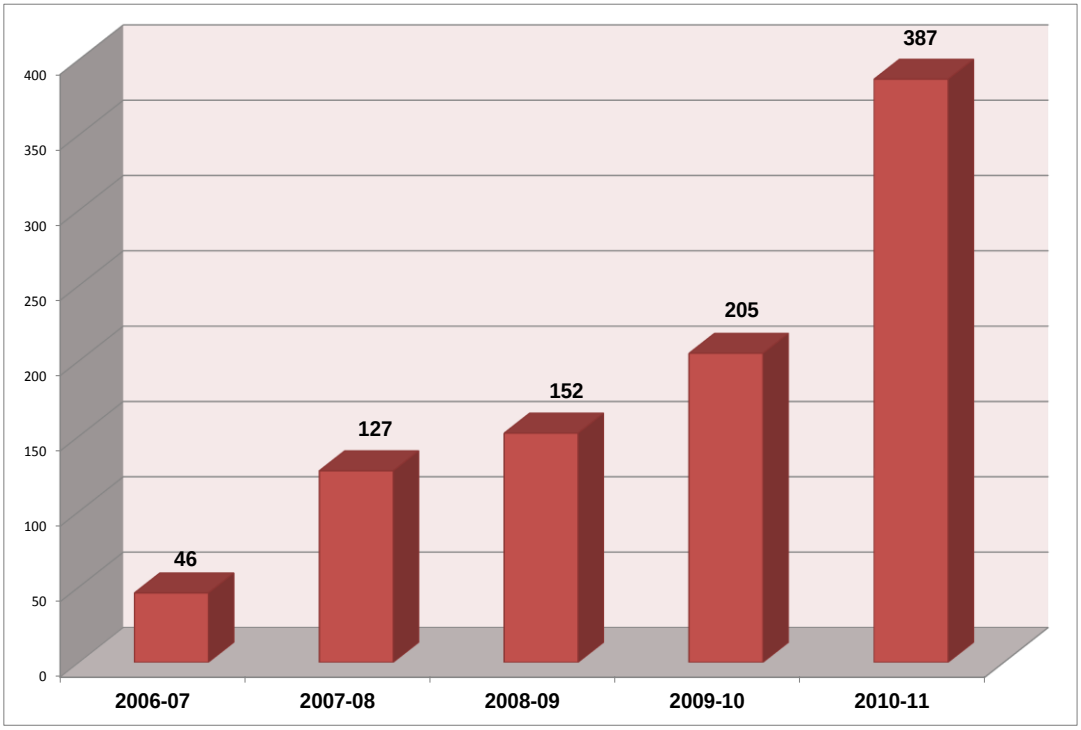

Fig. 2 Publication in conferences in the last five years

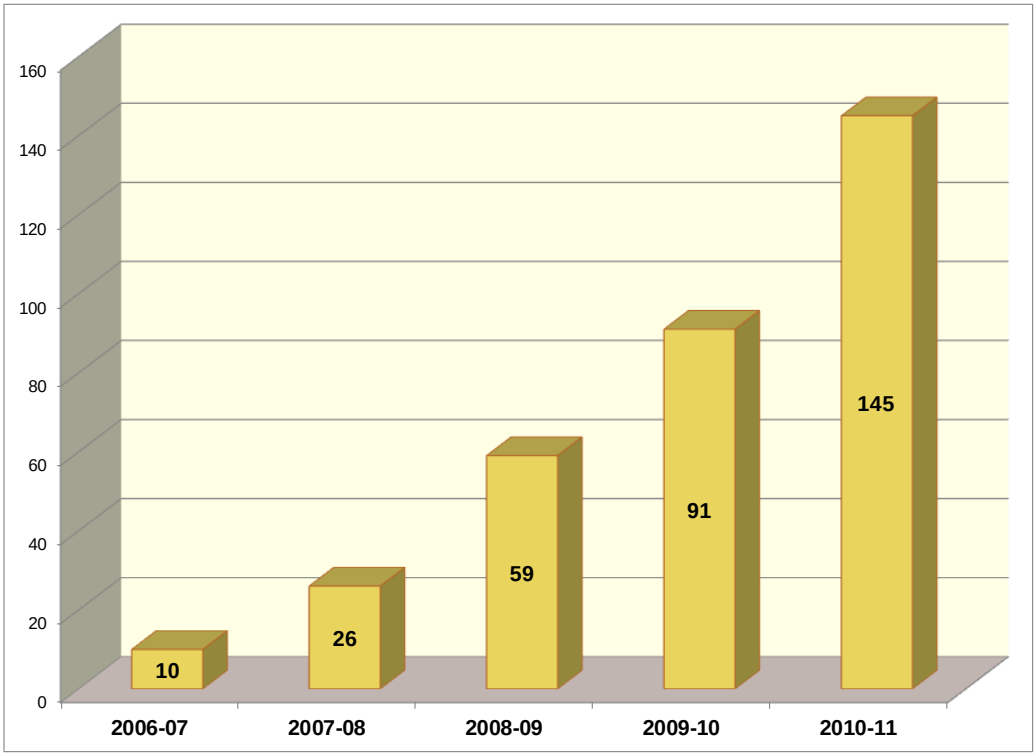

Fig. 3 Reviewers of journals/books during the last five years

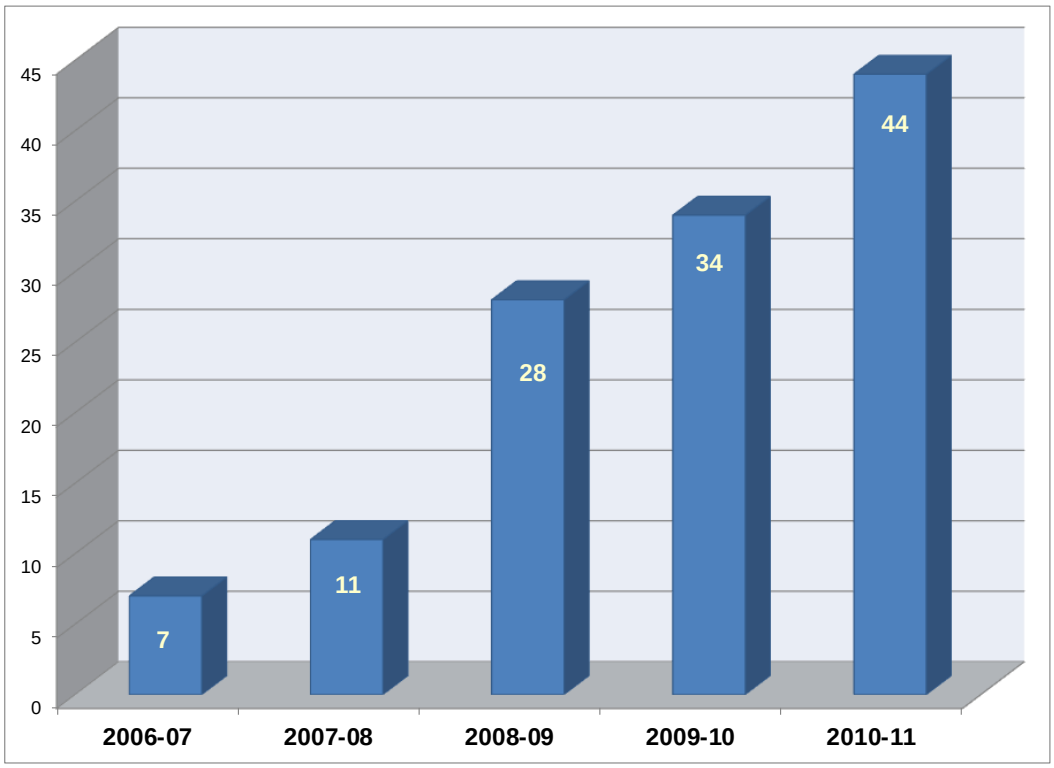

Fig. 4 Number of sponsored projects during the last five years

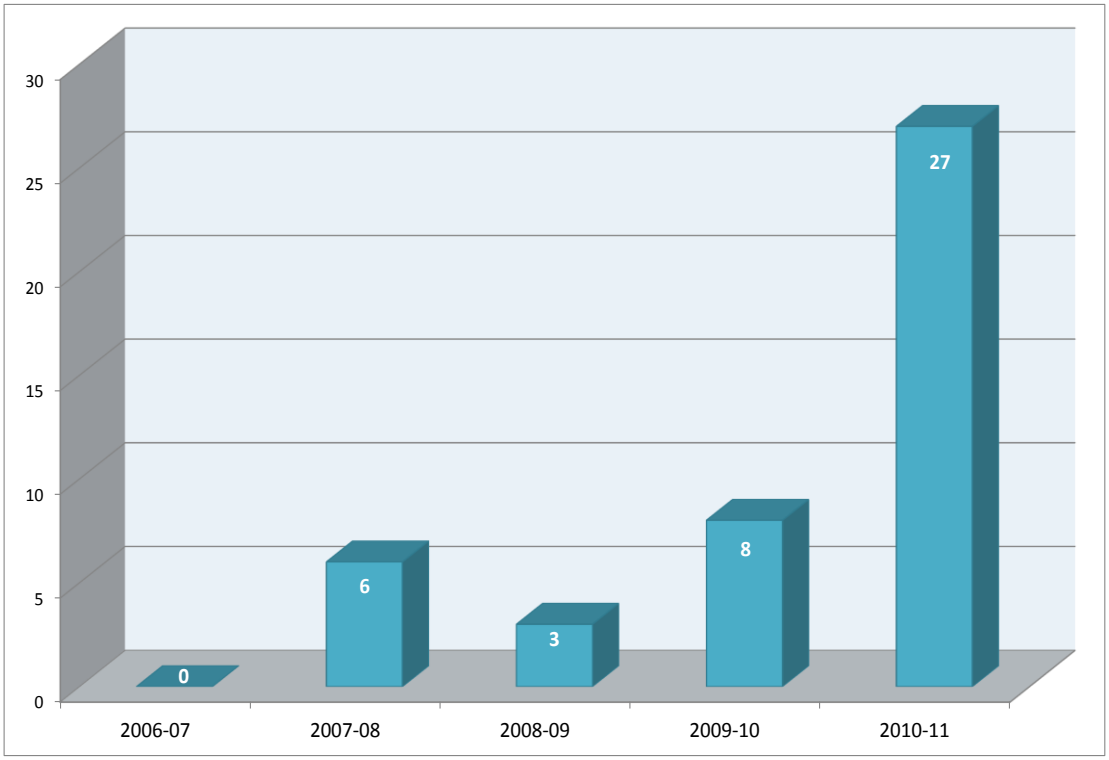

Fig. 5 Number of PhD degrees awarded during the last five years

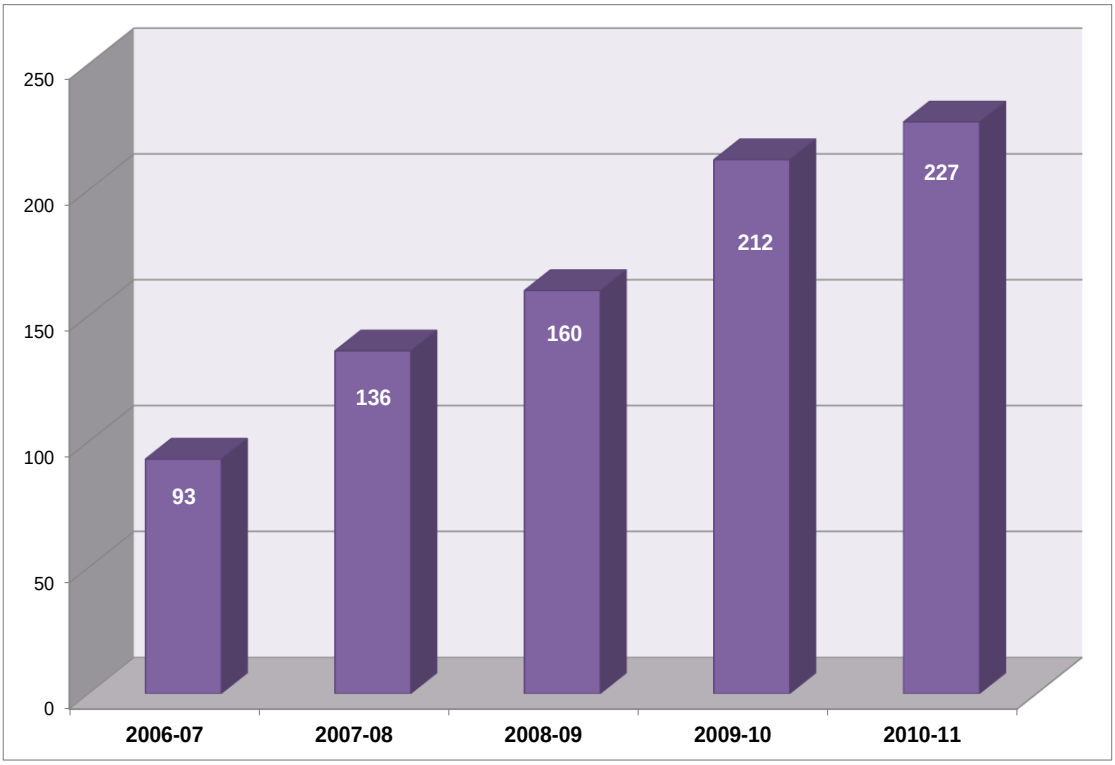

Fig. 6 Number of registered PhD scholars during the last five years

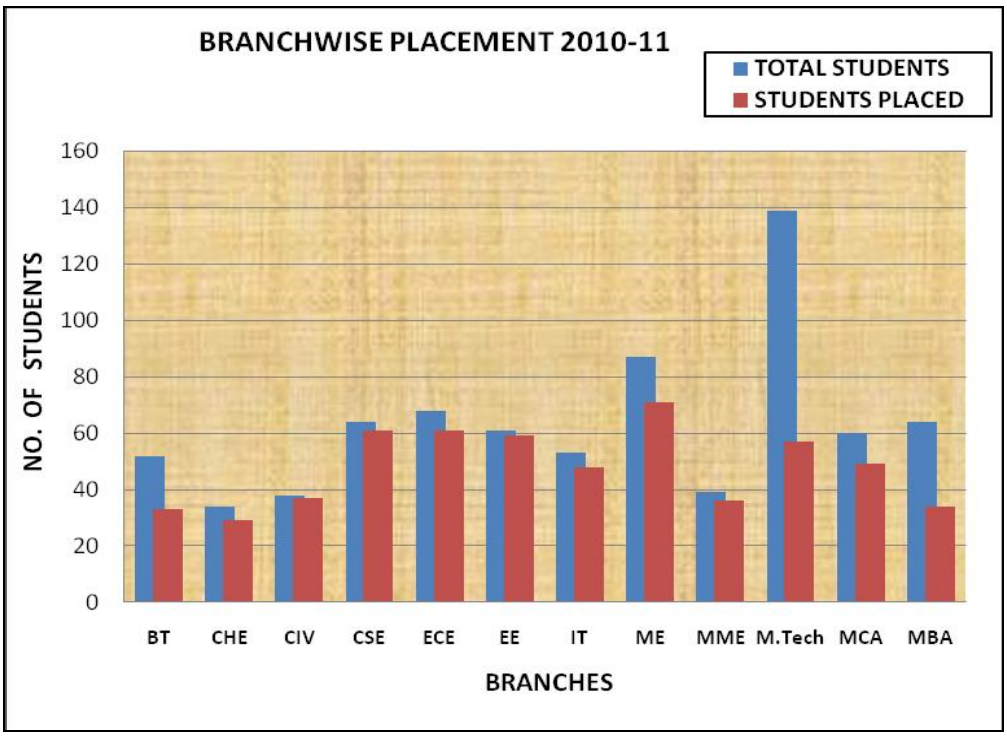

Fig. 7 Placement of students during 2010-2011

3.0 THE STAFF

3.1 Academic Staff (Teaching)

The academic Staff (teaching) of the Institute consists of highly qualified faculty members. The details of faculty position are given in Annexure 11.5(a) to 11.5(d).

3.2 Non-academic Staff (Non-teaching)

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

3.3 Training Status

The Institute provides ample opportunities to the Faculty (i) to undergo higher studies under QIP scheme of the Govt. of India and also under Study Leave Scheme, (ii) to attend Seminars, Conferences, Short-Term Programmes etc. in India and abroad and (iii) to undergo Industrial Training. Some details are given in Annexure 11.7(a) & 11.7(b).

3.4 Placement of Staff for Academic excellence

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

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 2010–2011 Session (Genderwise):

Semester	*BT*	*ChE*	*CE*	*CSE*	*ECE*	*EE*	*IT*	*ME*	*MME*	*Total*
B. Tech. I & II	77 (12)	66 (06)	65 (04)	91 (14)	100 (21)	99 (16)	91 (14)	154 (05)	75 (11)	818 (103)
B. Tech. III & IV	40 (09)	55 (11)	53 (06)	98 (13)	92 (23)	85 (19)	86 (16)	136 (06)	54 (07)	699 (110)
B. Tech. V & VI	51 (18)	40 (08)	47 (03)	76 (10)	77 (09)	73 (15)	63 (12)	116 (05)	52 (07)	595 (87)
B. Tech. VII & VIII	52 (19)	34 (11)	39 (04)	65 (06)	69 (05)	61 (10)	54 (07)	87 (05)	39 (07)	500 (74)
Total	*220 (58)*	*195 (36)*	*205 (17)*	*330 (43)*	*339 (58)*	*218 (60)*	*295 (49)*	*493 (21)*	*220 (32)*	*2612 (374)*

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

4.2 A2. Enrolment in B. Tech. Programmes during 2010–2011 Session (Castewise):

Dept.	B. Tech. I & II Semesters					B. Tech. III & IV Semesters					B. Tech. V & VI Semesters					B. Tech. VII & VIII Semesters				
	OP	*SC*	*ST*	*OBC*	*TOT*	*OP*	*SC*	*ST*	*OBC*	*TOT*	*OP*	*SC*	*ST*	*OBC*	*TOT*	*OP*	*SC*	*ST*	*OBC*	*TOT*
BT	36	13	07	21	77	17	10	05	08	40	31	11	07	02	51	41	08	03	---	52
ChE	37	08	05	16	66	35	07	03	10	55	26	06	03	05	40	26	06	02	---	34
CE	35	09	04	17	65	36	06	03	08	53	32	07	03	05	47	29	07	03	---	39
CSE	46	14	07	24	91	69	12	04	13	98	56	09	04	07	76	56	06	03	---	65
EE	53	14	07	25	99	54	12	06	13	85	51	11	05	06	73	48	10	03	---	61
ECE	54	14	07	25	100	60	12	06	14	92	55	12	04	06	77	55	10	04	---	69
IT	46	13	07	25	91	53	12	05	16	86	44	09	05	05	63	42	08	04	---	54
ME	83	22	10	39	154	87	16	10	23	136	85	14	07	10	116	65	14	08	---	87
MME	37	12	06	20	75	28	09	05	12	54	36	07	04	05	52	27	07	05	---	39
Total	**427**	**119**	**60**	**212**	**818**	**439**	**96**	**47**	**117**	**609**	**416**	**86**	**42**	**51**	**595**	**389**	**76**	**35**	**---**	**500**

4.2 B1. Enrolment in M. Tech. & M. Sc. Programmes, 2010– 2011 (Gender wise):

Semester	BT	ChE	CH	CE	CSE	EE	ECE (TELE)	ECE (VLSI)	Geo (EST)	IT	M	ME	MME (IM)	MME (ME)	PH	TOT
M. Tech. I & II	21 (9)	9 (4)	5 (1)	7 (3)	21 (3)	16 (3)	24 (4)	21 (8)	14 (10)	22 (3)	13 (2)	16 (3)	3	4 (2)	11 (4)	207
M. Tech. III & IV	19 (5)	14 (3)	0	10 (1)	18 (5)	20 (2)	20 (3)	16 (6)	7 (2)	20 (12)	11 (2)	12 (1)	5	2	11 (2)	185
M. Tech. V & VI	0	2 (1)	0	1	0	4 (2)	0	0	0	0	5 (2)	3	0	0	0	15
M.SC. I & II (PH, CH, Math)	0	0	11 (4)	0	0	0	0	0	0	0	5 (2)	0	0	0	8 (2)	24
M.SC. III & IV (PH, CH)	0	0	8 (4)	0	0	0	0	0	0	0	0	0	0	0	7 (2)	15

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

4.2 B2. Enrolment in M. Tech. & M. Sc. Programmes, 2010– 2011 (Caste wise):

Dept./ Year	I & II					III & IV					V & VI				
	OP	**SC**	**ST**	**OBC**	**TOT**	**OP**	**SC**	**ST**	**OBC**	**TOT**	***OP***	**SC**	**ST**	**OBC**	**TOT**
BT	14	2	1	4	21 *	15	1	0	3	19 *	0	0	0	0	0
ChE	5	2	0	2	9	9	3	0	2	14	2	0	0	0	2
CH	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0
CE	3	2	0	2	7	6	0	1	3	10	1	0	0	0	1
CSE	15	2	1	3	21 #	12	3	1	2	18	0	0	0	0	0
EE	9	3	0	4	16 *	14	3	1	2	20	4	0	0	0	4
ECE (TELE)	16	3	1	4	24 *	14	1	1	4	20	0	0	0	0	0
ECE (VLSI)	14	3	0	4	21	13	2	0	1	16	0	0	0	0	0
Geo (EST)	12	1	0	1	14	4	2	0	1	7	0	0	0	0	0
IT	15	3	0	4	22	15	2	0	3	20	0	0	0	0	0
M	13	0	0	13	11	13	0	0	0	13	5	0	0	0	5
ME	12	2	0	2	16	7	2	0	3	12	3	0	0	0	3
MME (IM)	2	0	0	1	3	5	0	0	0	5	0	0	0	0	0
MME (ME)	3	0	0	1	4	2	0	0	0	2	0	0	0	0	0
PH (AMST)	6	0	0	5	11	8	0	0	3	11	0	0	0	0	0
M. Sc. (CH)	10	0	0	1	11	7	0	0	1	8	0	0	0	0	0
M.SC (M)	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0
M. Sc. (PH)	7	0	0	1	8	6	0	0	1	7	0	0	0	0	0
Total	**166**	**23**	**3**	**39**	**231**	**146**	**20**	**4**	**30**	**200**	**15**	**0**	**0**	**0**	**15**

* 4 No Foreign Students, # 1 No. QIP (Polytechnic) Student

4.2 C1. Enrolment in MCA Programme during 2010 – 2011 Session (Gender wise):

Master of Computer Applications	I & II Semester	III & IV Semester	V & VI Semester
	63 (9)	59 (6)	60(9)

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

4.2 C2. Enrolment in MCA Programme during 2010 – 2011 Session (Caste wise):

Dept	MCA I & II					MCA III & IV					MCA V & VI				
	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT
MCA	33	10	1	19	63	34	10	2	13	59	41	9	4	6	60

4.2 D1. Enrolment in MBA Programme during 2010 – 2011 Session (Gender wise):

Master of Business Administration	I & II Semester	III & IV Semester
	60(17)	65(27)

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

4.2 D2. Enrolment in MBA Programme during 2010 – 2011 Session (Caste wise):

Dept	MBA I & II					MBA III & IV				
	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT
MBA	31	8	1	20	60	40	10	2	13	65

4.2 E. Enrolment of Research Scholars for PhD work during 2010–11 Sessions:

SL. NO.	Branch of Research Study	Gender Break Up		Caste Break Up			Total
		Male	Female	SC	ST	OBC	
1	Biotechnology	5	4	-	-	2	9
2	Chemical Engineering	3	1	-	-	1	4
3	Chemistry	-	-	-	-	-	-
4	Civil Engineering	-	-	-	-	-	-
5	Computer Science & Engineering	1	-	-	-	-	1
6	Electrical Engineering	4	-	-	-	-	4
7	Electronics & Communication Engineering	10	1	2	1	1	11
8	Geology	-	-	-	-	-	-
9	Humanities & Social Sciences	3	-	-	-	-	3
10	Management Studies	9	-	-	-	1	9
11	Mathematics	2	-	-	-	1	2
12	Mechanical Engineering	8	-	1	-	1	8
13	Metallurgical & Materials Engineering	1	-	1	-	-	1
14	Physics	5	0	-	-	1	4
TOTAL		**51**	**6**	4	**-**	**5**	**57**

4.3 Admission Statistics – UG/PG Programmes, Programme-wise

The details of the admission statistics is given in Annexure – 11.8(c)

4.4 Students' Total Strength

Sl No	Name of the Courses	Total Number of Students
1	Bachelor of Technology	2612
2	Master of Technology	407
3	Master of Computer Applications	182
4	Master of Business Administration	125
5	Master of Science	39
TOTAL		3365

4.5 The Hostels

Staying in hostels is mandatory for all undergraduate students of the Institute. Accommodations are provided to GATE-qualified PG 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 two halls of residence for female students which can accommodate 126 students each with one hostel having single-seated rooms.

One boys' hostel with a capacity of 740 seats is under construction and likely to be handed over by September 2011. Construction of one girls' hostel with a capacity of 264 seats is mostly completed and likely to be handed over by May 2011. Capacity expansion of Hall-1, 2 & 5 (all boys' hostels) is in progress, which will enhance the accommodation capacity of 504 seats.

4.6 Scholarships/Assistance

The Department of TPSW helps the students 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 organised various intra-NIT tournaments throughout the year in the fields of football, volleyball, basketball, table tennis, cricket, chess, swimming and athletics. In the year 2010-2011, the Institute organised All India Inter NIT volley ball tournament during December 23-24, 2010 and participated in the following All India inter-NIT tournaments.

- Inter-NIT Football tournament, NIT Rourkela during December 18-20, 2010
- Inter-NIT Swimming tournament, NIT Rourkela during December 18-20, 2010
- Inter-NIT Table Tennis tournament, NIT Silchar during December 23-24, 2010
- Inter NIT Volleyball tournament, NIT Durgapur during December 23-24, 2010

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 semester (3 hour duration) for the theory papers. Question papers are set internally and moderated by the respective Departmental Academic Committee (DAC). The Institute provides central arrangements for B. Tech. examinations. The postgraduate

examinations are being conducted by the respective departments from the academic year 2008-09, with partial support from the Institute, whenever necessary. The students are also continuously assessed through class tests, viva-voce, and class attendance. For the laboratory and sessional classes, the assessments are continuous and supported by viva-voce test /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 marks obtained in a subject are converted to appropriate letter grade by the departmental academic committee (DAC) and despatched 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); Absent: 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 off to the second place of decimal. If the candidate clears all the subjects, his SGPA is marked passed in the grade sheet, otherwise marked supplementary. Such candidates are allowed to appear in the supplementary examinations of the subjects in which they have failed. Fresh grade sheet is issued for such candidates with improved SGPA. The grade obtained by the candidate in the subjects for which he/she had appeared for the supplementary examination 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 awarded are as follows: **CGPA≥ 8.00** *First class with Distinction*; **8.00 > CGPA ≥ 6.50** *First class*; the rest of the passed candidates get *Second class*.

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

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 Ph.D. Programmes – Existing and Proposed

Existing:

Vide Annexure – 11.4(g)

Proposed:

Department of Biotechnology

- Assessment on the removal of heavy metals and dye using low cost adsorbents.
- Bioactive compounds from marine organisms
- Biofuels
- Bionanotechnology
- Biopesticides
- Bioremediation
- Cancer Biology
- Developmental Biology and Signal Transduction
- Environmental Microbiology and Biotechnology
- Extraction and application of natural dye
- Microbial Pigments
- Molecular Plant Pathology
- Parasite immunology and cell signaling
- Plant Biotechnology
- Screening of Novel Enzymes

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)
- Bubbling Fluidized Bed Combustion
- CFD modelling of Pyrolysis, Combustion and Gasification of Coal and Biomass
- Characterisation of nanomembranes
- Chlorofluorocarbons Replacement
- Clean Technology development for chemical processes
- Clean water production by membrane technology
- Design and Analysis of Circulating Fluidised Bed Bioreactors employing
- Design of Three Phase Fluidised Bed Combustion Equipment for Colloidal Fuels (Coal-
- Diesel Particulate Filter-A CFD Modelling
- Dynamic modelling of integrated coke-oven wastewater treatment plant
- Fluidized Bed Combustion
- immobilised Enzyme Nanoparticles
- Kinetic Studies on Biochemical Production of Phosphatic Biofertiliser from Rock Phosphate Ore
- Methane enrichment by TSA technology
- 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 of Pyrolysis, Combustion and Gasification of Coal and Biomass
- Nanofiltration
- Noncatalytic Gas-Solid Reactions
- Oil Suspension)
- Pressure Swing Adsorption Mechanism for Separation
- Production of Biodegradable Plastics (PLLA) from Cheese Whey
- Pyrolysis of weeds
- Removal of phenol using shale
- Slurry Flow Modelling

Department of Chemistry

- Application of Fenton's, Lime & Biological Treatment & their Comparative Assessment for the Treatment of Textile and Dye Wastewater"
- Application of Photo-Fenton's Oxidation & Biological Oxidation for Degradation of Selected Pollutants Present in Petro-Chemical & Coke-Oven Wastewater.
- Corrosion chemistry
- 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
- Kinetics and mechanism of inorganic and bioorganic reactions
- Modulation of cell membrane by integrating external lipid
- Spatial and Temporal Variations of Ambient Air Quality
- Surface Chemistry
- Synthesis and application of nonmaterial's for the reduction of environmental contaminants.
- Synthesis and Characterisation of Cu- & Fe complexes

Department of Civil Engineering

- Computational Mechanics of Concrete Structures
- Computational Mechanics of Shell Structures under Lateral load
- Computational Mechanics of Smart laminated Composite Structures
- Development of Smart Concrete Structures using Shape Memory Alloy to withstand Time Dependant Effects
- Experimental mechanics of Concrete Composites.
- NDT and evaluation of Concrete Structures /Advanced materials.
- Structural concrete both with conventional & Non-Conventional (Bio & Non-Bio degradable) Materials-FRC, Polymer Concrete, Assessment & Rehabilitation of Damaged Concrete Structures etc.

Department of Computer Science & Engineering

- Mobile Computing
- Software Engineering
- Testing and Verification of Circuits

Department of Electrical Engineering

- AGC with renewable energy systems, FACTS and PSS in restructured power systems
- ELD, Evolutionary optimization techniques
- Electrical Power Systems State Estimation, Detection and Identification of bad data etc.
- Electromagnetic Levitation
- FACTS
- 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
- Side Lobe Reduction in Antenna Arrays
- Small Signal Stability Analysis in Power Systems
- 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 & Communication Engineering

- Antenna
- Digital Signal processing
- MEMS
- Power Line Communication
- RF and Microwave Engineering
- Underwater Acoustic Communication
- VLSI
- Wireless Communication
- Wireless relays and space-time coding

Department of Geology

- Application of Remote Sensing in Petroleum exploration
- Environmental impact on coal mining areas
- Groundwater availability and its management
- Structural Geology & Tectonics of selected areas in Rajasthan

Department of Mathematics

- Bio-mathematics
- Finite Field and Design
- Fixed Pointy Theory
- Functional Analysis
- Fuzzy mathematics
- Image processing
- Information and Coding Theory
- Operations Research
- Optimization of dynamics system
- Population Dynamics
- Statistical Analysis
- Soft Computing
- Theoretical & Computational Fluid Dynamics

Department of Mechanical Engineering

- Computational Fluid Dynamics
- Fault diagnosis, detection and isolation
- Industrial Management
- Mobile Robot Navigation
- Non conventional machining
- Soccer playing robots
- Soft Computing
- Experimental analysis of composite structures
- Thermodynamics

Department of Metallurgical & Materials Engineering

- Corrosion fatigue/environmental assisted cracking of aluminium alloys and stainless steels and their weldments.
- Development of cast microalloyed steel.
- Development of TiC reinforced aluminium based metal matrix composite with and without a second reinforcement.
- 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
- Salt induced hot corrosion of nickel based super alloys.
- Semi-solid heat treatment of Al alloys.

Department of Physics

- Development and characterization of nanomaterials using laser
- Functionalization of Carbon Nanotubes, Preparation of Hybrid Structures with Carbon Nanotubes, Characterization and Study of Optical and Electrical Properties.
- Low temperature characterization of nano-composites, conducting polymers and disordered alloys
- MD Simulation and DFT Study of Mechanical Properties of Carbon Nanotubes and CNT-Polymer Composites
- Non-linear optical frequency conversion techniques for characterization of non-linear optical materials
- Preparation and characterization of advanced polymer composites with carbon nanostructures
- Studies of the effect of electric and magnetic fields on liquid crystals by polarizing light microscopy
- Studies on phenomenology of Z' – Boson and B-meson decays, phenomenology of massive neutrinos
- 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 Metal Nanoparticles by Laser Ablation and Study of Optical Properties

5.2 Details of PhDs done so far

Vide Annexure - 11.4(h)

5.3 Proposed Plan for Research

Department of Biotechnology

- Assessment on the removal of heavy metals and dye using low cost adsorbents.
- Bioactive compounds from marine organisms
- Biofuels
- Bionanotechnology
- Biopesticides
- Bioremediation
- Cancer Biology
- Developmental Biology and Signal Transduction
- Environmental Microbiology and Biotechnology
- Extraction and application of natural dye
- Microbial Pigments
- Molecular Plant Pathology
- Parasite immunology and cell signaling
- Plant Biotechnology
- Screening of Novel Enzymes

Department of Chemical Engineering

- Biochemical Utilisation of Petroleum Wax (Biochemical Conversion / SCP Production)
- Clean Technology for Chemical Processes
- Circulating Fluidized Bed Combustion & Gasification
- Co-pyrolysis, Combustion and Gasification
- Design and Analysis of Semi Fluidized Bed Bioreactors
- Design of Three Phase Fluidised Bed Combustion Equipment for Colloidal Fuels (Coal- Oil Suspension)
- Diesel Particulate Filter-A CFD Modelling
- Fluidized Bed Combustion
- Gasification of coal and biomass
- Kinetic Studies on Biochemical Production of Phosphatic Biofertiliser from Rock Phosphate Ore
- Modelling nanofiltration of arsenic removal by membrane-integrated hybrid system

- Multiphase flow
- Optimization and control
- Performance Analysis of Circulating Fluidised Bed Bioreactors employing Immobilised Enzyme Nanoparticles
- Process Intensification towards sustainable technology
- Production of Biodegradable Plastics (PLLA) from Cheese Whey
- Pyrolysis of weeds
- Realistic nanoseparation modelling through on-line streaming potential measurement
- Removal of phenol using shale
- Replacement of Chlorofluorocarbons from Conventional refrigeration systems
- Studies on Immobilised Cell / Enzyme Nanoparticles

Department of Chemistry

- Cryobiology
- Lipid Chemistry
- Pilot Scale study of Physico-Chemical and Biological Treatment of High Strength Wastewater
- Synthesis of Nonmaterial's for Environmental Application

Department of Civil Engineering

- 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
- Removal of heavy toxic metal from ground water using nanotechnology.
- Rural water management
- Setting up of a center of low-cost housing facilities.
- Solid waste management
- Wind energy Studies

Department of Computer Science & Engineering

- Mobile Computing
- Software Engineering
- Testing and Verification of Circuits

Department of Electrical Engineering

- AGC with renewable energy systems, FACTS and PSS in restructured power systems
- ELD, Evolutionary optimization techniques
- Electrical Power Systems State Estimation, Detection and Identification of bad data etc.
- Electromagnetic Levitation
- FACTS
- 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
- Side Lobe Reduction in Antenna Arrays
- Small Signal Stability Analysis in Power Systems

- 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 & Communication Engineering

- Antenna
- Digital Signal processing
- MEMS
- Power Line Communication
- RF and Microwave Engineering
- Underwater Acoustic Communication
- VLSI
- Wireless Communication
- Wireless relays and space-time coding

Department of Geology

- Application of Remote Sensing in Petroleum exploration
- Environmental impact on coal mining areas
- Groundwater availability and its management
- Structural Geology & Tectonics of selected areas in Rajasthan

Department of Humanities and Social Sciences

- Literary Theory and Criticism
- Poems and Plays of Shakespeare

Department of Information Technology

- Deniable and hierarchical crypto-systems
- Game theory based automated mechanism design
- Group Synchronisation and design of Tele-teaching systems
- Image processing in polar coordinate system and its application in Biomedical Engineering
- Knowledge based systems
- Optical networks – Burst and Coarse Packet switching
- Soft Computing Techniques for Bioinformatics systems
- Swarm robotics
- VLSI testing

Department of Mathematics

- Bio-mathematics
- Computational Fluid Dynamics
- Computational Graph Theory
- Fixed Point Theory
- Fuzzy Mathematics
- Geodesy and Geophysics
- Hypergraph
- Image processing
- Information Theory
- Mathematical Modelling
- Operations Research
- Optimization of dynamics system,
- Population Dynamics
- Statistical Analysis
- Supply-chain Management
- Theoretical & Computational Fluid Dynamics
- Uncertainty Theory

Department of Mechanical Engineering

- Complete fault diagnosis, detection and isolation of Rolling stand through electrical motor current signature analysis
- Constructal theory-based formulation of thermodynamic optimization principle
- Design and development of soft computing based multi agent systems
- Experimental Analysis of Composite Structures
- Machine dynamics
- Nonlinear Control
- Development of All terrain robot
- Development of climbing robot

Department of Metallurgical & Materials Engineering

- Characterisation and pre-reduction of electric arc furnace dust.
- Corrosion fatigue/environmental assisted cracking of aluminium alloys and stainless steels and their weldments.
- Development of cast microalloyed steel.
- Development of nanoceramic oxide dispersed aluminium alloy composites.
- Development of TiC reinforced aluminium based metal matrix composite with and without a second reinforcement.
- Modification of Al-Si alloy microstructure by semisolid heat treatment.
- Salt induced hot corrosion of nickel based super alloys.

Department of Physics

- Development and characterization of nanomaterials using laser
- Functionalization of Carbon Nanotubes, Preparation of Hybrid Structures with Carbon Nanotubes, Characterization and Study of Optical and Electrical Properties.
- Low temperature characterization of nano-composites, conducting polymers and disordered alloys
- MD Simulation and DFT Study of Mechanical Properties of Carbon Nanotubes and CNT-Polymer Composites
- Non-linear optical frequency conversion techniques for characterization of non-linear optical materials
- Preparation and characterization of advanced polymer composites with carbon nanostructures
- Studies of the effect of electric and magnetic fields on liquid crystals by polarizing light microscopy
- Studies on phenomenology of Z' – Boson and B-meson decays, phenomenology of massive neutrinos
- 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 Metal Nanoparticles by Laser Ablation and Study of Optical Properties

5.4 Institute-Industry Collaboration

Department of Biotechnology

Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
Bharat Petroleum, Rajbandh, Durgapur	Petroleum sludge bioremediation	Research

Department of Chemical Engineering

Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
Dynotherm Ltd, Mumbai Prof.C.M.Narayan	Heat Transfer Augmentation	Variable Area Design for Waste Heat Boilers
Govt.of India-sponsored Red brick cluster Development Project by Prof. P.Pal jointly with Dr. M.Roy (DMS) & Prof. S.Saha (CE)	Small Industry Cluster Development	Socio-economic and environmental sustainability
Ministry of Environment and Forest Prof.C.M.Narayan	Petroleum Processing	Biochemical Utilisation of Petroleum Wax
Refractory Manufacturing Association of Asansol-Kulti Prof.P.Pal	Development of remedial measures for environmental pollution problems	Existing fuel pattern, pollution, alternate firing technique development
Sameer Centre for Electromagnetics, Ministry of Communication and Information Technology Prof.C.M.Narayan	Heat Exchangers	Variable Area Design of Heat Exchangers and Condensers
Siemens Information Systems, Bangalore Prof. C. M. Narayan	Biomass Utilisation for Power Generation	Two Stage Fluidised Bed Gasification of Biomass
Synergy Biotech Ltd, Calcutta Prof. C. M. Narayan	Biofertilisers	Production of PROM (Phosphate – Rich Organic Manure)

Department of Civil Engineering

Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
Water res. Dept., Govt. of Bihar, Patna, India	Water Resources Engineering	Research and Projects

Department of Electrical Engineering and Physics

Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
Central Mechanical Engineering Research Institute, Durgapur	Research on DGA, Gas Sensors	Joint Research

Department of Metallurgical & Materials Engineering

Collaborating Institute / Organization	Areas of collaboration	Collaboration Activities
Durgapur Steel Plant	Foundry and heat treatment	To improve the mould life in foundry division
School of Automotive Engineering, Jadavpur University and Institute of Indian Foundryman, Kolkata	R&D for Howrah foundry cluster	Organising seminar and workshop to upgrade the foundry practices followed in Howrah(West Bengal) foundry

5.5 Innovations and Technology Transfer

Department of Biotechnology

Patent taken/filed

Title	Inventors	Application No.
Stress responsive transcription factor involved in plant growth and development and methods thereof	Sudip Chattopadhyay	US 7,674,957 B2 (granted in 2010)

Department of Chemical Engineering

Prof.P.Pal: Development of membrane-integrated hybrid systems for arsenic removal.

5.6 Workshops/Seminars Organised by the Institute (2010-11)

Department of Biotechnology

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Prof. S. Datta (Jadavpur University), Prof. P Bhattacharya (Jadavpur University), Prof. T. R.Sreekrishnan (IIT Delhi), Prof. D Das (IIT Kharagpur), Prof. P. P. Kundu (Calcutta University), Prof. G. S. Randhawa (IIT Roorkee), Prof. R. Banerjee (IIT Kharagpur)	National Conference on Biotechnology and the Environment	October 04-05, 2010

Department of Chemical Engineering

SL. NO.	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Dr. S. Paruya (Conference Secretary)	International Conference on Modelling Optimization & Computing (ICMOC 2010)*	October 28-30, 2010
2	Prof (Dr.) C. M. Narayan (Chief Coordinator)	All India Students' Engg. Congress – 2011	February 05-06, 2011

* With Department of Mathematics & Department of Computer Science & Engineering

Department of Civil Engineering

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Dr. A. Bagchi (CANADA) Organizing secretary: Dr. A.K. Datta Coordinator: Dr. P. Topdar	Seminar on Structural Health Monitoring (SHM-2011)	January 5, 2011
2	Prof. V.P. Singh, TEXAS A&M Univ, USA, Prof. Ed MaCbean Univ. of Guelph, Canada Prof. A.J. Adeloye, Heriotwatt Univ., U.K. Prof. Raju, G.S., Purdue University, USA Prof. A. Sharma, Univ. of North South Wales, Australia Dr. S.P. Wani, Principal Scientist, ICRISAT, Hyderabad Prof. D, Nagesh Kumar IISC, Bangalore, India	Intl. Conf. of Sustainable Water Res. Management and Climate Change Adapation, "SWRMCCA"	February 17–19, 2011

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
	Prof. C.S.P. Ojha, IIT Roorkee, India Prof. S.K. Tripathi, IIT Kanpur, India Organising Secretary – Prof. V.K. Dwivedi Joint Secretary- Dr. A. K. Banik Member S. Pal		

Department of Computer Applications and Department of Information Technology

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	A. Sarkar, S. Saha, S. Das	Effective Teaching/Learning of Computer Programming	June 28 – July 10, 2010
2	A. Sarkar, S. Changder	Database Management System	December 13 – 22, 2010

Department of Electronics & Communication Engineering

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Chandra, A. (Speaker and co-ordinator)	Workshop organized by IEEE student branch	September 23, 2010
2	Prof. D R Poddar, Professor and Emeritus Fellow , ETCE Dept., Jadavpur University Prof. Debatosh Guha, IRPE, Calcutta University	IEEE AP/MTT Calcutta Chapter Meeting Persons involved from NIT Durgapur ECE Dept.: Microwave and Antenna group comprising of Prof. A K Bhattacharjee, Prof. G K Mahanti, Dr. Rowdra Ghatak, Dr. Durbadal Mandal and Sr. Sujit K Mandal	March 7, 2011
3	Chandra, A. (Publication Chair)	International Conference on Emerging Technologies (ICET-2011)	March 28-31, 2011

Department of Mathematics

Sl. No.	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Prof. S. P. Mukherjee (CU), Prof. S. Bandopadhayay (ISI Kolkata) Prof. A. Konar (JU), Prof. U. Moulik (JU), Prof. T. Banerjee (IIM, Ahmedabad.), Prof. D. Ghosh (IIM, Ahmedabad) Prof. M. Agarwala (Delhi University) **Coordinators**: Dr. K.Basu, Dr. S. Kar	National Workshop on “Advances in Computational Optimization”	November 8 – 12, 2010
2	Dr. Debjani Chakroborty (IIT KGP) Dr. A. K. Bhunia (BU) Dr. S.K Samanta (TUL, Portugal) **Coordinator**: Dr. Anita Pal	National Seminar on “Modern trends in Operations Research”	January 31, 2011

Department of Mechanical Engineering

SL. NO	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Kavi Arya, Deptt of CSE, IIT-Bombay	Introduction to Robotics	March 12-13, 2011

Department of Metallurgical & Materials Engineering

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
1	Dr. M. Nageswar Rao,	Lecture series by AICTE-INAE distinguished visiting Professor "MIDHANI's experience in production of steel forging for gun barrel application.	January 26 – 30, 2011

Department of Physics

Sl. No	Name of Key Speaker(s)	Name of the Programme	Date of the programme
01	Prof G. C, Bhar, RMV Univ, INDIA Dr. G. Dalapati, IMRE, Singapore Dr. S. Dhara, IITKGP, INDIA Prof. A. K. Meikap (Internal) Dr. P. Kumbhakar (Internal) Dr. A. K. Chakraborty (Internal)	Frontiers in Materials Science – 2010	December 06, 2010

DST-sponsored INSPIRE Programme - 2010

National Institute of Technology, Durgapur successfully organised Innovation in Science Pursuit for Inspired Research (INSPIRE) camp, fully sponsored by DST, Govt. of India during June 21- 25, 2010 to inspire young talents towards advanced studies and research in basic sciences. One hundred and ninety six students from different schools of West Bengal participated in the programme. The inaugural function including lecture session received great importance by the presence of Prof. Bikash Sinha, Homi Bhaba Professor, DAE & Chairman, BOG, NIT Durgapur, Dr. A. Mukhopadhyay, Advisor, DST, Govt. of India, Prof. Sushanta Dattagupta, Director, IISER, Kolkata, etc. The others highly qualified Mentors - Academy Fellows, Bhatnagar Awardees and Scientists of national & international repute delivered their lecture related to scientific success stories and joys of innovation across all streams of science that in turn would stimulate their curiosity and attract them at an early age of 16-17 years to pursue their career in science.

5.7 Collaboration with Academic and Research Institutions

CERN, Geneva:

A collaborative M. Tech. project entitled "Performance Benchmarking Framework" was carried out by Imon Banerjee, an M. Tech. student of Department of Information Technology, under the supervision of Dr. Julien Leduc. The project was started at CERN, Geneva in May-July, 2011 and continued further at NIT Durgapur.

Subhankar Biswas, a B. Tech. student of Department of Information Technology went to CERN, Geneva for a summer internship on "GPUs for Accelerating Compute-Intensive Tasks in the AliRoot Framework of the ALICE Experiment" under the supervision of Dr. Latchezar Betev.

Subhashis Hazarika, a B. Tech. System student of Departement of Computer Science & Engineering did his internship on "Design of Control system for ALICE EMCal Readout Electronics" under the supervision of Dr. Peter Chochula at CERN, Geneva.

Deboleena Kumar, a B. Tech. student of Departement of Electronics & Communication Engineering did her internship on "Design and development of tools for proactive monitoring of DCS Data Archival" under the supervision of Dr. Jan Rak at CERN, Geneva.

Isha Shukla, a B. Tech. student of Departement ofMechanical Engineering carried out her internship on "Study of Discharges in Gas Electron Multiplier (GEM)" under the supervision of Dr. Paolo Martinengo at CERN, Geneva.

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

Nine faculty members of CCEO registered for PhD programme at NIT Durgapur and one has already been awarded the PhD degree.

NUS, Singapore:

Four Students undertook summer internship at NUS, May-July, 2010 under collaborative programme.

University of Michigan, Dearborn, USA:

Two students have undertaken summer internship during May- July, 2010 at University of Michigan, Dearborn under collaborative programme.

Department of Biotechnology

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Anthropological Survey of India, Kolkata	Research on Cancer Biology	Kazy S.K., NIT Durgapur Sarkar B.N., ASI, Kolkata	Research
Cancer Centre Welfare Home and Research Institute, Kolkata	Research on Cancer Biology	Kazy S.K., NIT Durgapur Sarkar B.N., ASI, Kolkata Kar M., CCWHRI, Kolkata	Research
Central Mechanical Enginreering 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 Enginreering 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 Enginreering 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
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
IARI, New Delhi	Research on Production of Novel Enzymes	Dutta D., NIT Durgapur, Lata, IARI, New Delhi	Joint research
Indian Institute of Technology Kharagpur	Sponsored projects on subsurface sediment/ groundwater microbiology	Kazy S.K, NIT Durgapur; Sar P., IIT Kharagpur Gupta A.K., IIT Kharagpur	Research

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Institut des Sciences de la Vigne et du Vin, Bordeaux University, France	Plant Developmental Biology Stress physiology	Chattopadhyay S., NIT-Durgapur and Serge Delrot, Bordeaux University, France	Research
Jadavpur University, Kolkata	Environment Biotechnology	Saha P., NIT Durgapur and Datta S., JU, Kolkata	Joint Research
JNU, New Delhi	Plant Developmental Biology and Signal Transduction	Chattopadhyay S., NIT-Durgapur and Nandi A., JNU, New Delhi	Research
National Institute of Technology Jalandhar	Research on Environmental Biotechnology	Dey A., NIT Durgapur and Jha M.K., NIT Jalandhar	Joint Research
National Institute of Technology Jalandhar	Research on Medical Textiles	Dey A., NIT Durgapur and.Jha M.K. and Ghosh S., NIT Jalandhar	Joint Research
National Institute of Technology Jalandhar	Research on Environmental Biotechnology	Dey A., NIT Durgapur and Jha M.K. and Bansal A., NIT Jalandhar	Joint Research
Punjab Technical University	Bioinformatics	Dey A., NIT Durgapur and Singh A., BCET Gurdaspur	Joint Research
School of Tropical Medicine, Kolkata	Research on Candida infection in HIV patient	Dutta D., NIT Durgapur, Basak S., School of Tropical Medicine, Kolkata, Guha S.K., School of Tropical Medicine, Kolkata	Joint research

Department of Chemical Engineering

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
University of Miami, USA	Large-Scale Optimization of Industrial Processes	Paruya, S.	1. Exchange of ideas through visits 2. Joint guidance for students 3. Joint publications 4. Joint proposals for funding
Calabria University, Italy	Membrane Technology	Pal P.	Collaborative research & publication
Heritage Institute of Technology, Kolkata	Waste Water Treatment	Dutta S.	Collaborative Research & Publication in Elsevier Sc.
IIT Kharagpur	Pyrolysis & Combustion of Coal & Biomass	Sadhukhan A. K. Gupta P.	Collaborative Research & Publication in Elsevier Sc.
Lappeenranta University of Technology, Finland	Membrane Technology	Pal P.	Collaborative research & publication in Elsevier Sc
Royal Institute of Technology, Stockholm, Sweden	Membrane Distillation	Pal P.	Collaborative research & publication
University of Calcutta	Waste Water Treatment	Dutta S.	Collaborative Research & Publication in Elsevier Sc.

Department of Chemistry

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Bolpur College, West Bengal	Organising seminar	All faculty members	Organised UGC Sponsored National Level Symposium on “Pollution: Disbalancing the Global Environment:

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
			Threats and Prevention" at Bolpur
Calodian College of Engineering, Muscat,Oman	Corrosion Chemistry	Feroz S., Das S.B. and Saha R.N.	Jointly supervising Ph.D. student
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"
Department of Chemistry University of California, Davis, CA 95616, USA	Crystal structure determination	Olmstead M.M. Patra A.K.	Single crystal X-ray Diffraction studies on the metalo-ligand complexes
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	Datta J. K., Gupta S. and Saha R. N.	Jointly supervised the Ph.D students in the areas on Environment management.
Microbiology Research Unit, Parasitology Research Laboratory, Department of Zoology, The University of Burdwan, Burdwan-713104, West Bengal, India	Biological activities of the synthesized metal complexes	Chandra Goutam	Antibacterial and other biological studies on synthesized metal complexes of various Schiff base and amide ligands
Vienna University of Technology	Kinetics and inorganic reaction mechanism	Linert W. Moi S.C.	Biomolecular substitution kinetics in $4d^8$ and $5d^8$ metal ion system

Department of Civil Engineering

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Lund University, Lund Sweden	Water Resources Engineering	Dwivedi V.K.	Research and Exchange

Department of Computer Science and Engineering

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
CERN, Geneva, Switzerland	MTech Project Work	Pal(DebRay) T.	Supervision and Discussion with joint guide of PG Project

Department of Electrical Engineering

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Central Mechanical Engineering Research Institute, Durgapur	Research on DGA, Gas Sensors	Roy N.K.	Joint research

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Indian Institute of Technology, Chennai	Online monitoring of Transformer	Roy N. K. Sarathi R.	Joint Research
ISM, Dhanbad	1.Optimization applied to DGS Power Systems 2. Optimization applied to ELD, Unit Commitment, OPF, AGC, PSS and Renewable Energy Sources of Power Systems	Ghoshal S.P.	Joint research
NITTTR kolkatta IIT Kharagpur	Maglev, AMB Control of DC EMLS	Banerjee, S.	Joint research
SVNIT, Surat	1.Optimization applied to AGC with FACTS in Power Systems	Ghoshal S.P.	Joint research
University Kebangsan Malaysia	1.Optimal Placement of Power Quality Monitors in Distribution Systems 2. Optimal Distribution Network Reconfiguration for Voltage Sag Mitigation	Ghoshal S.P.	Joint research
University of South Australia, Australia	ICT enabled High Voltage Laboratory	Roy N.K. Nafalski A.	Joint research

Department of Electronics & Communication Engineering

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Dept. of Information Engg. Universita Degli Study the Parma (University of Parma), Italy	Wireless Sensor Networks Cognitive Radio Networks	Kundu S.	Joint research
School of EECE, Newcastle University UK	Electronic Devices	Mahapatra R.	Joint research

Department of Geology

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Geological Survey of India, Kolkata	Slope stability study of Landslide Prone areas of eastern Himalaya	Adhikari K. Pal S. Bhattacharyya S.	Research

Department of Mathematics

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Machine Intelligence Unit, ISI Kolkata	Financial Mathematics and Soft Computing	Kar S. NIT Durgapur and Duttamajumder D.	Joint Research
Dept. of Mathematics, Vidyasagar University	Transportation and Inventory Management	Kar S. NIT Durgapur and Maiti M.	Joint Research
Department of Mathematics, Jadavpur University	Functional Analysis	Dey L.K., NIT Durgapur and Das P.	Joint Research

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Department of Mathematics, Kalyani University	Block Design Theory	Bagchi S., NIT Durgapur and Basu M.	Joint Research
Dept. of Mathematics, Vidyasagar University	Computational Graph theory	Pal A., NIT Durgapur and Pal M.	Joint Research
Department of Mathematics & StatisticsCaledonian (University) College of Engineering, Oman	Reliability in Fuzzy environment	Pal A., NIT Durgapur and Rizwan S.M.	Joint Research
Dept. of Agricultural Statistics, Bidhan Chandra Krishi Viswavidyalaya, Kalyani	Statistical Analysis	Sarkar (Mondal) S., NIT Durgapur, Mazumdar D.	Joint Research
Uncertainty Theory Lab, Tsinghua University, China	Research on Uncertainty Theory	Kar S. NIT Durgapur and Boarding L., China	Joint research

Department of Mechanical Engineering

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Central Mechanical Engineering Research Institute , Durgapur, India	Thermodynamics, Fluid Mechanics and Heat Transfer	Pramanick A. K.	Student exchange, joint research and pedagogy
Indian Institute of Technology Kharagpur, India	Droplet Dynamics	Pramanick A. K.	Faculty exchange and joint research
Jadavpur University, India	Non-conventional Energy	Pramanick A. K.	Joint research
University of Stuttgart, Germany	Aerothermodynamics	Pramanick A. K.	Student and faculty exchange, joint research, pedagogy

Department of Metallurgical and Materials Engineering

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Central Mechanical Engineering Research Institute	Metal injection moulding process to manufacture near net shape steel component	Ghosh K. S. Mondal D. K.	Joint PhD work
Indian Institute of Technology, Kharagpur	Development of TiC reinforced aluminium based metal matrix composite	Maity J.	Joint PhD work
National Institute of Secondary Steel Technology	Research on pellets usage in steel making	Mitra S. K. Ray R.N. Pramanik S.	Joint research

Department of Physics

Collaborating Institute / Organization	Areas of Collaboration	Faculty Members Involved	Collaboration Activities
Burdwan University	Electronics and Communication	Mandal M. K.	Joint Research
Burdwan University	Nonlinear Optics	Kumbhakar P.	Joint Research/ publication of paper

CMERI, Durgapur	Nanotechnology	Kumbhakar P.	Joint Research/ Joint PhD Guidance
CMERI, Durgapur	Multiferroics materials	Basu S.	Joint Research
EMPA, Swiss Federal Laboratories for Materials Science & Technology	Epoxy composites	Chakraborty A. K.	Joint Research
IACS, Kolkata	Nanomaterials, Multiferroics	Basu S.	Joint Research
IIT, Kharagpur	Materials synthesis and characterization	Chakraborty A. K.	Joint Research
Indian Institute of Science, Bangalore	Synthesis and Characterization of Nanomaterials	Kumbhakar P.	Joint research under UGC-NRM
National Institute of Technology, Raipur	Condensed Matter Physics	Sahoo S.	Joint Research
Regional Institute of Education, Bhubaneswar (NCERT)	Nuclear Physics, Cosmology, Physics Education & General Physics.	Sahoo S.	Joint Research
Utkal University, Bhubaneswar	Theoretical High Energy Physics	Sahoo S.	Joint Research

6.0 THE COUNCIL, BOG AND OTHER COMMITTEES

6.1 Institute's Council

Vide Annexure - 11.1

6.2 Board of Governors

Vide Annexure - 11.2

6.3 Finance Committee

Vide Annexure - 11.3 (a)

6.4 Building and Works Committee

Vide Annexure - 11.3(b)

6.5 Other Committees

Senate
Vide Annexure - 11.3(c)

7.0 CONCESSIONS FOR SC, ST, and HANDICAPPED STUDENTS

7.1 Concessions Provided for Students

The Department of Training, Placement, and Students' Welfare provides the students with Railway and Airway Concessions during their vacations.

8.0 FINANCIAL STATUS

8.1 Analysis of Plan and Non-Plan Grants (2010-2011)

Plan (General) Grants – Rs. 2084.75 Lakhs.
Plan (OSC) Grants – Rs. 3000.00 Lakhs.
Non-Plan Grants – Rs. 3500.00 Lakhs

8.2 Sources of Funds

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

8.3 Expenditure Position for Last Three Years

(Rupees in Lakhs)

Plan head Expenditure		Non-Plan head Expenditure	
2007-08	576.11	2007-08	2588.12
2008-09	463.64	2008-09	3067.10
2009-10	4700.08	2009-10	4713.64

Plan head Expenditure in 2010-11 (unaudited) – Rs 3584.69 Lakhs (including OSC)
Non-Plan head Expenditure in 2010-11 (unaudited) – Rs 4961.60 Lakhs (including OSC)

8.4 Oversight Committee Fund Receipt & Expenditure (2010-11):

Oversight committee fund: Receipt – Rs. 3000.00 Lakhs,
Expenditure – Rs. 2269.68 Lakhs.

9.0 CENTRAL FACILITIES AND SERVICES

9.1 Computer Services Centre

List of Servers and Desktop Computers:

- HP Blade server system:-
  - Management Server: Model HP Proliant ML350 Intel Xeon CPU
  - Second Intel server: Model HP Proliant ML350, Intel Xeon CPU
  - Eight numbers of blade: Model HP BL20p
- HP Blade holder
  - HP Storage: Modular Smart Array 1000 SCSI array of 146.8 GB x 10
  - Redundant power supply system
- SUN FIRE V240 Server and 11 SUN Workstations
- IBM SERVER System
  - IBM Server p5: Type : 9113-550
  - Storage EXP-PLUS320, Type 2104-TS4 with 4 nos. of disks IBM U320 73.4 GB
- HCL SERVER for ARC-GIS, Intel Xeon, 2GB RAM
- HP, HCL, DELL & Lenovo Desktop PCs

List of Software:

- Adobe Director 10 users (license on blade server 1)
- ANSYS 5 users license server on blade8 (win2K3)
- ASPEN PLUS 5 users network license and single in standalone (license on Intel Server)
- AUTODESK Mechanical, Civil 40, 10 users license server on blade8 (win2K3)
- CATIA (license server on blade management server)
- DB2 UDB Enterprise server (AIX Platform) on IBM Server
- FLUENT & FLOWLAB-20 & 25 users
- IBM rational Rose Suit (Windows Platform) 10 users
- LABVIEW 5 users
- MATLAB (license on blade management server)
- Maya users (license on blade server 1)
- Open Inventor 3D object oriented developer tool kit 5 users
- Oracle 10g Enterprise Edition with DW tools (Windows) 20 users
- Oracle Developer Suit 10g (Windows) 25 users
- Pro Engineer (license on Intel server)
- SPSS (Windows) 10 users
- SPSS Clemantine (Windows) 25 users
- Web Sphere Application Server (AIX Platform) on IBM Server
- Web Sphere Studio Application Developer (AIX Platform) on IBM Server

Peripherals:

- A0 Colour Plotter: HP Design Jet 500 PS; Model: C7770C
- A0 Plotter: HP Design jet 430, Model: C4714A
- HPDeskjet3745: Model C9025A
- A0 Scanner: Vidar Nova XP36
- A3 Scanner: Epson GT15000
- HP Scan jet 3770 Model: A5191L
- HP Heavy-duty Network Printer

Internet Services:

Campus wide network covering all departments, hostels, faculty quarters, and staff club has been completed with about 6 kms Fiber Optic Cable as a backbone with about 4500 CAT-6 UTP points. Two ISP's have been providing 95MBPS bandwidth, distributed throughout the campus by 24x7.

9.2 Workshops

The Department of Workshop of the Institute has eight engineering shops in different sheds, 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, (8) Foundry Shop, imparting training to UG & PG students of different semesters in accordance to UG & PG Curricula which include Workshop classes for all branches of engineering at different levels. The Workshop has been modernised by utilizing the grants provided to it under MODROBS & TEQIP scheme. Students from different Departments and particularly from Mechanical Engineering Branch utilize the workshop facilities for their Project & Thesis works. It has developed one Laboratory, where students can learn manufacturing, assembling, testing & repairing of air conditioners.

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 1000sq. mtrs. The library has a collection of 134308 volumes, which includes text books, reference books & bound volumes of Journals, Standards etc. The library subscribes to about 150 current Journals. Library operations have been automated with the help of an integrated library software package, LIBSYS-4. The book database is accessible through OPAC (Online Public Access Catalogue). It has a good collection of electronic resources in its Digital Library. It is an open access library and remains open from 8:30a.m. to 10:30 p.m. on weekdays and from 9 a.m. to 5 p.m. on Saturdays and Sundays. Library has introduced wi-fi Internet access facility in the reading halls.

The library has a well-equipped photocopy facility. The users can avail of this facility on payment of a nominal charge. 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), American Center Library, Kolkata, NPTEL (National Programme on Technology Enhanced Learning), and Current Science Association, Bangalore. It is also a beneficiary Member of INDEST-AICTE (Indian National Digital Library in Engineering, Science & Technology) Consortium, which provides Desktop Access to high quality e-resources (online journals) like IEL Online (IEEE/IEE Electronic Library), Springer Verlag's Link, Proquest, ACM journals, ASCE, ASME, Nature Magazine, Indian Standards (Intranet version) and ASTM journals & Standards etc. It has a good collection of Learning Resources, like Robot Simulation Software, Mechatronics Simulation Software, Pneumatics and Electro Pneumatics Simulations Software and Microcontroller Design & Simulation Software. The library has an e-learning package considering the present day need of teaching and learning process. It has also a collection of several thousand e-books on Computer Science (Published by Springer) available through website.
Total collection of books, journals, etc. and the annual expenditure are as detailed below:

(i) Total Collection	General Book	81749
	Book Bank	29121
	Bound Vol. of Journals	7744
	SC/ST	934
	ISI	5072
	Gift	3959
	Misc.	1485
	TEQIP Books	4244
	Total	**134308**
(ii) No. of Journals Subscription	Foreign **(e-journals through INDEST-AICTE Consortium)**	
	Indian	86
	Gift	35
	Total	**121**
(iii) No. of Books Catalogued, Classified and Processed	General	2897
	Book Bank	4100
	Total	**6997**
(iv) Expenditure Incurred by the Library during 2010-11	**BOOKS (In Rs.)**	
	General Books	1,31,61,793.00
	Book Bank	19,43,750.00

	JOURNALS/MAGAZINES (in Rs.)	
	Indian	1,47,662.00
	Foreign	e-journals through INDEST
	Magazine DELNET Membership LIBSYS AnnualSupport And Software Dev	16,846.00 7,500.00 73,544.00

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, 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 three part-time specialist physicians; one cardiologist (twice a week), one pediatrician (once a week), one gynecologist 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 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

There are one telephone booth (STD/PCO) and two copier centres inside the campus serving the needs of the students and staff. The Institute also has two canteens and one cafeteria near the students' hostels. There are branches of State Bank of India and Canara Bank in the Institute campus. An ATM counter was opened by SBI in the campus.

The Institute has three playgrounds used regularly by the students as well as residents of the campus. A higher secondary school is also located inside 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. They receive annual grants from the Institute to meet a part of the financial expenses.

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 football ground called **The Lords** adjacent to the hostels. There is one concrete tennis and basketball court each and one volleyball court with flood light facilities. Most of the hostels have their own volleyball courts with indoor games facilities.

9.8 Other Facilities like: Hostels, Messes, Staff Quarters, Administration, etc.

The Institute has seven boys' hostels and two hostels for girls' students. Five of the boys' hostels are of the capacity of 250 each and the capacity of sixth and seventh hostels is 120 and 360, respectively. The girls' hostels are of capacity of 126 each. 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 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 under construction consisting of 32 numbers of quarters. The construction of Prof. S. N. Ray memorial building is completed and the interior decoration along with allied works will be taken up shortly. The construction of an academic block is in its initial stage. Expansion and renovation work of Institute Medical Unit cum Hospital is mostly completed. Widening of Road and construction of Drainage network is near to completion.

Institute is likely to augment its electrical supply source through DVC shortly. Institute is expecting to receive the said power supply in July 2011.

10. NOTABLE ACHIEVEMENTS

10.1 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, 15 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 as a 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 the polytechnic institutes.

- The Institute was recognised by AICTE as a continuing Education Centre under C-NANCE scheme.

- 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 the third and the last phase of reservation for OBC students (27%) and the annual intake in B. Tech. programmes increased from 676 to 800 in the 2010-11 session. Similar increase was also implemented in M. Tech., MBA and MCA programmes.

- 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 sposoring five scholarships to UG students.

10.2 Achievements during the Year

- The Institute successfully participated in the World Bank assisted TEQIP as a lead institution, An Impact Assessment Survey sponsored by NPIU, Noida placed NIT Durgapur at the top among the NITs and eighth among 127 participating institutions in the country. It has also been selected in TEQIP-II.

- NIT Durgapur implemented the third and the last phase of reservation for OBC students (27%) and the annual intake in B. Tech. programmes increased from 676 to 800 in the 2010-11 session. Similar increase was also implemented in M. Tech., MBA and MCA programmes.

- A new M. Sc. programme in Mathematics with Computer Applications was introduced in the session 2010-11.

- 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.

- Department of Computer Science and Engineering was selected in the FIST programme of Department of Science and Technology, Government of India.

- Department of Electronics & Communication Engineering was selected in the FIST programme of Department of Science and Technology, Government of India.

- Forty four sponsored projects are being executed by the faculty members presently.

- The faculty members of the Institute have publication and acceptance of 318 papers in peer-reviewed journals and also published 387 papers in proceedings of national and international conferences in 2010-11 vis-a-vis 239 and 205 in 2009-10.

- The number of reviewers in peer-reviewed journals and books increased from 91 to 145.

- The number of registered PhD scholars increased from 212 to 227 in the last one year.

- Twenty seven scholars were awarded PhD degree by the Institute in 2010-11.

- Twenty four new faculty members joined the Institute in 2010-11.

- Out of 492 B. Tech. students, 445 have been placed through in-campus interviews in the session 2010-2011. In addition, 147 students got their second job.

- In 2010-11 four pre-final year students did the summer internship at CERN, Geneva and one student carried out collaborative M. Tech. programme with CERN, Geneva. Six students did internship in Germany, including DAAD and six students went to NUS, Singapore for internship. Altogether, 30 students participated in summer internship abroad in different universities including Massachusetts Institute of Technology, University of Michigan, Dearborn, ETH, Zurich, etc. Three students presented papers in international conferences abroad.

- The Institute organized "INSPPIRE" programme, sponsored by DST. Hundred and ninety six school students participated in the programme where 14 eminent scientists from different parts of the country addressed them.

- The Sixth Convocation of the Institute was held on September 18, 2010 in which Professor Paolo Giubellino, the Spokesperson, ALICE (LHC), CERN, Geneva delivered the Convocation Address as the Chief Guest. Dr. John van Wyhe, Director, *The Complete Work of Charles Darwin Online*, National University of Singapore Bye - Fellow, Christ's College, Cambridge, UK, was the Guest of Honour. Shri Rathindramohan Roy, Hon'ble Mayor, Durgapur Municipal Corporation and Shri Satish Chandra Tewari, Principal Secretary, Department of Higher Education, Government of West Bengal, were the Distinguished Guests. Professor Bikash Sinha, Chairman, Board of Governors, presided over the function.

- A project on renewable energy has been implememted in collaboration with West Bengal Green Energy Development Corporation Ltd., which includes installation of solar powered street and garden lights and installation of flat plate collectors to produce hot water directly from sunlight. The hot water is used by the students and also for cooking purpose in the kitchen.

Annexure –11.1 Institute's Council

NIT COUNCIL

Minister of HRD, Government of India	Chairman
Education Secretary, Ministry of HRD, Government of India	Member
Chairman of the Board of every Institute	Member
Directors of every Institute	Member
Chairman, UGC	Member
Director General, Council of Scientific & Industrial Research	Member
Four Secreteries from Biotechnology, Atomic Energy, Information Technology and Space, Ministry of HRD, Government of India	Member
Chairman, AICTE	Member
Five nominees by the Visitor	Member
Three Members of Parliament	Member
Two Secretaries of Higher/Technical Education from states where NITs are located (By rotation)	Member
Financial Advisor, Ministry of HRD, Govt. of India	Member
Joint Secretary (Technical Education)/Joint Educational Advisor (T) Ministry of HRD, Government of India	Member -Secretary

Annexure-11.2 Board of Governors

1.	Chairman: An Eminent Technologist / Engineer / Industrialist / Educationalist to be nominated by the Government of India.	**Prof. Bikash Sinha**, Former Director, Saha Institute of Nuclear Physics, 1/AF, Bidhannagar, Kolkata-700064.
2.	Nominee of the Ministry of Human Resource Development, Government of India	**Shri N.K Sinha** Joint Secretary, Ministry of HRD, Dept. of Higher Education, Govt of India, Shastri Bhavan, New Delhi.
3.	Nominee of the Department of Higher/Technical Education, Government of West Bengal.	**Dr. S. Dasgupta** Director of Technical Education Government of West Bengal Bikash Bhavan, Salt Lake, Kolkata-700091.
4.	Head of another Technical Institution in the Region or an eminent technologist nominated by the Government of India.	**Prof. L.M. Patnaik** Professor, Microprocessor Application Library, Dept. of Computer Science & Automation, Indian Institute of Science, Bangalore 560012.
5.	Director of Indian Institute of Technology, Kharagpur (in the region) or his nominee.	**Prof. Damodar Acharya** Director, Indian Institute of Technology, Kharagpur.
6.	Nominee of the UGC not below the rank of Deputy Secretary	**Dr. Dev Swarup** Joint Secretary, University Grants Commission, Bahadur Shah Zafar Marg, New Delhi 110 002.
7.	Nominee of AICTE not below the rank of an Advisor	**Dr. H. C. Rai** Adviser - I, (Engineering & Technical Bureau) AICTE, IG Sports Complex, IP Estate, New Delhi 110 002.
8.	An alumnus of the Institute from amongst alumni in Education/Industry to be nominated by the Board of Governors of the Institute	**Shri J. C. Shahani**, 6, Ho Chi Min Sarani, Kolkata 700 071
9.	Two representatives representing large and medium & small industries to be nominated by the Govt.of India.	**Shri Satyaki Sen**, Director, M.N. Dastur & Co. (P) Ltd., Faraday House, P-17 Mission Row Extension, Kolkata 700013 **Shri Prabir Kumar Sen,** Associate Vice President, HVAC, Sterling and Wilson Pvt. Ltd. Electro Mechanical Engineers Associate of Shapoorji Pallonji & Co. Ltd. Benfish IT Tower,Third floor, 31, GN Block, Sector-V,Salt Lake, Kolkata 700091
10.	One Professor and One Associate Professor of the Institute by rotation	**Dr. Biswajit Halder, Professor** Professor, Mechanical Engg. Deptt. **Dr. S Bhattacharya, Associate Prof**. Associate Professor, Civil Engg. Deptt.
11.	Director of the Institute. --*Ex Officio* Member Secretary.	**Prof. Swapan Bhattacharya** Director, NIT Durgapur (up to 29.011.2010) **Prof. Tapan Kr. Sinha** Director, NIT Durgapur (from 30.11.2010 to 31.03.2011) **Prof. D. Ghosh** Director, NIT Durgapur (from 01.04.2011 - till date)

Annexure-11.3(a) Finance committee

1.	**Prof. Bikash Sinha** Chairman, Board of Governors	Chairman
2.	**Shri S. K. Ray** Additional Secretary and Financial Advisor Integrated Finance Division Ministry of HRD, Govt. of India, New Delhi.	Member
3.	**Dr. Biswajit Halder** Nominee of BOG, NIT Durgapur	Member
4.	**Prof. Swapan Bhattacharya** (up to 29.11.2010) Director, NIT, Durgapur **Prof. Tapan Kr. Sinha** (from 30.11.2010 to 31.03.2011)Director, NIT, Durgapur **Prof. D. Ghosh** (from 01.04.2011- till date) Director, NIT Durgapur	Member Secretary

Annexure-11.3(b) Building and Works committee

1.	**Prof. Swapan Bhattacharya**(up to 29.11.2010) Director, NIT Durgapur **Prof. Tapan Kr. Sinha** (from 30.11.2010 to 31.03.2011) Director, NIT, Durgapur **Prof. D. Ghosh** (from 01.04.2011 - till date) Director, NIT Durgapur	Chairman
2.	**Shri R.K Bandyopadhyay**, Deputy Secretary(NITs), MHRD, New Delhi	Nominee of MHRD New Delhi
	Shri Navin Soi, Director (IFD), MHRD, New Delhi Or his nominee	Nominee of IFD,MHRD, New Delhi
3.	**Shri Satyaki Sen** Director, M.N Dastur & Co. Kolkata	Nominee of BOG NIT, Durgapur
4	**Dr. Partha Gangopadhyay** Superintending Engineer, PWD, Kolkata	Nominee of the PWD (Civil Wing)
5	**Shri C.K Varma**, Superintending Engineer, CPWD, Kolkata	Nominee of the CPWD (Electrical Wing)
6	**Shri M.K Mahobia** Superintending Engineer, CPWD,Kolkata	Nominee of the CPWD (Civil Wing)
7	**Shri A.K Bhadra** Superintending Engineer, PWD, Kolkata	Nominee of the PWD (Electrical Wing)
8	**Dr. S. Bhattacharya** Associate Prof. of Civil Engineering, NIT Durgapur	Nominee of BOG NIT, Durgapur
9	**Dr. A.Gangopadhyay** Associate Prof. of Geology NIT,Durgapur	Registrar (In-charge), NIT,Durgapur
10	**Dr. S. Haldar** Prof. of Chemical Engineering & Dean(Planning & Development), NIT Durgapur	Convenor-Secretary

Annexure-11.3(c) List of Senate members as on 31/03/2011

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Prof. D. Ghosh Director, NIT Durgapur (from 01.04.2011 till date) Chairman – Senate	profdg@yahoo.com	9434788001 9474377499
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PHYSICS		
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Annexure - 11.4(a) Ongoing sponsored projects

Department of Biotechnology

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Investigation of functional overlap between ZBF1/MYC2 and ZBF2/GBF1 in Arabidopsis seedling development and light regulated gene expression	Chattopadhyay S.	DST–SERC	38 lakhs	2010
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	2011
Characterization and optimization of pigment production from an isolated strain	Dutta D. Chaudhuri S.	UGC-Major Project	10,17,800/-	2010
Over-riding drug resistance in visceral leishmaniasis by combinatorial therapy with sub-optiml dose of HMG-CoA reductase inhibitor, Statin and trivalent Chromium complex, involving Src-family tyrosine kinase	Ghosh M.	Rapid Grant for Young Investigators (RGYI) scheme, DBT	39.84 lakhs	2011
Exploration and Exploitation of microbial catabolic potentials for the bioremediation of selected heavy metal and hydrocarbon contaminants	Kazy S. K.	DST - SERC Fast Track Project for Young Scientist	~17 lakhs	2009
Assessment of microbial diversity and community structure and their role in arsenic transformation and mobilization in arsenic contaminated groundwater of West Bengal.	Kazy S. K., NITD; Sar P., Gupta A.K., IIT, Kharagpur.	DBT	~30 lakhs	2008
Investigation of genetic and molecular interrelations of SHW1 and COP1 in *Arabidopsis* seedling development	Srivastava A. Chattopadhyay S.	DST-SERC Fast Track Project for Young Scientist	23 lakhs	2010

Department of Chemical Engineering

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Technology Development of Liquid Phase Adsorption of Mercury Using Low-cost Adsorbent for Better Management of Industrial Wastes	Dutta S., De P. (C.U.) Basu S (H.I.T.Kolkata)	DST, Govt. of India	7.5 lakh	2008
Study on Micro-porous Characteristics of activated carbon for PSA system employing Activated carbon-Nitrogen working pair	Halder G. N.	DST-Govt of India	13.5 lakhs	2010
Production of Lactic acid in Membrane-integrated Hybrid Reactor system – A Green Technology Approach	Pal P.	DST, Govt. of India	18.78 Lakhs	2009
DST-FIST	Pal P. Gupta P. Ghanta K.C. Sadhukhan A.K.	DST, Govt. of India	145.60 Lakh	2008

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Capturing Oscillations of Void Fractions in Boiling Natural Circulation Loop using Laser Doppler Anemometry and Impedance Probe	Paruya S. Sarkar J. P. Gupta P.	DST, Govt. of India	33. 02 lakhs	2010

Department of Chemistry

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Modification of sperm plasma membrane structure and function using exogenous lipid and its application in cryopreservation	Chakrabarty J.	DST-SERC Fast Track Project for Young Scientist	19.22 lakhs	2009
Bioinformatics Study on the Recognition and Dynamic of the water Molecules in the Human Inosine Monophosphate Dehydrogenase (IMPDHII) and Inhibitor Design	Mukhopadhyay B.P.	Department of Biotechnology (DBT), Govt. Of India	22.644lakhs	2010
Rhodamine-based new fluorescence probe for biologically important metal ions.	Panja S.S.	DST-SERC Fast Track Project for Young Scientist	18.96 lakhs	2009
Synthetic Modelling of Copper Proteins Active Sites	Patra Apurba K.	DST-SERC	23.93 lakhs	2007

Department of Civil Engineering

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount	Starting Year
Development of Decision Support System for water resource management and flood mitigation of river Kosi system lying in India and Nepal	Dwivedi V.K.	Swedish Research Council, Sween	240 thousand Swedish kroner	2010
Experimental set up for formation of river bed form and erosion around an island in a natural stream. 200 T Universal Testing Machine with the facilities of tensile test of bars, bond test between steel and concrete, bend-rebend test etc.	Dept. of Civil Engineering	DST, Govt. of India	50 lakhs rupees	2007

Department of Computer Science and Engineering

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
DST-FIST	Dr. S. Roy (Head) Dr. G. Sanyal Mr. B. Sen Mr. P. GuhaThakurta	Department of Science and Technology, Government of India.	54 Lakhs	2010

Department of Electrical Engineering

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Optimal allocation of FACTS Devices and their coordinated operation for power flow control and enhancement of voltage stability using soft computing technique	Acharjee P.	DST-SERC Fast Track Project for Young Scientist	10.38 lakhs	2009
Development of DC electromagnetic levitation systems–suitable for specific industrial applications	Banerjee S. Saha T.K.	DST, SERC	26.83 lakhs	2010
Control System Design Using Periodic Feedback Compensation: A Practical Approach	Dey J.	DST - SERC Fast Track Project for Young Scientist	13.6 lakhs	2009
Application of Non-linear Robust Control Strategies for Air-Flow Control	Koley C.	DST - SERC Fast Track Project for Young Scientist	19 lakhs	2010
Developing suitable pedagogical methods for various classes, intellectual calibers and research in e-learning	Dutta S. (ChE) Ghosh S. (EE) Koley C. (EE) Kumbhakar P. (PH) Mandal T. (ChE) Mandal M. K. (PH) Paruya S. (ChE) Roy N. K. (EE) Sarkar J. P.(ChE) Bhattacharya P. (JU)	National Mission Project on Education through ICT MHRD, Govt. of India	15 lakhs	2009
Upgradation of ICT enabled High Voltage Laboratory, NIT Durgapur	Roy N. K. Ghosh S. Koley C.	National Mission Project on Education through ICT MHRD, Govt. of India	7 Lakhs	2010
FIST program on Advanced Power Systems; Advanced Control Systems & Machine Drives	All faculty of the department	DST-FIST	108 lakhs	2009

Department of Electronics and Communication Engineering

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Development of Antennas for Ultrawideband Pulse Based Wireless Communication and Imaging Systems	Ghatak R.	DST Fast Track for Young Scientist	16.86 Lakhs	2010
Synthesis of Satellite Footprint Patterns from Planar Array Antennas by Combination of Particle Swarm Optimization and Fast Fourier Transform	Mahanti G. K. As Co-PI	ISRO and KCSTC,IIT,Kharagpur	Rs.10 Lakhs	January 2011
DST-FIST	All faculty of the department	Department of Science and Technology, Government of India.	Rs 108 lakhs	2011

Department of Information Technology

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Information Security Education and Awareness Project	Choudhury S.	Dept. of Information Technology, Ministry of Information and Communication, Govt. of India.	21 lakhs	2006
Institute of Open Technology and Application	Choudhury S.	Ministry of Information Technology, Govt. of West Bengal	10 lakhs	2008

Department of Management Studies

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Red brick cluster development project	Roy M.	Govt. of India Through Govt. of W.B.	4.0 lakh	2010

Department of Mathematics

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Solution of some optimization problem using graph theoritic approach	Pal A.	DST, Govt. of India	10.56 lakhs	2007

Department of Mechanical Engineering

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Design and Development of Adaptive Motion Planners for Multiple Mobile Robots	Hui N.B.	DST - SERC Fast Track Project for Young Scientist	14 lakhs	September 2009
Ice-Formation Method	Pramanick A. K. and Weigand B.	WISE program fully funded by DAAD Germany	3 months stipend & passage money for 1 UG student	2010
Steam Cooling of Gas Turbines	Pramanick A. K. and Weigand B.	WISE program fully funded by DAAD Germany	3 months stipend & passage money for 1 UG student	2010
State Equations for Different Phases	Pramanick A. K. and Weigand B.	WISE program fully funded by DAAD Germany	3 months stipend & passage money for 1 UG student	2011

Department of Metallurgical and Materials Engineering

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Studies of mechanical properties and corrosion behaviour of RTA treated HSLA steels.	Ghosh K. S. Mondal D. K.	NRB, New Delhi	18.86 lakhs	July 2009
DST-FIST	MME Dept.	DST, Govt. of India	117 lakhs	April 2009
Development of cast high strength microalloyed steels	Ghosh K. S. Chakrabarti A. K. Mondal D. K.	CSIR, New Delhi	4.68 lakhs	November 2010

Department of Physics

Title of the Project	Investigator(s)	Sponsoring Organisation	Amount (in Rs)	Starting Year
Development and Characterizations of Multiferroics nanomaterials	Basu S.	DST - SERC Fast Track Project for Young Scientist	Rs. 21.24 Lakhs	2010
Design and exploration of nanocrystalline multiferroic materials	Basu S.	BRNS,DAE, GOI	Rs.34.88 Lakhs	2011
Synthesis of doped nanomaterials for nonlinear optical applications	Kumbhakar P.	DST - SERC Fast Track Project for Young Scientist	13.44 lakhs	2009
Design and Applications of Ring Oscillators in Communication Systems	Mandal M. K.	DST - SERC Fast Track Project for Young Scientist	Rs.12.48 Lakhs	2011

Annexure - 11.4(b) Projects completed during 2010-11

Department of Biotechnology

Title of the Project	Investigator(s)	Sponsoring authority
Investigation of genetic and molecular interrelations of ZBFs in light signalling pathways in A. thaliana	Chattopadhyay S.	DST–SERC Ramanna Fellowship Grant (2007-2010)

Department of Electrical Engineering

Title of the Project	Investigator(s)	Sponsoring authority
DDFT EML System	Banerjee. S	Institute of Engineers(India)

Department of Mechanical Engineering

Title of the Project	Investigator(s)	Sponsoring authority
Design and Development of an all Terrain Robot	Hui N. B.	NIT Durgapur
Ice-Formation Method	A. K. Pramanick And B. Weigand	DAAD foundation in Germany
Steam Cooling of Gas Turbines	A. K. Pramanick And B. Weigand	DAAD foundation in Germany

Annexure–11.4(c) i. Research papers published in peer-reviewed journals during 2010-11

Department of Biotechnology

1. Bajpai, V., Bajpai, S., Jha, M.K., Dey, A., Ghosh, S., 2011. Microbial Adherence on Textile Materials – A Review, Journal of Envrionment Research and Development, 5 (3).

2. Chowdhury, S., Chakraborty, S., Saha, P., 2011. Biosorption of Basic Green 4 from aqueous solution by *Ananas comosus* (pineapple) leaf powder, Colloids and Surfaces B: Biointerfaces, 84, 520 – 527.

3. Chowdhury, S., Saha, P., 2011. Adsorption kinetic modelling of safranin onto rice husk biomatrix using pseudo-first- and pseudo-second-order kinetic models: Comparison of linear and non-linear methods, Clean Soil Air Water, 39(3), 274-282.

4. Chowdhury, S., Saha, P., 2010. Sea shell powder as a new adsorbent to remove Basic Green 4 (Malachite Green) from aqueous solutions: Equilibrium, kinetic and thermodynamic studies, Chemical Engineering Journal, 164, 168-177.

5. Chowdhury, S., Misra, R., Kushwaha, P., Saha, P., 2011. Adsorption thermodynamics, kinetics and isoteric heat of adsorption of malachite green onto chemically modified rice husk Desalination, 265, 159-168.

6. Chowdhury, S., Saha, P., 2010. Pseudo-second-order kinetic model for biosorption of methylene blue onto tamarind fruit shell, Comparison of linear and non-linear methods, Bioremediation Journal, 14(4), 196-207.

7. Chowdhury, S., Saha, P., 2010. Pseudo-second-order kinetic model for sorption of malachite green onto sea shell: comparison of linear and non-linear methods, The IIOAB Journal, 1(3), 3-7.

8. Gangappa, S.N., Prasad, V. B. R., Chattopadhyay, S., 2010. Functional Interconnection of MYC2 and SPA1 in the Photomorphogenic Seedling Development of Arabidopsis, Plant Physiology, 154, 1210-1219.

9. Goswami, G., Chaudhuri, S., Dutta, D., 2010. The present perspective of astaxanthin with reference to biosynthesis and pharmacological importance, World Journal of Microbiology and Biotechnology, 26, 1925–1939.

10. Jeong, R-D., Chandra-Shekara, A. C., Roy-Barman, S., Navarre, D-R., Klessig, D., Kachroo, A., Kachroo, P., 2010. Blue-light photoreceptors are required for the stability and function of a resistance protein mediating viral defense, Proceedings of National Academy of Sciences, USA, 107, 13538-13543.

11. Kazy, S. K., Monier, A. L., Alvarez, P. J. J., 2010. Assessing the correlation between anaerobic toluene degradation activity and bssA concentrations in hydrocarbon contaminated aquifer material, Biodegradation, 21, 793–800.

12. Mandal, T., Dasgupta, D., Datta, S., 2010. A biotechnology thrive on COD and chromium removal from leather industrial wastewater by isolated microorganisms, Desalination & Water Treatment, 13, 382-392.*

13. Mandal, T., Maity, S., Dasgupta, D., Datta, S., 2010. Advanced oxidation process and biotreatment: Their roles in combined industrial wastewater treatment, Desalination, 250, 87-94.*

14. Mandal, T., Mandal, S., Dasgupta D., Datta, S., 2010. Treatment of leather industry wastewater by aerobic biological and fenton oxidation process, Journal of Hazardous Materials, 180, 204-211. *

15. Paul, D., Kazy, S. K., Sar, P., Pal, T., 2010. DGGE-based microbial community analysis of subsurface undisturbed sediments from arsenic-affected Gotra area, West Bengal Indian, Journal of Geosciences, 64 (1-4), 173-178.

16. Saha, P., 2010. Assessment of water quality of Damodar River by water quality index method, Indian Chemical Engineer, 52, 145-154.

17. Saha, P., Chowdhury, S., Gupta, S., Kumar I., Kumar, R., 2010. Insight into adsorption equilibrium, kinetics and thermodynamics of Malachite Green onto clayey soil of Indian origin, Chemical Engineering Journal, 165, 874-882.

18. Saha, P., Chowdhury, S., Gupta, S, Kumar I., Kumar, R., 2010. Assessment on the removal of malachite green using tamarind fruit shell as biosorbent, Clean Soil Air Water, 38 (5–6), 437–445.

19. Saha, P., Datta, S., Sanyal S. K., 2010. Application of natural clayey soil as adsorbent for the removal of copper from wastewater, Journal of Environmental Engineering, 136, 1409-1417.

20. Saha, P., Sanyal S. K., 2010. Assessment of the removal of cadmium present in wastewater using soil-admixture membrane, Desalination, 259, 131-139.

21. Saha, P., Sanyal S. K., 2010. Reduction of lead pollution in groundwater using soil based protective liner bed in land fill pits, Desalination and Water Treatment, 24, 236-243.

22. Sohpal, V. K., Singh, A., Dey, A., 2010. A Comparative Analysis of Operating Variables on Xylanase Enzyme Activity in Melanocarpus Albomyces Batch Culture Using Fuzzy and Kinetics Approach, Journal of Engineering Research and Studies, 1(2), 135-141.

23. Sohpal, V. K., Singh, A., Dey, A., 2010. MEGA a Biocenteric Software for Sequence and Phylogenetic Analysis: A Review, International Journal of Bioinformatics Research & Application, 6 (3), 230-240.

24. Sohpal, V. K., Singh, A., Dey, A., 2010. Sequence alignment and phylogenetic analysis of Human Herpes Simplex Virus (HHV) using bioinformatics tool: a review, International Journal of Computational Biology and Drug Design, 3 (1), 68-88.

* Repeated in other departments

Department of Chemical Engineering

1. Bhattacharyya, A., Dutta, S., De, P., Ray, P., Basu, S., 2010. Removal of mercury (II) from aqueous solution using papain immobilized on alginate bead: Optimization of immobilization condition and modeling of removal study, Bioresource Technology, 101, 9421–9428.

2. Halder, G. N., Sarkar, S. C., 2011. Measurement of Specific Heat of Activated Carbon by Indigenously Built Calorimeter, Journal Of Characterization and Development of Novel Material, 3(1), 234-239.

3. Lahiri, S. K., Ghanta, K. C., 2010. Artificial neural network model with parameter tuning assisted by genetic algorithm technique: study of critical velocity of slurry flow in pipeline, Asia-Pac. J. Chem. Engg., 5,763-777.

4. Lahiri, S. K., Ghanta, K. C, 2010. Slurry flow modeling by CFD, Chemical Industry & Chemical Engineering Quarterly, 16(4), 295-308.

5. Lahiri, S. K., Ghanta, K. C., 2010. Regime identification of slurry transport in pipelines- A novel modeling approach using ANN & Differential evolution, Chemical Industry & Chemical Engineering Quarterly, 16(4), 329-343.

6. Mandal, M. K., Sant, S. B., Bhattacharya, P. K., 2011. Dehydration of aqueous acetonitrile solution by pervaporation using PVA–iron oxide nanocomposite membrane, Colloids and Surfaces A: Physico-chem. Engg. Aspects, 373, 11-21.

7. Mandal, T., Dasgupta, D., Datta, S., 2010. A biotechnology thrive on COD and chromium removal from leather industrial wastewater by isolated microorganisms, Desalination & Water Treatment, 13, 382-392.*

8. Mandal, T., Maity, S., Dasgupta, D., Datta, S., 2010. Advanced oxidation process and biotreatment: Their roles in combined industrial wastewater treatment, Desalination, 250, 87-94.*

9. Mandal, T., Mandal, S., Dasgupta D., Datta, S., 2010. Treatment of leather industry wastewater by aerobic biological and fenton oxidation process, Journal of Hazardous Materials, 180, 204-211. *

10. Narayanan, C.M., 2011. Biotechnological Education in India – Need for an Immediate Reappraisal, India Education Review.

11. Pal, P., Manna, A. K., 2010. Removal of arsenic from contaminated groundwater by solar-driven membrane distillation using three different commercial membranes, Water Research, 44, 5750-5760.

12. Sadhukhan, A. K., Gupta, P., Saha, R. K., 2010. Modeling and experimental studies on combustion characteristics of porous coal char: Volume reaction model, International Journal of Chemical Kinetics, 42, 299-315.

13. Sadhukhan, A. K., Gupta, P., Saha, R. K., 2010. Modelling of combustion characteristics of high ash coal char particles at high pressure: Shrinking reactive core model, Fuel, 89, 162-169.

14. Sen, M., Manna, A., Pal, P., 2010. Removal of arsenic from contaminated groundwater by membrane-integrated hybrid treatment system, Journal of Membrane Science, 354, 108-113.

* Repeated in other departments

Department of Chemistry

1. Bairagya H. R., Mukhopadhyay, B. P., Bera, A. K., 2011. Conserved Water Mediated Recognition and the Dynamics of Active site Cys 331 and Tyr 411 in Hydrated Structure of Human IMPDH-II. Journal of Molecular Recognition, 24, 35 - 44.

2. Bairagya, H. R., Mukhopadhyay, B.P., 2011. Protein Folding: Grand Challenge of Nature, J.Bimolecular Structure & Dynamics, 28 (4).

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Annexure–11.4(c) ii. Research papers accepted for publication in peer-reviewed journals during 2010-11

Department of Biotechnology

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4. Das, D., Kar, M. B., Roy, A., Kar, S., 2011. Two-warehouse production model for deteriorating inventory items with stock-dependent demand under inflation over a random planning horizon, Central European Journal of Operations Research.

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6. Panigrahi, G., Das, A., Basu, K., A Study to Increase Effectiveness of Distance Learning Websites in India with Special Reference to the State West Bengal to Increase the Present GER of Higher Education Through incorporation of E-Learning Facility in a Better Way. Procedia Social & Behavioral Sciences.

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Deaprtment of Mechanical Engineering

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3. Ghosh K. S., 2011. Determination of Kinetic Parameters from calorimetric study of solid state reaction in 7150 Al-Zn-Mg alloy, Transactions of Non-ferrous Metals Society of China.

Department of Physics

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9. Paul, R., Kumbhakar, P., Mitra, A. K., 2011. Blue-green luminescence from MWCNT/CdSnanohybrid structure synthesized by a simple chemical process, accepted for publication in International Journal of Nanoscience.

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11. Sahoo, S., 2011.Quantum Hall Effect in Graphene: Status and Prospects, Indian J. Pure & Appl. Phys., 49.

12. Talukdar, K., Mitra, A. K., 2011. Changes in mechanical properties and fracture behaviour of single-wall carbon nanotubes on bundle formation, accepted in Journal of Computational and Theoretical Nanoscience.

13. Talukdar, K., Mitra, A. K., 2011. Degradation of Mechanical Properties of Multiwall Carbon Nanotubes in the Presence of Defects, Journal of Materials Science and Engineering.

14. Talukdar, K., Mitra, A. K., 2011. A simulation study on the performance of various label-free electronic biosensors, International Journal of Nano Dimension.

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Annexure–11.4(d) Research papers presented in conferences and published in proceedings during 2010-11

Department of Biotechnology

1. Bajpai, V., Dey, A., Bajpai, S., Jha, M. K., Ghosh, S., 16 - 18 September, 2010. Quantification of adherent bacterial cells on biomaterials: current perspective, International Conference on Environment & Research, organized by University of Mauritius, Reduit (Mauritius).

2. Banerjee, S., Ghosh, S. K., Sarkar, N., Aikat, K., December, 2010. Complete commercial utilization of sugarcane: a boost to rural economy, National Seminar on Integrated Rural Development and Management: Issues, Strategies and Policy Options, organized by Ramakrishna Mission Vivekanada University, Narendrapur.

3. Chakraborty, S., Dutta, A., Dutta, D., Chaudhuri, S., 28 – 30 October, 2010, Moisture absorption and swelling kinetics in bean seeds: Ageneralized Maxwell-Stefan approach, 1st International Conference on Optimization and Computing, organized by National Institute of Technology, Durgapur, India.

4. Chowdhury, S., Saha, P., 2010. Adsorption thermodynamics and kinetics of Cu(II) onto $Ca(OH)_2$ treated fly ash, International Conference on Green Chemistry and Sustainable Environment, organized by Holy Cross College, Tiruchirappalli, India.

5. Chowdhury, S., Mishra, R., Kushwaha P., Saha, P., 4 – 5 October, 2010. Linear and non-linear regression analysis for binary sorption kinetics of methylene blue and safranin onto pretreated rice husk, National Conference on “Biotechnology and the Environment”, organized by Department of Biotechnology, National Institute of Technology, Durgapur, India.

6. Chowdhury, S., Mishra, R., Kushwaha P, Saha, P, 4 – 5 October, 2010. Removal of Safranin from aqueous solution by NaOH treated rice husk: Thermodynamics, kinetics and isosteric heat of adsorption, National Conference on “Biotechnology and the Environment”, organized by Department of Biotechnology, National Institute of Technology, Durgapur, India.

7. Das, R., Sar, P., Kazy S. K., 14 - 17 December, 2010. Exploring molecular diversity and bioremediation potentials of indigenous microorganisms in petroleum hydrocarbon contaminated sludge, 51st Annual Conference of Association of Microbiologists of India's International Symposium on Recent Advances in Cross-disciplinary MIcrobiology: Avenues & Challenges, organized by Birla Institute of Technology, Mesra, Ranchi, Jharkhand, India.

8. Das, R., Sar, P., Kazy S. K., 17 - 19 February, 2011. Assessment of genetic diversity and catabolic potentials of indigenous microorganisms in petroleum hydrocarbon contaminated sludge for their potential application in bioremediation, International conference on sustainable water resources management and climate change adaptation (SWRMCCA), organized by National Institute of Technology, Durgapur, West Bengal, India.

9. Das, R., Sar, P., Kazy, S.K., 5 - 6 October, 2010. Enrichment, isolation, and characterization of hydrocarbon degrading bacteria from petroleum hydrocarbon containing sludge, National Conference on “Biotechnology and Environment”, organized by Department of Biotechnology, National Institute of Technology Durgapur, West Bengal, India.

10. Dasgupta Mandal, D., Mandal, T., Datta, S., 13 - 15 Dec 2010. Ammonia & COD reduction by the isolated bacteria from Steel industry effluents. International Conference on Environment (ICENV2010), Pennang, Malaysia.*

11. Dhal, P. K., Kazy S. K., Sar, P., 5 - 6 October, 2010. Distribution and molecular diversity of microbial communities in uranium mines, National Conference on Biotechnology and Environment, organized by Department of Biotechnology, National Institute of Technology Durgapur, West Bengal, India.

12. Dhali, D., Paul, S. S., Dasgupta Mandal, D., 2010. Biodegradation Potential of Bacterial isolates from Industrial Effluents with respect to COD and o-Cresol, 51st Annual Conference of Association of Microbiologists of India (AMI), International Symposium on Recent Advances in Cross-disciplinary Microbiology: Avenues Challenges. (Section: Environmental Microbiology, Paper No: EM71, Page No: 167-168).

13. Dhali, D., Paul, S. S., Dasgupta Mandal, D., 2011. Genotoxic Evaluation of Industrial Effluents on Alium cepa" , Proceedings of XXXVIth Annual Conference of Environmental Mutagen Society of India (EMSI) & International Symposium on "Environmental Exposures to Mutagens and Carcinogens on Human Health", (P-54,Page No:133).

14. Dutta, A., Dutta, D., Chaudhuri, S., 22 - 26 August, 2010. Modeling of Solid liquid extraction kinetics of ginger polyphenols, 15th World Congress on Food Science & Technology, Cape Town, South Africa.

15. Ghosh, S. K., Banerjee, S., Aikat, K., February – March, 2011. Comparative Study of Three Lignocellulosic Substrates for Bioethanol Production, 18th West Bengal State Science & Technology Congress, Kolkata.

16. Ghosh, S. K., Banerjee, S., Aikat, K., February, 2011. Detoxification of Acid Hydrolysate of Sugarcane Bagasse for the Removal of Furfural, National Conference on Industrial Engineering, organized by West Bengal University of Technology, Kolkata.

17. Ghosh, S. K., Banerjee, S., Sarkar, N., Aikat, K., December, 2010. Acid treatment of sugarcane bagasse: A critical step for bioethanol production, International Conference on "Applications of Renewable and Sustainable Energy for Industry and Society", organized by Osmania University, Hyderabad.

18. Ghosh, S. K., Banerjee, S., Sarkar, N., Aikat, K., February, 2011. Fermentable Sugars from Sugarcane Bagasse – Economic management of an agro-industrial waste, 8th All India People's Technology Congress, organized by Forum of Scientists, Engineers & Technologists (FOSET), Kolkata.

19. Goswami, G., Chaudhuri, S., Dutta, D., 11 - 14 April, 2010. Effect of pH and temperature on pigment production from an isolated bacterium. 2nd International Conference on Industrial Biotechnology, Italy.

20. Gupta, S., Kumar, I, Saha, P., 2010. Assessment on the removal of malachite green dye from waste water using clayey soil, "Chemference"-Annual Research Symposium, organized by Department of Chemical Engineering, Indian Institute of Technology, Kanpur, India.

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26. Mishra, R., Chowdhury, S., Kushwaha, P., Saha, P., 2010. Adsorption of carcinogenic dye containing effluents on agricultural biomass used as bio-sorbent in column operation, International Conference on Green Chemistry and Sustainable Environment, organized by Holy Cross College, Tiruchirappalli, India.

27. Mishra, R., Kushwaha, P., Chowdhury, S., Saha, P., 2010. Dye removal by alkali treated rice husk in fluidized bed column, National Conference on “Biotechnology and the Environment”, Department of Biotechnology, National Institute of Technology, Durgapur, India.

28. Mishra, R., Kushwaha, P., Saha, P., 2010. Adsorption of aqueous safranine onto rice husk in fluidized bed reactor: kinetic modelling including error analysis, “Chemference”- Annual Research Symposium, organized by Department of Chemical Engineering, Indian Institute of Technology, Kanpur, India.

29. Mishra, R., Kushwaha, P., Saha, P., 4 -5 October, 2010. Breakthrough curve analysis and kinetic modeling of aqueous safranin adsorption onto treated rice husk in packed bed column operation, National Conference on “Biotechnology and the Environment”, organized by Department of Biotechnology, National Institute of Technology, Durgapur, India.

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35. Paul, D., Islam, E., Kazy, S. K., Sar, P., 24 - 27 January, 2011. Metagenomic analysis of structure and diversity of microbial communities in arsenic contaminated ground water samples, International conference on Microbes in waste water and waste water treatment, bioremediation and energy production, organized by Birla Institute of Technology and Science Pilani, Goa campus.

36. Paul, S. S., Dhali, D., Dasgupta Mandal, D., 2010. A Comparative study of the Toxicity of different Industrial Effluents on the Germination of Chick pea (*Cicer arietinum*), Proceedings of National Conference on Biotechnology and the Environment – NCBE, (Section 6,Page No.-175).

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39. Saha, P., Chowdhury, S., Datta, S., Sanyal, S. K., 2010. Study on the removal of copper present in solution using clayey soil, International Conference on Green Chemistry and Sustainable Environment organized by Holy Cross College, Tiruchirappalli, India.

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42. Saha, P., Chowdhury, S., 13 – 14 July, 2010. Pb(II) adsorption from aqueous solutions onto clayey soil of Indian origin: equilibrium, kinetic and thermodynamic studies, "Chemference"-Annual Research Symposium organized by the Department of Chemical Engineering, Indian Institute of Technology, Kanpur, India.

43. Sarkar, A., Kazy, S. K., Sar, P., 17 - 19 February, 2011. Geomicrobiology of arsenic release in subsurface ground water: A molecular microbiology approach, International conference On sustainable water resources management and climate change adaptation (SWRMCCA), organized by National Institute of Technology, Durgapur, West Bengal, India.

44. Sarkar, N., Aikat, K., February, 2011. Effect of Substrate Concentration on Microbial Hydrolysis of Rice Straw, An Agricultural Waste, 8th All India People's Technology Congress organized by the Forum of Scientists, Engineers & Technologists (FOSET), Kolkata.

45. Sarkar, N., Aikat, K., July, 2010. Bioethanol Production from Lignocellulosic Waste, International Conference on Green Chemistry and Sustainable Environment, organized by Holy Cross College, Tiruchilapalli, India.

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47. Sarkar, N., Ghosh, S. K., Banerjee, S., Aikat, K., December, 2010. Isolation of cellulolytic bacteria from degraded rice straw, International Conference on Sustainable Mobility, SAE Malaysia.

48. Sarkar, N., Ghosh, S. K., Banerjee, S., Aikat, K., 4 - 5 October, 2010. Effect of Temperature and Incubation Period in Enzymatic Hydrolysis of Rice Straw for the Production of Reducing Sugars by Locally Isolated *Bacillus* Strain, National Conference on Biotechnology and the Environment, organised by Department of Biotechnology, National Insititute of Technology, Durgapur, India.

49. Singh Oberoi, A., Das, R., Sar, P., Kazy, S. K., 17 - 19 February, 2011. Naphthalene Biodegradation by an *Aerococcus* sp. isolated from Petroleum Hydrocarbon Contaminated Sludge, International conference on sustainable water resources management and climate change adaptation (SWRMCCA), organized by National Institute of Technology, Durgapur, West Bengal, India.

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52. Sohpal, V. K., Singh, A., Dey, A., 2010. Investigate of Process Parameters on Xylanase Enzyme Activity in Melanocarpus Albomyces Batch Culture. Proceedings of The World Congress on Engineering 2010, Vol: 1 pp 562-565.

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56. Varsha, Jha, M. K., Dey, A., 22 – 23 November, 2010. Treatment of sulfide wastewater in fluidized bed reactor with different support particles, 17th Regional Symposium on Chemical Engineering, Bangkok, Thailand.

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2. Chatterjee, S., Bhattacharyya, A., Dutta, S., Basu, S., December, 2010. Removal of Lead and Cadmium Using Immobilized Papain from Simulated Solution under Laboratory Condition, Proceedings of Chemical Engineering Congress- 2010 (CHEMCON 2010), Annamalai University, Annamalainagar, 399.

3. Chatterjee, S., Dutta, S., Basu, S., October, 2010. Interaction of Lead and Cadmium with Immobilized Papain and its Potentiality for Removal of the Metals from Industrial Effluents, Proceedings of National Conference on Biotechnology and the Environment, National Institute of Technology, Durgapur, 169-174.

4. Dey, P., Bose, S., Kumar, R., Sikder, J., Pal, P. 2010. Preparation and Characterisation of Polyamide Nanofiltration Membrane For Purification of Lactic Acid from Fermentation Broth, CHEMCON, 2010.

5. Dey, P., Sikder, J., .Pal, P. 2010. Production and Purification of Lactic acid through membrane integrated hybrid reactor system - an environmental friendly approach International Conference (sponsored by DBT, BRNS, CSIR & ICMR) on Frontiers in Biological Science (InCoFIBS-2010), organised by Department of Life Science, N.I.T., Rourkela, India.

6. Dutta, S., Chowdhury, R., Bhattacharya, P., October, 2010. Stability and Response Analyses of Biochemical Process with Reference to Bio-reduction of SO_2 from a Simulated Gas Mixture in a CSTBR with Cell Recycle, AIP Conference Proceedings of International Conference on Modeling, Optimization and Computing (ICMOC 2010), organised by National Institute of Technology, Durgapur, 160-165.

7. Manna, A. K., Pal, P., 2010. Modeling of Flash Vaporization Application in Solar- driven Direct Contact Membrane Distillation Process, Indian Chemical Engineering Congress (PC & MS-41).

8. Narayanan, C.M., Maneka Banik and Sayani Halder, 27 - 29, Dcember, 2010. Performance analysis of Immobilised Enzyme Semifluidised Bed Bioreactors, Proc. Chemical Engineering Congress (CHEMCON – 2010), Annamalai University, Chidambaram.

9. Narayanan, C. M., 13 – 14, February, 2011. Studies on Performance Characteristics of Solar Parabolic Trough Concentrator with Variable Area Absorber, Proc. International Conference on Harnessing Technology, Caledonian College of Engineering, Muscat, Sultanate of Oman.

10. Narayanan, C. M., 10 -12 March, 2011. Process Modeling, Simulation and Software Development – A Few Industrial Applications (Plenary Lecture), International Conference on Recent Advances in Chemical Engineering and Technology, Kochi.

11. Narayanan, C. M., 27 – 30 March, 2011. Production of Phosphate Rich Biofertiliser Using Vermicompost and Anaerobic Digestor Sludge, Proc. International Conference on Solid Waste Management and Technology, Philadelphia, USA.

Department of Chemistry

1. Bairagya, H. R., Mukhopadhyay, B. P., 11 – 12 September, 2010. Water Molecular Dynamics of IMPDH: A Step towards the CML-specific Inhibitors Design. IIIrd National Conference On New Frontiers In Haematology & Oncology, Netaji Subhas Chandra Bose Cancer Research Institute, Kolkata.

2. Pobi, K. K., Dutta, S., Nayek, S., Saha, R., 5 - 6 March, 2011. Effect of Heavy metals and other pollutants on aquatic macrofyte growing along an industrial effluent channel, Bolpur College, West Bengal.

3. Roy, S., Mitra, P., Patra, A. K., 11 - 13 December, 2010. Copper Ion Mediated Synthesis of a Mesoionic Heterocycle and Its Antibacterial Studies, International Symposium on Frontiers in Inorganic Chemistry.

4. Sikdar, A., Panja, S. S., 6 December, 2010. Development of new molecular devices to sense physiologically important metal ions, Department of Physics, NIT Durgapur.

Department of Civil Engineerimg

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2. Basumatary, M., Datta, A. K., 18-21 December, 2010. Earthquake Resistant Design and Vulnerability study of Buildings in Assam – A case Study, 55th Congress of ISTAM, NIT- Hamirpur.

3. Bhattacharya, K., Gaur, A., Chakraborty, I., 17-19 December, 2010. Measured and Modelled Response of a Masonry Wall under out-of-plane Excitation, 14th Symposium on Earthquake Engineering, IIT Roorkee.

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5. Chatterjee, A. K., Datta, A. K., 18-21 December, 2010. Dynamics of Unsymmetrical Buildings – A Case Study for Hilly Region, 55th Congress of ISTAM, NIT- Hamirpur.

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7. Debbarma, S., Saha, S., 8-10 February, 2011. Behavior of pre-stressed concrete bridge girders due to time dependent and temperature effects, First Middle East Conference on Smart monitoring, Rehabilitation of Civil Structures, Dubai, UAE.

8. Hazara, M. S., Dwivedi, V. K., 17-19 February, 2011, "Reliability test for rainfall data forecasted by Indian Meteorological Department (IMD) as compared to the corresponding observed data during South-West Monsoon Season of 2009 over West Bengal, India", presented and published in the

proceedings of International Conference on “Sustainable Water Resources Management and Climate Change Adapatation (SWRMCCA)”, National Institute of technology, Durgapur, Durgapur, West Bengal, India.

9. Hazara, M. S., Dwivedi, V. K., 17-19 February, 2011. “Reliability test for rainfall data forecasted by Indian Meteorological Department (IMD) as compared to the corresponding observed data during South-West Monsoon Season of 2009 over West Bengal, India”, International Conference on “Sustainable Water Resources Management and Climate Change Adapatation (SWRMCCA)”, National Institute of technology, Durgapur, West Bengal, India.

10. Nanda, R. P., Agarwal, P., Shrikhande, M., December, 2010. Retrofitting of Masonry Buildings by Base Isolation, Proceedings of the International Conference on Advances in Civil Engineering (ACE), Trivandrum, Paper Id-37.

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3. Chakravarty, S., Kole, A. K., Kumbhakar, P., 11-15 Dec., 2010. Room Temperature Chemical Synthesis of Flower Like ZnO Nanostructures, Photonics 2010 International Conference on Fiber Optics and Photonics, IIT Guwahati, Assam, PSW54.

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18. Meikap. A. K., 2010. Synthesis, Characterization and Electrical Transport of Polyaniline and Carbon Nanotube Composite (IL19), ICN-2010, Mahatma Gandhi university, Kottayam, Kerala, page 19.

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28. Sahoo, B. K., Sahoo, S. K., Sahoo, S., 02–04 December, 2010. Effect of Piezoelectric Polarization on Phonon Relaxation Rates in Nitride Wurzites, XVI National Seminar on Ferroelectrics & Dielectrics, Department of Pure and Applied Physics, Guru Ghasidas Vishwavidyalaya, Bilaspur, Chhattisgarh, 21.

29. Sahoo, S., Dutta, A. K., 02–04 December, 2010. A Comparative Study of Integer Quantum Hall Effect in Monolayer and Bilayer Graphene, XVI National Seminar on Ferroelectrics & Dielectrics, Department of Pure and Applied Physics, Guru Ghasidas Vishwavidyalaya, Bilaspur, Chhattisgarh, 33.

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32. Sinha, S., Chatterjee, S.K., Meikap, A.K., 2010. The Transmittance of Polarized Laser Beam Through Liquid Crystal Studied with Variation and Applied DC Voltage (P14), FMSC-2010, NIT, Durgapur, Page 14.

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34. Talukdar, K., Mitra, A.K., 2011. Strength reduction in the bundles of defective single-wall carbon nanotubes, ICCS16: 16th International Conference on Composite Structures, Porto, Portugal.

35. Talukdar, K., Mitra, A.K., 2011. A simulation study on the performance of various label-free electronic biosensors, Second world conference on nanomedicine and drug delivery (wcn-2011)**,** Kottyam, Kerala, India, pp. 49-50

36. Talukdar, K., Mitra, A. K., 2010. The role of potential functions in the mechanical behavior of the single wall carbon nanotubes, International Conference on Nanoscience, Nanotechnology & Advanced Materials (NANOS 2010), Visakhapatnam, Andhra Pradesh, India, pp. 89-90.

Annexure - 11.4(e) Visits abroad during 2010-11

Department of Biotechnology

Name	Name of the Programme	Organized by	D1ate of the programme
Dasgupta Mandal D.	ICENV 2010 Pennang Malaysia	University of SAINS Malaysia	December 13-15, 2010

Department of Chemical Engineering

Name	Name of the Programme	Organized by	Date of the programme
Narayanan C.M.	International Conference on Harnessing Technology (ICHT – 2011)	Caledonian College of Engineering, Muscat, Sultanate of Oman	February 13-14, 2011
Mandal T.	International Conference on Solid Waste Management and Technology	Widener University, Philadelphia, USA	March 27-30, 2011
Narayanan C.M.	International Conference on Solid Waste Management and Technology	Widener University, Philadelphia, USA	March 27-30, 2011

Department of Chemistry

Name	Name of the Programme	Organized by	Date of the programme
Moi S.C.	Collaborative research with North Dakota State University, USA, Fargo	NIT, Durgapur, TEQIP	April 28 – May 29, 2010
Saha R.	Collaborative research with Calodian College of Engineering, Muscat,Oman	Calodian College of Engineering, Muscat,Oman	March 28-April 01,2011

Department of Civil Engineering

Name	Name of the Programme	Organized by	Date of the programme
Pal S.	International conference on Environmental and Civil Engineering.	World Academy of Science, Engineering and Technology, held at Thailand, Bangkok.	March.29- 31, 2011
Banik A.K.	International conference on Environmental and Civil Engineering.	World Academy of Science, Engineering and Technology, held at Thailand, Bangkok.	March.29- 31, 2011

Department of Computer Applications

Name	Name of the Programme	Organized by	Date of the programme
Sarkar A.	22nd International Conference of Software Engineering & Knowledge Engineering (SEKE 10).	KSI, San Francisco. USA.	June 29 - July 6, 2010
Changder S.	2nd International Conference on Computer Technology and Development	IACSIT Cairo, Egypt	November 2-4, 2010,

Changder S.	3rd International Conference on Computer Science and Information Technology (ICCSIT 2010)	IACSIT Chengdu, China	July 9 – 11, 2010,
Choudhury P.	International conference on Computer Network and Technology (ICCNT 2010)	IACSIT Bangkok, Thailand	April 23 – 25, 2010,
Choudhury P.	2010 International Conference on Wireless Networks (ICWN'10)	WorldComp Las Vegas, USA	July 12-15, 2010,
Saha M.	Int'l Conf. Embedded Systems and Applications (ESA '10)	WorldComp Las Vegas, USA	July 12-15, 2010,
Saha M.	Annual International Conference on Real – Time and Embeded System	Singapore	November 1 – 2, 2010,
Das S.	2nd International Conference on Computer Technology and Development	IACSIT Cairo, Egypt	November 2-4, 2010

Department of Computer Science and Engineering

Name	Name of the Programme	Organized by	Date of the programme
Pal(DebRay) T.	Supervision and Discussion with joint guide of PG Projects	Jointly by NIT Durgapur and CERN, Geneva, Switzerland	August 2010

Department of Electrical Engineering

Name	Name of the Programme	Organized by	Date of the programme
Acharjee P.	Participation of IEEE conference (PECon) & Session Chair in Malayasia	IEEE PES, Malaysia	November 29 - December 01, 2010
Banerjee S.	Participation of International Conf. on Electrical systems for aircraft, railway and ship propulsion, ESARS, October 19-21, 2010, Bologna - Italy	IEEE, IEE	October 19-21, 2010
Ghoshal S.P.	PMAPS 2010, held at Singapore	National University of Singapore, Singapore.	June 14-17, 2010
Ghoshal S.P.	IEEE symposium on Industrial Electronics and Applications, held at Penang, Malaysia	IEEE, Malaysia	October 3-5, 2011
Mahato S. N.	IEEE International Conference on Electrical Systems for Aircraft, Railway and Ship Propulsion (ESARS 2010) at Bologna, Italy	IEEE International Conference held in Bologna, Italy	October 19-21, 2010

Department of Electronics & Communication Engineering

Name	Name of the Programme	Organized by	Date of the programme
Chandra A.	IEEE Symposium on Industrial Electronics & Applications	Research Management Insitute, Universiti Teknologi MARA 40450 Shah Alam, Malaysia	October 3-6, 2010

Chandra A.	IEEE International Conference on Communication Systems	National University of Singapore (NUS) and Institute of Infocomm Research, Singapore	November 17-19, 2010
Mahanti G.K.	IEEE International Conference on Communication Systems	National University of Singapore (NUS) and Institute of Infocomm Research, Singapore	November 17-19, 2010

Department of Humanities & Social Sciences

Name	Name of the Programme	Organized by	Date of the programme
Sengupta P. P.	IEEE Conference at Cairo, Egypt	IEEE	November 2-4, 2010
Sengupta P. P.	Global Conference on Business And Finance at Las Vegas, USA	International Business and Finance Research (IBFR)	January 2-5, 2011

Department of Information Technology

Name	Name of the Programme	Organized by	Date of the programme
Chakraborty B.	SEDE	ISCA San Francisco,	June 16-18, 2010
Chakraborty B.		ISCA Dubai, UAE	February 19-22, 2011
Choudhury S.	ICCCNT	IEEE Computer Society Bangkok, Thailand	April 22-24, 2010
Das D.	International Conference on Control, Automation and Robotics CAR 2011	Global Science And Technology Forum Singapore	February 28 - March 1, 2011
Dutta A.	International Conference on Software Engineering Research and Practice (SERP 2010)	WorldComp Las Vegas, USA	July12-15, 2010
Dutta A.	2010 IEEE Region 10 Conference (TENCON 2010),	IEEE Region 10 Fukuoka, Japan,	November 21-24, 2010.

Department of Mathematics

Name	Name of the Programme	Organized by	Date of the programme
Kar S.	To present a paper as plenary speaker at Xian Conference, China	Uncertainty Theory Lab	August 01-05, 2010.
Pal A.	To present a paper in the International conference, ICEBI, China	China Association for Information Systems (CNAIS), Tsinghua University, China	December 19-21, 2010
Pal A.	Invited lecture	Rajshahi University, Bangladesh and Jagganath University,Dhaka, Bangladesh	March 17-23, 2011
Pal A.	To present a paper in the International conference, ICHCC, Singapore	ICHCC-ICTMF, Singapore	May 5-6, 2011

Sarkar (Mondal) S.	To present a paper in the International Conference On Information and Management Sciences, (IMS-2010)	International Association for Information & Management Sciences, China.	August 11-19, 2010.

Department of Metallurgical and Materials Engineering

Name	Name of the Programme	Organized by	Date of the programme
Mallik M.	EUROMAT-2009 International Conference, Glasgow, UK.	European Congress	September 7-10, 2009

Department of Physics

Name	Name of the Programme	Organized by	Date of the programme
Kumbhakar P.	Laser Interaction with Matter International Symposium (LIMIS 2010) (Invited Talk)	Key Laboratory on Laser Interaction with Matter under Changchun Institute of Optics, Fine Mechanics and physics(CIOMP), Chinese Academy of Sciences(CAS) China	August 15-18, 2010

Annexure - 11.4(f) Ph.D. degree awarded during 2010-11

Department of Chemical Engineering

Topic	Investigator	Supervisor(s)
Themo Chemical Fluidized Bed Gasification of Biomass	Karmakar Malay K.	Haldar S. Dutta A. B. (CMERI)
Removal of Arsenic from Drinking Water by Solar-Driven Membrane Distillation	Manna A.K.	Pal P.
Modelling and Simulation of Pyrolysis and Combustion of Coal and Biomass	Sadhukhan Anup Kumar	Gupta P., Saha Ranajit Kumar
Groundwater Contamination by Arsenic in Bengal Delta Basin-Studies on Effective Treatment	Sen Mou	Pal P.

Department of Computer Science and Engineering

Topic	Investigator	Supervisor(s)
Design of a New Object Oriented Conceptual Data Model for Analytical Processing on Data Warehouse	Sarkar Anirban	Bhattacharya, S.

Department of Electrical Engineering

Topic	Investigator	Supervisor(s)
Online monitoring of the partial discharges in high voltage power apparatus using optoelectronic method	Karmakar S	Roy N. K., Kumbhakar P.

Department of Electronics & Communication Engineering

Topic	Investigator	Supervisor(s)
Optical Fiber Communication	Adhvaryu Krishnendu	Bhattacharjee A.K. Chanda C. (BESU) Maji B. B.
Reduction of Side Lobe Using Genetic Algorithm for Array Antennas	Ghoshal Swapan Kumaar	Bhattacharjee A. K. Ghatak R.
Modeling and Optimization of High Speed Interconnect in VLSI Design	Kar Rajib	Mal A.K. Bhattacharjee A.K.
Radiation Pattern Optimization for Antenna Arrays Using Evolutionary Optimization Techniques	Mandal D.	Ghoshal S.P. Bhattacharyya A.K.

Department of Geology

Topic	Investigator	Supervisor(s)
Impact assessment of road transport noise on the Urban people of Asansol: an industrial town of eastern India by monitoring, modelling and mapping	Banerjee Dibyendu	Gangopadhyay A. Bhattacharyya S. Chakraborty S.K.

Department of Humanities & Social Sciences

Topic	Investigator	Supervisor(s)
Studies on Fertilizer Industry	Bhattacharyya Amit	Sengupta P.P.
Cost Optimisation in Intrgrated Steel Plant	Mitra Paroma	Sengupta P.P.
Studies on Retail Management	Roy Rajib	Sengupta P.P.
Problems and Prospects of Indian Steel Exports in Globalised Regime	Samajdar Chinmoy	Sengupta P.P.
Studies on Hospital Management	Sarkar Niloy	Sengupta P.P.

Department of Mathematics

Topic	Investigator	Supervisor(s)
On some Computational Fluid Flow Problems and Transport Phenomena as an Application of Boundary Layer Equations	Dey Sambhu Nath	Ghosh D. Sikder S.C.

Department of Mechanical Engineering

Topic	Investigator	Supervisor(s)
Study on machinability aspects hard to machine materials with advance cutting tools	Balamurugan Gopla	Ghosh S. Mondal B.N. (CMERI)
Dynamic Response of Rotor System at Subcritical and Supercritical States	Chattoraj Chandan	Majumder M.C.
Total productive maintenance, using TPR as a tool	Mathew A.G.	Majumder M.C. Ramachandran K.P. (CCE, Oman)
Non destructive testing of pipes using infrared thermography method	Vijayaraghvan G.K.	Majumder M.C. Ramachandran K.P. (CCE, Oman)

Department of Physics

Topic	Investigator	Supervisor(s)
Investigation on Nonlinear Optical Materials for Frequency Conversion Applications	Chattopadhyay Manajit	Kumbhakar P.
Characterisation and Electrical Transport Properties of Some Nanocomposite Materials	Ghatak Somenath	Meikap A. K.
Optical, Magnetic and Electrical Properties of Some Conducting Polymers	Gupta Kajal	Meikap A. K. Jana P. C. (V.U.)
Online Monitoring of High-Voltage Equipment using Optoelectronic Method	Karmakar Subrata	Roy N. K. Kumbhakar P.
Synthesis and Characterization of Some Nanostructured Materials	Sarkar Rajat	Kumbhakar P. Mitra A. K
Theoretical Investigation on the mechanical properties of CNT	Talukdar Keka	Mitra A. K.

Annexure - 11.4(g) Ongoing Doctoral Programme

Department of Biotechnology

Topic	Investigator	Supervisor(s)
Production of biopesticide from Mucuna pruriens	Acharya Bidyut	Aikat K.
Studies on Chromium removal from Tannery Waste Water using Nano Filtration Technique	Bajpai Shailendra Kumar	Dey, A. Jha, M.K. (NIT Jalandhar) Gupta, S.K. (IIT D)
Studies on the Biochemical Characterization and Optimization of Media Composition for Phenol Degradation by Microbes from Industrial Waste Water	Basak Bikram	Dey, A.
Studies on Genotoxicity of Industrial Effluents and Its Treatment Strategies for Remedy	Behera Minati	Dasgupta Mandal D.
Fermentative Production of Protease Enzyme	Bhunia Biswanath	Dey A.
Investigation of genetic and molecular functions of ZBF1/MYC2 with other regulatory protein of light signaling in Arabidopsis seedling development	Chakraborty Moumita	Chattopadhyay S.
Treatiblility Studies of Dyes by Low cost adsorbent	Chakraborty Sagnik	Saha P.
Exploration and Exploitation of Microbial Catabolic Potentials for the Bioremediation Petroleum Hydrocarbons	Das Ranjit	Kazy S. K.
Studies on Bioconversion of Lignocellulosic Materials to Ethanol	Ganguly Amit	Dey A. Chatterjee P.K. (CMERI Durgapur)
Optimal Production Strategies for Microbial Pigments	Goswami Gargi	Dutta D. Chaudhuri S.
Molecular and Functional analyses of ZBF1/MYC2, a Z-box interacting bHLH transcription factor, in tomato (Lycopersicon esculentum Mill.)	Gupta Nisha	Chattopoadhyay S.
Bioprospecting of Extracellular Enzymes from Xenorhabdus sps	Kumar Pranaw	Dutta D., Lata, Chaudhuri S.
Studies on the processing of Hydroxyapatite and Collagen Bio-materials and their Application in Biotechnology	Mandal Sudit	Dey A. Mukherjee S. Mandal B.M. (CMERI Durgapur)
Genetic and Molecular Interactions of ZBF1/MYC2 and ZBF2/GBF1 in Arabidopsis Seedling Development	Maurya Jay Prakash	Chattopadhyay S.
A study on Candida infection in HIV/AIDS patients in a tertiary care hospital in Kolkata	Mukherjee Mita	Dutta D., Basak S., Guha S. K

Topic	Investigator	Supervisor(s)
Studies on Structure-based Anti-Leismanial and Anti-Cancer Drug Design and Development of Delivery System	Munshi Sudip	Dasgupta Mandal D. Patil P.
Kinetic Studies on the Enzymatic Removal of Phenolic contaminants from industrial wastewater using Polyphenol oxidase enzyme	Mukherjee Suprabhat	Dey A. Mandal B.M. (CMERI Durgapur)
Studies on the Etiopathogenesis of Gall Bladder Carcinoma in Eastern India	Pramanik Vishmadeb	Kazy S. K. Kar M. Sarkar B. N.
Production of Bio-Active Compounds from Marine Bacteria	Prasad Shiv Shankar	Aikat K.
Characterization and optimization of pigment production from an isolated strain	Samanta Amit	Dutta D. Chaudhuri S.
Biofuel Production using Cellulosic and Hemicellulosic Biomass	Sarkar Nivedita	Aikat K.
Investigation of functional interrelations of ZBF3/CAM7 with COP1 in Arabidopsis seedling development	Senapati Dhirodatta	Chattopoadhyay S.
Biosorption of heavy metals using *Chlorella minutissma*	Singh Shailendra Kumar	Dey A. Jha M.K. Bansal A. (NIT Jalandhar)
Extraction and Application of Natural Dyes	Sinha Keka	Saha P. Datta S.
Genetic Regulation of Systemic Acquired Resistance in Arabidopsis thaliana	Singh Vijayata	Chattopadhyay S. Nandi A. (SLS, JNU)
Sequence Alignment and Phylogenetic Analysis of Human Herpes Virus using Molecular Evolution Genetic Analysis (MEGA).	Vipin Kumar	Dey A. Singh A. (BCET, Gurdaspur)

Department of Chemical Engineering

Topic	Investigator	Supervisor(s)
Understanding and Modelling the Dynamics of Coke-Oven Wastewater	Bera Dilip	Pal P.
Technology Development of Liquid Phase Adsorption of Mercury Using Low-cost Adsorbent for Better Management of Industrial Wastes	Bhattacharyya Aparupa	Dutta S. Basu S. (HITK)
Enzymatic removal of heavy metals from waste water: Experiment and Modeling	Chatterjee Soumasree	Dutta S. Basu S.,(HITK)
Studies on the Removal of Pollutants from Treated Municipal Waste Water by Photo catalytic Oxidation Process and Conventional Method	Cheriyan Anna Jesil	Sarkar J. P.
Studies on Hot Air Drying of Food Grains - Intermittent Drying and Its Effect on Quality and Energy Consumption	Choudhury Biplab	Sarkar J. P. Chatterjee P.K.
Process Intensification in Lactic acid manufacture through membrane-integrated hybrid reactor system	Dey P.	Pal P.
Analysis and Energy Optimization of Natural Circulation Flow	Goswami Nababithi	Paruya S.
Analysis of the nonlinear Instabilities in the Natural Circulation Boiling Flow	Karmakar Arnab	Paruya, S.,
A critical study on Natural refrigerants towards the Replacement of CFCs	Kumar Anupam	Halder G. N.
Biological and Physico-chemical Treatment of Coke-oven wastewater	Kumar Ramesh	Pal P.
Mathematical Modelling of Blast Furnace Hot Blast Stoves	Manjhi S. P.	Gupta P.
Preliminary Processing of Municipal Solid Waste and Modelling of Landfills	Mukhopadhyay Debabrata	Sarkar J. P. Dutta S.

Topic	Investigator	Supervisor(s)
Mass Transfer in Convergent Pneumatic Dryer	Prasad Sunil Kumar	Sarkar J. P. Paruya S.
Heat and Mass Transfer Studies on Vertical Pneumatic Conveying	R. Anandhakrishnan	Sarkar J. P.
Production of Lactic Acid in Membrane-Integrated Bioreactor	Sikder J.	Pal P. Sarkar J. P.

Department of Chemistry

Topic	Investigator	Supervisor(s)
Molecular Modeling of IMPDH (Inosine Monophosphate Dehydrogenase) and the Binding Studies of Some Modified IMPDH–Inhibitors	Bairagya Hridoy Ranjan	Mukhopadhyay B. P.
Water Molecular Dynamics Study of Human Ransthyretin (TTR) and its Mutated Forms	Banerjee Avik	Mukhopadhyay B. P.
Corrosion Inhibition of Brass and Aluminium Alloy In Chloride Solution	Banerjee Ranu	Nandi M.M.
A Study on the Water Molecular Dynamics in Some Homologous Matrix Metallo Proteinases (Mmps) and their Inhibitors – Bonded Complexes by Modelling Methods	Chakrabarti Bornali	Mukhopadhyay B. P.
Evaluation of Arsenic Contamination in Groundwater, Soil, Vegetation through Food Chain and its Impact on the Environment	Chandra Sukanya	Saha R.N., Pal P.
Spatial and Temporal Variations of Ambient Air Quality in Burdwan Town, West Bengal	Chattopadhyay Subrata (Regd. With B.U.)	Saha R.N., Gupta S. (B.U.)
Stabilization of Various Oxidation States of Ni [Ni(I), Ni(II), Ni(III) and Ni(IV)] With Designed Multidentate Ligands : Synthesis of Ni Complexes Relevant To The Ni-site of Ni-Fe Hydrogenase Enzyme	Chatterjee Sudip	Patra A. K.
Kinetics and Mechanism of Sunstitution on D^8 Metal Ion System by Bio-Active Ligands	Ghosh Goutam Kr.	Moi S. C. Patra A. K.
Development of Natural Fibre Reinforced Polyester Composite Material	Hazarika Sonalee Borah	Panja S. S., Choudhury S.
Synthesis of Metal and Metal Oxide Xerogel and their Film by Sol-Gel Method and their Characterization	Layek Manas	Maji M.
Synthesis of Titania nanoparticles and Rheological Study for Different Applications	Mahata Shrabani	Nandi M. M. Mondal B. N. (CMERI)
Application of Photo-Fenton's Oxidation and Biological Oxidation for the Degradation of Some Selected Pollutants Present in Petro-Chemical and Coke-Oven Wastewater	Mallik Tirthankar (Regd. with B.U.)	Saha R. N.
A Study on the Invariant Water Molecular Dynamics in Plant Cysteine Protease and their Complexes By Modelling Methods	Nandi Tapas Kumar	Mukhopadhyay B. P.
Environmental Impact of Effluent Generating from Sponge-Iron Industries on Surrounding Water, Soil and Vegetation.	Nayek Sumanta (Regd. with B.U.)	Saha R.N. Gupta S. (B.U.)
Structure, Spectroscopic Properties and Reactivity Studies of Cu(II) Complexes With Supporting Tridentate Schiff base or Amide Ligands	Roy Suprakash	Patra A. K.
Development of a Suitable Treatment Scheme of Combined Effluent Generating from Iron & Steel, Ferro Alloy, Thermal Power and Chemical Industries Located in Durgapur Industrial Area, W.B.	Satpati Satarupa (Regd. with B.U.)	Saha R.N., Gupta S. (B.U.)
Structure and Interaction Studies of some Nucleotide Molecules with the different Ligands by X - ray Crystallographic Methods	Sengupta Dhruba Kumar	Mukhopadhyay B. P. Das S. B.
An Investigation on Composition of Sea Water and its Corrosion Effects on Metals	Shah Jahan (Oman)	Das S. B. Saha R.N. Raut N. B. (C.C.E., Oman)
Development of New Molecular Device for Sensing Physiologically Important Metal Ions	Sikdar Anindita	Panja S.S.
Immobilization of Cholesterol Esterase and Cholesterol Oxidase on Conducting Polymers for Application to Cholesterol Biosensor	Singh Suman	Maji M. Chandra Prakash (CMERI)

Department of Civil Engineering

Topic	Investigator	Supervisor(s)
Use of shape memory alloy for making of smart concrete structure to withstand time dependent effects in prescribed concrete bridges	Debbarma S.	Saha S.

Department of Computer Science and Engineering

Topic	Investigator	Supervisor(s)
Active Stereo Vision from Uncalibrated Camera Images	Bhattacharya Jhilik	Sanyal G.
Study and Analysis of some aspects of f Stagenography Techniques for Information Hiding	Bhattacharya Souvik	Sanyal G.
Knowledge Management Applications In E - Government Services	Chakraborty Baisakhi	Ghosh D.
Power Efficient Architechtural Designs	Chandrakar Khusbu	Roy S.
Text Steganography through Different Indian Languages	Changder Suvamoy	Ghosh D.
Algorithmic Mechnism Design and its Application in Network Economics	Mukherjee Sajal	Ghosh, D.
New SAT based Solutions in VLSI Physical Design Automation	Mukherjee Shyamapada	Roy S.
Optical Networks	Pradhan Ashok Kr.	De T.
Analysis and Dimenssioning of Multiservice Cellular Wireless Networks for Achieving Higher Performance	Samanta Raj Kumar	Sanyal G.
High Performance Computing	Sinha Debmalya	Sanyal G.

Department of Electrical Engineering

Topic	Investigator	Supervisor(s)
Some Studies on DC Attraction Type Levitation and Associated Control Systems	Bhaduri R.	Banerjeee S.
Some Design Aspects for Single and Multi-Magnet Based Electromagnetic Levitation System	Biswas P.	Banerjee S. Sarkar P.
Automatic Generation Control of Combined Conventional Generating Units, DFIG units and FACTS devices	Bhatt P.	Ghoshal S.P. Roy R.
Unification of Field Forces and to Explore Some of the Unanswered Phenomena in Nature and Science	Chanda G.	Ghoshal S.P.
Studies on AGC with Various Distributed Generating Units in Distributed Generating Systems alogwith FACTS Devices	Chatterjee A.	Ghoshal S.P. Mukherjee V.
Development of Gas Senors for Online Monitoring of Dissolved Gas in Transformers	Chatterjee Anjali	Roy N.K. Kumbhakar P.
Investigation of Hematological Disorders form Blood Cells Using Soft Computing Techniques	Karunaharan K. Aldrin	Ghoshal S.P. Vallavaraj A. Govinda Rajan L. (C.C.E., Oman)
Neural Network Based Sensorless Maximum Wind Energy Capture using DFIG	Kaur Kamaljit	Mahato S.N. Saha T.K.
Distribution Systems, optimal placement of DGs and Capacitors , Reliability	Khan Nasim Ali	Ghosh S. Ghoshal S.P.
Some Studies on Breakdown of Solid Insulations and it's Modeling using Soft Computing Technique	Mohanty S.	Ghosh S.
Optimal Price Forecasting in Restructured Power Systems using Evolutionary Techniques	Pany P.K.	Ghoshal S.P.
ELD, OPF and ORPF Studies with FACTS devices Using Various Evolutionary Techniques	Roy P.	Ghoshal S.P. Thakur S.S.

Department of Electronics & Communication Engineering

Topic	Investigator	Supervisor(s)
Some studies on Synthesis of Linear and Circular Array Antenna using Evolutionary Algorithms	Basu B.	Mahanti G.K.
MEMS based microphone	Behera, S. K.	Mahapatra R.
Synthesis of Planar Array Antenna using Evolutionary Algorithms	Chatterjee. A	Mahanti G.K.
Some Studies on Synthesis Of Time-Modulated Array Antenna Using Evolutionary Algorithms	Mandal, S. K.,	Mahanti G.K. Ghatak R.
Array Failure Correction using Evolutionary Algorithms	Muralidharan R	Mahanti G.K.
Studies on Performance of Cognitive Radio Networks with Spectrum Sensing	Srinivas Nallagonda	Kundu S.
Some studies on optimum design of Electromagnetic shielding	Tewary J	Mahanti G.K.

Department of Geology

Topic	Investigator	Supervisor(s)
Groundwater occurrence and quality assessment in north-western and north-eastern part of Bankura district, West Bengal	Bajpayee Swastika	Adhikari K. Chatterjee P.K. Ruj B.
Assessment of Groundwater Condition and Quality in Areas North of Durgapur in the District of Burdwan, West Bengal	Chakraborty Barnali	Gangopadhyay A. Adhikari K.
Studies on the Environmental Vis-A-Vis Socio-Economic impact of Vermicomposting in Organic Waste Management	Karmakar Sruti	Gangopadhyay A. Bramhachari K.
Seismic Diffraction Tomography and Modelling for Subsurface Imaging	Mahapatra Mahasweta	Gangopadhyay A. Mahapatra S. Kayal J.R.
Geo-Environmental Impact of Coal Mining in Some Parts of Raniganj-Asansol Coalfields, West Bengal	Sadhu Koushik	Adhikari K. Gangopadhyay A.
The Tectonics of Eastern Segment of Delhi Fold Belt, Southeast of Beawar, Rajasthan.	Saha Pinaki	Gangopadhyay A. Mukhopadhyay D.

Department of Humanities and Social Sciences

Topic	Investigator	Supervisor(s)
Micro-Pension Plans : Indian Perspective	Bhattacharya Prakash	Chakrabarti B.N.
Problems and Prospects of Microfinance in Developing Rural Entrepreneurship: An Experience of Burdwan District	Biswas Tiyas (Submitted)	Sengupta P.P.
Sashi Deshpande's Novels : A Feminist with a difference	Chakraborty Taniya	Banerjee J.
An Exploratory Study in to the Effect of Level and Function on Managerial Communication Behaviour in a Public Sector Integrated Steel Plant	Chandra Mouli C.	Sengupta P.P.
Crisis of Cultural Identity in the Novels of Amitav Ghosh	Chatterjee Rajarshi	Banerjee J.
Feminist or otherwise : A Study in the Poetry of Kamala Das	Das Soma	Banerjee J.
Financial Ratio Analysis as a Tool of Financial Forecasting, Business Problem Diagnosis & Solving and Decision Making	De Anupam	Chakrabarti B.

Topic	Investigator	Supervisor(s)
Development of Socioeconomic Status, Livelihood Pattern and Empowerment of Rural Poor, Specially Rural Poor Women through Self Help Groups, Micro Credit and Livelihood Promotion in Bankura and East Medinipur District of West Bengal, India	De Debasis	Sengupta P.P.
Efficiency and Productivity Evaluation Analysis of Indian Insurers in post Reforms Era	Dutta Anirban	Sengupta P.P.
Optimization of Human Resource in Power Industy of West Bengal, with special reference to DVC, DPL & CESC	Ghosh Sukanya	Sengupta P.P.
Neo-Colonial Undertones in Arundhuti Roy and Jhumpa Lahiri	Guha Roy Sandip	Banerjee J.
Tagore in English Translation: A postcolonial Perspective	Misra Debi Prasad	Modak A.
Travel Writings of D. H. Lawrence: the Literary Dimensions	Mukherjee Abhik	Modak A.
Adaptation to Change in Steel Industry— A Managerial Approach in Sail	Sengupta Subhendu	Chakrabarti B.
A Non-linear Approach to Richardson's Model of India-Pakistan Arms Race	Shah Rupali Subhashchandra	Sengupta P. P.

Department Of Management Studies

Topic	Investigator	Supervisor/S
Developing a Model for Better Utilization of Hospital Resources	Bandyopadhyay Soumendranath	Dutta A. Bandyopadhyay G. Sanyal G.
Extension of Service Quality Gap Model for Edu-Preneurs; A Study Based on WB	Banerjee Chandan Kr.	Mondal K.
Cross-Sectional Analysis of Share Buy Back on Companies' Performance and Investors' Wealth In Indian Context.	Bhattacherjee Biswanath	Dutta A.
Financial Management and Control towards Financial Sustainability of Urban Local Bodies in India with Special Reference to WB: Analysis and Improvement of Existing System with Quantitative Techniques	Bhattacharya Sidhakam	Bandyopadhyay G.
Application of Management Tool to Control Inherent Risk from Liquefied Petroleum Gas (LPG) & Developements of Maximum Credible Loss Model for Durgapur, WB	Chattterjee Saumya	Bandyopadhyay G.
Knowledge Management as a Source of Competitive Advantage in Indian Job Market	Chatterjee Tilak	Roy M.
Benefits & issues of coal mining on the socio economic environment in Asansol Raniganj coal field area with emphasis on formulating management strategies	Dan Surajit	Dutta A.
Understanding Various Facets of Purchase Involvement; A Study of Burdwan , WB	Dasgupta (Banerjee) Monami	Mondal K.
A new perspective on financial ratio analysis as a tool of financial forecasting as well as present and future problem diagnosing, business problem solving and decision making.	De Anupam	Chakroborty B. Bandyopadhyay G.
Study of Certain Aspects of Strategic Planning in IT Industry.	Dinkar	Bandyopadhyay G. Mukherjee R. (B.C.E.T.,Durgapur)
Towards Developing an Effective Strategy for Employee Retention in IT Organization	Dutta Monalisa	Dutta A.
Developing strategies and algorithm for multicasting over optical burst switched networks to enhance Economic value for end users through QOS policies	Datta Subhasis	Dutta A.
Information & Communication Technology and E-Business Support for Indian MSMES	Gayen Anupam	Roy M.
Forecasting using Optimization Techniques from the Perspective of Indian Financial Market	Ghosh Arijit (Regd. with J.U.)	Chaudhuri K. (J.U.) Bandyopadhyay G.

The Impact of Coal Mining Activities on the Environment and Socio-Economic Condition of Adjoining Human Population with Special Reference to Asansol- Ranigunj Area in West Bengal, India	Guha Debasish	Dutta A. Mondal S.
Study of Impact of Global Economy on Petrochemical Business in Asia	Khastagir D.	Roy M.
The Influence of Corporate Culture on Organisational Commitment-Evidence from Selective Hospitality Industry In India	Mitra Manojit	Bandyopadhyay G.
Assessing service quality gap and customers satisfaction of commercial banks in India with special reference to the state of west Bengal	Mukhopadhyay Sumanta	Dutta A.
Study on Nature of Relationship Between Channel Power and Influence Strategy Visa-A-Vis Channel Management Practices Prevalent in India.	Roy Koushick	Mondal K.
Studies on Polluting Industries' Socio-Economic and Environmental Impact	Sarkar Sreemanta	Roy M.
The impact of integrated marketing communications on profit– A study of Indian firms	Siddhanta Somroop	Banerjee N.
Psychological contract and its relevance to Emloyment Relationship	Thomas Anitha	Dutta A.
Investigating the Financial Health of Indian Companies using Quantitative Techniques	Upadhyay Arun	Bandyopadhyay G.

Department of Mathematics

Topic	**Investigator**	**Supervisor(s)**
Design of Web based Expert System for Indian Diabetes Patients	Bera Anup	Basu K.
Fuzzy Decision Making and Soft Computing: Principles and Applications	Bhattacharyya Rupuk	Kar S. Dutta Majumder D.
Impact of E-Learning for Enhancement of Gross Enrollment (GER) of West Bengal in Comparison to Other States: A Statistical Performance Based Study	Das Anirban	Basu K.
Mathematical Models of Some Decision Making Problems using Soft Computing Techniques	Das Debasis	Kar S. Roy A.
Optimization in Steel Makes Parameters of Integrated Steel Plant with Special Reference to Durgapur Steal Plant in the Realm of Applied OR Tools and Techniques to Make Steel Making Globally Competitive in the Post Liberalization Indian Economy	Das Subhas K.	Sarkar (Mondal) S.
On some Computational Fluid Flow Problems and Transport Phenomena as an Application of Boundary Layer Equations	Dey Sambhu Nath	Sikder S.C. Ghosh D.
Study of Some New Codes and their Supporting t-Designs	Ghosh Debashis	Dey L. K.
Application of Multivariate Analysis to study the heavy metal loading in grazing animals.	Karmakar Partha	Sarkar (Mondal) S. Majumder D.
Application of Operations Research in Industry and Management	Mukherjee Bishahari	Basu K.
A study on Different Aspects of Assignment Problems under Fuzzy and Intuitionistic Fuzzy Environment	Mukherjee Sathi	Basu K.
Fuzzy Mathematics and its Applications in Society	Mukherjee Supratim	Kar S.
Studies on vibration stability on flexible structure	Nandi Prasanta	Kar S. Gorain G.
Reliability Modelling and Analysis of an Industrial System	Narayanan P.	Pal A. Rizwan S. M.
Reduction of Pollution by Applying Optimization Techniques in Consideration with Cost Effective Emission of Pollution	Pandey Abhay K.	Sarkar (Mondal) S.

Topic	Investigator	Supervisor(s)
A Critical Study to Analyze Charecterstics of Indian Educational, Tourism and Shopping Websites to Increase Effectiveness & to Achieve Better Marketability	Panigrahi Goutam	Basu K.
Optimal Solution of Industrial, Managerial and S9865ocio-Economic Problems Associated with Local Industries & the Surrounding People by Operations Research Technique	Pathak Savita	Sarkar (Mondal) S.
Conditional Covering Problems on Intersection Graphs	Rana Akul	Pal A. Pal M.
Mathematical Models of Some Decision Making Problems in Different Environments	Saha Anirban	Kar S. Maiti M.
Supply Chain Modelling and Prediction	Sarkar Subhadeep	Kar S.
Some studies on Optimum design of Electro Magnetic field	Tewary Jyotirmay	Basu K. Mohanty G.K.

Department of Mechanical Engineering

Topic	Investigator	Supervisor(s)
Probabilistic approach for autonomous Navigation of mobile robot in unstructured environment	Banerji Debajyoti	Basak I. Bose J .(CMERI)
Investigation of geometry and size effects in micro-EDM	Barman Swapan	Puri A.B. Nagahanumaiah (CMERI)
Improvement in perfarmance of coal fired steam generation Technologyfor thermal power generation	Bhattacharya Chittatosh	Banerjee N. Sarkar H. (WBPCB)
An Investigation of Flow Characteristics within a Sinuous Duct	Biswas Arup Kumar	Mullick A.N. Majumder B. (JU)
Reliability Based Predictive Maintenance for Assessment of Effectiveness of Continuously Monitored Systems	Biswas Robin Kumar	Majumder M.C. Basu S.K. (Govt.College, Pune)
Haptics based Instrumentation for Medical Rehabilitation	Chatterjee Avik	Basak I. Majumder S. (CMERI)
Hygromagnetic Flows over Bluff Obstacles	Chatterjee Kanchan	Hui N.B. Chatterjee D.(CMERI)
Numerical Simulation of Hydromagnetic Flows over Bluff Obstacles	Chatterjee Kanchan	Chatterjee D.(CMERI) Hui N.B.
Studies on flow and performance characteristics through serpentine diffuser.	Das N.K.	Halder B. Ray P. Majumder B. (JU)
Modelling and Analysis of Machine Tool Dynamics for Prediction of Stability against Chatter using Bond Graph Technique	De Jagannath	Saha A.K. Banerjee N.
Ocean wave energy, exploration of un-conventional energy from water waves	Debroy Prodip	Ghosh S.
Simulation and optimization of Railway wheel forming process using finite element method and soft computing	Gangopadhayay Tapas	Basak I. Pratihar D.K.(IIT,Kgp)
Optimization of squeeze casting process	Gangopadhyay Susanta	De N.R. Mukherjee N.P. (CMERI)
Motion Dynamics of serpentine mobile robot	Maity Atanu	Ghosh S. Majumder S. (CMERI)
Development of Homogeneous Matrix Method based on Joint Motion for Kinematic Analysis and Dynamic Analysis of Multi-body Mechanisms	Mitra Ambuj Kumar	Mitra A.K. (Self)
Study of a Software servo controlled robotic manipulator with flexible joint.	Mukhopadhyay Sumit	Sengupta S.N.

Topic	Investigator	Supervisor(s)
Modelling, Simulation and an Empirical Investigation of Worker Assignment for Virtual Cellular Manufacturing	Murali RV	Puri A.B. Khalid F Al-Raheem (CCE, Oman)
Development of an ECDM set up and performing parametric analysis for better machining performances	Nandi Debasish	Basak I. Puri A.B.
Autonomous terrain exploration for mobile robots using behaviour based learning method	Ray Dip Narayan	Majumder S.(CMERI), Mukhopadhyay S.
Fault Diagnosis Through Electrical Motor Current Signature Analysis	Roy Abhijit	Saha A.K.
Novel Synthesis of Cathode Materials for Lithium Rechargeable Batteries	Sen Prasanta Kumar	Halder B. Sivaprakash(CMERI)
Towards design of a reliable autonomous underwater vehicle (AUV).	Shome Sankar Nath	Ghosh S. Basu J. (CMERI)
Non-destructive Testing and Evaluation of Defects in Fiber-Metal Laminates using Infrared Thermography	Sundaravalli S.	Majumder M.C. Benny Joseph, ICEM,Omam
Optimization of machining fixture layout using finite element method.	Vishnupriyan S.	Ramachandran K.P. (CCE, Oman) Majumder M.C.

Department of Metallurgical & Materials Engineering

Topic	Investigator	Supervisor(s)
Studies on Status, Constraints and Solution of Coal Based Sponge Iron Industries in India	Chakraborty R.	Mitra S.K.
Studies on the Microstructure, Transformation, Properties and Wear Characteristics of Austempered Ductile Irons Alloyed with Copper and Manganese	Dasgupta R. K.	Mondal D.K.
High Temperature Corrosion Behaviour Of Cr-Mo-Steel in SO_2+O_2 Atmosphere	Ghosh D.	Mitra S.K.
Study on the Development of Nickel Free Wear Resistant Casting	Mandal S. S.	Mondal D.K.
Studies on High Temperature Degradation of Stainless Steel Weldments in Coke-Oven Gas Atmosphere	Pramanik S.	Mitra S.K.
Effect of Cyclic Heat Treatment on Microstructure and Mechanical Properties in Various Grades of Plain Carbon Steels	Saha A.	Mondal D.K. Maity J.
Development of Aluminium Based Metal Matrix Composite with Hybrid Reinforcement	Show B. K.	Maity J. Mondal D.K.
Optimization of Parameters of Heat Treatment Cycles of MIM Process to Reduce the Total Time of Manufacturing of NET Shape Steel Components by MIM	Singh M.	Mondal D.K. Ghosh K.S.

Department of Physics

Topic	Investigator	Supervisor(s)
Investigation on the Mechanical Properties of Carbon-Nanotube Based Composites	Agarwalla Rajesh Kumar	Chakraborty A.K. Mitra A.K.
A Study on the Transport Properties of Thin Films and Alloys	Chakraborty Goutam	Meikap A.K.
Studies on Chaos based Secure Communication Systems	Chattopadhyay Debasish	Mandal M.K.
Synthesis of Polymer Nanocomposites and its Electrical Magnetic And optical Properties	Choudhury Somnath	Meikap A.K. Mandal M.K.

Topic	Investigator	Supervisor(s)
Z' -Boson, B-Mesons and New Physics	Das Chandan Kumar	Sahoo S. Maharana L.(U.U.)
Synthesis and Characterization of Nano Materials Using Nd:YAG Laser	Desarkar Himadri	Kumbhakar P. Mitra A.K.
The Effect of the Dopant of the Electron Transport Properties in Conducting Polymers at Ambient and Cryogenic Temperatures	Ghosh P.	Meikap A.K.
Synthesis and Charectarization of Rare Earth Ortho Ferrite Nanocomposites	Hossain Mazaffar	Basu S. Pal M. (B.U.)
Preparation and characterization of advanced polymer composites with carbon nanostructures	Meriga Venkanna	Chakraborty A.K.
Carbon nanotube-polymer composites: synthesis and characterisation	Pal Subhashish	Chakraborty A.K. Mitra A.K.
Study on the Properties of Functionalized Carbon Nanotubes	Paul Rima	Mitra A.K.
Microstructure, Electrical and Optical Characterization of Some Industrial Nanocrystalline Materials Synthesized By High Energy Ball Milling	Saha Sourav	Meikap A.K. Pradhan S.K.
The effect of spontaneous and piezoelectric polarization on thermal and optical properties of Wurtzite Nitrides (GaN, AlN, InN and their ternary alloys)	Sahoo Sushant Kumar	Sahoo S. Sahoo B.K.
Development of Dye Sensitized Nanocrystalline Solar Cells	Usha K.	Kumbhakar P. Mandal B.N. (CMERI)

Annexure–11.4(h) Ph.D. degree awarded till 2009-10

Name of the Department	Investigator	Supervisor(s)
Chemical Engineering	Dr. Shankar Mukherjee	Dr. A.P. Sinha
Chemical Engineering	Dr. S.K. Dutta	Dr. A.P. Sinha
Chemical Engineering	Dr. Sandip Kumar Lahiri	Dr. K.C. Ghanta
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. 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
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
Computer Science & Engineering	Dr. Partha Bhattacharya	Dr. G. Sanyal
Computer Science & Engineering	Dr. Tilendra Shisir Sinha	Dr. G. Sanyal
Electrical Engineering	Dr. P. K. Sen	Dr. A. M. Roy

Name of the Department	Investigator	Supervisor(s)
Electrical Engineering	Dr. (Mrs.) J. Majumder	Dr. S. P. Roy Choudhury
Electrical Engineering	Dr. Ranjit Roy	Prof. S.P. Ghoshal
Electrical Engineering	Dr. V. Mukherjee	Prof. S.P. Ghoshal
Electronics & Communication Engineering	Pranam Paul	Dr. A. K. Bhattacharjee & Dr. S. Datta
Geology	Dr. T. K. Saha	Prof. S. B. Bhattacharjee & Prof. S. N. Ghosh (ChE)
Geology	Dr. A. K. Batabyal	Prof. S. B. Bhattacharjee & Dr. A. Mukherjee
Geology	Dr. K. Adhikari	Dr. A. Gangopadhyay & Dr. P. Choudhury
Humanities	Dr. R. Chaudhury	Dr. P. P. Sengupta & Dr. S. C. Sikdar
Humanities	Dr. S. K. Seth	Dr. P. P. Sengupta
Mathematics	Dr. E. Tarafder	Dr. A. K. Chowdhury
Mathematics	Dr. R. Sircar	Dr. D. N. Mitra
Mathematics	Dr.(Miss.) H. Chattapadhyay	Dr. B. K. Roy
Mathematics	Dr. J. Sanyal	Dr. A. N. Roy Chowdhur
Mathematics	Dr. D. Chatteraj	Dr. S. K. Bose
Mathematics	Dr. T. Chattopadhyay	Dr. S. K. Bose
Mathematics	Dr. T. Das	Dr. R. Sircar
Mathematics	Dr. S. S. Halder	Dr. S. K. Bose
Mathematics	Dr. (Smt) P. Chakraborty	Dr. A. N. Roy Chowdhury
Mathematics	S. N. Dey	Dr. D. Ghosh (CSE) & Dr. S. C. Sikder
Mechanical Engineering	Dr. S. N. Mukherjee	Dr. S. K. Basu
Mechanical Engineering	Dr. D. K. Pal	Dr. S. K. Basu
Mechanical Engineering	Dr. S. N. Sengupta	Dr. S. K. Basu
Mechanical Engineering	Dr. G. Mitra	Dr. S. K. Basu
Mechanical Engineering	Dr. G. S. Gill	Prof. N. C. Dasgupta & Dr. D. Bhaduri
Mechanical Engineering	Dr. P. Basu	Prof. N. C. Dasgupta & Dr. D. Bhaduri
Mechanical Engineering	Dr. A. Majumdar	Dr. S. K. Basu
Mechanical Engineering	Dr. G. S. Patki	Dr. S. K. Basu
Mechanical Engineering	Dr. P. K. Sinha	Dr. D. Bhaduri
Mechanical Engineering	Dr. S. C. Nidhi	Dr. S. K. Basu
Mechanical Engineering	Dr. J. Basu	Dr. S. K. Basu
Mechanical Engineering	Dr. B. Bhaduri	Dr. S. K. Basu
Mechanical Engineering	Dr. S. P. Das	Dr. P. B. Choulia
Mechanical Engineering	Dr. M. S. Mukhopadhyay	Dr. D. K. Pal
Mechanical Engineering	Dr. M. R. Patkar	Dr. D. K. Pal & Dr. S. K. Basu
Mechanical Engineering	Dr. S. Chakraborty	Dr. D. K. Pal
Mechanical Engineering	Dr. M. A. Venkatesh	Dr. D. K. Pal
Mechanical Engineering	Dr. N. P. Mukherjee	Dr. D.K.Pal
Mechanical Engineering	Dr. S. Mukhrejee	Dr. S.N.Sengurpta & Dr. M.C.Majumder
Metallurgical & Materials Engineering	Dr. A. C. Ganguli	Dr. S. C. Dasgupta & Dr. A. K. Chakraborty
Metallurgical & Materials Engineering	Dr. S. Banerjee	Dr. D. Bhaduri
Metallurgical & Materials Engineering	Dr. B. Deo	Dr. S. Sarkar
Metallurgical & Materials Engineering	Dr. A. Basu	Dr. S. C. Sengupta & Dr. S. Jana
Metallurgical & Materials Engineering	Dr. S. K. Chattopadhyay	Dr. S. K. Chatterjee & Dr. S. P. Sengupta
Metallurgical & Materials Engineering	Dr. K. Lal	Dr. S. K. Chattopadhyay & Dr. A. K. Meikap (PH)
Metallurgical & Materials Engineering	Dr. Subhendu Mukherjee	Prof. D. K. Mondal
Physics	Dr. N. Choudhury	Dr. M. S. Sinha
Physics	Dr. A. K. Das	Dr. M. S. Sinha
Physics	Dr. B. C. Nandi	Dr. M. S. Sinha
Physics	Dr. P. S. Basu	Dr. M. S. Sinha
Physics	Dr. G. S. Roy	Dr. M. S. Sinha
Physics	Dr. (Mrs.) Ragasree Sen	Dr. S. K. Chatterjee
Physics	Dr. D. Biswas	Dr. A. K. Meikap & Dr. S. K. Chattopadhyay
Physics	Dr. S. Sahoo	Dr. L. Maharana & Dr. A. K. Meikap
Physics	Dr. A. Sarkar	Dr. A. K. Meikap & Dr. S. K. Chatterjee

Name of the Department	Investigator	Supervisor(s)
Physics	Dr. Jiten Ghosh	Dr. S. K. Chatterjee
Physics	Dr. Prasanta Kr. Singha	Prof. A.K. Mitra

Annexure–11.4(i) Testing & Consultancy services rendered during 2010-11

Department	Title of the Project	Amount (Total)
Metallurgical & Materials Engineering	Testing and Consultancy	Rs.1,98,500

11.5(a) Number of faculty in position

Name of Department	Professor	Associate Professor	Assistant Professor	Assistant Professor (Contractual)
Biotechnology	02	03	06	-
Chemical Engineering	06	03	04	-
Chemistry	02	02	07	-
Civil Engineering	06	05	06	-
Computer Application	Nil	Nil	05	02
Computer Science & Engineering	02	03	06	02
Electrical Engineering	05	04	06	-
Electronics & Communications Engineering	02	05	07	01
Geology	Nil	02	Nil	-
Humanities & Social Sciences	02	Nil	03	-
Information Technology	Nil	02	08	01
Management Studies	Nil	03	05	-
Mathematics	Nil	02	06	01
Mechanical Engineering	06	09	11	-
Metallurgical & Materials Engineering	03	05	05	01
Physics	03	02	03	-
T.P.S.W.	01	-	-	-

Annexure-11.5(b) List of Faculty

Director	Bhattacharya Swapan, PhD (upto 29.11.2010) & Sinha Tapan Kumar, PhD (from 30.11.2010 to 31.03.2011)
Dean, Administration	Mitra Apurba Krishna, PhD (up to 28.02.2011)
Dean, Academic	Das Sunil Baran, PhD
Dean, Planning & Development	Haldar Subhamay, PhD
Dean , Faculty Welfare	Mitra Swapan Kumar, PhD
Dean, Students Welfare	Sanyal Gautam, PhD
Dean, Research& Consultancy	Gupta Partha Pratim, PhD

Department of Biotechnology

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Aikat Kaustav, Ph.D.	Associate Professor	Microbial Biotechnology and Biochemical Engineering	kaustav.aikat@bt.nitdgp.ac.in aikatk@yahoo.co.in
Chattopaddhyay Sudip, Ph.D.	Professor	Developmental Biology and signal transduction	sudip.chattopadhyay@bt.nitdgp.ac.in sudipchatto@yahoo.com
Chaudhuri Surabhi, Ph.D.	Associate Professor	Biochemical Engineering, Food Biotechnology	surabhi.chaudhuri@bt.nitdgp.ac.in surabhi_c@yahoo.com
Das (Saha) Papita, Ph.D.	Assistant Professor	Downstream processing, Environment Engineering	papita.saha@bt.nitdgp.ac.in papitasaha@gmail.com
Dey Apurba, Ph.D., HOD	Professor	Biochemical Engineering, Environmental Biotechnology	apurba.dey@bt.nitdgp.ac.in apurbadey2003@yahoo.co.in
Dasguptamandal Dalia, Ph.D.	Assistant Professor	Tissue culture technology, Molecular Biology	dalia.dasgupta@bt.nitdgp.ac.in dasguptadalia@yahoo.com
Dutta Debjani, Ph.D.	Assistant Professor	Food Biotechnology, Biochemistry, Microbial Biotechnology	debjani.dutta@bt.nitdgp.ac.in debs_2000in@yahoo.com
Ghosh Monidipa, Ph.D.	Assistant Professor	Immunobiology of antigen presenting cells, Host cell – parasite interaction and consequences in signal transduction	gmonidipa@yahoo.com
Kazy Sufia Khannam, Ph.D.	Assistant Professor	Environmental Microbiology and Biotechnology, Bioremediation, Bionanotechnology	sufia.kazy@bt.nitdgp.ac.in sufia_kazy@yahoo.com
Mukhopadhyay Sudit Sekhar, Ph.D.	Associate Professor	Molecular Biology of Cancer, Human Genetics, Animal Biotechnology	suditmukhopadhy@yahoo.com
Roy Barman Subhankar, Ph.D.	Assistant Professor	Molecular plant – fungus interactions, Plant molecular biology	sroybarman@gmail.com; subhankar_roy2000@yahoo.com

Department of Chemical Engineering

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Dutta Susmita, PhD	Associate Professor	Environmental Engineering, Biochemical Reaction Engineering	susmita.dutta@che.nitdgp.ac.in susmita_che@yahoo.com
Ghanta Kartik Chandra, PhD	Professor	Multiphase Flow, Slurry Flow Modelling	kartik.ghanta@che.nitdgp.ac.in kcghanta@yahoo.com
Gupta Parthapratim, PhD	Professor	Mathematical Modelling, Combustion & Gasification of Coal & Biomass	parthapratim.gupta@che.nitdgp.ac.in parthgupta2000@yahoo.com
Haldar Subhamay, PhD	Professor	Combustion Engineering	subhamay.halder@che.nitdgp.ac.in shaldar_nitd@yahoo.co.in
Halder Gopinath, PhD	Assistant Professor	Chemical Engg Thermodynamics, Process Heat Transfer, Environmental Energy	gopinath_haldar@yahoo.co.in gopinathhaldar@gmail.com
Mandal Mrinal Kanti, PhD	Assistant Professor	Membrane Seapartion Processes Petroleum Refinery,	mrinalmandal@gmail.com mrinal_ml78@yahoo.co.in

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
		Mass Transfer Operation, Modeling, Simulation and Optimization of Process Design	
Mandal Tamal, PhD	Associate Professor	Environmental Bio-Engineering, Bio-Reaction Engineering	tamal.mandal@che.nitdgp.ac.in tamal.nitdgp@gmail.com; tamal_mandal@yahoo.com
Narayanan C M, PhD	Professor	Transport Phenomena, Computer Aided Design, Bioprocess Engineering, Energy Engineering	cm.narayanan@che.nitdgp.ac.in cmn_recd@yahoo.co.in
Pal Parimal, PhD	Professor & Head	Process Intensification through membrane technology, Industrial wastewater treatment, Arsenic removal technology development	parimal.pal@che.nitdgp.ac.in parimalpal2000@yahoo.com
Paruya Swapan, PhD	Assistant Professor	Boiling Two-phase Flow, Optimization & Control	swapan.paruya@che.nitdgp.ac.in swapanparuya@rediffmail.com
Pramanik Hiralal, PhD (Resigned)	Assistant Professor	Fuel Cell	
Sadhukhan Anup Kumar	Associate Professor	Modelling and Simulation of Pyrolysis, Combustion and Gasification of Coal and Biomass	anupkumar.sadhukhan@che.nitdgp.ac.in t_sadhu@yahoo.com
Sarkar Jyoti Prakas, PhD	Professor	Fluidization, Multiphase Flow, Mass Transfer (Spl. Interest: Solid waste management & Energy Management)	jyotiprakash.sarkar@che.nitdgp.ac.in jp_sarkar@yahoo.co.in
Sikder Jaya	Assistant Professor	Membrane Separation, Fermentation Technology, Bioprocess Enginneering	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	Carbohydrate chemistry, Organic synthesis	utpalshuchi1@gmail.com
Chakrabarty Jitamanyu, PhD	Assistant Professor	Lipid Chemistry, Cryobiology	jitamanyu.chakrabarty@ch.nitdgp.ac.in jito19@gmail.com
Das Sunil Baran, PhD	Professor	Synthetic Organic Chemistry, Solid Waste Management	sunilbaran.das@ch.nitdgp.ac.in sbdas02@yahoo.co.in
Nandi Murari Mohan, PhD	Professor	Design of corrosion inhibitors	murarimohan.nandi@ch.nitdgp.ac.in murarimohan_nandi@yahoo.co.in
Maji Milan, PhD	Assistant Professor	Inorganic materials	milan.maji@ch.nitdgp.ac.in milan_maji@yahoo.co.in
Moi Sankar Chandra, PhD	Assistant Professor	Kinetics and mechanism of biologically important Inorganic substitution reaction	sankar.moi@ch.nitdgp.ac.in sankarmoi67@yahoo.com
Mukhopadhyay Bishnu Prasad, PhD	Associate 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	Assistant Professor	Fluorescence Spectroscopy	sujit.panja@ch.nitdgp.ac.in Sujit.panja@gmail.com
Patra Apurba Kumar, PhD	Associate Professor	Bio-inorganic Chemistry	apurba.patra@ch.nitdgp.ac.in apurba_69@yahoo.com

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
Saha Rajnarayan, PhD	Assistant Professor	Inorganic Chemistry, Environmental Chemistry, Water and wastewater Treatment, Environmental Management	rajnarayan.saha@ch.nitdgp.ac.in rajusaharupa@yahoo.com
Sukul Dipankar, PhD	Assistant 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	Associate 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	Associate 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	Assistant 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	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	Assistant Professor	Soil Mech & Foundation Engineering	supriya.pal@ce.nitdgp.ac.in supriya_pal@rediffmail.com
Roy Pronab	Assistant Professor	Structural Engineering	pronab.roy@ce.nitdgp.ac.in
Roy Purnendu, PhD	Professor	Structural Engineering	purnendu.roy@ce.nitdgp.ac.in
Saha Showmen, PhD	Professor	Struct. Engg. &Concrete Structure, Smart Material	soumen.saha@ce.nitdgp.ac.in
Samal Nihar Ranjan, PhD	Assistant Professor	Soft computing, Water & wastewater treatment, Climate change analysis & Sustainability, Risk analysis and urban flooding	nihar.samal@ce.nitdgp.ac.in nihar_samal@yahoo.co.in
Samanta Amiya Kumar, PhD	Associate Professor	Comp. & exp. Mechanics of Concrete/ composite structures	amiyak.samanta@ce.nitdgp.ac.in aksnitd@gmail.com
Singha Roy Dilip Kumar, PhD	Professor	Structural Engineering	dilip.singharoy@ce.nitdgp.ac.in
Topdar Pijush, PhD	Assistant Professor	Smart structures, composite and sandwich structures, structural rehabilitation and structural health monitoring	pijush.topdar@ce.nitdgp.ac.in

Department of Computer Applications

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Sarkar Anirban, PhD	Assistant Professor	Software Engineering, Data Warehousing	anirban.sarkar@mca.nitdgp.ac.in sarkar.anirban@gmail.com
Sharma Abhijit	Assistant Professor (Contractual)	Wireless Network	abhijit.sharma@mca.nitdgp.ac.in abhijit.cst@gmail.com
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Department of Computer Science and Engineering

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Department of Electrical Engineering

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Department of Electronics & Communication Engineering

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Department of Geology

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Department of Humanities and Social Sciences

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Department of Physics

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Training Placement and Students' Welfare

Name	Designation	Areas of Research Interest	Email id (Institute & other id)
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Annexure – 11.5(c) New appointment of faculty during the year

Sl. No.	Name	Department	Designation	Date of Joining
1	Rai Srikrishan	Hum. & Social Sc	Asstt. Prof	05.04.2010
2	Bhattacharya Sanghita	Computer Sc.& Engg	Asstt. Prof. (Cont)	06.04.2010
3	Nanda Radhikesh Prasad	Civil Engg.	Associate Prof.	09.04.2010
4	Ghosh Monidipa	Biotechnology	Asstt. Prof.	12.04.2010
5	Maitra Sarit	Mathematics	Asstt. Prof.	13.04.2010
6	Pal Durba	Management Studies	Asstt. Prof	16.04.2010
7	Panigrahi Gautam	Mathematics	Asstt. Prof. (Cont)	16.04.2010
8	Pramanik Hiralal	Chemical Engg.	Asstt. Prof.	16.04.2010
9	Mallik Manab	Met. Mat. Engg.	Asstt. Prof. (Cont)	19.04.2010
10	Ghatak Rowdra	Elec. & Comm. Engg.	Associate Prof.	21.04.2010
11	Pal Pinaki	Mathematics	Asstt. Prof	21.04.2010
12	Mandal Sujit Kr.	Elec.& Comm.Engg.	Asstt. Prof. Cont)	23.04.2010
13	Dalui Mamata	Comp.Sc. Engg.	Asstt. Prof. (Cont)	28.04.2010
14	Mitra Debasis	Information Tech.	Asstt. Prof. (Cont)	28.04.2010
15	Adhikari Utpal	Chemistry	Asstt. Prof.	29.04.2010
16	Roy Barman Subhankar	Biotechnology	Asstt. Prof.	03.05.2010
17	Saha Sujay	Computer Application	Asstt. Prof. (Cont)	17.05.2010
18	Haldar Gopinath	Chemical Engg	Asstt. Prof.	21.05.2010
19	Mondal Mrinal Kanti	Chemical Engg.	Asstt. Prof.	21.05.2010
20	Mukhopadhyay Sudit S.	Biotechnology	Associate Prof.	15.06.2010
21	Bera Supriya	Met. & Mat. Engg.	Asstt. Prof.	28.07.2010
22	Mahapatra Rajat	Elect. & Comm.Engg.	Associate Prof.	30.07.2010
23	Sharma Monalisha	Computer Sc.& Engg.	Asstt. Prof.	02.08.2010
24	Chakraborty Amit Kr.	Physics	Associate Prof.	03.08.2010

Annexure – 11.5(d) Retirement, Resignation and Voluntary Retirement of faculty during the year

Sl. No.	Name	Department	Designation	Date of retirement/ Resignation
1	Pramanik Hiralal	Chemical Engg.	Asstt. Prof.	06.07.2010 (resigned)
2	Chatterjee Sanat Kr	Physics	Professor	31.07.2010
3	Sil Somnath	Mechanical Engg.	Associate Prof.	31.10.2010
4	Mitra Apurba Krishna	Physics	Professor	28.02.2011
5	Sinha Tapan Kr.	Met. & Mat.Engg.	Professor	31.03.2011

Annexure-11.6(a) Number of officers

Designation	Sanctioned	In position
Registrar	1	Vacant
Librarian	1	1
Deputy Registrar (Admn)	1	1
Deputy Registrar (Accounts)	1	1
Maintenance Engineer	1	1
Manager (Hostel, Estate & Security)	1	1
Medical Officer	2	2
Officer, TPSW	1	Vacant
Audit Officer	1	1
Administrative Officer	1	1
Asstt. Registrar (Academic)	1	1
Asstt. Librarian	1	Vacant
Jr. Accounts Officer	1	1
Physical Training Instructor	1	1
Programmer	1	1
System Manager	1	1
Stores Officer	1	1
Foreman	3	2

Annexure-11.6(b) List of Officers

Registrar	Vacant
Librarian	Mondal Manik, PhD
Deputy Registrar (Admn)	Ray Dhrubajyoti
Deputy Registrar (Accounts)	Mukherjee Uday Chandra
Maintenance Engineer	Haldar Tanmay
Manager (Hostel, Estate & Security)	Chattopadhyay Aloke Kr.
Medical Officer	Patra Sucharita (Dr..Mrs)
Medical Officer	Sarkar Banhi Kumar (Dr.)
Audit Officer	Das Ashutosh
Administrative Officer	Sinha Sanat Kumar
Asstt. Registrar(Academic)	Sardar Amiya Kumar
Jr. Accounts Officer	Bhattacharya Sayan
Physical Training Instructor	Mukherjee Hillol
Stores Officer	Mondal Debasish

Computer Centre

System Manager	Saravanan C, PhD
Programmer	Chatterjee Rajib

Library

Librarian	Mondal Manik, PhD
Assistant Librarian	Vacant

Workshop

Superintendent	Vacant
Foreman	Dutta Goutam
	Roy Ashok Kumar

Medical Unit-cum-Hospital

Medical Officer(s)	Patra Sucharita (Dr.)
	Sarkar Banhi Kumar (Dr.)

Annexure-11.6(c) Number of technical & administrative staff members

Designation	In position
Asstt. Foreman	8
Cleaner	1
Draftsman	1
Driver	1
Duftry	1
Dupl. Machine Operator	1
Engg. Asstt.	3
General Duty Attd.	3
Head Asstt.	1
Hostel Cook	3
Jr. Computer Operator	2
Key Punch Operator	2
Laboratory Assistant	4
Laboratory Attd	7
LDA/LDC	23
Mess Manager	5
Metron	1
Mali	2
Mazdoor	1
Office Peon/Helper	39
Pharmacist	1
Sanitary Inspector	1
Security Inspector	1
Skilled staff Gr.	14
Lib. Asst.	3
Stack Attd(Lib)	2
Staff Nurse	3
Store Attendant	1
Sweeper	7
Technical Assistant	20
Skilled Staff (Telephone Mechanics)	1
UDA/UDC	18
Watchman	6
Workshop Attendant	1
Total	188

Annexure-11.6(d) New Recruitment of Staff

NIL

Annexure-11.6(e) Retirement, Resignation, Death and Voluntary Retirement of Staff during the year

Sl. No	Name	Department/ Section	Designation	Date of Retirement
1.	Rakshit Maniklal	Chemistry	LDA	30.09.2010
2.	Paswan Sugarath	Estate Section	Watchman	30.09.2010
3.	Chakraborty Mita	Mathematics	Helper	30.11.2010
4.	Ghosh Golok Ch.	Cash	Helper	30.11.2010
5.	Roy Susanta	Wardens' Council	Cook	31.01.2011
6.	Roy Rampukar	Workshop	LDA	31.01.2011

Annexure – 11.7(a) Faculty deputed on QIP (doctoral programme) during this period

None

Annexure–11.7(b) Seminars, summer/winter schools, short term courses attended by faculty members

Department of Biotechnology

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Dutta D.	Refresher Course on Recent Advances in Fermenattion Technology	Jadavpur University, Kolkata	June 15 – July 5, 2010
2	Kazy S.K.	National Conference on Biotechnology and Environment	Department of Biotechnology NIT Durgapur	October 4-5, 2010
3	Mukhopadhyay S.	National Conference on Biotechnology and Environment	Department of Biotechnology NIT Durgapur	October 4-5, 2010
4	Roy Barman S.	National Conference on Biotechnology and Environment	Department of Biotechnology NIT Durgapur	October 4-5, 2010
5	Saha P.	Recent Advances on Fermentation Technology	Jadavpur University (UGC collaboration)	June 5 – July 15, 2010
6	Saha P.	Workshop on Modeling and Simulation Techniques including a Training Module on STATISTICA	Jadavpur University, Kolkata	August 17 – 18, 2010
7	Saha P.	Air Pollution Monitoring and Control-Special Focus on Green House Gas (GHG) Emissions Issues	NITTTR, Kolkata	February 7 –11, 2011
8	Saha P.	Instrumental Approach for analysis of Air & Water Quality monitoring parameters	NITTTR, Kolkata	March 21 – 25, 2011

Department of Chemical Engineering

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Narayanan C.M.	Workshop on Thermal Management and Stability in Electronic Systems	Sameer Centre for Electromagnetics, Ministry of Communication and Information Technology, Govt. Of India	July 15 - 16, 2010
2	Paruya S.	Industry Academia Interface – 2010-11 – Programme on Refining and Petrochemicals	Haldia Refinery, IOCL	May 26-29,2010

Department of Chemistry

SL. NO.	Name	Name of the Programme	Organized by	Date of the programme
1	Adhikari U.	National Seminar on International Year of Chemistry: Chemistry in Our Lives	University of Burdwan, Burdwan	March 15-17, 2011
2	Maji M.	Corrosion protection by paint coatings, inspection and quality control	IIT, Bombay	May 3-5, 2010
3	Panja S.S.	National Seminar on International Year of Chemistry: Chemistry in Our Lives	University of Burdwan, Burdwan	March 15-17, 2011
4	Sukul D.	Corrosion protection by paint coatings, inspection and quality control	IIT, Bombay	May 3-5, 2010

Department of Civil Engineering

SL. NO.	Name	Name of the Programme	Organized by	Date of the programme
1	Banik A.K.	Seismic and Wind Resistant Design of Building Structures"	CSRI-CBRI & ISWE Roorkee	December 3-5, 2010,
2	Banik A.K.	International Advance School in Wind Engineering	CSRI-CBRI & ISWE Roorkee	December 6-8, 2010
3	Dwivedi V.K.	Short term workshop on "Intellectual Property Right"	Indian Institute of Technology, Roorkee, India	September 25 – 29, 2010
4	Samanta A.K.	Transportation and storage of coal ash.	FITT, IIT Delhi	November 15-17, 2010
5	Samanta A.K.	Seismic analysis of high rise buildings.	IIIT, Hyderabad	July 22-24, 2010
6	Samanta A.K.	Question bank project workshop (Ph-II) on commerce, economics, statistics, civil structural, mechanical & electrical engg.	Staff Selection Commission (Eastern Region)	April 12-13, 2010
7	Singha Roy D.K.	Seismic analysis of high rise buildings.	IIIT, Hyderabad	July 22-24, 2010

Department of Computer Applications

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Changder S. & Das S.	2ND International Conference on Computer Technology and Development	IACSIT, Cairo, Egypt	November 2-4, 2010,
2	Changder S.	3rd International Conference on Computer Science and Information Technology (ICCSIT 2010),	IACSIT, Chengdu, China	July 9 – 11, 2010,
3	Choudhury P.	International conference on Computer Network and Technology (ICCNT 2010),	IACSIT, Bangkok, Thailand	April 23 – 25, 2010,
4	Choudhury P.	2010 International Conference on Wireless Networks (ICWN'10) ,	World Comp, Las Vegas, USA	July 12-15, 2010,
5	Saha M.	Int'l Conf. Embedded Systems and Applications (ESA '10)	World Comp, Las Vegas, USA	July 12-15, 2010,
6	Saha M.	Annual International Conference on Real – Time and Embeded System	--- Singapore	November 1 – 2, 2010,
7	Sarkar A.	22nd International Conference of Software Engineering & Knowledge Engineering (SEKE 10)	KSI, San Francisco, USA	July 1 – 3, 2010,
8	Sarkar A.	Coordinator workshop on Effective Teaching/ Learning of Computer Programming	Ntional Mission of Educations through ICT, MHRD, Govt. of India & IIT Bombay	May 2 – 4, 2010,
9	Sharma A.	Network Security – Theoretical & Practical Perspective [NETSEC-2010]	Continuing Education Programme (CEP) IIT Kharagpur	August 2 – 7, 2010,

Department of Electrical Engineering

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Acharjee P.	Challenges in Smart Grid and Renewable Resources'	IEEE PES Bangalore Chapter and IEEE Bangalore Section	May 14 – 15, 2010
2	Banerjee S.	'Power Electronics Applications in Industry'	BESU Shibpur, & IEEE IAS Calcutta Chapter	February 04-06, 2011

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
3	Bhowmik P.S.	Soft Computing Applications in Decision Technology	Dept. of Mechanical Engineering, Jadavpur University	June 28-July 27, 2010
4	Mahato S.N.	Embedded Systems and its Applications to Power Electronics	Dept. of Electrical Engg. I.I.T. Roorkee	July 5-9, 2010

Department of Electronics & Communication Engineering

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Mandal S.K.,	RF Communication, Navigation and Surveillance: Fundamentals and Applications	Dept. Of ECE, IIT Kharagpur	December 26 – 31, 2010.
2	Mandal S.K.,	Workshop on Soft Computing and Applications (WSCA'2011)	Center for Soft Computing Research (CSCR) of ISI, Kolkata and ITER, Siksha O Anusandhan University, Bhubaneswar.	January 13 - 15, 2011

Department of Geology

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Adhikari K.	Solid and Hazardous Waste Management	IIT Kharagpur	November 12-19, 2010

Department of Information Technology

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
2	Das D.	Display of working model on Robotics in CII -I3 Regional Fair 2010	N.I.T Durgapur	September 30, 2010.
1	Das D.	2 week ISTE workshop on Effective Teaching Learning of Computer Programming	N.I.T Durgapur	
3	Mukhopadhyay S.	International Conference on Emerging Technologies (ICET-2011)	IEEE Student Chapter of NITD	March 28-31, 2011

Department of Management Studies

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Dutta A.	How to maximize export earning and improve profitability through currency trading.	Ahemedabad Management Association	August 19-21, 2010
2	Bandyopadhyay G.	Time series modelling	Madras School of Economics	March 25-27, 2011
3	Bandyopadhyay G.	ISTE Workshop in Database Management Systems	IIT, Bombay	December 13 - 23, 2010
4	De A.	ISTE Workshop in Database Management Systems	IIT, Bombay	December 13 - 23, 2010
5	De A.	Advances in Computational Optimization And Applications	Department of Mathematics, NIT, Durgapur	November 8 - 12, 2010

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
6	Banerjee N.	ISTE Workshop in Database Management Systems	IIT, Bombay	December 13 - 23, 2010

Department of Mathematics

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Bagchi S.	International Conference on Recent Trends in Graph Theory and combinatorics,	Cochin University of scienc and Technology, Cochin, India.	August, 12-15, 2010
2	Bagchi S.	International Congress of Mathematicians-2010	International Mathematical Union (IMU)	July 19 -27, 2010
3	Bagchi S.	National Workshop Block Designs and their Applications	Banasthali University, Jaipur	February 5 - 8, 2011
9	Dey L.K.	International Congress of Mathematicians-2010	International Mathematical Union (IMU)	July 19 -27, 2010
10	Dey L.K.	National Workshop Block Designs and their Applications	Banasthali University, Jaipur	February 5 - 8, 2011
4	Kar S.	"8th China Annual Conference on Uncertainty"	Uncertainty Theory Lab, Tsinghua University , Xian, China.	August 1 – 5, 2010
5	Kar S.	2nd International Conference on "Computer Engineering and Technology"	International Association of Computer Science and Information Technology , Chengdu, China	16 – 18 April, 2010 at
6	Pal A.	International Congress of Mathematicians ICM-2010, Hyderabad	International Mathematical Union (IMU)	July 19 -27, 2010
7	Pal A.	The International Conference on Electronic- Business intelligence(ICEBI 2010) at Kunming, China	Tsinghua University, Kunming, China	December 19-21, 2010
11	Sarkar(Mondal) S.	Short Term Course on Financial Modeling and Risk Management; Theory and Practice	I.I.T. Kharagpur (W.B.)	May 24-27, 2010
12	Sarkar(Mondal) S.	International Conference on Information Management Sciences (IMS 2010)	International Association for Information Management Sciences, Urumchi, China	August 11-19, 2010
13	Sarkar(Mondal) S.	National Workshop on Inventory Modeling	Centre for Mathematical Sciences (CMS),Apaji Institute of Mathematics and Applied Computer Technology, Banasthali University, Rajasthan	March 4-7, 2011
14	Sarkar(Mondal) S.	International Conference on Frontiers in Applied Mathematics and Its Computational Aspects (ICFAM-CA 2011) in University of Calcutta.	Department of Applied Mathematics University of Calcutta	March 15-17, 2011

Department of Mechanical Engineering

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Das A.K.	Advances in Computational Optimisation and Application	NIT Durgapur	November 8-12, 2010
2	Das A.K.	short term courses on Bio-Fluid Mechanics	IIT Kanpur	March 4-9, 2011
3	Hui N.B.	Statistical Modeling of Systems	IIT Kharagpur	June 28 - July 4, 2010
4	Hui N.B.	Creation and Management of Intellectual Property Rights in Higher Education Institutes	IIT Roorkee	September 6-10, 2010

Department of Metallurgical & Materials Engineering

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Bera S.	Short term course on 'Scanning Electron Microscopy for beginners'	Bengal Engineering and Science University, Howrah	February 7-11, 2011
2	Mallick M.	Short term course on 'Scanning Electron Microscopy for beginners'	Bengal Engineering and Science University, Howrah	February 7-11, 2011
3	Mallick M.	Refresher course for University and Collage Teachers	Banaras Hindu University, Varanasi	December 6-10, 2010

Department of Physics

SL. NO	Name	Name of the Programme	Organized by	Date of the programme
1	Kumbhakar P.	International Conference on Nanomaterials: Synthesis, Characterization and Application (ICN-2010)	Mahatma Gandhi University, Kottayam, Kerala,	April 27-29 , 2010
2	Kumbhakar P.	National Seminar on "Chemistry of Nanomaterials and Molecular Dynamics"	Annamalai University, Tamilnadu	December 30-31, 2010
3	Meikap A.K.	International Conference on Nanomaterials: Synthesis, Characterization and Application (ICN-2010)	Mahatma Gandhi University, Kottayam, Kerala,	April 27-29 , 2010
4	Meikap A.K.	Seminer on "Frontiers in materials Science-2010" (FMSC-2010)	National Institute of Technology, Durgapur, West Bengal	December 6, 2010
5	Meikap A.K.	National Seminer "55th DAE-Solid State Physics Symposium"	Manipal University, Karnataka	December 26-30, 2010
6	Sahoo S.	The XIX DAE-BRNS High Energy Physics Symposium – 2010	LNM IIT, Jaipur, Rajasthan, India	December 13–18, 2010
7	Sahoo S.	The 28th Convention of Orissa Physical Society and National Seminar on "Non-Conventional Energy	Sambalpur University, Sambalpur, Orissa	February 12 – 13, 2011

Annexure–11.7(c) Training of staff members

NIL

Annexure– 11.8(a) List of programmes offered

11.8. (a). 1. Under-graduate Programmes:

The Institute provides instruction in the following courses leading to 4 Year (8 Semester) B.Tech. Degree:

Sl. No.	Courses Offered	Degree Offered
1	Bio – Technology	B. Tech.
2	Chemical Engineering	B. Tech.
3	Civil Engineering	B. Tech.
4	Computer Science & Engineering	B. Tech.
5	Electrical Engineering	B. Tech.
6	Electronics & Communication Engineering	B. Tech.
7	Information Technology	B. Tech.
8	Mechanical Engineering	B. Tech.
9	Metallurgical & Materials Engineering	B. Tech.

11.8. (a). 2. Post – Graduate Programmes:

M. Tech. programmes:

Dept. / Specialisation	Year of Starting	Full / Part time	Duration	Sanctioned intake
Biotechnology	2008	Full Time	2 years	20
Chemical Engineering	1968	Full Time	2 years	23
		Part Time (Day)	3 years	
Civil Engineering (Structural Engineering)	1971	Full Time	2 years	23
		Part time (Day)	3 years	
Chemistry (Corrosion Science & Technology)	1996	Full Time	2 years	23
		Part time (Day)	3 years	
Computer Science & Engineering (Information Technology)	2004	Full Time	2 years	23
Electrical Engineering (Industrial Electrical System)	1969	Full Time	2 years	23
		Part time (Day)	3 years	
Electronics & Communication Engg (Telecommunication Engg)	2005	Full Time	2 years	23
Electronics & Communication Engg (Microelectronics & VLSI)	2008	Full Time	2 years	23
Geology – co-ordinating dept. (Environmental Science & Technology)	2008	Full Time	2 years	20
Information Technology (Information Security)	2008	Full Time	2 years	23
Mathematics (Operations Research)	1990	Full Time	2 Years	23
		Part time (Day)	3 years	
Mechanical Engineering (Design & Production Engineering)	1966	Full Time	2 years	23
		Part time (Day)	3 years	
Metallurgical Engineering (Industrial Metallurgy)	1966	Full Time	2 years	23
		Part time (Day)	3 years	
Metallurgical Engineering (Materials Engg)	1966	Full Time	2 years	23
		Part time (Day)	3 years	
Physics (Advanced Materials Science & Technology)	2006	Full Time	2 years	23

Other programmes:

Dept. / Programme	Full / Part time	Year of Starting	Duration	Sanctioned intake
Management Studies (MBA)	Full Time	2004	2 Years	92
Computer Applications (MCA)	Full Time	2000	3 Years	92
Physics (M. Sc. in Physics)	Full Time	2009	2 Years	20
Chemistry (M. Sc. in Chemistry)	Full Time	2009	2 Years	20
Mathematics (M. Sc. in Mathematics with Computer Applications))	Full Time	2010	2 Years	20

Annexure–11.8(b) Programme-wise enrolment with sex and caste break-up

11.8. (b). 1. Enrolment in B. Tech. programmes, 2010 – 2011 (Genderwise):

Semester	*BT*	*ChE*	*CE*	*CSE*	*ECE*	*EE*	*IT*	*ME*	*MME*	*Total*
B. Tech. I & II	77 (12)	66 (06)	65 (04)	91 (14)	100 (21)	99 (16)	91 (14)	154 (05)	75 (11)	818 (103)
B. Tech. III & IV	40 (09)	55 (11)	53 (06)	98 (13)	92 (23)	85 (19)	86 (16)	136 (06)	54 (07)	699 (110)
B. Tech. V & VI	51 (18)	40 (08)	47 (03)	76 (10)	77 (09)	73 (15)	63 (12)	116 (05)	52 (07)	595 (87)
B. Tech. VII & VIII	52 (19)	34 (11)	39 (04)	65 (06)	69 (05)	61 (10)	54 (07)	87 (05)	39 (07)	500 (74)
Total	*220 (58)*	*195 (36)*	*205 (17)*	*330 (43)*	*339 (58)*	*218 (60)*	*295 (49)*	*493 (21)*	*220 (32)*	*2612 (374)*

(Number of female students indicated in paranthesis. The total number is inclusive of the number of girl students)

11.8. (b). 2. Enrolment in B. Tech. programmes, 2010 – 2011 (Castewise):

Dept.	B. Tech. I & II Semesters					B. Tech. III & IV Semesters					B. Tech. V & VI Semesters					B. Tech. VII & VIII Semesters				
	OP	*SC*	*ST*	*OBC*	*TOT*	*OP*	*SC*	*ST*	*OBC*	*TOT*	*OP*	*SC*	*ST*	*OBC*	*TOT*	*OP*	*SC*	*ST*	*OBC*	*TOT*
BT	36	13	07	21	77	17	10	05	08	40	31	11	07	02	51	41	08	03	---	52
ChE	37	08	05	16	66	35	07	03	10	55	26	06	03	05	40	26	06	02	---	34
CE	35	09	04	17	65	36	06	03	08	53	32	07	03	05	47	29	07	03	---	39
CSE	46	14	07	24	91	69	12	04	13	98	56	09	04	07	76	56	06	03	---	65
EE	53	14	07	25	99	54	12	06	13	85	51	11	05	06	73	48	10	03	---	61
ECE	54	14	07	25	100	60	12	06	14	92	55	12	04	06	77	55	10	04	---	69
IT	46	13	07	25	91	53	12	05	16	86	44	09	05	05	63	42	08	04	---	54
ME	83	22	10	39	154	87	16	10	23	136	85	14	07	10	116	65	14	08	---	87
MME	37	12	06	20	75	28	09	05	12	54	36	07	04	05	52	27	07	05	---	39
Total	**427**	**119**	**60**	**212**	**818**	**439**	**96**	**47**	**117**	**609**	**416**	**86**	**42**	**51**	**595**	**389**	**76**	**35**	**---**	**500**

11.8. (b). 3. Enrolment in M. Tech. & M. Sc. Programmes, 2010 – 2011 (Gender wise)

Semester	BT	ChE	CH	CE	CSE	EE	ECE (TELE)	ECE (VLSI)	Geo (EST)	IT	M	ME	MME (IM)	MME (ME)	PH	TOT
M. Tech. I & II	21 (9)	9 (4)	5 (1)	7 (3)	21 (3)	16 (3)	24 (4)	21 (8)	14 (10)	22 (3)	13 (2)	16 (3)	3	4 (2)	11 (4)	207
M. Tech. III & IV	19 (5)	14 (3)	0	10 (1)	18 (5)	20 (2)	20 (3)	16 (6)	7 (2)	20 (12)	11 (2)	12 (1)	5	2	11 (2)	185
M. Tech. V & VI	0	2 (1)	0	1	0	4 (2)	0	0	0	0	5 (2)	3	0	0	0	15
M.SC. I & II (PH, CH, Math)	0	0	11 (4)	0	0	0	0	0	0	0	5 (2)	0	0	0	8 (2)	24
M.SC. III & IV (PH, CH)	0	0	8 (4)	0	0	0	0	0	0	0	0	0	0	0	7 (2)	15

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

11.8. (b). 4. Enrolment in M. Tech. & M. Sc. Programmes, 2010– 2011 (Caste wise)

Dept./ Year	I & II					III & IV					V & VI				
	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	*OP*	SC	ST	OBC	TOT
BT	14	2	1	4	21 *	15	1	0	3	19 *	0	0	0	0	0
ChE	5	2	0	2	9	9	3	0	2	14	2	0	0	0	2
CH	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0
CE	3	2	0	2	7	6	0	1	3	10	1	0	0	0	1
CSE	15	2	1	3	21 #	12	3	1	2	18	0	0	0	0	0
EE	9	3	0	4	16 *	14	3	1	2	20	4	0	0	0	4
ECE (TELE)	16	3	1	4	24 *	14	1	1	4	20	0	0	0	0	0
ECE (VLSI)	14	3	0	4	21	13	2	0	1	16	0	0	0	0	0
Geo (EST)	12	1	0	1	14	4	2	0	1	7	0	0	0	0	0
IT	15	3	0	4	22	15	2	0	3	20	0	0	0	0	0
M	13	0	0	13	11	13	0	0	0	13	5	0	0	0	5
ME	12	2	0	2	16	7	2	0	3	12	3	0	0	0	3
MME (IM)	2	0	0	1	3	5	0	0	0	5	0	0	0	0	0
MME (ME)	3	0	0	1	4	2	0	0	0	2	0	0	0	0	0
PH (AMST)	6	0	0	5	11	8	0	0	3	11	0	0	0	0	0
M. Sc. (CH)	10	0	0	1	11	7	0	0	1	8	0	0	0	0	0
M.SC (M)	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0
M. Sc. (PH)	7	0	0	1	8	6	0	0	1	7	0	0	0	0	0
Total	**166**	**23**	**3**	**39**	**231**	**146**	**20**	**4**	**30**	**200**	**15**	**0**	**0**	**0**	**15**

* 4 No Foreign Students #1 No. QIP (Polytechnic) Student

11.8. (b). 5. Enrolment in MCA programmes, 2010 – 2011 (Gender wise)

Master of Computer Applications	I & II Semester	III & IV Semester	V & VI Semester
	63 (9)	59 (6)	60(9)

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

11.8. (b). 6. Enrolment in MCA programmes, 2010 – 2011 (Caste wise)

Dept	MCA I & II					MCA III & IV					MCA V & VI				
	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT
MCA	33	10	1	19	63	34	10	2	13	59	41	9	4	6	60

11.8. (b) 7. Enrolment in MBA programmes 2010 – 2011 (Gender wise)

Master of Business Administration	I & II Semester	III & IV Semester
	60(17)	65(27)

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

11.8. (b). 8. Enrolment in MBA programmes, 2010 – 2011 (Caste wise)

Dept	MBA I & II					MBA III & IV				
	OP	SC	ST	OBC	TOT	OP	SC	ST	OBC	TOT
MBA	31	8	1	20	60	40	10	2	13	65

11.8. (b). 9. Enrolment of research scholars for PhD, during 2010–2011

SL. NO.	Branch of Research Study	Gender Break Up		Caste Break Up			Total
		Male	Female	SC	ST	OBC	
1	Biotechnology	5	4	-	-	2	9
2	Chemical Engineering	3	1	-	-	1	4
3	Chemistry	-	-	-	-	-	-
4	Civil Engineering	-	-	-	-	-	-
5	Computer Science & Engineering	1	-	-	-	-	1
6	Electrical Engineering	4	-	-	-	-	4
7	Electronics & Communications Engineering	10	1	2	1	1	11
8	Geology	-	-	-	-	-	-
9	Humanities & Social Sciences	3	-	-	-	-	3
10	Management Studies	9	-	-	-	1	9
11	Mathematics	2	-	-	-	1	2
12	Mechanical Engineering	8	-	1	-	1	8
13	Metallurgical & Materials Engineering	1	-	1	-	-	1
14	Physics	5	0	-	-	1	4
	TOTAL	**51**	**6**	4	**-**	**5**	**57**

Annexure – 11.8 (c) Admission statistics – UG & PG

11.8 (c) 1. The details of admission to the B. Tech. programmes during 2010–2011

Sl No	State/UT	OP	OBC	SC	ST	Total
1	**Andhra Pradesh**	29	20	3	6	**58**
2	**Arunachal Pradesh**				2	**2**
3	**Assam**	2				**2**
4	**Bihar**	23	46	16	4	**89**
5	**Chattisgarh**	1				**1**
6	**Delhi**	14	2	3	1	**20**
7	**Goa**	1				**1**
8	**Hariyana**	3	1	1		**5**
9	**Jammu & Kashmir**		1			**1**
10	**Jharkhand**		8	2	2	**12**
11	**Kerala**		1			**1**
12	**Maharashtra**	1		1		**2**
13	**Manipur**				2	**2**
14	**Madhya Pradesh**	5		1	1	**7**
15	**Orissa**	1			1	**2**
16	**Punjab**	1				**1**
17	**Rajasthan**	28	2	2	6	**38**
18	**Tripura**	1				**1**
19	**Uttarakhand**	2			3	**5**
20	**Uttar Pradesh**	44	28	14		**86**
21	**West Bengal**	227	103	77	31	**438**
22	**Re-admission**	1		3	1	**5**
23	**Afghanistan**					**1**
24	**Bangladesh**					**14**
25	**Bhutan**					**4**
26	**Maldives**					**1**
27	**Namibia**					**1**
28	**Nepal**					**12**
29	**Oman**					**1**
30	**Portugal**					**1**
31	**Qatar**					**1**
32	**Tanzania**					**1**
33	**Thailand**					**1**
	TOTAL	**384**	**212**	**123**	**60**	**818**

11.8 (c) 2. The number of candidates admitted to B. Tech. programmes from rural and urban area during 2010–2011

Sl No	State/UT	RURAL					URBAN					Overall Total
		OP	OB	SC	ST	Total	OP	OB	SC	ST	Total	
1	**Andhra Pradesh**	7	11	0	2	**20**	22	9	3	4	**38**	**58**
2	**Arunachal Pradesh**				2	**2**						**2**
3	**Assam**	1				**1**	1				**1**	**2**
4	**Bihar**	6	31	8	3	**48**	17	15	8	1	**41**	**89**
5	**Chattisgarh**	1				**1**						**1**
6	**Delhi**		1			**1**	14	1	3	1	**19**	**20**
7	**Goa**	1				**1**						**1**
8	**Hariyana**	1				**1**	2	1	1		**4**	**5**
9	**Jammu & Kashmir**							1			**1**	**1**
10	**Jharkhand**		5	2	1	**8**		3		1	**4**	**12**
11	**Kerala**		1			**1**						**1**
12	**Maharashtra**						1		1		**2**	**2**
13	**Manipur**				2	**2**						**2**
14	**Madhya Pradesh**	2		1	1	**4**	3				**3**	**7**
15	**Orissa**						1			1	**2**	**2**
16	**Punjab**						1				**1**	**1**
17	**Rajasthan**	7	1	1	3	**12**	21	1	1	3	**26**	**38**
18	**Tripura**						1				**1**	**1**
19	**Uttarakhand**	1			1	**2**	1			2	**3**	**5**
20	**Uttar Pradesh**	6	13	3		**22**	38	15	11		**64**	**86**
21	**West Bengal**	11	35	13	3	**62**	216	68	64	28	**376**	**438**
22	**Re-admission**			2	1	**3**	1		1		**2**	**5**
23	**Afghanistan**					**-**					**-**	**1**
24	**Bangladesh**					**1**					**14**	**15**
25	**Bhutan**										**4**	**4**
26	**Maldives**										**1**	**1**
27	**Namibia**					**-**					**-**	**1**
28	**Nepal**					**6**					**6**	**12**
29	**Oman**										**1**	**1**
30	**Portugal**										**1**	**1**
31	**Qatar**										**1**	**1**
32	**Tanzania**										**1**	**1**
33	**Thailand**										**1**	**1**
TOTAL		**44**	**98**	**30**	**19**	**198**	**340**	**114**	**93**	**41**	**618**	**818**

11.8 (c) 3. The ranks (AIR) obtained by the first and the last candidates admitted to B. Tech. programmes during 2010-2011

Sl No	State/UT	OPEN		OBC		SC		ST	
		First	Last	First	Last	First	Last	First	Last
1	**Andhra Pradesh**	8386	15630	11728	39666	47466	109216	82933	153693
2	**Arunachal Pradesh**							121682	
3	**Assam**	9110							
4	**Bihar**	7816	22670	6819	91929	35639	82031	68979	84201
5	**Chattisgarh**	7446							
6	**Delhi**	11753	32181	20876	33465	29788	109003	127276	
7	**Goa**	8315							
8	**Hariyana**	17402	23389	14511		63748			
9	**Jammu & Kashmir**			20877					
10	**Jharkhand**			24019	31431	36126	94045	72669	128180
11	**Kerala**			22170					
12	**Maharashtra**	17966				105442			
13	**Manipur**							95730	143764
14	**Madhya Pradesh**	14674	21905			126004		117144	
15	**Orissa**	107280						141417	
16	**Punjab**	12344							
17	**Rajasthan**	7801	24242	25239	26814	84986	115000	99073	153697
18	**Tripura**	12189							
19	**Uttarakhand**	10000	264050					40973	114842
20	**Uttar Pradesh**	8200	22233	14047	66167	68858	118076		
21	**West Bengal**	4811	50271	19762	144286	9665	271153	52729	320016

11.8(c) 4. The number of candidates admitted to B. Tech. programmes from various income groups during 2010-2011

Sl No	State/UT	Below 6000	Rs.6001 to 12000	Rs.12001 to 18000	Rs.18001 to 24000	Above 24000	Total
1	**Andhra Pradesh**	6	3	3	5	41	**58**
2	**Arunachal Pradesh**					2	**2**
3	**Assam**					2	**2**
4	**Bihar**	8				81	**89**
5	**Chattisgarh**					1	**1**
6	**Delhi**	1				19	**20**
7	**Goa**					1	**1**
8	**Hariyana**	2				3	**5**
9	**Jammu & Kashmir**	1					**1**
10	**Jharkhand**				1	11	**12**
11	**Kerala**					1	**1**
12	**Maharashtra**					2	**2**
13	**Manipur**					2	**2**
14	**Madhya Pradesh**					7	**7**
15	**Orissa**			1		1	**2**
16	**Punjab**					1	**1**
17	**Rajasthan**		1			37	**38**
18	**Tripura**					1	**1**
19	**Uttarakhand**					5	**5**
20	**Uttar Pradesh**	7		1	4	74	**86**
21	**West Bengal**	21	1	3	3	410	**438**
22	**Re-admission**	2				3	**5**
23	**Afghanistan**					1	**1**
24	**Bangladesh**					15	**15**
25	**Bhutan**					4	**4**
26	**Maldives**					1	**1**
27	**Namibia**					1	**1**
28	**Nepal**					12	**12**
29	**Oman**					1	**1**
30	**Portugal**					1	**1**
31	**Qatar**					1	**1**
32	**Tanzania**					1	**1**
33	**Thailand**					1	**1**
TOTAL		**48**	**5**	**8**	**13**	**744**	**818**

11.8. (c). 5. The details of admission to the M. Tech. & M. Sc. programmes during 2010-2011

SL. NO.	Name of the Department	Specialisations	Duration (Four Semester/Six Semester)		Total
			Full Time (Four Semester)	Part Time (Six Semester)	
1	Chemical Engineering	Chemical Engineering	8	1	9
2	Civil Engineering	Structural Engineering	7	0	7
3	Electrical Engineering	Electrical System	16	0	16
4	Mechanical Engineering	Design & Production Engineering	11	5	16
5	Metallurgical &Materials Engineering	Industrial Metallurgy	3	0	3
6	Metallurgical & Materials Engineering	Materials Engineering	3	1	4
7	Computer Science & Engineering	Information Technology	21	-	21
8	Chemistry	Corrosion Science & Technology	4	1	5
9	Mathematics	Operations Research	10	3	13
10	Electronics & Communication Engineering	Tele Communication	24	-	24
11	Electronics & Communication Engineering	Microelectronics & VLSI	21	-	21
12	Infornation Technology	Internet Security	22	-	22
13	Physics	Adv. Materials Science & Tech.	11	-	11
14	Biotechnology	Biotechnology	21	-	21
15	Geology (Coordinating Department)	Environmental Science & Technology	14	-	14
16	Chemistry	M.SC	11	-	11
17	Physic	M.SC	8	-	8
18	Mathematics	M.SC	5	-	5
		TOTAL	**220**	**11**	**231**

Annexure–11.9(a) Scholarships & Stipends (Under-Graduate programmes)

Sl. No.	Nature of Scholarship	No.of Scholarship (per year)	Amount per candidate
1.	ICCR	60	Rs.43,200/-.PA
2.	NCERT	4	Rs. 6000/-. PA
3.	Govt. of Bihar	21	Rs. 45,142/-.PA
4.	IOL	2	Rs. 24,000/- PA
5.	Govt. of Assam	4	Rs. 10,600/- PA
6.	Govt. of Andhra Pradesh	18	Rs. 22,000/- PA
7.	Govt. of Orissa	8	Rs. 20,360/- PA
8.	Govt. of Tripura	4	Rs. 10,600/- PA
9.	DASA	7	Rs. 10,600/- PA
10.	Govt.of UP	10	Rs. 22,380/- PA
11.	Govt.of Karnataka	3	Rs.26,000/-.PA
12.	Govt. of HP	8	Rs.3,600/-.PA
13.	Govt. of Arunachal Pradesh	3	Rs.22,360/-PA
14.	Central Sector Scholarship Scheme of Top Class Education for Scheduled Caste Students	12	Rs. 1,15,400 PA
15.	Central Sector Scholarship Scheme of Top Class Education for Scheduled Tribe Students	05	Rs. 1,15400 PA
16.	Full Free-Ship	29	Tuition Fees only
17.	Half Free-Ship	26	Half Free-Ship (Tuition Fees only)
18.	Govt.of Jharkhand	11	Rs. 38085/-P.A.
19.	Prof.S.N. ROY(Alllumni)	8	Rs. 12,000/- P.A
20.	Ed-Cil	40	Rs. 32,400/- P.A
21.	Vivek singh Memorial	1	Rs. 10,000 /-P.A
22.	Student Aid Fund	33	Rs. 24,000/-P.A.
23.	Govt. Maharastra	14	

Annexure – 11.9(b) Awards during 2010-11

Sengupta, P. P., Professor, Humanities & Social Sciences**,** received outstanding research award for his paper presentation at the Global Conference on Business and Finance, organised by the International Business and Finance Research at Las Vegas, USA.

Mukhopadhyay, B. P., Associate Professor, Chemistry, was honoured and achieved the award "BARDHAMAN SERA SAMMAN" 2010 as scientist from 'Ekdin & Junction' in September, 2010.

Annexure–11.10 (a) Vocational training

1 CERN, Geneva
2 Durgapur Projects Ltd.
3 Visakhapattanam Steel Plant
4 AREVA T & D India Ltd.
5 Bharat Sanchar Nigam Ltd.
6 Numatigarh Refinary Ltd.
7 Central Mechanical Engineering Research Institute
8 Variable Energy Cyclotron Centre
9 Steel Authority of India Ltd.
10 Alloy Steel Plant
11 Durgapur Steel Plant
12 Durgapur Water Supply Division, P.H.E Directorate
13 Centre for Development Of Advanced Computing
14 National Aerospace Laboratories
15 Global System Technologies Pvt. Ltd.
16 Bharat Heavy Electricals Ltd.
17 Durgapur Chemicals Ltd.
18 ABB
19 Bokaro Steel Plant
20 Indian Farmers Fertilizer Coop Ltd.
21 National Highway Division
22 North Eastern Electric Power Corporation Ltd.
23 Steel Authority of India Ltd., Bhilai Steel Plant
24 Technical Training Centre, CLW
25 Indian Oil Corporation Ltd.
26 IIT, Madras
27 NTPC Ltd.
28 West Bengal Power Development Corporation Ltd., Bandel Thermal Power Station
29 Ashok Leyland
30 Board Of Practical Training, Eastern Region
31 NDPL
32 Tata Power Co. Ltd.
33 Indian Iron & Steel Co. Ltd.
34 South Asian Petrochem. Ltd.
35 Bhaba Atomic Research Centre
36 Damoder Valley Corporation
37 Haldia Petrochemicals Ltd.
38 Mahindra & Mahindra Ltd.
39 KMDA
40 M.N.Dastur
41 I.I.T. Guahati
42 H.P.L
43 I.P.C.L,
44 ESSAR Steel
45 Tata Motors
46 Jessop
47 Maruti Co.
48 GAIL
49 Siemens

Annexure–11.10(b) Placement statistics diring 2010 – 2011

SL. No	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED (BRANCH WISE)										
			B.Tech										MCA
			BT	CHE	CIV	CSE	ECE	EE	IT	ME	MME	Total	-
1	BCH Electric	26.07.2010	-	-	-	-	-	3	-	1	-	**4**	-
2	Mcnally Bharat LTd.	28.07.2010	-	-	2	-	-	-	-	2	-	**4**	-
3	Shapoorji Pallonji	29.07.2010	-	-	7	-	-	-	-	1	-	**8**	-
4	Tata Technologies	30.07.2010	-	-	-	4	0	0	4	2	-	**10**	-
5	IOCL	2,3,4.08.10	-	2	-	-	-	4	-	5	-	**11**	-
6	BOC	04.08.2010	-	0	0	-	-	0	-	0	-	**0**	-
7	NOVELL	05.08.2010	-	-	-	4	0	-	1	-	-	**5**	0
8	TATA MOTORS	07,08.08.2010	-	-	-	-	1	1	-	6	-	**8**	-
9	MU-SIGMA	09,10.08.2010	1	1	1	2	1	3	1	1	0	**11**	-
10	Samsung India	10,11.08.2010	-	-	-	3	-	-	0	-	-	**3**	-
11	M N DASTUR & CO	11.08.2010			1			0		0	2	**3**	-
12	TEJAS NETWORKS	12,13.08.2010	-	-	-	2	2	0	1	-	-	**5**	-
13	ONMOBILE	13.08.2010	0	0	0	2	0	0	0	0	0	**2**	-
14	Schneider Electric	20.08.2010	-	-	-	-	0	2	-	1	-	**3**	-
15	CCCL	30.08.2010	-	-	4	-	-	-	-	-	-	**4**	-
16	Flakt India Ltd	31.08.2010	-	-	-	-	-	-	-	1	-	**1**	-
17	TELCON	31.08 & 01.09.10	-	-	-	-	-	1	-	1	-	**2**	-
18	Haldia Petrochem	06.09.2010	-	2	-	-	-	1	-	1	-	**4**	-
19	Sankalp Semiconductor	11.09.2010	-	-	-	-	0	0	-	-	-	**0**	-
20	MISYS	8,15.09.2010	-	-	-	2	0	0	2	-	-	**4**	1
21	ABB	12,13.09.2010	-	-	-	-	1	1	-	0	-	**2**	-
22	TRF	21,22.09.2010	-	-	1	-	-	1	-	6	-	**8**	-
23	CESC	25.09.2010	-	-	1	-	-	3	-	1	-	**5**	-
24	TATA STEEL	26.09&27.10.2010	-	-	-	-	-	1	-	1	2	**4**	-
25	THERMAX	29.09.2010	-	-	-	-	-	-	-	7	-	**7**	-
26	VEDANTA	29.09.2010	-	1	1	0	-	2	0	1	1	**6**	-
27	Larsen & Toubro	01.10.2010	-	-	2	-	-	2	-	-	3	**7**	-
28	UNISYS GLOBAL	04.10.2010	-	-	-	6	1	-	3	-	-	**10**	-
29	M&M	05.10.2010	-	-	-	-	-	-	-	2	2	**4**	-
30	JSL	06.10.2010	-	-	(-)	-	-	0	-	2	2	**4**	-
31	K E F Holdings Ltd	10.10.2010	-	1	-	-	-	-	-	1	2	**4**	-
32	ATOS ORIGIN	12.10.2010	-	-	-	4	2	2	8	-	-	**16**	4
33	NTPC	25,26.10.2010	-	-	-	-	3	3	-	4	-	**10**	-
34	BIRLASOFT	02.11.2010	-	-	-	2	9	0	7	1	-	**19**	3
35	L&T-ECC	03.11.2010			2			1		2		**5**	-
36	HINDALCO	04.11.2010	-	3	-	-	1	1	-	2	1	**8**	-
37	JSW Steel	16.11.2010	-	2	5	-	-	14	-	9	10	**40**	-
38	INTERRA-IT	17.11.2010	-	-	-	3	-	-	1	-	-	**4**	-
39	RIL(Rancore Tech)	22.11.2010	-	-	-	3	5	-	-	-	-	**8**	2
40	SAMTEL	23.11.2010	-	-	-	-	1	-	-	1		**2**	-
41	ACC	24.11.2010	-	4	-	-	-	2	-	2	-	**8**	-
42	ESSAR	25.11.2010	-	1	-	-	-	1	-	1	5	**8**	-
43	LETSE	25,26.11.2010	-	-	-	4	-	-	1	-	-	**5**	-
44	HP	27,28.11.2010	-	-	-	2	0	-	7	-	-	**9**	-
45	MECON	30.11.2010	-	-	1	-	2	1	-	3	-	**7**	-
46	Wabco-TVS(India)Ltd	03.12.2010	-	-	1	-	-	2	-	1	-	4	-
47	TCS	04.12.2010	22	0	1	11	16	2	7	1	2	**62**	27
48	Mind Tree	7,8,12.2010	1	2	0	3	2	0	3	0	1	**12**	5
49	IBM	9,10.12.2010	6	1	0	7	8	1	5	0	2	**30**	6
50	HNGIL	11.12.2010	-	1	0	-	-	1	-	3	1	**6**	-
51	CAPGEMINI	12.12.2010	2	0	0	3	3	0	1	0	0	**9**	4
52	PCS	13.12.2010	-	-	1	0	1	0	0	1	0	**3**	1
53	ARCELOR MITTAL	14.12.2010	2	-	-	-	1	-	-	1	0	**4**	-
54	Belzabar Software	14,12.2010	-	-	-	1	-	-	0	-	-	**1**	-
55	TECH MAHINDRA	16.12.2010	-	-	0	0	0	0	1	0	-	**1**	0

SL. No	COMPANY	DATE OF SELECTION	NUMBER OF STUDENTS PLACED (BRANCH WISE)										
			B.Tech										MCA
			BT	CHE	CE	CSE	ECE	EE	IT	ME	MME	Total	-
56	ITC INFOTECH	16.12.2010	-	-	-	3	1	0	6	-	-	**10**	0
57	SAPIENT	22.12.2010	-	-	-	4	2	0	3	-	-	**9**	1
58	JSPL	6,7.01.2011	-	3	1	-	-	2	-	2	1	**9**	-
59	VOLVO	6.01.2011	-	-	-	-	-	-	-	3	-	**3**	-
60	IDEA CELLULAR	10,12.01.2011	-	-	-	-	4	-	-	-	-	**4**	-
61	Polaris Network	11.01.2011	-	-	-	0	1	-	0	-	-	**1**	-
62	L&T Infotech	12.01.2011	2	4	0	0	0	1	1	0	0	**8**	0
63	Future First	14.01.2011	1	0	0	0	0	0	0	1	0	**2**	-
64	AMW Ltd.	17.01.2011	-	-	-	-	-	-	-	1	-	**1**	-
65	Microsoft	18,19.01.2011	-	-	-	2	-	-	1	-	-	**3**	-
66	HCL Tech	21.01.2011	-	-	-	1	1	-	2	-	-	**4**	1
67	Bharti realty	27.01.2011	-	-	1	-	-	3	-	4	-	**8**	-
68	Gontermann-Peipers	28.01.2011	-	-	-	-	-	1	-	0	2	**3**	-
69	SUBROS	31.01& 1.02.2011	-	-	-	-	1	0	-	4	-	**5**	-
70	Adani Power	2.02.2011	-	-	4	-	-	1	-	0	-	**5**	-
71	Orient fans	3.02.2011	-	-	-	-	-	1	-	1	-	**2**	-
72	HPCL		-	-	1	-	-	3		4		**8**	-
73	Matix Group	12.02.2011	-	1	-	-	-	0	-	0	-	**1**	-
74	NMDC	14.02.2011	-	-	-	-	-	1	-	1	-	**2**	-
75	ADP INDIA (HYDERABAD)**	16.02.2011										**0**	-
76	ITD CEMENTATION	17.02.2011	-	-	3	-	-	-	-	-	-	**3**	-
77	LAFARGE	18.02.2011	-	2	-	-	-	1	-	1	-	**4**	-
78	VISA STEEL	23.02.2011	-	0	0	-	0	0	-	0	1	**1**	-
79	C-DOT	24,25.02.2011	-	-	-	1	1	-			-	**2**	-
80	Tata AutoComp	02.03.2011	-	2	-	-	-	0	0	1	-	**3**	-
81	TCE Ltd	05.03.2011	-	-	1	-	-	-	-	0	-	**1**	-
82	Ador Welding	09.03.2011	-	-	-	-	0	0	0	0	0	**0**	-
83	Mani Group	10.03.2011	-	-	2	-	-	0	-	-		**2**	-
84	Saint-Gobain Glass	14,15.03.2011	-	-	-	-	-	-	-	-	-	**-**	-
85	Acclaris	21,22.03.2011	-	-	-	0	0	0	0	-	-	**0**	1
86	FISERV	25.03.2011	-	-	-	2	0	-	2	-	-	**4**	2
87	Hindustan Unilever	22.03.2011	-	2	-	-	-	-	-	-	-	**2**	-
88	Aakash	05.04.2011	0	2	-	-	-	-	-	-	-	**2**	-
89	Sterling & Wilson Ltd	06.04.2011	-	-	0	-	-	1	-	2	-	**3**	-
90	Jai Balaji Group	12.04.2011	-	-	-	-	-	-	-	-	2	**2**	-
91	Alstom	15.04.2011	-	-	-	-	-	1	-	1	2	**4**	-
92	HAL	15,16,17.04.2011	-	-	-	-	9	-	-	7	-	**16**	-
93	Vizag Steel	26.04.2011	-	1	1	0	0	3	0	5	5	**15**	0
94	Wipro VLSI	28.02.2011	-	-	-	-	2	-	-	-		**2**	-
95	Canara Bank	24.05.2011	-	-		3	-	-	1	-	-	**4**	-
	Strength		**52**	**34**	**38**	**64**	**68**	**61**	**53**	**87**	**39**	**496**	**60**
	Total Placed		**33**	**29**	**37**	**61**	**61**	**59**	**48**	**81**	**36**	**445**	**49**
	Percentage Placed		**63.46%**	**85.29%**	**97.37%**	**95.31%**	**89.71%**	**96.72%**	**90.57%**	**93.10%**	**92.31%**	**89.72%**	**81.67%**
	Remaining		**19**	**5**	**1**	**3**	**7**	**2**	**5**	**6**	**3**	**51**	**11**
	Total Jobs Offered		**37**	**38**	**45**	**84**	**82**	**75**	**69**	**115**	**47**	**592**	**58**

Summary

Total number of students placed : 585 (B.Tech- 445)
Total number of second job : 182 (B.Tech- 147)

Annexure – 11.11 (a) Non-Plan grant

Non-Plan Grant received 2010-2011 – Rs. 3500.00 Lakhs.

Annexure – 11.11(b) Plan grant

Plan (General) Grant received 2010-2011 – Rs. 2084.75 Lakhs
Plan (OSC) Grant received 2010-2011 – Rs. 3000.00 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 three years

(Rupees in Lakhs)

Plan head Expenditure		**Non-Plan head Expenditure**	
2007-08	576.11	2007-08	2588.12
2008-09	463.64	2008-09	3067.10
2009-10	4700.08	2009-10	4713.64

Plan head Expenditure in 2010-11 (unaudited) – Rs 3584.69 Lakhs (including OSC)
Non-Plan head Expenditure in 2010-11 (unaudited) – Rs 4961.60 Lakhs (including OSC)

Annexure 11.12(a) Construction work completed during the year 2010-11 (Plan grant project)

Sl. no.	Name of the Work	Cost of the Work (in Rs.)
1	Construction of S. N. Ray Memorial Building (On turn-key basis)	4,12,29,799 (Final bill is yet to be paid)
2	264 seated Girls' Hostel (Oversight committee)	10,18,87,000 (yet to be handed over)
3	Renovation of Student Activity Centre	4,31,14,999 (yet to be handed over)
4	Widening of outfall drain & construction of broken boundary wall	1,37,75,606 (Final bill is yet to be paid)

Annexure 11.12(b) Construction work in progress during the year 2010-11 (Plan grant projects)

Sl. NO.	Name of the Work	Cost of the Work (in Rs.)	Status of the Work
1	Installation of transmission line from DVC to NIT including receiving station, substations & up gradation of existing substations	6,94,82,837	90% work completed
2	Construction of Chemistry Laboratory-cum-Biotechnology Department (Oversight committee)	15,09,26,000	Piling work under progress
3	740 seated Boys' Hostel (Oversight committee)	26,89,94,000	75 % work completed
4	Academic Block (Oversight committee)	43,49,01,000	30 % work completed
5	VIP Guest House	17,99,67,000	Civil work under progress
6	G+8 Faculty Accommodation	22,56,69,789	75 % work completed
7	Renovation & extension of existing Medical Unit	2,01,36,744	90 % work completed
8	Construction of Market Complex	8,49,53,953	30 % work completed
9	Widening of Roads & Construction of Drains etc.	6,69,24,773	95 % work completed
10	Capacity expansion of Hostel No.1	4,90,55,238	90 % work completed
11	Capacity expansion of Hostel No.2	4,90,55,238	85 % work completed
12	Capacity expansion of Hostel No.5	4,41,09,689	80 % work 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
Chemical Engineering	Heat Transfer Lab, Mass Transfer Lab, Fluid Flow Lab, Mechanical Operations Lab, Environmental and Membrane Technology Lab, Computing Lab, Energy 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
Chemistry	Junior Chemistry Laboratory, Senior Chemistry Laboratory, Organic and Inorganic Synthetic Research Laboratory, Environmental and Corrosion Laboratory, Molecular Modelling Laboratory
Civil Engineering	Concrete and Structure Laboratory, Highway Engineering Laboratory, Surveying Laboratory, Environmental Engineering Laboratory, Soil Mechanics Laboratory, Water Resources Engineering Laboratory, Exciter and FFT 160nalyser for Earthquake Laboratory
Computer Applications	Advanced Networking Laboratory, Advanced Software Engineering Laboratory, DBMS Laboratory(Shared with Dept. of CSE), Hardware Laboratory (Shared with Dept. of CSE), Internet Laboratory(Shared with Dept. of CSE), Programming Laboratory (Shared with Dept. of CSE).
Computer Science & Engg.	Project Laboratory, Programming Laboratory-I, Programming Laboratory–II, DBMS Laboratory, Faculty Laboratory, Hardware Laboratory, Networking Laboratory, Computer Vision and Graphics Laboratory
Electrical Engineering	Electrical Machines & Drives Laboratory, Power System Laboratories (I & II), Control Systems Laboratory, Power Electronics Laboratory, Microprocessor and Micro-controller Laboratory, Energy Systems Laboratory, Computing laboratory, Circuits and Measurements Laboratory, Printed Circuit Board Laboratory, Power Audit Laboratory, High Voltage Laboratory, Instrumentation Laboratory
Electronics & Communication Engineering.	Electronics Circuit Lab, Network Lab, VLSI Lab, Digital Electronics Lab, Communication Lab, Industrial Electronics Lab, Instrumentation Lab, Microprocessor Lab, Computer architecture Lab, Microwave Lab, PCB Lab, Antenna Lab, Advanced Communication Lab (for PG)
Geology	Geology Laboratory, Environmental Laboratory, RS & GIS Laboratory
Humanities & Social Sciences	Computer laboratory, Digital Language Laboratory
Information Technology	Digital System and Microprocessor Lab., Communication Engineering Lab, Application Lab, Network and Systems Lab, Research and Project Lab, Information Security Laboratory
Mathematics	Computer Laboratory
Mechanical Engineering	CAD /CAM Laboratory, Heat Power Laboratory, Thermal Energy Laboratory, Simulation Laboratory, Control System Laboratory, Robotics & AI Laboratory, Manufacturing Science Laboratory, Fluid Mechanics & Hydraulic Machines Laboratory, Metrology Laboratory, Machine Computation & Computer Graphics Laboratory, Automobile 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.
Physics	Nano Science Laboratory, Materials Science Laboratory, X-ray Diffraction Laboratory, Low Temperature Characterization Laboratory, Laser & Optoelectronics Laboratory, Electronics Laboratory, Carbon Nanotechnology Laboratory
Central Instrumentation Facility	Scanning Electron Microscope with EDS, X-Ray Diffractometer, Nd:YAG Laser Unit, Spectrum Analyzer

Annexure-11.14 Alumni

NIT Durgapur Alumni Association (NITDAA) was formed in 2002 at the behest of the Board of Governors, RECD. Since then, NITDAA has spread its wings all over the world – setting up Chapters in USA (three); UK; UAE, apart from various cities and towns in the country. It is closely associated with the development of the Institute. It has instituted Prof S.N. Ray Scholarship for eight students per year. It has extended financial assistance to four students for foreign internship. In order to have close relationship with the present students, NITDAA has contributed to programmes like Arohan, RECSTACY and 'Maths' N Tech Club' and actively participated in all these programmes.

NITDAA celebrated Golden Jubilee programmes of the Institute in Kolkata on June 26, 2010 and in Atlantic City, USA on July 10, 2010.

Annexure-11.15 Other relevant information

Annexure 11.15 (a): Books authored during 2010-11

Department of Biotechnology

Author	Title of the book	Publisher	Date of Publication
Chowdhury, S., Saha, P	Adsorption of Hazardous Malachite Green on Low-Cost Adsorbents: Inside the Equilibrium, Kinetics and Thermodynamics	LAP LAMBERT Academic Publishing	Dec, 2010
Saha, P, Datta, S, Sanyal, S K	Natural Clay as Liner Material for the Waste Landfill: Present State of the Art	LAP LAMBERT Academic Publishing	Dec, 2010
Saha, P, Chowdhury, S	A Natural Adsorbent-Sea Shell for Removal of Methylene Blue: Equilibrium, Kinetic and Thermodynamic Evaluation	LAP LAMBERT Academic Publishing	Dec, 2010
Saha, P, Datta, S., Banerjee, P K,	Study on the Water Quality Properties of Water Bodies-Tolly's Nullah	LAP LAMBERT Academic Publishing	30 June, 2010
Saha, P, Chowdhury, S, Datta, S	An Introduction to Floral Dyes-Extraction and Application	LAP LAMBERT Academic Publishing	Oct, 2010
Saha, P, Bhattacharjee, S	Detoxification of Waste Containing Mercury Using Chemical Methods	LAP LAMBERT Academic Publishing	Dec, 2010

Department of Chemical Engineering

Author	Title of the book	Publisher	Date of Publication
Narayanan,C.M.	Biotechnology and Bioprocess Engineering	Galgotia ublications, New Delhi	--
Paruya Swapan (With Samarjit Kar Suchismita Roy) (Editor)	Proceedings of International Conference on Modeling, Optimization, and Computing (ICMOC 2010) Volume: 1298	American Institute of Physics (AIP)	October 27, 2010

Department of Civil Engineering

Author	Title of the book	Publisher	Date of Publication
Ghosh D, Datta A.K.	A Text Book of Strength of Materials	New Age International Publishers, New Delhi.	2011
Samanta A. K, Patra P., Ray Purnendu	Wind Induced deformation effect on elevated RC cylindrical silo.	LAP Lambert Academic Publishing.	2010

Department of Computer Science and Engineering

Author	Title of the book	Publisher	Date of Publication
Sanyal, G.	Discrete Wavelet Transforms (Book Chapter)	INTECH International	2010

Department of Electrical Engineering

Author	Title of the book	Publisher	Date of Publication
Ghoshal S.P., Chatterjee A., Mukherjee V	Application of evolutionary optimization techniques for PSS tuning,	Springer Online	2010

Department of Humanities & Social Sciences

Author	Title of the book	Publisher	Date of Publication
Guha Roy, S., Banerjee, J.	Conflicting Positions in Jhumpa Lahiri's *The Namesake* (Chapter in book)	Sarup Book Publishers, New Delhi, 254- 261	2010

Department of Mathematics

Author	Title of the book	Publisher	Date of Publication
Kar. S. and Basu K.	Workshop Proceedings of "Advances in Computational Optimization and Applications 2010"	Narosa Publishing House	In Press
Pal A and Pal M	Engineering Mathematics Vol I & Vol II	PHI Learning, New Delhi	Vol I—April 2010 Vol II---Feb 2011
Paruya, S., Kar S. and Bhattacharya, S.	Conference Proceedings of **"**International Conference on Modelling, Optimization and Computing 2010"	American Institute of Physics	October 2010

Annexure 11.15 (b) 1. Reviews of manuscripts for publication in journals during 2010-11

Department of Biotechnology

Reviewer	Name of the Journal	Publisher	Date
Aikat, K.	Bioprocess and Biosystems Engineering	Springer	January 2011
Aikat, K.	Journal of Brewing and Distilling	Academic Journals	January, 2011 March 2011
Chattopadhyay S.	Nucleic Acids Research	Oxford Journal	February, 2011
Chaudhuri S.	Indian Journal of Microbiology	Springer	August 8, 2010
Chaudhuri S.	Food & Bioprocess Technology	Springer	May 6, 2010, May 18, 2010, July 12, 2010
Dey, A.	Journal of Computational Biology and Bioinformatics Research	Academic Journals	Nov, 12, 2010
Dutta D.	Journal of Oceanography and Marine Science	Academic Journal Publication	March 23,2011
Roy Barman S.	Scientific Research and Essays	Academic Journals	July, 2010
Saha P.	Bioremediation Journal	Taylor & Francis	April 12, 2010

Saha P.	International Journal of Physical Sciences -	Academic Journal Publishers	April, 22, 2010
Saha P.	Journal of hazardous materials	Science Direct	April 24, 2010
Saha P.	African Journal of Environmental Science and Technology	Academic Journal Publishers	May 25, 2010 April, 6, 2011
Saha P.	Bioremediation Journal	Taylor & Francis	June 7, 2010 July 19, 2010
Saha P.	J of Environmental Progress & Sustainable Energy	Wiley, AIChE	June 16, 2010 Aug 6, 2010 Sep 24, 2010
Saha P.	Water, Air, Soil Pollution	Springer	June 26, 2010
Saha P.	Canadian Journal of Chemical Engineering	Wiley	Sep 1, 2010
Saha P.	AIChE Journal	Wiley	Sep 8, 2010
Saha P.	Journal of Environmental Chemistry and Ecotoxicology	Academic Journal Publishers	Oct 21, 2010
Saha P.	J of Taiwan Institute of Chemical Engineering	Science Direct	Dec 26, 2010
Saha P.	International Journal of Chemical Reactor Engineering	BE Press	Jan, 3, 2010
Saha P.	Chemical Engineering Journal	Science Direct	
Saha P.	J of Environment Management	Science Direct	Jan 16, 2011 March 23, 2011
Saha P.	Industrial Crops and Products	Science Direct	Jan 27, 2011
Saha P.	Journal of Chemical Engineering and Materials Science	Academic Journal Publishers	March 23, 2011
Saha P.	Separation Science and Technology	Taylor & Francis	March 16, 2011

Department of Chemical Engineering

Reviewer	Name of the Journal	Publisher	Date
Dutta S.	Journal of Hazardous Material	Elsevier	May, 2010
Dutta S.	Journal of Institution of Engineers	Institution of Engineers	May, 2010 November, 2010
Ghanta K.C.	Chem. Engg. Comm.	Taylor & Francis	April 20, 2010
Ghanta K.C.	Ind. Engg. Chem. Res.	American Chemical Society (ACS)	March 3, 2011
Gupta P.	Journal of Hazardous Materials	Elsevier	April 04, 2010
Gupta P.	Scientia Iranica	Elsevier	July 07, 2010
Gupta P.	Journal of Hazardous Materials	Elsevier	June 17, 2010
Gupta P.	Powder Technology	Elsevier	August 09, 2010
Gupta P.	Energy & Fuels	American Chemical Society (ACS) Paragon	August 14, 2010
Gupta P.	Chemical Engineering Journal	Elsevier	August 14, 2010
Gupta P.	Journal of Analytical and Applied Pyrolysis	Elsevier	November 29, 2010
Gupta P.	Journal of Hazardous Materials	Elsevier	January 13, 2011
Halder G. N.	Canadian Journal of Chemical Engg	Wiley-Interscience	August 2008
Halder G. N.	Environmental Progress & Sustainable Development	Wiley-Interscience	October – 2008
Narayanan, C.M.	International Review of Chemical Engineering	Elsevier Sc.	September, 2010
Pal P.	Journal of Membrane Science	Elsevier Science	April2010
Pal P	Journal of Membrane Science	Elsevier Science	April 2010

Pal P	Journal of Memb. Sc	Elsevier Sc	May, 2010
Pal P.	Journal of Characterisation and dev. Of Materials	NovaPub, Canada	May 2010
Pal P.	Journal of Memb. Sc	Elsevier Sc.	June 2010
Pal P.	Desalination& Water Treatment	European DesalSoc	June2010
Pal P.	African J. Of Env. Sc.& Tech	Academic J	July 2010
Pal P.	Chemical Engg.& Technology	Wiley	July 2010
Pal P.	Desalination	Elsevier Sc.	Nov.2010
Pal P.	Journal of Membrane Science	Elsevier Sc	Nov.2010
Pal P.	Journal of Membrane Science	Elsevier Sc.	Dec.2010
Pal P.	Chemical Engineering Journal	Elsevier Sc.	Jan 2011
Pal P.	Separation Science & Technology	Taylor & Francis	January 05, 2011
Pal P.	Water Environment Research	Water Env.Fed.USA	Feb. 2011
Pal P.	Water Research	Elsevier Science	March 2011
Sikder J.	Desalination	Elsevier Sc	January 05, 2011
Sikder J.	Desalination	Elsevier Sc	January 24, 2011

Department of Civil Engineering

Reviewer	Name of the Journal	Publisher	Date
Banik A. K.	Journal of Structural Engineering	IUP Publications	July., 2010

Department of Computer Applications

Reviewer	Name of the Journal	Publisher	Date
Sarkar A.	International Journal of Computer Applications	Actapress, Canada	January, 2011

Department of Electrical Engineering

Reviewer	Name of the Journal	Publisher	Date
Bhowmik P. S.	Electric Power Components and Systems	Taylor & Francis	Feb. 11, 2010
Bhowmik P. S.	Journal of Electrical Engineering	Springer	September 30., 2010
Bhowmik P. S.	Int. Journal of Electrical power and Energy Systems	Elsevier	Jan 17, 2011
Bhowmik P. S.	Electric Power Components and Systems	Taylor & Francis	Feb. 11, 2010
Ghoshal S.P.	Europian Transactions of Electrical Power	John Wiley and Sons	April, 2010
Ghoshal S.P	Journal of Engineering and Technology Research	Academic	Aug., 2010
Ghoshal S.P.	IJEPES	Elsevier	Oct., 2010
Ghoshal S.P.	Europian Transactions of Electrical Power	John Wiley and Sons	Oct., 2010
Ghoshal S.P.	IJEPES	Elsevier	Oct., 2010
Ghosh S.	Int. Journal of Electrical power and Energy Systems	Elsevier	January, 2011
Mahato S. N.	Electric Power Components and Systems	Taylor & Francis	January 2011

Department of Electronics and Communication Engineering

Reviewer	Name of the Journal	Publisher	Date
Chandra A.	IEEE Communications Letters	IEEE	Apr. 27, 2010, May 23, 2010, Jul. 23, 2010, Jul. 24, 2010
Chandra A.	Journal of the Franklin Institute	Elsevier	Sep. 08, 2010
Chandra A.	Computers & Electrical Engineering	Elsevier	Apr. 06, 2010, Apr. 27, 2010, Jul. 02, 2010, Jul. 23, 2010, Aug. 21, 2010, Oct. 22, 2010, Mar. 15, 2011
Chandra A.	International Journal of Electronics	Taylor & Francis	Apr. 13, 2011
Chandra A.	ICTACT Journal on Communication Technology	ICT Academy of Tamil Nadu	Jun. 04, 2010
Dhar Roy S.	Electronics Letters (four manuscripts)	IET, UK	26.05.2010 16.08.2010 04.03.2011
Ghatak R.	IEEE Journals, PIER , Nonlinear Dynamics and Chaos,International journal of Electronics and Communication	Springer, Elsevier	2010-11
Kundu S.	ICTACT Journal on Communication Technology	ICT academy, India	2010
Kundu S.	IET Communication	IET , UK	May 2009
Mahanti G.K.	International Journal of Computer and Electrical Engineering (IJCEE)	International Association of Computer Science and Information Technology Press (IACSIT),Singapore	Dec.2010
Mahanti G.K.	Int. J. Signal and Imaging Systems Engineering	Inderscience	February 2011
Mahanti G.K.	Progress in Electromagnetic Research(Three papers)	EMW	Jun 2010, August 2010, Jan.2011

Department of Humanities & Social Sciences

Reviewer	Name of the Journal	Publisher	Date
Sengupta P. P.	African Journal of Business Management	Academic Journal Publication	2010

Department of Management Studies

Reviewer	Name of the Journal	Publisher	Date
Bandyopadhyay G	European Journal of Operational Research EJOR-D-10-01478	Elsevier	17-2-2011

Department of Mathematics

Reviewer	Name of the journal	Publisher	Date
Dey L. K.	Journal of Scientific Research(International Journal)	Rajshahi University, Bangladesh	29.6.2010

Department of Mechanical Engineering

Reviewer	Name of the journal	Publisher	Date
Ghosh, S.	The Institution of Engineers (India) Production Engineering Division	IE(Indi a)	Sept 2010 - till date

Department of Metallurgical & Materials Engineering

Reviewer	Name of the journal	Publisher	Date
Maity J.	Jr. of Materials Engineering and Performance	ASM International USA	June 29, 2010

Department of Physics

Reviewer	Name of the journal	Publisher	Date
Chakraborty AK	Nanotechnology	IOP, London	July 2010
Chakraborty AK	Nanotechnology	IOP, London	Sep. 2010
Chakraborty AK	Nanotechnology	IOP, London	Nov. 2010
Chakraborty AK	Nanotechnology	IOP, London	Jan 2011
Chakraborty AK	Nanotechnology	IOP, London	Mar 2011
Chakraborty AK	J. Phys. Cond. Mat.	IOP, London	Aug 2010
Chakraborty AK	Semicond. Sci. Tech.	IOP, London	Dec 2010
Chakraborty AK	J. Nanoparticle Res.	Springer	Mar 2011
Kumbhakar P.	Applied Physics B:	Springer	Aug., 2010
Kumbhakar P.	J. Alloys and Compounds	Elsevier	Oct., 2010 Jan., 2011
Kumbhakar P.	J. Non-crystalline Solids	Elsevier	Aug., 2010
Kumbhakar P.	JOSA B	Optical Society of America	Aug., 2010
Kumbhakar P.	Optics Express	Optical Society of America	June., 2010 Feb., 2011
Kumbhakar P.	Journal of Optics	Optical Society of India and Springer	Jan., April, May, 2010, Feb. 2011
Meikap A. K.	J. Alloys and Compounds	Elsevier	Nov. 4, 2010
Meikap A. K.	Advanced Materials Letter	JIOPM-Springer	Jan. 12, 2011
Meikap A. K.	J. Polymer Research	Springer	Nov. 3, 2010
Meikap A. K.	ACS Applied Materials & Interfaces	ACS Paragon	Oct. 25, 2010
Meikap A. K.	Polymer Engineering and Science	Wiley Inter Science	May.20, 2010 & Nov. 23, 2010
Sahoo S.	Indain Journal of Physics	Indian Physical Society	July – August, 2010

Annexure 11.15 (b).ii: Reviews of books during 2010-11

Department of Chemical Engineering

Reviewer	Name and author of the book	Publisher	Date
Paruya S.	Instrumentation & Process Control(chapter 4-6)	Tata-McGraw Hill	June, 2010

Department of Electrical Engineering

Reviewer	Name and author of the book	Publisher	Date
Banerjee S.	Theory of AC machines by Langsdorf	Tata McGraw Hill	September 12, 2010
Bhowmik P. S.	Basic Electrical Engineering	Tata McGraw Hill	August 20, 2010

Department of Electronics and Communication Engineering

Reviewer	Name and author of the book	Publisher	Date
Dhar Roy Sanjay	Analog Communication,	Tata McGrawhill	May 11, 2010
Kundu S	Analog Communication	Tata McGrawHill	Dec 2010

Department of Information Technology

Reviewer	Name and author of the book	Publisher	Date
Das. D	Internet and Web Technologies" by Raj Kamal	Tata McGraw Hill	Aug., 2010

Deapartment of Mechanical Engineering

Reviewer	Name and author of the book	Publisher	Date
Hui N. B.	WSEAS Conference on Computational Intelligence, Man-Machine Systems and Cybernetics	WSEAS	January 2010
Hui N. B.	Economic Modeling	Sciencedirect	April 2010
Hui N. B.	NCC 2011 (two papers)	IISC Bangalore	October 2010
Hui N. B.	International Journal of Machine Learning and Cybernetics	Springer Link	May 2011

Annexure 11.15 (c). Participation in National Committees/ visits during 2010-2011

Department of Biotechnology

Name of the faculty	Name of the committee	Place of visit	Date
Chattopadhyay S.	Task Force, DBT, Govt. of India	DBT, New Delhi	2010
Chattopadhyay S.	Project evaluation, Tea Board, Govt. of India	Tea Board, Calcutta	2010
Chattopadhyay S.	Research Council	CIMAP (CSIR), Lucknow	2010
Chattopadhyay S.	Board of Studies	Bose Institute, Calcutta	2010
Chattopadhyay S	Sectional Committee, Plant Sciences	INSA, New Delhi	2011

Department of Chemical Engineering

Name of the faculty	Name of the committee	Place of visit	Date
Gupta P.	MHRD appointed Expert committee for PMSS (TEQIP-II)	NPIU, Noida	July 05-07, 2010
Gupta P.	MHRD appointed Expert committee for PMSS (TEQIP-II)	NPIU, Noida	July 17-18, 2010
Gupta P.	MHRD appointed Expert committee for PMSS (TEQIP-II)	NPIU, Noida	August 05-06, 2010
Gupta P.	Expert committee for scrutinizing IDPs for TEQIP-II in AP	SPFU, Hyderabad	August 17-18, 2010
Gupta P.	MHRD appointed Expert committee for PMSS (TEQIP-II)	NPIU, Noida	October 18-20, 2010
Gupta P.	MHRD appointed Expert committee for PMSS (TEQIP-II)	NPIU, Noida	December 07-08, 2010

Department of Electrical Engineering

Name of the faculty	Name of the committee	Place of visit	Date
Roy N.K.	National Mission Project on Education through ICT MHRD, Government of India	IIT, Kharagpur	September, 2010
Roy N.K.	Delphi Expert, RReG-2010, conducted by IIPA, Delhi and IIT, Delhi	Delhi	May, 2010

Deapartment of Mechanical Engineering

Name of the faculty	Name of the committee	Place of visit	Date
Basak I.	NBA	LA Polytecnic College, Madurai, Chennai	February 16-18, 2011

Annexure 11.15 (d): Invited Examiners/ Paper-setters/ Board of Studies during 2010-11

Department of Biotechnology

Name of the faculty	Name of the examination	University/Institute	Date
Chattopadhyay S.	External expert for the recruitments of Scientists, Research Associates, JRFs	Bose Institute, Calcutta	August, 2010
Dey A.	A.M.I.E	Institute of Engineers, (India)	November, 2010
Dutta D.	M. Sc. (1st Semester)	Nagpur University	November , 2010
Dutta D.	M. Sc. (Paper Setter)	Nagpur University	October, 2010
Mukhopadhyay S.	M.Sc. (Human Genetics; Special)	Burdwan University	August, 2010

Department of Chemical Engineering

Name of the faculty	Name of the examination	University/Institute	Date
Ghanta K.C.	PhD Examiner	Chemical Engg. Dept., Osmania University, Hyderabad	April 19, 2010
Ghanta K.C.	PhD Examiner	Osmania University, Hyderabad	March 01, 2011
Gupta P.	B. Tech.	Indraprastha University, New Delhi	April, 2010
Gupta P.	Board of Studies meeting	BIT Mesra	October 08, 2010

Name of the faculty	Name of the examination	University/Institute	Date
Narayanan C.M.	AMIE Examination, Paper Setter	The Institution of Engineers (I)	September, 2010
Narayanan C.M.	M.Sc. (Tech.) Examination, Paper Setter	Cochin University of Science and Technology	August, 2010

Department of Chemistry

Name of the faculty	Name of the examination	University/Institute	Date
Chakrabarty J.	Practical Examiner of Integrated M. Sc.	Visva-Vharati University	September, 2010
Patra A. K.	M. Sc. Project Presentation	Burdwan University	August, 2010

Department of Civil Engineering

Name of the faculty	Name of the examination	University/Institute	Date
Datta A.K.	Associate Membership Examination	The Indian Institute of Welding	Summer/ Winter 2010

Department of Electrical Engineering

Name of the faculty	Name of the examination	University/Institute	Date
Banerjee S.	M.Tech, Thesis.	NITTTR, Kolkatta	August 16, 2010
Banerjee S.	B.Tech Lab..External	BITM, WBUT	November 23, 2010
Banerjee S.	Nov.23,2010	Institute of Engineers(I)	August, 2010
Bhowmik P.S.	B. Tech.	BITM-Santineketan	April 4-5, 2010
Bhowmik P.S.	B. Tech.	BITM-Santineketan	November 26 & 30, 2010
Bhowmik P.S.	B. Tech. (Paper Setter & Examiner)	College of Agricultural Engineering & Post Harvest Technology (Central Agricultural University) Gangtok, Sikkim	March 7, 2011
Ghosh S.	Ph. D. Examiner	Jadavpur University	September, 2010
Ghosh S.	B. Tech	BPUT	May, 2010
Ghosh S.	B. Tech	BPUT	November, 2010
Ghoshal S.P.	Ph.D. Progress Seminar of Research Scholar	SVNIT Surat	May, 2010
Ghoshal S.P.	Ph.D. Progress Seminar of Research Scholar	SVNIT, Surat	Nov., 2010
Ghoshal S.P.	Microprocessors & Microcontrollers-Paper setter	The Institution of Engineers (India)	July, 2010
Ghoshal S.P.	Power System Transients and High Voltage Engineering- Paper setter	The Institution of Engineers (India)	Sept., 2010
Ghoshal S.P.	B.Tech. and M.Tech. (Paper setter)	NIT Jamshedpur	April, 2010
Roy N. K.	Ph.D. Examiner(EE)	Jadavpur University	May, 2010

Department of Electronics and Communication Engineering

Name of the faculty	Name of the examination	University/Institute	Date
Ghatak R.	M.Tech ECE (Microwave) and M.Tech (VLSI) project viva voce.	Bengal Engg and Sc University Shibpur	June, 2010
Ghatak R.	M.Tech (Microwave) Viva	The University of Burdwan	February, 2011

Department of Geology

Name of the faculty	Name of the examination	University/Institute	Date
Gangopadhyay A.	M. Sc.	Burdwan University	June, 2010

Department of Mathematics

Name of the faculty	Name of the Examination	University/Institute	Date
Pal A.	Paper–setter of 2nd Sem BTech Data Structures	ISM Dhanbad	April 8, 2011

Deaprtment of Mechanical Engineering

Name of the faculty	Name of the examination	University/Institute	Date
Basak I.	Comprehensive Viva-voce for Final semester Mechanical Engg. students	ISMU-Dhanbad	May 19, 2010

Department of Metallurgical & Materials Engineering

Name of the faculty	Name of the examination	University/Institute	Date
Ghosh K. S.	Examined PhD Thesis 'Study of friction welding of 6063 aluminium to stainless steels'	Osmania University, Hyderabad	May, 2010

Department of Physics

Name of the faculty	Name of the examination	University/Institute	Date
Kumbhakar P.	M. Sc. (Physics)& Ph.D (Course Work and Term paper) (Moderator & External Examiner)	Burdwan University	December, 2010 & March, 2011
Kumbhakar P.	Ph.D. (Synopsis Evaluation)	Assam University, Silchar	August, 2010

Annexure 11.15 (e): Invited experts in selection committee during 2010-11

Department of Biotechnology

Name of the faculty	Discipline	University/Institute	Date
Aikat K.	Selection of Faculty in Biotechnology	Bengal College of Engineering & Technology, Durgapur	October 11, 2010 & January 21, 2011
Chattopadhyay S.	External expert for the recruitments of Scientists, Research Associates, JRFs	Bose Institute, Calcutta	August, 2010
Dey A.	Selection of Faculty in Biotechnology	Bengal College of Engineering & Technology, Durgapur	October 11, 2010 & January 21, 2011
Dey A.	Selection of JRFs	CIMFR, Dhanbad	February, 2011
Kazy S.K.	Member of Selection Committee for JRF selection in a project	Indian Institute of Technology Kharagpur	October 11, 2010

Department of Chemical Engineering

Name of the faculty	Discipline	University/Institute	Date
Ghanta K.C.	Expert Member for the selection of faculty in Chemical Engg.	Durgapur Institute of Advanced Technology & Management (DIATM)	December17, 2010 & January 9, 2011

Department of Electrical Engineering

Name of the faculty	Discipline	University/Institute	Date
Banerjee S.	Electrical Engineering	BCET, Durgapur	June 21, 2010
Banerjee S.	Electrical Engineering	Bankura Engg. College	2010
Banerjee S.	Electrical Engineering	Dr.B.C.Roy Engg. College, WBUT	June 30, 2010
Bhowmik P.S.	Electrical Engineering	BITM-Santineketan	September 09, 2010
Ghosh S.	Electrical Engineering	Jadavpur University	March, 2010

Department of Electronics & Communication Engineering

Name of the faculty	Discipline	University/Institute	Date
Mahanti G.K.	Electronics & Comm. Engg.	Bengal College of Engg. & Tech., Durgapur	January, 2011
Mahanti G.K.	Electronics & Comm. Engg.	DIATM,Durgapur	December, 2010

Department of Geology

Name of the faculty	Discipline	University/Institute	Date
Adhikari K.	Subject Expert for Faculty promotion	Hooghly Mohosin College, University of Burdwan	February 5, 2011

Department of Mathematics

Name of the faculty	Name of the Examination	University/Institute	Date
Pal A.	Expert Member for the selection of Asst. Prof.(Cont) in Mathematics	NPTI, Durgapur	July 10, 2010

Deapartment of Mechanical Engineering

Name of the faculty	Discipline	University/Institute	Date
Basak I.	Engineering Faculty	NSHM- Durgapur	April 26, 2010
Basak I.	Engineering Faculty	NSHM- Durgapur	February 14, 2011

Department of Metallurgical & Materials Engineering

Name of the faculty	Discipline	University/Institute	Date
Mitra S.K.	Member, Assessment Committee for Technical Officers / Gr. III (Gazetted)	CMERI, Durgapur	March 24, 2011
Mondal D.K.	Chairman, Selection Committee for Project Assistant	CMERI, Durgapur	June 18, 2010
Mondal D.K.	Member, Assessment Committee for Technical Officers / Gr. III (Gazetted)	CMERI, Durgapur	March 24, 2011

Department of Physics

Name of the faculty	Discipline	University/Institute	Date
Meikap A.K.	Physics	BCET, Durgapur	June, 2010

Annexure 11.15 (f): Invited lectures during 2010-11

Department of Biotechnology

Name of the faculty	Title of the lecture	Programme	Place	Date
Aikat, K.	Biotechnology- an overview	Guest Lecturer at the Regional Children Science Congress of Navodaya Vidyalaya Samiti, Patna Region	Durgapur	November 16, 2010
Chattopadhyay S.	Molecular and Functional analyses of ZBFs in Arabidopsis Seedling Development	Invited special lecture	JNU, Delhi	January 7, 2010
Chattopadhyay S.	Molecular and Functional analyses of ZBFs in Arabidopsis Seedling Development	Invited talk in an International Symposium	Vidyasagar University, W.B.	March 4, 2010
Chattopadhyay S.	Molecular and Functional analyses of ZBFs in Arabidopsis Seedling Development	Invited special lecture	BHU, Varanasi	March 22, 2010
Dey A.	Bio ethanol production from ligno Cellulosic Waste	Invited special lecture	NIT Jalandhar	August, 2010
Mukhopadhyay S.	Iintroduction of life and life engineering	Workshop on “Biology leading towards Bio-inspired Engineering”	CMERI, Durgapur	August 18, 2011
Roy Barman S.	Analyses of plant defense mechanisms and fungal pathogenesis	Invited lecture	Bose Institute, Kolkata	May 24, 2010

Department of Chemical Engineering

Name of the faculty	Title of the lecture	Programme	Place	Date
Narayanan C.M.	Energy Conservation Principles	Energy Conservation Day Celebrations	Durgapur Projects Ltd., Durgapur	December 12, 2010
Narayanan C.M.	Process Modeling, Simulation and Software Development	International Conference on Recent Advances in Chemical Engg and Technology	Kochi Regional Centre, IIChE	March 10-12, 2011

Department of Chemistry

Name of the faculty	Title of the lecture	Programme	Place	Date
Adhikari U.	Biofuels: Opportunities and Developments	UGC Sponsored National Level Symposium on “Pollution: Disbalancing the Global Environment: Threats and Prevention”	Lipika Hall, Visva Bharati Organised by Bolpur College	March 6, 2011
Chakrabarty J.	Pesticide Toxicity	UGC Sponsored National Level Symposium on “Pollution: Disbalancing the Global Environment: Threats and Prevention”	Lipika Hall Visva Bharati Organised by Bolpur College	March 5, 2011
Moi S.C.	Kinetics and mechanism of Substitution reactions on d^8 metal ion system by Bio-molecules	International Minisymposium “Recent Trends in Coordination-Chemistry”	Vienna University of Technology Viena, Austria	May 27, 2010
Moi S.C.	Industrial Pollution and Waste Management	UGC Sponsored National Level Symposium on “Pollution: Disbalancing the Global Environment: Threats and Prevention”	Lipika Hall Visva Bharati Organised by Bolpur College	March 6, 2011

Name of the faculty	Title of the lecture	Programme	Place	Date
Saha R.N	Advanced Oxidation Processes for Textite Wastewater Treatment	UGC Sponsored National Level Symposium on "Pollution: Disbalancing the Global Environment: Threats and Prevention"	Lipika Hall Visva Bharati Organised by Bolpur College	March 6, 2011

Department of Civil Engineering

Name of the faculty	Title of the lecture	Programme	Place	Date
Das D.	Protection of Structures on Hilly Terrain	Induction Level Training Programme organized by National Power Training Institute	Durgapur	March 25, 2011
Pal S.	Overview of Soil Classification and Foundation Engineering.	Induction Level Training Program for Diploma Engineers of West Bengal State Electricity Transmission Co. Ltd	National Power Training Institute, Durgapur, W.B.	March 22, 2011

Department of Electrical Engineering

Name of the faculty	Title of the lecture	Programme	Place	Date
Ghoshal S.P.	Application of Wavelet Mutation based Evolutionary Optimization in Power Systems Problems - Part I	National Workshop on Wavelet Transform in Electrical Engineering	Applied Physics, C.U.	September 27-28, 2010
Ghoshal S.P.	Tutorial on WM & PSO and Applications in Power System Problems	Differential Evolution & Its Engineering Applications	SRM Univ., Chennai	Dec.16, 2010

Department of Electronics & Communication Engineering

Name of the faculty	Title of the lecture	Programme	Place	Date
Ghatak R.	Fusion Technology and Electrical Power Generation: Role of Microwave and mm wave Electronics"	ICES 2011	NIT Rourkela	January 7-9, 2011
Ghatak R.	Advances in Microwave and Antenna Technology	Recent Trends in Communication Technology (RTCT 2011)	Dept. of Physics, The University of Burdwan.	February 26, 2011
Ghatak R.	Evolutionary Algorithm in the Design and Optimization of Microwave Circuits and Antenna.	Work shop on Soft computing and Optimization Techniques	School of Electronics Engg, KIIT University	April 9-10, 2011

Department of Humanities and Social Sciences

Name of the faculty	Title of the lecture	Programme	Place	Date
Sengupta P.P.	Global Economic Meltdown & India's Competitive Strength.	Seminar Lecture	DSMS, Durgapur	April, 2010
Sengupta P.P.	Leadership	Indian Oil Golden Jubilee Seminar	Hotel Peerless Inn, Durgapur	August, 2009

Name of the faculty	Title of the lecture	Programme	Place	Date
Sengupta P.P.	Global Economic Meltdown & India's Competitive Strength.	National Seminar	NSHM, Durgapur	January, 2009
Sengupta P.P.	Fundamentals of Managerial Economics (MDP Lecture)	Efficiency Enhanement Programme Lecture Series	DSP,Durgapur	October, 2009 & January, 2010
Sengupta P.P.	Problems and Prospects of Indian Power Sector	National Seminar	NPTI, Durgapur	March, 2010

Department of Management Studies

Name of the faculty	Title of the lecture	Programme	Place	Date
Bandyopadhyay G.	Apllication Of Spss In Reserach Methodology	Research Methodology In Business Studies	Dept. of Commerce, Calcutta University	March 30, 2011
Bandyopadhyay G.	Apllication Of Spss In Reserach Methodology	Research Methodology In Business Studies	Dept. Of Commerce, Vidyasagar University	January 13, 2011

Department of Mathematics

Name of the faculty	Title of the lecture	Programme	Place	Date
Pal A.	Application of Graphs	Seminar	Rajshahi University, Bangladesh	March 18, 2011
Pal A.	Graph Colouring and its application	Seminar	Jagganath University, Dhaka, Bangladesh	March 20, 2011

Deapartment of Mechanical Engineering

Name of the faculty	Title of the lecture	Programme	Place	Date
Hui N.B.	Traditional Optimization Techniques	Post Graduate (M.Tech. and PhD students)	Dept. of Computer Science and Engineering, National Institute of Science & Technology, Berhampur, Orissa	January 5 -- 7, 2011
Puri, A.B.	'Research Issues in Micro WEDM (Wire-cut Electrical Discharge Machining)'	4th SERC School on "Micro Fafbrication and Micromachining Processes"	Dept. of Production Engineering, Jadavpur University,	April 5 - 10, 2010

Department of Metallurgical & Materials Engineering

Name of the faculty	Title of the lecture	Programme	Place	Date
Chakrabarti A. K.	Production of High Duty Cast iron in Howrah Foundry	Project on R&D for Howrah Foundry Cluster Organised by School of Automotive Engineering, Jadavpur University	Howrah	January, 2011
Chakrabarti A. K.	Cast Ferrous Composite	Research Meet Organised by Gandhi Institute of Engineering & Tech.	Gunupur, Orissa	March 25, 2011
Mondal D. K.	Austempered Ductile Iron	Project on R&D for Howrah Foundry Cluster Organised by School of Automotive Engineering, Jadavpur University	Howrah	January, 2011

Department of Physics

Name of the faculty	Title of the lecture	Programme	Place	Date
Chakraborty A. K.	Nanotechnology with carbon nanotube	Seminar on Frontiers in Materials Science (FMSc 2010)	NIT Durgapur, India	December 6, 2010
Kumbhakar P.	Observation of Enhancement in Photoluminescence Emission and Three-photon Absorption in Doped ZnS Nanoparticles	International Conf. on Nanomaterials (ICN 2010)	M. Gandhi University, Kottayam, Kerala, India	April 27-29, 2010
Kumbhakar P.	Observation of Nonlinear Optical Effects in Some Semiconductor Quantum Dot Materials using Nd:YAG Laser Radiation	Laser Interaction with Matter International Symposium (LIMIS-2010)	Changchun, China	August 15-18, 2010
Kumbhakar P.	Synthesis and Observation of Linear and Nonlinear Optical Properties of Some Chemically Synthesized Semiconductor Quantum Dot Materials	Seminar on Frontiers in Materials Science (FMSc.2010)	NIT Durgapur, India	December 6, 2010
Kumbhakar P.	In Search of the Fundamental Constituents of the Universe-Science and Technology at CERN	National Symposium on "The vision of scientific intellectual giant Dr. Homi J. Bhabha"	Durgapur Vishwagandha Science Society, Durgapur	December 18, 2010
Kumbhakar P.	Exploring the Origin of the Universe at CERN---Science and Technology	Regional Science Congress 2010, Navodaya Vidyalaya Samiti (Patna region)	Jawahar Navodaya Vidyalaya, Durgapur	November 15-20, 2010
Kumbhakar P.	Phase Transformation and Huge Enhancement in Nonlinear Optical Absorption Properties of Some Doped Semiconductor Quantum Dots	National Seminar on "Chemistry of Nanomaterials and Molecular Dynamics"	Annamalai University, Tamilnadu	December 30-31, 2010
Meikap A. K.	Synthesis, Characterization and Electrical transport of Polyaniline and Carbon Nanotube Composite	International Conference on nanomaterials: Synthesis, Characterization and Applications (ICN-2010)	Mahatma Ganghi University, Kottayam, Kerala	April, 2010
Meikap A. K.	Anomalous Dephasing Scattering Rate of two dimensional Electrons in Double Quantum Well and GaAs/ InGaAs heterostructures with embedded InAs Quantum Dots	Seminar on "Frontiers in Materials Science 2010 (FMSC-2010)	NIT, Durgapur	December, 2010

Annexure 11.15 (g): Session chair/convenor during 2010-11

Department of Chemical Engineering

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Narayanan C.M.	Session Chair	Workshop on Thermal Management and Stability	Bangalore	Heat Transfer Augmentation Principles	July 15 - 16, 2010
Narayanan C.M.	Session Chair	Chemical Engineering Congress - 2010	Annamalai University, Chidambaram	Bioprocess Engineer	December 27-29, 2010
Pal P.	Session Chair	ICMOC 2010	NIT Durgapur	Modelling of Energy Systems	October 28, 2010

Department of Chemistry

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Chakrabarty J.	Session Chair	UGC Sponsored National Level Symposium on "Pollution: Disbal-ancing the Global Environment: Threats and Prevention"	Lipika Hall, Visva Bharati	Bioremediation and Role of Microbiology, Biotechnology & Genetic Engineering	March 5, 2011
Chakrabarty J.	Session Chair	UGC Sponsored National Level Symposium on "Pollution: Disbal-ancing the Global Environment: Threats and Prevention"	Lipika Hall, Visva Bharati	Water Pollution and its Management	March 5, 2011
Moi S.C.	Session Chair	International Minisymposium "recent Trends in Coordination-Chemistry"	Vienna Univ. of Technology Viena, Austria	Afternoon Session	May 27, 2010
Moi S.C.	Session Chair	UGC Sponsored National Level Symposium on "Pollution: Disbal-ancing the Global Environment: Threats and Prevention"	Lipika Hall Visva Bharati	Water Pollution and its Management	March 5, 2011

Department of Civil Engineering

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Banik A. K.	Session Chair	International conference on Environmental and Civil Engineering (WASET 2011)	Bangkok	Technical session V	March 30, 2011

Department of Computer Applications

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Changder S.	Session Chair	3rd International Conference on Computer Science and Information Technology (ICCSIT 2010),	Chengdu, China	Technical Session	July 9 – 11, 2010,

Department of Electrical Engineering

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Banerjee S.	Session Chair	International IEEE ICET-2011 Conference	NIT Durgapur	Power Electronics	March 30, 2011
Ghoshal S.P.	Session Chair	IEEE symposium on Industrial Electronics and Applications	Penang, Malaysia	Application of Evol-utionary Techniques in Electrical Engg.	October3-5, 2010

Department of Electronics & Communication Engineering

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Ghatak R.	Session Chair	International Conference on Electronic Systems	NIT Rourkela	Poster Session	January 9, 2011

Department of Humanities & Social Sciences

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Sengupta P.P.	Session Chair	First National Conference of the Indian Business Study Academy	DSMS Durgapur	Technical Session	March 26, 2011

Department of Information Technology

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Das D.	Session Chair	CAR 2011	Singapore	Session-II	February 28 - March 1, 2011
Chakraborty B.	Session Chair	8th. IEEE Conference on Industrial Informatics, IEEE INDIN 2010	Osaka, Japan	Knowledge Management Applications in Service Engineering	July 13-16, 2010
Chakraborty B.	Session Chair	1st. International Conference on Computing, Business Applications and Legal issues ICCBALI-2011	IMT, Ghaziabad	Computing	March 3-4, 2011

Department of Management Studies

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Bandyopadhyay G.	Session Chair	3rd IEEE Iccsit 2010	Chengdu, China		July 9-11, 2010
Mandal K.	Session Chair	Iccbali , 2011	IMT, Ghaziabad		March 3-4, 2011

Department of Physics

Name of the faculty	Session Chair/ convenor	Programme	Place	Session	Date
Kumbhakar P.	Session Chair/ Session Judge	National Seminar on “Chemistry of Nanomaterials and Molecular Dynamics”	Annamalai University, Tamilnadu	Poster Session	December 30, 2010
Kumbhakar P.	Session Chair	International Conference on Emerging Technologies (ICET 2011)	NIT Durgapur	Theme based	March 28-31, 2011

Annexure 11.16 The Sixth Convocation 2010

The Sixth Convocation of the Institute was held on September 18, 2010 in which Professor Paolo Giubellino, the Spokesperson, ALICE (LHC), CERN, Geneva delivered the Convocation Address as the Chief Guest. Dr. John van Wyhe, Director, *The Complete Work of Charles Darwin*, National University of Singapore Bye - Fellow, Christ's College, Cambridge, UK, was the Guest *Online* of Honour. Shri Rathindramohan Roy, Hon'ble Mayor, Durgapur Municipal Corporation and Shri Satish Chandra Tewari, Principal Secretary, Department of Higher Education, Government of West Bengal, were the Distinguished Guests. Professor Bikash Sinha, Chairman, Board of Governors, presided over the function. In the sixth convocation, 489 B. Tech, 142 M. Tech., 40 MBA, 47 MCA and 10 PhD degrees were awarded.

Annexure 11.17 Other information

- Dr. Anita Pal, Assistant Professor, Mathematics, acted as AIEEE Observer conducted by CBSE, New Delhi on April 25, 2010.
- Prof.P.Pal, Professor, CHE, has evaluated UN-sponsored research project for the Govt. of Chile.
- Dr. Swapan Paruya, Assistant Professor, CHE, is developing pedagogy on Transport Phenomena, being a part of National Mission Project on Education through ICT, Funded by Ministry of Human Resource Development, Govt. of India, with Prof. J. P. Sarkar and Dr. Tamal Mandal.
- Dr. D. Das, Assistant Professor, CE has received his PhD degree from IIT Delhi on May 20, 2010.
- Dr.S.Banerjee, Associate Professor, Electrical Engineering nominated as Associate Editor, Journal of Electronic and Electrical Engineering.
- Dr. S. Banerjee, Associate Professor, EE, has been nominated as Member of Board of under Graduate Studies in Electrical Engineering, University of Burdwan.
- Dr. S. Banerjee, Associate Professor, EE has been nominated as Member of Academic Council of Asansol Enginnering College, Asansol.
- Dr. S. Banerjee, Associate Professor, EE, has nominated as External Expert at CMERI, Durgapur under the Network Project titled Development of High Speed Bearing for Micro/Meso Scale Machine Tool Application (under MRMMS NWP30/3).
- Dr. S. Banerjee, Associate Professor, EE, has been nominated to act as member of National Advisory Committee for 5th National Power Electronics Conference (NPEC 2011).
- Professor N.K. Roy, Professor, EE, is developing suitable pedagogical methods for various classes, intellectual calibers and research in e-learning under a National Mission Project on Education through ICT, Funded by Ministry of Human Resource Development, Govt. of India.
- Professor N.K. Roy, Professor, EE, is empanelled as an expert of Project Review committee of DSIR, Department of Science and Technology, Delhi.
- Dr. A. K. Pramanick, Associate Professor, ME, was appointed as a visiting fellow in 2010 at the Centre for Theoretical Studies at Indian Institute of Technology Kharagpur, India.
- Professor A. K. Meikap, Professor, Physics, is the fellow of IETE.
- Dr. Pathik Kumbhakar, Associate Professor, Physics, is preparing a course on Pedagogic Development on Fundamentals of Photonics and Optoelectronics under a National Mission Project on Education through ICT, Funded by Ministry of Human Resource Development, Govt. of India with Mrinal K. Mandal.

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