



09- ANNUAL REPORT 10

BIRLA INSTITUTE OF TECHNOLOGY

(Deemed University)

Mesra, Ranchi - 835 215, Jharkhand, India



INSTITUTE PRAYER

प्रार्थना

यं शैवाः समुपासते शिव इति ब्रह्मेति वेदान्तिनो
बौद्धाः बुद्ध इति प्रमाण पटवः कर्तेति नैयायिकाः ।
अर्हन् नित्यथ जैन शासनताः कर्मेति मीमांसकाः
सोऽयं नो विदधातु वाञ्छित फलं त्रैलोक्य नाथो हरिः ॥

“May the Lord of the Universe, the remover of evil, whom devotees of Shiva worship as Shiva, the Vedantins as Brahman, the Buddhists as Buddha, the followers of the Nyaya philosophy who are clever in logic as Agent, those devoted to the Jaina doctrines as Arhat, the ritualists of the Mimamsa School as Karma – grant us all our hearty desire.”

हे जग त्राता, विश्व विधाता, हे सुख शांति निकेतन हे ।
प्रेम के सिन्धु, दीन के बन्धु, दुःख दरिद्र विनाशन हे ।
नित्य अखण्ड अनन्त अनादि, पूरन ब्रह्म सनातन हे ।
जगआश्रय जगपति जगवन्दन, अनुपम अलख निरंजन हे ।
प्राण सखा त्रिभुवन प्रतिपालक, जीवन के अवलम्बन हे ।

You are the saviour and the creator of the Universe, the abode of peace and happiness, the ocean of love, the friend of the helpless, the reliever of sorrows and afflictions. You are the external, the indivisible and the infinite. You are the complete universe and the prime Being. You are the shelter, the lord and worshipped of world. You are unparalleled, unseen and blissful. You are friend of the living, the preserver of the universe and the support of our life.

HOMAGE TO LATE SHRI G. P. BIRLA (1922 – 2010)



**President of General Council and
Chairman Board of Governors of the Institute**

Syt. G.P. Birla was a visionary, an astute leader and a generous philanthropist. He founded and nurtured a wide variety of institutions in the field of Scientific Research, Education, Public Health, Archaeology, Religion and Culture. Many of these institutions are now national heritage.

Under his dynamic leadership and guidance, Birla Institute of Technology prospered manifold and scaled new heights of excellence in the domain of technical education in the country. Today, it is ranked amongst the very best. As a father figure, his benevolence and love for the Institute touched the lives of all associated with it. His fond memories shall always remain the guiding light for all times to come.

As a scion of one of the most respected business families and a celebrated entrepreneur, he promoted several industrial enterprises including automobile, cement, paper, consumer durables, technical services, information technology etc.

In recognition of his outstanding and rare contribution to the Society, the Government of India honoured him with the Award of 'Padma Bhushan' which was presented to him by the Hon'ble President of India in the year 2006.

He will be remembered as a father figure of the Institute for ever.



Shri CHANDRA KANT BIRLA

Shri Chandra Kant Birla has been associated with Birla Institute of Technology since last few decades and has now taken over the responsibility as President, General Council and Chairman Board of Governors of the Institute, from his legendary father Shri G.P.Birla.

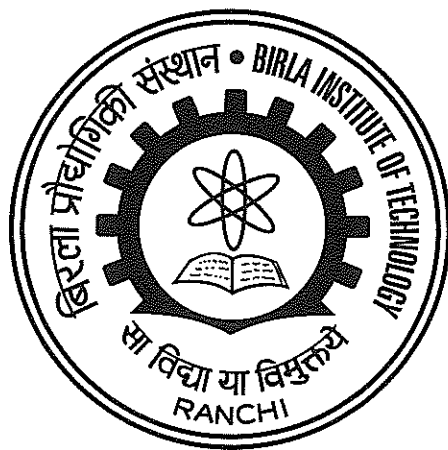
C.K.Birla Group of which Shri C.K. Birla is the Chairman, have presence in industry verticals like cement, auto components, automobiles, precision bearings, paper, building materials, ITeS, consumer durables and heavy engineering equipment.

Shri C.K. Birla is currently the Chairman of the Board of Governors of Indian Institute of Management, Udaipur. Earlier, he was a member of the Board of Governors of Indian Institute of Technology, Delhi. He is also a member of the National Council of the Confederation of Indian Industry (CII).

The Institute is confident of maintaining its growth and achieving greater heights under the dynamic leadership of Shri C.K. Birla.

ANNUAL REPORT

2009 - 2010



BIRLA INSTITUTE OF TECHNOLOGY
(DEEMED UNIVERSITY)
MESRA, RANCHI, JHARKHAND
INDIA

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THE VICE-CHANCELLOR'S REPORT

Birla Institute of Technology, Mesra, Ranchi founded by the industrialist and philanthropist Late Shri B.M. Birla in 1955, attained the status of a Deemed University as early as in 1986. The rich legacy of the founder was carried forward by Late Shri. G P Birla. We were all struck and saddened on 5th March 2010 when we lost our leader who had been inspiring us with his gentle guidance and great leadership. He will always be remembered for creating and nurturing large number of educational, medical research institutions and charitable trusts apart from several major industries and establishments.

In her condolence message to Mrs. Nirmala Devi Birla, Her Excellency, the President of India, Mrs. Pratibha Devi Singh Patil, said "G. P. Birla was an industrialist whose contribution to the establishment of various industrial enterprises helped in national development".

The BIT family was deeply saddened by the most untimely demise of 2 of its ex-students Piduri Sindhuri and Shilpa Goenka who would have received their Degrees in 20th Convocation. These young lives were lost in the Pune blast in February this year. .

The Institute, in conformity with the vision of its distinguished founder has ensured the maintenance of the principle of equity while offering open access for quality professional education at a reasonable cost. The Institute has been fortunate to have blessings and support from our present Chancellor, His Excellency Hon'ble Shri M. O. H. Farook, the Governor of Jharkhand and former Chancellors as well. The blessings and guidance of Chairman of Board of Governors is gratefully acknowledged.

BIT is one of the first 40 Deemed Universities in India which fulfills all the criteria to be recognized as a Deemed University, as has been laid down by the UGC and MHRD, Govt. of India. The total faculty strength at present stands at 650 and students' strength above 13,000 including the extension centers in India and abroad. Programmes are offered in as many as 22 academic disciplines.

The institute has initiated many schemes to assure quality education to the students, career development of members of faculty, progression of students towards higher education as well as their placement in reputed companies and organization around the entire globe. The Institute has a vision and mission to produce quality technical graduates with global employability, competent teachers, scientists and leaders in the academics, industry and administration under the guidance and dynamic leadership of the Chairman.

I would like to place the multidimensional achievements of the Institute during 2009-10 as follows:

1.0 ACADEMIC ACHIEVEMENTS

1.1 R&D PUBLICATIONS AND PATENTS

The high level of research conducted by its Faculties, Scientific Officers and Research Scholars has led to recognition by the State and National level funding agencies like UGC, CSIR, DST, DAE, BRNS, ISRO, DRDO, ARDB, DBT, AICTE, NaMPET, C-DAC, ICAR, Govt. of Jharkhand etc. in the form of Sponsored Project and consultancies.

The Institute's research achievements are reflected by the following statistics for the current academic session:

Publications in International Journals	:	410
Publication in International Proceedings	:	87



Publication in National Journals	:	71
Publication in National Proceedings	:	229
Ongoing R&D Projects	:	86
Project Completed	:	36
Patent Granted	:	01
Books Published	:	17

All together 88 faculty members were supported by the Institute to attend National Seminars and 52 faculty members were offered financial support to attend international conferences.

1.2 INFRASTRUCTURE DEVELOPMENT

Keeping in line with the expansion of its academic programmes, the Institute continues its efforts to consolidate academic and infrastructural support in the form of equipment, learning resources and space. A few of them are as follows:

- Deoghar Extension Centre has set up FOCS Laboratory; Power electronics Laboratory, Control System Laboratory; Energy Engineering Laboratory, Fluid Mechanics Laboratory, Measurement Laboratory and Material Science Laboratory.
- Department of Applied Mathematics has established land surface atmosphere and micrometeorological observational system (LATAMOS) within its campus with DST, GOI support equipped with different weather sensors, having aerosol, pollution monitoring system, etc.
- Department of HMCT has established Departmental Training Bakery which is equipped with the state of the art equipments.
- Computerised Dual Fuel Diesel Engine, Flue Gas Analyzer, Acoustic Meter, and inductively coupled Plasma mass spectrometer have been added during the last year in the Central Instrumentation Facility.
- Kolkata Extension Centre has added three online Journals into the digital Library facilities.
- Dept. of BMI has added 16-channel EEG recorder, Microwave workbench (2450MHz) and BOD Incubator.
- Dept. of Architecture has procured and installed AUTODESK Civil Suite 2009 with 20 user license.
- Dept. of Applied Physics has added Electroceramic laboratory, High energy ball milling unit for synthesis of nano particles.
- Allahabad Extension Centre has renovated the Electronics Laboratory.
- BITIC Muscat has built an additional Building for the College.
- Department of Pharmacy has added Microwave Organic Synthesis system in the Laboratory.

1.3 NEW PROGRAMMES

The Institute has started the following new programmes at BIT, Mesra and its extension centres / international centres at NOIDA, Deoghar, Muscat and Ras-Al-Khaimah:

- M. Tech. Polymer Science & Technology
- M.E.(Power Electronics)

- M.Sc. (Applied Mathematics)
- M.Sc. (Applied Chemistry)
- M.Tech. (Computer Science) Part Time at Kolkata Extension Centre
- M. Pharm. in Clinical Research, M.S. in Clinical Research and Pharmacovigilance and Post Graduate Diploma in Bioanalytical Techniques in collaboration with Lotus Clinical Research Academy, Bangalore

1.4 RESEARCH COLLABORATIONS

1. Dept. of Civil Engg. has established collaboration with Coal India Ltd.
2. The Dept. of Biotechnology, Computer Science & Engg. and Information Technology have established research collaboration with University of Mannheim.
3. The Dept. of Production Engg. has established research collaboration with IT BHU, R & D SAIL Ranchi, NIFFT Ranchi and with IIT Kharagpur.
4. BIT Extension Centre Deoghar has established research collaboration with BUET, Dhaka and BESU.
5. Dept. of Appl. Mathematics is having collaborative research projects with Indian Institute of Tropical Meteorology in the areas of modeling of aerosol dispersion and ozone estimates, Collaborative research programme with Space Application Center (ISRO), Ahmedabad in the area of Agrometeorology and Collaborative projects with ISRO Head Quarter on Solar Eclipse.
6. The Dept. of Space Engg. & Rocketry has collaborations with:
 - Vikram Sarabhai Space Centre (VSSC)
 - Defence Research and Development Laboratory (DRDL)
 - Research Centre Imarat (RCI), Hyderabad
 - High Energy Materials Research Laboratory (HEMRL), Pune
 - Liquid Propulsion Systems Centre (LPSC), VSSC
 - Aeronautical Development Agency (ADA)
 - Hindustan Aeronautics Limited (HAL)
7. The Department of Space Engg. & Rocketry offers consultancy services to many organizations like, MECON, RDCIS-SAIL, CCL, HEC, etc.
8. Dept. of Applied Chemistry has established collaboration in the area of Novel Material Synthesis with
 - Materials Science Division, Indira Gandhi Centre for Atomic Research, Kalpakkam.
 - University of Paris, France, in the area of Molecular Modeling & Drug Design
 - Sphaera Pharma, Haryana
 - Central Drug Research Institute, Lucknow
 - Jubilant Chemsys, Noida

and in the area of Environmental Monitoring & Control with -

- Pulmonary & Critical Care Division, Sate University of New York.



- Department of Environmental Science & Engineering , Indian School of Mines , Dhanbad
 - Department of Chemistry , Ravenshaw Unitary University , Orissa
9. Birla Institute of Technology, Mesra has been identified by National Program for Materials and Smart Structures (NPMASS), an initiative by GOI, to establish a Micro Electro Mechanical Systems (MEMS) Design Centre in the Dept. of Mechanical Engg.
10. Dept. of Biotechnology has established research collaboration with –
- IARI, Pusa, New Delhi & CCS University Meerut (U.P) in the area of Analysis of host pathogen interaction in leaf rust infection of wheat: A Transcriptomic Approach.
 - IINRG, Namkum Ranchi & Dept. of Zoology, Delhi University in the area of Lac Research.
11. Dept. of Applied Physics has research collaboration with –
- University of Duisburg, Germany
 - University of Michigan, USA
 - University of Bahrain, Kingdom of Bahrain
 - S. N. Bose National Centre, Kolkata
 - Delaware State University, USA
 - Catholic University of Daegu, South Korea
 - University of Sydney, Canberra, Australia.
 - Institute of High Pressure Physics of Russian Academy of Sciences, Troitsk, Moscow
 - University Technology of Mara, Malaysia
 - Institute of Physics, Acad. Sci. Czech Rep., Czech Republic
 - NPL, New Delhi
 - IIT, Madras
 - IIT, Guwahati
 - IUC, Indore
 - UGC-DAE Consortium for Scientific Research, Kolkata
 - Department of Physics, University of Padova, Italy
 - Materials, Science Division, Indira Gandhi Centre for Atomic Research Kalpakkam
 - Institute of Physics, Bhubneshwar
 - Department of Physics, University of Mumbai
 - Department of Physics, Rutgers- State University of New Jersey, Camden, USA
 - Paul Scherrer Institute, Villigen PSI, Switzerland
 - Universities in Brazil and Korea.
12. Department of Pharmaceutical Sciences has research collaboration with
- University of Luebeck, Germany
 - Indian Council of Agricultural Research(ICAR-NAIP)

1.5 VISITS TO UNIVERSITIES / INSTITUTES / RESEARCH LABORATORIES / INDUSTRIES FOR CONFERENCE, WORKSHOPS ETC. IN INDIA & ABROAD

1. Dr. S. Kumar visited Department of Material Research, Katholic University Leuven, Belgium
2. Members of faculty of Deoghar Extension Centre visited BUET Dhaka, NIT Rourkela, IIT Kharagpur, BESUS, BHU for academic consultations.
3. Dr. N. C. Mahanti attended Group monitoring workshop of DST project at Indian Institute of Geomagnetism, Mumbai, December 10-12, 2009.
4. Dr. S. Padhi delivered a lecture in R. M. M. C. Conference on Recent Development on Time scales, at the Univ. of Wyoming, USA, June 11, 2009 and delivered a lecture in Deptt. Of Mathematics, Texas State University at San Markos, USA, June 25, 2009.
5. Dr. Manoj Kumar attended Group Monitoring Workshop of DST project at Indian Institute of Geomagnetism, Mumbai during December 10-12, 2009 and also attended as an Expert Committee Member on DST (GOI)'s CTCZ Programme on December 16, 2009.
6. Dr. A. Sharon delivered an Invited Lecture at Central Drug Research Institute, Lucknow.
7. Dr. Usha Jha was invited as a subject expert for developing syllabus of M. Sc. in Environmental Science for Central University Bihar.
8. Dr. S.K. Bose chaired a National Seminar in "Value Based Management" organised by Shree Ram Murthi Smarak College of Engineering & Technology, Bariely on November 14-15, 2009; and he was invited as a guest speaker at IMS, Noida to delivered a lecture on, "Managerial Perspective on Capital Expenditure Decision Making" on November 17, 2009.
9. Dr. Utpal Baul attended the Course on "Effective Teaching; Cooperative Learning; Effective Faculty Development, Outcomes Based Education" organized by Indo-US Collaboration for Engineering Education, Global Education Center, Infosys, Mysore during 29th June to 3rd July '2009.
10. Dr. Shraddha Shivani, Professor, Department of Management attended Conference on Higher Education in India: Opportunities and Challenges, Organised by CII at Kolkata, November 13, 2009.
11. Mr. Vijay Agrawal chaired a session as an expert speaker in a 1-day Workshop on the "Role of Financial Management in Corporate World" organised by Cambridge Institute of Technology, Ranchi and also chaired a session as an expert speaker in a 2-day National Seminar on "Value based Management" organized by SRMS Bareilly sponsored by AICTE, New Delhi.
12. Dr. Gopal Pathak
 - was appointed as a member of Scientific Advisory Board for the 26th Annual International Conference on Contaminated Soils, Sediments and water which is to be held at University of Massachusetts, AMHERST, USA during Oct. 2010.
 - visited the Department of Environment and Civil Engineering, Princeton University, USA as a visiting faculty during Spring 2009 and also visited the "International Institute for Water and Environmental engineering", Burkina Faso, West Africa as a visiting faculty during 26th – 30th October, 2009.
13. Ms. Harshit Lakra Visited Cornell University, USA under Ford Foundation Fellowship and participated in Eighth Session of the United Nations Permanent Forum on Indigenous Issues, (UNPFII) in May, 2009 at UN Head Qtrs, New York.

14. Prof. P. K. Barhai

- attended Conference on Higher Education (EDUCON 2009) organised by Sakaal Media Group at Bangkok during August 20 – 23, 2009 and delivered an invited talk on "Internationalisation of Higher Education" and chaired the session on 'Industry-Institute-Interaction'.
- attended International Conference on metallurgical coatings and thin films organised by American Vacuum Society (AVS) during April 27 – May 1, 2009 at Town and Country Hall, San Diego, California.
- attended Plasma-2009 as Chief Guest of the Inaugural Function organised by PSSI and at NIT Hamirpur held during December 08-12, 2009.
- was a National Organising Committee Member of the 1-day Workshop on Applications of Plasma Technology in Textile Industries organised by PSSI at IPR on November 10, 2009 as President of Plasma Science Society of India.
- was invited as Panelist at the FICCI Higher education Summit 2009 organised by FICCI, MHRD, Govt. of India and USIEF at Federation House, New Delhi during November 06-07, 2009.
- was invited as Guest of Honour at the Indo-US Workshop on Intellectual Property Rights organised by US Embassy and Amity University during October 05-07, 2009.
- visited State University of San Diego, California, USA during April 29-30, 2009 for discussion on collaboration in the area of Medical Physics.
- visited the facilities of Plasma Physics Laboratory, Princeton University, Princeton and Department of Nanotechnology for collaboration in the area of Nano-Biotechnology during May 02-04, 2009
- was a Visiting Scientist at University of Duisburg under DST-BMBF Indo-German Bilateral Cooperation in Science & Technology to work on an Indo-German Project during February 2 -13, 2010.
- visited Institute of Biochemistry, University of Luebeck, Germany on invitation by Prof. H. C. Rolf Hilgenfeld, Director, University of Luebeck for discussion with the President of University of Luebeck on MOU for research collaboration in the areas of Pharm. Sc. and Medical Physics during Feb. 10 -11, 2010.
- visited University of Amsterdam on invitation by Prof. Dr. Karel Vander Toorn, President, University of Amsterdam for discussion on Research collaboration in the areas of Nanotechnology during Feb 08-09, 2010.

15. Dr. N. Nayak, Principal Scientific Officer & Adjunct Faculty, visited the S. N. Bose National Centre in January 2010 for research consultation.

16. Dr. S. Konar visited University of New South Wales Canberra, Australia as a Visiting Fellow during May – July 2009.

17. Dr. S. Keshri visited Delhi Univ., Allahabad Univ., Dr. Hari Singh Gour University, V.E.C.C, S.I.N.P, UGC-DAE CSR, Kolkata Centre etc. for research consultations.

18. Dr. Ullas Gurudas visited Rutgers - The State University of NJ, USA for Research collaboration.

19. Dr. Indranee Banerjee was an invited speaker in TACT 2009 International Thin Film conference during 14-16 Dec.2009, at National Taipei University of Technology Taiwan.

20. Mr. Rishi Sharma visited University of Duisburg, Germany under DST-BMBF Indo-German Bilateral Cooperation in Science & Technology during Nov. 09, 2009 – Feb. 5, 2010.
21. Dr. M. S. Nathawat visited university of Heidelberg, Germany from Nov. '09 to Feb '10 under Indo-German Cultural Exchange Programme.
22. Dr. N. Patel visited College of Agricultural Engineering and Post Harvest Technology (Central Agricultural University), Ranipool, Gangtok, Sikkim and Mizoram University (Central University) for research consultation.

2. CAMPUS PLACEMENTS

The high quality of teaching and training imparted to its students continues to be recognized by International & National Institutes, R&D organizations and industries from all over the world with 764 placement offers from 54 premier organizations. Many of them received multiple offers with the highest compensation offer so far of more than 10 lacs.

The Institute has been a pioneer in initiation of an in-house finishing school. Competency Development Centre and a Mentorship programme have played an important role polishing their skills as well as connecting them to senior alumni across the world.

3. VISIT OF NBA, UGC TEAM AND OTHER EMINENT PERSONALITIES

1. Dr. Kesavasamy, Global Head-Academic Interface Programme of Tata Consultancy Services visited BIT with a view to discuss avenues for further enhancing the collaboration. He addressed the faculty members and students on Feb. 08, 2010 and deliberations were held on the various aspects of faculty training and incorporation of subjects like Software Engineering and Systems Engineering in UG curriculum.
2. Mr Bill Thies of Microsoft Research India, innovators in Health and Project Ideas had addressed the faculty members and students on Feb. 06, 2010 to discuss about the projects in the areas of efficient fingerprint authentication on a fixed-point processor, Hand recognition on mobile phones etc.
3. Mr. Girija Mukherjee of Indian Institute of Geomagnetism, Mumbai had delivered a talk on Computer as a tool to study Geoscience on Sept. 07, 2009.
4. UGC team headed by of Prof. Furqan Qamar Vice Chancellor, Rajasthan University Jaipur, visited the institute during December 21-23, 2009 for evaluation as a Deemed University.
5. Dr. George Winterstein (Head, Dept of Computer Science), Dr. Markus Gumbel (CS representative for India), Dr. Steffen Rasenat (International Programme Coordinator for CS), Dr. Jurgen Backhaus (Dept of Biotechnology) of University of Mannheim, Germany visited the Department of Computer Science, Information Technology & Biotechnology on Feb. 18, 2010 to discuss on research collaboration.
6. Prof. H.P. Khincha, VC, VTU (Chairman), Shri Tara Shankar, Director, DIT, Delhi, Shri Suresh Babu, VS, C-DAC, Trivandrum Visited Dept. of Elect. Engg. as member of sub-committee of NaMPET for 2nd Review Meeting on Infrastructure Up-gradation on Jan. 29, 2010.
7. Er. Vijay Bhushan Prasad Pandey, Principal, BSNL, Regional Telecom Training Centre, Ranchi, delivered a lecture on the theme "Tele-Communication Network", on September 18, 2009.
8. Dr. L.K. Bandyopadhyay, Scientist 'G', at Central Institute of Mining and Fuel Research (CIMFR), Dhanbad, Jharkhand, India, delivered a lecture on the "Wireless Information and Safety System for Mines" on February 23, 2010.



9. Mr. Harpreet Singh, Practice Head, Cloud Computing at HCL Infosystems, Noida, India delivered a lecture on the "Neuro Informatics Devices, Filters and Brain Indexes", on February 24, 2010.
10. Mr. A. P. Roy, former General Manager, MECON, delivered a Lecture on Energy Conservation.
11. Dr. Rakesh Dwivedi, CMPDI, delivered a Lecture on CFD Application in the Design of Dust Handling Systems.
12. Prof. Anupam Banerjee, Prof Emeritus, School of Architecture, University of Waterloo, Canada, delivered a lecture on 'Transformation of Architecture over the era' during January 03-04, 2010.
13. Er. Ajay Singh, Superior Global Infrastructure, delivered a lecture on 'Design of underground MTRS facilities of Kolkata East-West Metro Corridor' on January 27, 2010
14. Ar. Santosh Shekhar, Incredible Arts, delivered a lecture on 'Organic Architecture' on February 6, 2010.
15. Sri Nandalal Nayak, Folk Artist, Filmmaker & Music Director, delivered a lecture on 'Confluence of Modern Art Forms' on February 20, 2010.
16. Mr. D. R. Dhariwal, President, Birla White delivered a lecture on 'Excellence in Corporate World' on February 26, 2010.
17. Many eminent scientists visited the Department of Applied Physics during the last year which include; Dr. A. Roy of IUAC, New Delhi, Dr. A. K. Das of BARC, Mumbai, Dr. B. Saha of NCCS, Pune, Dr. J. Maharana of IOP, Bhubaneswar, Dr. T. Pal of IIT, Kharagpur, Dr. G. B. N. Chainey of Utkal University, Bhubaneswar, Dr. K.P. J. Reddy of IISC, Bangalore, Dr. S. Pattanayak of IOM, Bhubaneswar, Dr. A. Pal of IIT, Kharagpur and Dr. R. Bandichore of Reddy's Lab, Hyderabad to deliver lectures at the DST INSPIRE CAMP.
18. H. E., Shri Anil Wadhwa, Ambassador of India to Sultanate of Oman visited the Institute on May 20, 2009 and donated 150 books in the Library.
19. Dr. A. K. Dorle, Retired Prof. Emeritus, Nagpur University visited Dept. of Pharmacy and delivered a lecture on "Research- the adventure in Knowledge" on Aug. 27, 2009.
20. Dr. Jagdev Singh, Former Scientist, RRL Jammu delivered a lecture on "Advances in Herbal Drug Technology" in the Dept. of Pharmacy on Aug. 30, 2009.
21. Dr. H. C. Rolf Hilgenfeld, Director, Institute of Biochemistry, University of Luebeck, Germany delivered a lecture on "Expecting the unexpected: Structure based Discovery of Antiviral for future outbreaks" in the Dept. of Pharmaceutical Sciences on January 28, 2010.
22. Prof. (Dr.) Volker Buck, University of Duisburg, Germany visited the Department of Applied Physics during Dec. 12 – 15, 2009 and delivered a lecturer on "Plasma Deposition of Nanostructured Carbon Films".
23. Prof. R.E.H. Clerk, University of Texas, San Antonio, USA visited the Department of Applied Physics during Nov. 30 - Dec. 2, 2009 and delivered a series of lecturers on "Modeling of Plasma Fusion, Atomic Structure Calculations and Excitation and Ionization Processes".

4. MEMORANDUM OF UNDERSTANDING (MOU)

The Institute signed the following MOUs during this year:

- The Department of Computer Science & Information Technology has signed an MoU with the University of Houston for dual degree in which BE degree will be offered by BIT, Mesra, Ranchi and MS in Computer and Systems Engineering will be offered by University of Houston.

- The Department of Applied Mathematics has signed an MoU with Indian Institute of Tropical Meteorology, Pune to study the effect of aerosol and potential evapotranspiration over the region for the better understanding of monsoon forecasting.
- Dept. of BMI has signed an MOU with RIMS, Ranchi for one-semester Clinical Internship Project Training Program for B.Sc. (Medical Lab. Technology) students.
- Dept. of Biotechnology has signed an MOU with University of Padova, Italy and Manheim University of Applied Science, Germany.
- Department of Pharmaceutical Sciences has signed an MOU with Himalayan Pharmacy Institute, Majhitar, East-Sikkim for Collaborative Research and Doctoral programme.
- Department of Pharmaceutical Sciences has signed an MOU with DUSAP Pharmaceuticals, Kolkata to work on Potassium Iodate tablet under DRDO Project.

5. AWARD / DISTINCTION / FELLOWSHIP / MEMBERSHIP / HONORS RECEIVED

I take this opportunity to highlight some of the achievements of our faculty members and students.

Under the existing MoU's with the Industry, different awards were distributed to student achievers:

- LG Best Student Award (For top ranking PG Student from ME EEE/Mechanical)
- TCS Best Student Award (For top ranking UG Student from CS/IT)
- TCS Best Project Award (For UG students)
- Dr. D. K. Mohanta, Professor, Dept. of EEE, appointed as Associate Editor, International Journal Power and Electric Systems (ACTA press, Canada)
- Shri R. K. Keshri received ERASMUS MUNDUS Fellowship for 34 months to carry out Doctoral work in University of Padova, Italy in the area of Electric Vehicle Propulsion System.
- S. Dinesh and Neha Prasad of BE (CSE) have received the TCS best project award on 08-02-2010.
- Dr. A. K. Chatterjee was nominated Chairman of (i) Aerospace Engineering Division Board, The Institution of Engineers (India) and (ii) Indian Society for Technical Education (Bihar & Jharkhand Section).
- Dr. Mohan Varma was elected Member of the National Executive Council, High Energy Materials Society of India. He has also been nominated Expert Member on DRDO Project Assessment Committee for HEMRL, Pune.
- Dr.B.N.Sinha, Professor at the Department of Pharmaceutical Sciences, has collaborated with Prof. Dr. Rolf Hilgenfeld of Univ. of Lubeck, Germany in two Indo German Projects as an Indian partner.
- Dr. J. K. Prasad was elected Member, Executive Committee, National Society of Fluid Mechanics and Fluid Power and he has been nominated Member of Executive Committee, National Wind Tunnel Society of India.
- Sanjay Kumar, Member, Technical Program Committee (TPC), International Symposium on Applied Sciences in Biomedical and Communication Technologies (Isabel 2010), Rome, Italy.
- Minakshi Kumari and Ravi Tiwari, students of ME Quality Engineering and Management presented a paper on 'Quality Assessment Tool for enhancing the effectiveness and social responsibility of Indian Television News Channels' and got 'S.K. Mukherjee Gold Medal for Research Excellence in National



students Research convention, "Anveshan-09" at Bengal engineering and Science University (BESU) Howrah. They were declared first and awarded a cash prize of Rs one lakh and International Scholarship worth 2200 Euros per month for France and Netherland.

- Dr. Ashok Misra appointed as Member of (i) Research Board of Advisors: The American Biographical Institute, USA and (ii) Editorial Board of International Journal of Mathematical Modeling, Simulation and Applications (IJMMSA).
- Prof. (Mrs.) Richa Pandey appointed as reviewer for International Conference on Mechatronics, China
- Ajanta De Sarkar awarded Doctor of Philosophy (Engineering) degree of Jadavpur University in Department of Computer Science & Engineering, November 2009.
- Radha Tamal Goswami, Nomination Committee member of Computer Society of India Kolkata Chapter.
- Dr. R. K. Sinha, Dept. of BMI, has been awarded with "Leverhulme Trust Visiting Fellowships" to work in the area of 'Brain-Computer Interface' in University of Ulster, UK.
- Dr. Gopal Pathak received an Award Certificate on Academic Leadership at the Indo-US Collaboration for Engineering Education (IUCEE) at Infosys, Mysore in June 2009.
- AMI unit (Jharkhand Chapter) established in the Department of Biotechnology has received recognition as one of the best unit. The Department is also entrusted to host the 51st AMI Meeting in this campus during December 2010.
- Architecture Department is the only Department in India to develop e-contents for six under-graduate architectural subjects for the sanctioned project under the 'SAKSHAT' scheme of MHRD, GOI.
- Prof. P. K. Barhai was
 - Member in Academic Advisory Council, Aalborg University, Denmark (2009).
 - Director, INSPIRE DST, New Delhi Camp for XI and XII toppers of Jharkhand during Jan. 27-31, 2010.
 - Invited to speak on Plasma Technology at the Workshop on 'Sustainable Manufacturing, Energy and Plasma Technology', 'The Future of Printing in a Changing Environment and Manufacturing Technology' and 'Quality Control in Automotive Production' held by Research in Germany jointly with Mahratta Chamber of Commerce, Industries and Agriculture during Mar. 12-13, 2010.
- Dr. A. M. Agrawal has been nominated as Chairperson of Academic Committee of Indian School, Muscat.
- Ms. Ritu Kuhu were awarded IDMA G. P. Nair award by the Indian Drug Manufacturer's Association for standing 1st in B. Pharm. examination held in 2008.
- Ms. Pooja Sheokhand, M. Pharm. student, was awarded the second prize in essay competition organised by Lachoo Memorial College of Science and technology, Jodhpur, Pharmacy on the occasion of 14th Annual National Convention of APTI.
- Dr. Swastika Ganguly was conferred the degree of Chartered Chemists by the Institution of Chemists (INDIA).
- Dr. M. S. Nathawat awarded Baden-Wuerttemberg Fellowship-2009 under Indo-German Cultural Exchange Programme and nominated member for 6th round survey of research on Geography in ICSSR, Gol.

6. SEMINAR / SYMPOSIA / SHORT TERM COURSES ORGANIZED

The Institute and its Extension / International Centres organized as many as 38 Seminars / Symposia / Workshops:

1. A meet on "Campus Placements- Evolving Paradigm" was organized by the Training & Placement Division at BIT, Mesra on the 9th & 10th April'09, in which Placement heads of the major Institutions of Eastern region along with the select HR heads of different sectors, participated.
2. A 3-Day Workshop on Soft Skills was organized by the Training & Placement Division for faculty members from across all BIT centre's from the 17th to 19th September 2009.
3. Several Workshops for Faculty as well as students were organized in partnership with TCS, Mindtree Consulting, Accenture and IBM.
4. Two lectures on "Overview of Iron & Steel Industry" and "Iron & Steel Industry-Blast Furnace with Special emphasis on use of Instrument & Control" were delivered by Mr. Nirbhar Neogi, Steel Authority of India, Ranchi, on 19th Sept. and 13th Nov. 2009.
5. Seminar on "Future Trend in Industrial Automation & prospects for Steel Industry" delivered by Mr. Nirbhar Neogi, Steel Authority of India, I spat Bhavan, Doranda, Ranchi-834002 on 8th Jan'10
6. A talk on "When & Why to Use Computers?" delivered by Prof. V. Ramanarayanan, Dept. of Electrical Engg., Indian Institute of Science , Bangalore, Jan. 25, 2010.
7. Workshop on Concrete Mix Design was jointly organized by BIT, Mesra and Ultratech cement on Dec. 12, 2009.
8. 3rd National Workshop on - Precision Forming (Modelling, analysis and System development) was held at the Department of Production Engineering, BIT Mesra, Ranchi during February 15 -16, 2010.
9. Three Workshops were organized based on different theme. Workshop on Italian cuisine was conducted by Chef Praveen Jha, Excutive Chef, Hotel Element on 13th Oct. '09. This was followed by Workshop on Rangoli from 27th Oct. – 29th Oct. '09 and workshop on Flower arrangement from Feb. 1 – 3, 2010.
10. Three Departmental seminars were conducted. Seminar on "Facing an Interview – the right approach" on 7th Nov. '09, Seminar on "Key Issue in Hospitality Industry" on 21st Nov.'09 and on "Role of Tourism in the sustainable development of Jharkhand" on Jan. 27, 2010.
11. Two Colloquiums on Doctoral Research were held during September 7 – 9, 2009 and from February 17 -18, 2010 by the Dept. of Management.
12. One-day Workshop on "Power Sector Reforms, IT application & Skill Development" was organised in December 2009.
13. Two-day Workshop on "Ethical Hacking" was conducted by Kyrion Digital Securities, Delhi in January 2010.
14. Two day Workshop on "Automotive & Engine Design" was conducted by Metawing, Delhi in February 2010.
15. A short sanitization programme on "Current R & D Status & career opportunities in Biotechnology: study scope and objectives" was organised on 5th September 2009.
16. Department of Architecture organised the Zonal meet of the 'National Association of Students of Architecture- ZONASA ' during October 1 – 3, 2009.

17. DST – INSPIRE CAMP on basic Science was organised at Mesra campus during January 27-31, 2010.
18. NCERT programme for the awardees of National Talent Search (studying in IX STD) is being organised from March 22-26, 2010 by the Department of Applied Physics.
19. BITEC Noida organized a two-day “BIT National Management Conclave 2010” on the theme ‘Managerial Challenges of 21st Century in Corporate World’ on February 12 - 13, 2010.
20. 3rd Graduation Ceremony of BITIC Muscat was held on 26th December 2009 and a Workshop on Research proposal & Thesis writing was held during December 16 – 17, 2009 at BITIC Muscat.
21. Case Method of Teaching in collaboration with IBS, Ahmedabad was held during November 4 – 5, 2009 at BITIC Muscat.
22. A Seminar on “How to Keep Motivation Alive for Working Executives” was conducted in June 2009 at BITIC Muscat.
23. Dept. of Pharm. Sciences organized:
 - AICTE sponsored (i) Quality Improvement Programme on Drug Discovery Approaches during May 4–16, 2009, (ii) Quality Improvement Programme on Emerging Trends In Herbal Drug Technology on May 18 - 30, 2009 and (iii) Quality Improvement Programme on Advances in Targetted Drug Delivery Systems on June 1 – 13, 2009; and also
 - UGC & IPS sponsored Seminar on “Clinical Research and Pharmacovigilance” on Sept 18, 2009.

7. STUDENT ACTIVITIES

1. Abhishek Sharma (V Sem, B.E) was awarded DAAD WISE scholarship to work in the area of ‘Robot Vision’ at Ilmenau University of Technology, Germany during May-July 2009.
2. Grant of Rupees Fifty Thousand for R&D project was awarded to Amy Kumar and Sonam Lal to work on “Development of Automation System for Prototype Power Distribution System” by the Institution of Engineers (India).
3. Students of Deoghar Extension Centre won first prize in technical paper presentation and second prize in Cruise control event at IIT Kanpur and win first prize in technical paper presentation at IIT Kanpur and second and third prize in different events at ISMU Dhanbad.
4. Students of HMCT Department organized two food festivals – “Rajasthani Food festival” from Aug 27 – 29, 2009 and “Wild Wild West” from Feb. 18 – 20, 2010.
5. Students of HMCT Department organized Industrial visit to Moreish bread factory was arranged for the students for getting insight to the functioning of commercial bakery.
6. Students of HMCT Department have formed the HOSPITALITY CLUB which organizes various functions to develop their event management skills.
7. Two-day All India Annual B-School Fest was held for the 8th consecutive time on the 11th and 12th of April, 2009 by the Department of Management.
8. The Student Chapter of Indian Society of Heating, Ventilation and Air-conditioning Engineers (Indian Division of American Society of Heating, Ventilation and Air-conditioning Engineers) was established in the Department of Mechanical Engineering

9. The Department of Architecture organised the Zonal meet of the 'National Association of Students of Architecture' (NASA) in 2009.
10. A team comprising Mr. M. Meghanathan, Mr. Vignesh Shankar, Mr. Hehboklang Khyriem and Mr. Umamahesh [all 7th semester students] won the 4th position in the Annual Students' Design Competition 2009 organized by INS DAG [Institute for Steel Design and Growth]. The design topic was Bus Terminus.
11. 26 students of the Department of Architecture participated in annual NASA held at SRM University Chennai from 27th – 30th December 2009.
12. Srishti '09 was organized by BIOTS (Society of Biotechnologists) during October 23 – 25, 2009.
13. Mr. Prakhar Goel (BE/1005/07), a student of VI semester of Dept. of Biotechnology, was one of the 20 member delegates in the Conference of Parties 15, UNFCCC held during December 7-18, 2009 at Copenhagen.
14. The Annual Sports & Athletic Meet-2010 was held at BITEC Allahabad during first week of Feb. 2010.
15. The students of technical committee of BITEC Allahabad organized Techno-Management Fest -2009 at the centre from 5th to 7th November 2009.
16. BITIC Muscat organized Awareness Campaign for clean environment.
17. Oman National Day was celebrated at BITIC Muscat. H. E. the Under Secretary in the Ministry of Regional Municipalities for Water Resources was the Guest of Honour.
18. Tree Plantation was organised at College Campus by the students at BITIC Muscat.
19. Ms. Pallavi Joyti of BIT Mesra was awarded the Paramahansa Yogananda Scholarship for Professional Course Students (in memory of Sri Vikash Jaiswal) of Rs. one lac on 24th January, 2010.
20. Elocution contest on the topic " Pharmacist Role in Health Care Management and Research" was held on 21st October 2009 in the Dept. of Pharmacy.
21. IBM Technology Day was organized on the 9th August 2009.
22. Mahindra Auto Quiz – Auto Quotient was organized on the 18th September'09.

8. SPORTS

- The institute Basketball team participated in Spardha 2010 organized by IT BHU where the institute team was runners-up of the event.
- In Spardha 2010 organized by IT BHU, the institute team won 4 Gold, 1 Silver and 3 Bronze medals in athletics.

9. AWARD OF DEGREES

I may mention here that during this convocation a total of 3004 students have been awarded Degrees and Diplomas in various disciplines, out of which 88 students have received Post Matriculation 3 years Diploma, 1978 Graduate Degree, 908 Post Graduate Degree, and 30 Ph.D. Degree.

I take this opportunity to convey my sincere and hearty gratitude on behalf of myself and the entire BIT family to His Excellency the Governor of Jharkhand and the Chancellor of the Institute, Shri M. O. H. Farook, who has been taking inspirational and result oriented steps for the growth of higher education in the state. I most sincerely thank Dr. Salman Khurshid, Hon'ble Union Minister of State (Independent Charge), Corporate &

Minority Affairs who was our esteemed Chief Guest in last Convocation of the Institute held on 23rd March 2010. His thought provoking convocation address and words of encouragement to the degree/diploma recipients was well received.

We pay our homage to our Late Chairman Shri G P Birla. I take this opportunity to express my sincere gratitude to Shri C K Birla, Chairman, Board of Governors for his continued guidance and support. I also thank members of the Board of Governors for their support and encouragement.

I take the opportunity to convey sincere thanks to the different Departments and agencies of the Government of India as well as the Government of Jharkhand and also to the Chancellor's Secretariat.

I also express my thanks to all my colleagues, students and well-wishers of the Institute for their cooperation, help and commitment to maintain the high standard which has been attained by the Institute in the domain of Science & Technology, Engineering and Management.

We would like to assure all the stake holders of higher education that with their support and good gesture, we shall continue to strive to be globally competent and help the nation to achieve the goals of India - Vision 2020 which says **"India has the potential of converting its strong R&D infrastructure into a global research, design and development platform"**. I would also like to quote a very pertinent observation of the India Vision 2020 document which is-

"Full development of India's enormous human potential will require a shift in national priorities, to commit a grater portion of the country's financial resources to the education sector. India currently invests 3.2 – 4.4 per cent of GNP on education. This compares unfavourably with the UMI reference level of 4.9 per cent, especially with countries such as South Africa, which invests 7.9 per cent of GNP on education. A near doubling of investments in education is the soundest policy for quadrupling the country's GDP per capita".

Introduction



Birla Institute of Technology, Mesra-Main Building

The Institute was established as an All India Institute of Technical Education by renowned philanthropist and visionary industrialist, Late Sri B. M. Birla in July 1955. Initially it was started as an affiliated college of the erstwhile Bihar University and later in 1960 upon creation of new universities in the state, its affiliation was transferred to Ranchi University. In pursuance of the recommendation of the Education Commission, Government of India (1964 – 1966) and on the basis of the report of a joint Selection Committee of the UGC and AUDIT, in March 1972, the institute was granted the status of an 'Autonomous' College by making special provision in Bihar State University Act. The chancellor of the University of Bihar made the rules for its governance.

The achievement of the Institute in terms of research and excellent academic programme led to its attaining the status of a Deemed University in August 1986 under section 3 of the UGC Act 1956.

The Institute has constantly improved on its technical facilities as well as academic performance in order to keep pace with the fast changing technological scenario, thereby acquiring a pride of place amongst the institutions offering technical education in the country.

Administration

BIT Mesra is a "Deemed University" under Sec. 3 of the UGC Act 1956. The Governor of Jharkhand is the Chancellor of the University. It functions under the overall supervision, direction and control of a high power Board of Governors, comprising representatives of the Ministry of Education, Government of India, UGC, State Government, AICTE, The Hindustan Charity Trust and the Institute Faculty. Shri C.K. Birla is the Chairman of the Board of Governors. Composition of the Board of Governors is given in Annexure – II.



Department of Pharmaceutical Science

The Finance Committee advises the Institute on financial matters. Building & Works Committee extends its advice to the Institute in all the matters related to building and construction. The composition of these committees is given in annexure – III and IV.



At the entrance of R & D Building

The Technical council decides the academic policy of the Institute. It approves the curriculum, courses and the examination results. It appoints committees like Regulation Committee for Under – Graduate and Post – Graduate Courses, Semester Programme Coordination Committee, Admission Committee, Scholarship Committee, and Students Welfare Committee etc. Departmental Board of Studies looks into specific academic matters arising from time to time. The teaching, training and research activities of various Departments at the Institute are regularly reviewed. The Vice – Chancellor of the Institute is the Chairman of the Technical

Council. Members of the Technical Council have been listed in Annexure – V.

Institute Campus

The Institute is fully residential and extends over 780 acres. The main building of the Institute covers an area of 30,000 sq. mtrs. which accommodates the various research and training laboratories, administrative offices and lecture rooms.

The workshop annexure has covered area of 4,000 sq. mtrs. The laboratories and offices of the Department of Space Engineering & Rocketry are situated in a sub – Campus, about half a Kilometer away from the main building, for security reasons. As a part of continuing education programme, Part –Time courses in Engineering and Management are conducted in city at our BIT Lapur Extension Center which was established in 1976.

The campus is self - contained having well – laid lawns, sports complex, protected water supply, shopping centre, dispensary, bank, ATMs, post-office and school.

Institute Building

(Sq. Mtrs.)

Main building & Administration block	-	3700
Class room & laboratory, Drawing halls, Staff room's etc	-	19300
Library block	-	2600
Mini – Auditorium	-	450
Services & Circulation area	-	3950

Space Engg.& Rocketry block (Including Explosive, Fuel cell & Cryogenic laboratory)	-	2490
Workshop sheds, General stores, Garage/ Godown	-	4880
Gymnasium	-	850
Indoor Badminton Stadium	-	1000
Animal House	-	400
R & D Building	-	7200
Multi – Purpose Halls	-	785
Biotechnology Centre	-	3477
Polymer Engineering	-	744
Lecture Theatre – I	-	1143
Lecture Theatre – II	-	1535
Hotel Management Building	-	2835
Pharmacy Building	-	3220
Golden Jubilee Auditorium	-	3280

Residential Complex

Staff quarters in different categories	-	422
Residential complex for supporting services (Guards, Dairy Shopkeepers, Washer man etc.)	-	116

Hostel Accommodation

Eleven Boy's Hostel	-	2552 Rooms (Single)
Four Girl's Hostel	-	338 Rooms (Double) & 196 Rooms (Single)
Research Scholar Hostel	-	112 Rooms (Single)

Others

Consumer's co-operative stores	-	375 Sq. Mtrs.
NCC Block	-	400 Sq. Mtrs.
Rifle Firing Range	-	1 No.
NCC Parade ground	-	1 No.
Community Hall	-	1 No.
Canteen	-	2 Nos.

Guest Accommodation

The Institute has two Guesthouses with 38 well-furnished rooms besides one VIP Guest house with 3 deluxe bedrooms to accommodate the Institute's Guests.

Auditorium

The Institute has two auditoriums. There is a small auditorium attached to the main building having seating capacity of about 500. Another one is Golden Jubilee auditorium, having seating capacity of approximately 3000, is used for convocation and other large scale functions of the Institute.

Games & Sports Complex

The Institute has Sports Complex which is spacious enough to arrange indoor and outdoor games having following facilities:

Gymnasium including Multi – Gym	-	1
Stadium for Track & Fields for Sports/ Athletics	-	1
Cricket ground including net	-	2
Football grounds	-	2
Hockey grounds	-	2
Basket Ball courts	-	4
Volley Ball courts	-	6
Tennis courts	-	6
Badminton courts (three indoor & five outdoor)	-	8
Kho – Kho ground	-	1
Kabaddi ground	-	1

Dispensary – Cum – Health Centre

Facilities Available

O.P.D Services	-	8 A.M to 12 .00 Noon 4.00 P.M. to 8.00 P.M.
Emergency Services	-	Round the clock
Total No. Beds	-	12 (Male -8, Female – 4)
X – ray		
E. C.G		
Oxygen Facility		
Suction Machine Facility		
Speciality Services		
Pathological Test Facility		
Medical Officers	-	05
Pharmacists	-	03
Dressers	-	03
X – ray Technician	-	01
Pathological Technician	-	01
Staff Nurse	-	01
Visiting Physician	-	05
Lady Attendant	-	03
Male Attendant	-	03
Sweeper	-	01



Shri CHANDRA KANT BIRLA

Shri Chandra Kant Birla has been associated with Birla Institute of Technology since last few decades and has now taken over the responsibility as President, General Council and Chairman Board of Governors of the Institute, from his legendary father Shri G.P.Birla.

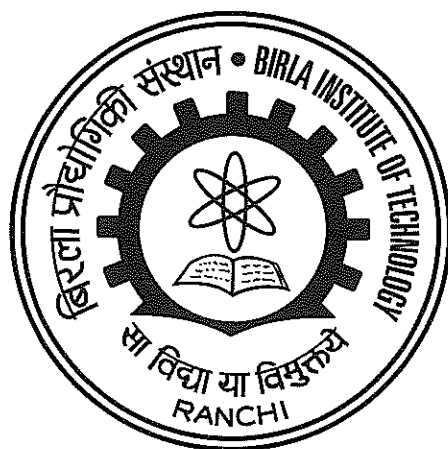
C.K.Birla Group of which Shri C.K. Birla is the Chairman, have presence in industry verticals like cement, auto components, automobiles, precision bearings, paper, building materials, ITeS, consumer durables and heavy engineering equipment.

Shri C.K. Birla is currently the Chairman of the Board of Governors of Indian Institute of Management, Udaipur. Earlier, he was a member of the Board of Governors of Indian Institute of Technology, Delhi. He is also a member of the National Council of the Confederation of Indian Industry (CII).

The Institute is confident of maintaining its growth and achieving greater heights under the dynamic leadership of Shri C.K. Birla.

ANNUAL REPORT

2009 - 2010



BIRLA INSTITUTE OF TECHNOLOGY
(DEEMED UNIVERSITY)
MESRA, RANCHI, JHARKHAND
INDIA

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THE VICE-CHANCELLOR'S REPORT

Birla Institute of Technology, Mesra, Ranchi founded by the industrialist and philanthropist Late Shri B.M. Birla in 1955, attained the status of a Deemed University as early as in 1986. The rich legacy of the founder was carried forward by Late Shri. G P Birla. We were all struck and saddened on 5th March 2010 when we lost our leader who had been inspiring us with his gentle guidance and great leadership. He will always be remembered for creating and nurturing large number of educational, medical research institutions and charitable trusts apart from several major industries and establishments.

In her condolence message to Mrs. Nirmala Devi Birla, Her Excellency, the President of India, Mrs. Pratibha Devi Singh Patil, said "G. P. Birla was an industrialist whose contribution to the establishment of various industrial enterprises helped in national development".

The BIT family was deeply saddened by the most untimely demise of 2 of its ex-students Piduri Sindhuri and Shilpa Goenka who would have received their Degrees in 20th Convocation. These young lives were lost in the Pune blast in February this year. .

The Institute, in conformity with the vision of its distinguished founder has ensured the maintenance of the principle of equity while offering open access for quality professional education at a reasonable cost. The Institute has been fortunate to have blessings and support from our present Chancellor, His Excellency Hon'ble Shri M. O. H. Farook, the Governor of Jharkhand and former Chancellors as well. The blessings and guidance of Chairman of Board of Governors is gratefully acknowledged.

BIT is one of the first 40 Deemed Universities in India which fulfills all the criteria to be recognized as a Deemed University, as has been laid down by the UGC and MHRD, Govt. of India. The total faculty strength at present stands at 650 and students' strength above 13,000 including the extension centers in India and abroad. Programmes are offered in as many as 22 academic disciplines.

The institute has initiated many schemes to assure quality education to the students, career development of members of faculty, progression of students towards higher education as well as their placement in reputed companies and organization around the entire globe. The Institute has a vision and mission to produce quality technical graduates with global employability, competent teachers, scientists and leaders in the academics, industry and administration under the guidance and dynamic leadership of the Chairman.

I would like to place the multidimensional achievements of the Institute during 2009-10 as follows:

1.0 ACADEMIC ACHIEVEMENTS

1.1 R&D PUBLICATIONS AND PATENTS

The high level of research conducted by its Faculties, Scientific Officers and Research Scholars has led to recognition by the State and National level funding agencies like UGC, CSIR, DST, DAE, BRNS, ISRO, DRDO, ARDB, DBT, AICTE, NaMPET, C-DAC, ICAR, Govt. of Jharkhand etc. in the form of Sponsored Project and consultancies.

The Institute's research achievements are reflected by the following statistics for the current academic session:

Publications in International Journals	:	410
Publication in International Proceedings	:	87



Publication in National Journals	:	71
Publication in National Proceedings	:	229
Ongoing R&D Projects	:	86
Project Completed	:	36
Patent Granted	:	01
Books Published	:	17

All together 88 faculty members were supported by the Institute to attend National Seminars and 52 faculty members were offered financial support to attend international conferences.

1.2 INFRASTRUCTURE DEVELOPMENT

Keeping in line with the expansion of its academic programmes, the Institute continues its efforts to consolidate academic and infrastructural support in the form of equipment, learning resources and space. A few of them are as follows:

- Deoghar Extension Centre has set up FOCS Laboratory; Power electronics Laboratory, Control System Laboratory; Energy Engineering Laboratory, Fluid Mechanics Laboratory, Measurement Laboratory and Material Science Laboratory.
- Department of Applied Mathematics has established land surface atmosphere and micrometeorological observational system (LATAMOS) within its campus with DST, GOI support equipped with different weather sensors, having aerosol, pollution monitoring system, etc.
- Department of HMCT has established Departmental Training Bakery which is equipped with the state of the art equipments.
- Computerised Dual Fuel Diesel Engine, Flue Gas Analyzer, Acoustic Meter, and inductively coupled Plasma mass spectrometer have been added during the last year in the Central Instrumentation Facility.
- Kolkata Extension Centre has added three online Journals into the digital Library facilities.
- Dept. of BMI has added 16-channel EEG recorder, Microwave workbench (2450MHz) and BOD Incubator.
- Dept. of Architecture has procured and installed AUTODESK Civil Suite 2009 with\ 20 user license.
- Dept. of Applied Physics has added Electroceramic laboratory, High energy ball milling unit for synthesis of nano particles.
- Allahabad Extension Centre has renovated the Electronics Laboratory.
- BITIC Muscat has built an additional Building for the College.
- Department of Pharmacy has added Microwave Organic Synthesis system in the Laboratory.

1.3 NEW PROGRAMMES

The Institute has started the following new programmes at BIT, Mesra and its extension centres / international centres at NOIDA, Deoghar, Muscat and Ras-Al-Khaimah:

- M. Tech. Polymer Science & Technology
- M.E.(Power Electronics)

- M.Sc. (Applied Mathematics)
- M.Sc. (Applied Chemistry)
- M.Tech. (Computer Science) Part Time at Kolkata Extension Centre
- M. Pharm. in Clinical Research, M.S. in Clinical Research and Pharmacovigilance and Post Graduate Diploma in Bioanalytical Techniques in collaboration with Lotus Clinical Research Academy, Bangalore

1.4 RESEARCH COLLABORATIONS

1. Dept. of Civil Engg. has established collaboration with Coal India Ltd.
2. The Dept. of Biotechnology, Computer Science & Engg. and Information Technology have established research collaboration with University of Mannheim.
3. The Dept. of Production Engg. has established research collaboration with IT BHU, R & D SAIL Ranchi, NIFFT Ranchi and with IIT Kharagpur.
4. BIT Extension Centre Deoghar has established research collaboration with BUET, Dhaka and BESU.
5. Dept. of Appl. Mathematics is having collaborative research projects with Indian Institute of Tropical Meteorology in the areas of modeling of aerosol dispersion and ozone estimates, Collaborative research programme with Space Application Center (ISRO), Ahmedabad in the area of Agrometeorology and Collaborative projects with ISRO Head Quarter on Solar Eclipse.
6. The Dept. of Space Engg. & Rocketry has collaborations with:
 - Vikram Sarabhai Space Centre (VSSC)
 - Defence Research and Development Laboratory (DRDL)
 - Research Centre Imarat (RCI), Hyderabad
 - High Energy Materials Research Laboratory (HEMRL), Pune
 - Liquid Propulsion Systems Centre (LPSC), VSSC
 - Aeronautical Development Agency (ADA)
 - Hindustan Aeronautics Limited (HAL)
7. The Department of Space Engg. & Rocketry offers consultancy services to many organizations like, MECON, RDCIS-SAIL, CCL, HEC, etc.
8. Dept. of Applied Chemistry has established collaboration in the area of Novel Material Synthesis with
 - Materials Science Division, Indira Gandhi Centre for Atomic Research, Kalpakkam.
 - University of Paris, France, in the area of Molecular Modeling & Drug Design
 - Sphaera Pharma, Haryana
 - Central Drug Research Institute, Lucknow
 - Jubilant Chemsys, Noida

and in the area of Environmental Monitoring & Control with -

- Pulmonary & Critical Care Division, Sate University of New York.

- Department of Environmental Science & Engineering , Indian School of Mines , Dhanbad
 - Department of Chemistry , Ravenshaw Unitary University , Orissa
9. Birla Institute of Technology, Mesra has been identified by National Program for Materials and Smart Structures (NPMASS), an initiative by GOI, to establish a Micro Electro Mechanical Systems (MEMS) Design Centre in the Dept. of Mechanical Engg.
10. Dept. of Biotechnology has established research collaboration with –
- IARI, Pusa, New Delhi & CCS University Meerut (U.P) in the area of Analysis of host pathogen interaction in leaf rust infection of wheat: A Transcriptomic Approach.
 - IINRG, Namkum Ranchi & Dept. of Zoology, Delhi University in the area of Lac Research.
11. Dept. of Applied Physics has research collaboration with –
- University of Duisburg, Germany
 - University of Michigan, USA
 - University of Bahrain, Kingdom of Bahrain
 - S. N. Bose National Centre, Kolkata
 - Delaware State University, USA
 - Catholic University of Daegu, South Korea
 - University of Sydney, Canberra, Australia.
 - Institute of High Pressure Physics of Russian Academy of Sciences, Troitsk, Moscow
 - University Technology of Mara, Malaysia
 - Institute of Physics, Acad. Sci. Czech Rep., Czech Republic
 - NPL, New Delhi
 - IIT, Madras
 - IIT, Guwahati
 - IUC, Indore
 - UGC-DAE Consortium for Scientific Research, Kolkata
 - Department of Physics, University of Padova, Italy
 - Materials, Science Division, Indira Gandhi Centre for Atomic Research Kalpakkam
 - Institute of Physics, Bhubneshwar
 - Department of Physics, University of Mumbai
 - Department of Physics, Rutgers- State University of New Jersey, Camden, USA
 - Paul Scherrer Institute, Villigen PSI, Switzerland
 - Universities in Brazil and Korea.
12. Department of Pharmaceutical Sciences has research collaboration with
- University of Luebeck, Germany
 - Indian Council of Agricultural Research(ICAR-NAIP)

1.5 VISITS TO UNIVERSITIES / INSTITUTES / RESEARCH LABORATORIES / INDUSTRIES FOR CONFERENCE, WORKSHOPS ETC. IN INDIA & ABROAD

1. Dr. S. Kumar visited Department of Material Research, Katholic University Leuven, Belgium
2. Members of faculty of Deoghar Extension Centre visited BUET Dhaka, NIT Rourkela, IIT Kharagpur, BESUS, BHU for academic consultations.
3. Dr. N. C. Mahanti attended Group monitoring workshop of DST project at Indian Institute of Geomagnetism, Mumbai, December 10-12, 2009.
4. Dr. S. Padhi delivered a lecture in R. M. M. C. Conference on Recent Development on Time scales, at the Univ. of Wyoming, USA, June 11, 2009 and delivered a lecture in Deptt. Of Mathematics, Texas State University at San Markos, USA, June 25, 2009.
5. Dr. Manoj Kumar attended Group Monitoring Workshop of DST project at Indian Institute of Geomagnetism, Mumbai during December 10-12, 2009 and also attended as an Expert Committee Member on DST (GOI)'s CTCZ Programme on December 16, 2009.
6. Dr. A. Sharon delivered an Invited Lecture at Central Drug Research Institute, Lucknow.
7. Dr. Usha Jha was invited as a subject expert for developing syllabus of M. Sc. in Environmental Science for Central University Bihar.
8. Dr. S.K. Bose chaired a National Seminar in "Value Based Management" organised by Shree Ram Murthi Smarak College of Engineering & Technology, Bariely on November 14-15, 2009; and he was invited as a guest speaker at IMS, Noida to delivered a lecture on, "Managerial Perspective on Capital Expenditure Decision Making" on November 17, 2009.
9. Dr. Utpal Baul attended the Course on "Effective Teaching; Cooperative Learning; Effective Faculty Development, Outcomes Based Education" organized by Indo-US Collaboration for Engineering Education, Global Education Center, Infosys, Mysore during 29th June to 3rd July '2009.
10. Dr. Shraddha Shivani, Professor, Department of Management attended Conference on Higher Education in India: Opportunities and Challenges, Organised by CII at Kolkata, November 13, 2009.
11. Mr. Vijay Agrawal chaired a session as an expert speaker in a 1-day Workshop on the "Role of Financial Management in Corporate World" organised by Cambridge Institute of Technology, Ranchi and also chaired a session as an expert speaker in a 2-day National Seminar on "Value based Management" organized by SRMS Bareilly sponsored by AICTE, New Delhi.
12. Dr. Gopal Pathak
 - was appointed as a member of Scientific Advisory Board for the 26th Annual International Conference on Contaminated Soils, Sediments and water which is to be held at University of Massachusetts, AMHERST, USA during Oct. 2010.
 - visited the Department of Environment and Civil Engineering, Princeton University, USA as a visiting faculty during Spring 2009 and also visited the "International Institute for Water and Environmental engineering", Burkina Faso, West Africa as a visiting faculty during 26th – 30th October, 2009.
13. Ms. Harshit Lakra Visited Cornell University, USA under Ford Foundation Fellowship and participated in Eighth Session of the United Nations Permanent Forum on Indigenous Issues, (UNPFII) in May, 2009 at UN Head Qtrs, New York.

14. Prof. P. K. Barhai

- attended Conference on Higher Education (EDUCON 2009) organised by Sakaal Media Group at Bangkok during August 20 – 23, 2009 and delivered an invited talk on “Internationalisation of Higher Education” and chaired the session on ‘Industry-Institute-Interaction’.
- attended International Conference on metallurgical coatings and thin films organised by American Vacuum Society (AVS) during April 27 – May 1, 2009 at Town and Country Hall, San Diego, California.
- attended Plasma-2009 as Chief Guest of the Inaugural Function organised by PSSI and at NIT Hamirpur held during December 08-12, 2009.
- was a National Organising Committee Member of the 1-day Workshop on Applications of Plasma Technology in Textile Industries organised by PSSI at IPR on November 10, 2009 as President of Plasma Science Society of India.
- was invited as Panelist at the FICCI Higher education Summit 2009 organised by FICCI, MHRD, Govt. of India and USIEF at Federation House, New Delhi during November 06-07, 2009.
- was invited as Guest of Honour at the Indo-US Workshop on Intellectual Property Rights organised by US Embassy and Amity University during October 05-07, 2009.
- visited State University of San Diego, California, USA during April 29-30, 2009 for discussion on collaboration in the area of Medical Physics.
- visited the facilities of Plasma Physics Laboratory, Princeton University, Princeton and Department of Nanotechnology for collaboration in the area of Nano-Biotechnology during May 02-04, 2009
- was a Visiting Scientist at University of Duisburg under DST-BMBF Indo-German Bilateral Cooperation in Science & Technology to work on an Indo-German Project during February 2 -13, 2010.
- visited Institute of Biochemistry, University of Luebeck, Germany on invitation by Prof. H. C. Rolf Hilgenfeld, Director, University of Luebeck for discussion with the President of University of Luebeck on MOU for research collaboration in the areas of Pharm. Sc. and Medical Physics during Feb. 10 -11, 2010.
- visited University of Amsterdam on invitation by Prof. Dr. Karel Vander Toorn, President, University of Amsterdam for discussion on Research collaboration in the areas of Nanotechnology during Feb 08-09, 2010.

15. Dr. N. Nayak, Principal Scientific Officer & Adjunct Faculty, visited the S. N. Bose National Centre in January 2010 for research consultation.

16. Dr. S. Konar visited University of New South Wales Canberra, Australia as a Visiting Fellow during May – July 2009.

17. Dr. S. Keshri visited Delhi Univ., Allahabad Univ., Dr. Hari Singh Gour University, V.E.C.C, S.I.N.P, UGC-DAE CSR, Kolkata Centre etc. for research consultations.

18. Dr. Ullas Gurudas visited Rutgers - The State University of NJ, USA for Research collaboration.

19. Dr. Indranee Banerjee was an invited speaker in TACT 2009 International Thin Film conference during 14-16 Dec.2009, at National Taipei University of Technology Taiwan.

20. Mr. Rishi Sharma visited University of Duisburg, Germany under DST-BMBF Indo-German Bilateral Cooperation in Science & Technology during Nov. 09, 2009 – Feb. 5, 2010.
21. Dr. M. S. Nathawat visited university of Heidelberg, Germany from Nov. '09 to Feb '10 under Indo-German Cultural Exchange Programme.
22. Dr. N. Patel visited College of Agricultural Engineering and Post Harvest Technology (Central Agricultural University), Ranipool, Gangtok, Sikkim and Mizoram University (Central University) for research consultation.

2. CAMPUS PLACEMENTS

The high quality of teaching and training imparted to its students continues to be recognized by International & National Institutes, R&D organizations and industries from all over the world with 764 placement offers from 54 premier organizations. Many of them received multiple offers with the highest compensation offer so far of more than 10 lacs.

The Institute has been a pioneer in initiation of an in-house finishing school. Competency Development Centre and a Mentorship programme have played an important role polishing their skills as well as connecting them to senior alumni across the world.

3. VISIT OF NBA, UGC TEAM AND OTHER EMINENT PERSONALITIES

1. Dr. Kesavasamy, Global Head-Academic Interface Programme of Tata Consultancy Services visited BIT with a view to discuss avenues for further enhancing the collaboration. He addressed the faculty members and students on Feb. 08, 2010 and deliberations were held on the various aspects of faculty training and incorporation of subjects like Software Engineering and Systems Engineering in UG curriculum.
2. Mr Bill Thies of Microsoft Research India, innovators in Health and Project Ideas had addressed the faculty members and students on Feb. 06, 2010 to discuss about the projects in the areas of efficient fingerprint authentication on a fixed-point processor, Hand recognition on mobile phones etc.
3. Mr. Girija Mukherjee of Indian Institute of Geomagnetism, Mumbai had delivered a talk on Computer as a tool to study Geoscience on Sept. 07, 2009.
4. UGC team headed by of Prof. Furqan Qamar Vice Chancellor, Rajasthan University Jaipur, visited the institute during December 21-23, 2009 for evaluation as a Deemed University.
5. Dr. George Winterstein (Head, Dept of Computer Science), Dr. Markus Gumbel (CS representative for India), Dr. Steffen Rasenat (International Programme Coordinator for CS), Dr. Jurgens Backhaus (Dept of Biotechnology) of University of Mannheim, Germany visited the Department of Computer Science, Information Technology & Biotechnology on Feb. 18, 2010 to discuss on research collaboration.
6. Prof. H.P. Khincha, VC, VTU (Chairman), Shri Tara Shankar, Director, DIT, Delhi, Shri Suresh Babu, VS, C-DAC, Trivandrum Visited Dept. of Elect. Engg. as member of sub-committee of NaMPET for 2nd Review Meeting on Infrastructure Up-gradation on Jan. 29, 2010.
7. Er. Vijay Bhushan Prasad Pandey, Principal, BSNL, Regional Telecom Training Centre, Ranchi, delivered a lecture on the theme "Tele-Communication Network", on September 18, 2009.
8. Dr. L.K. Bandyopadhyay, Scientist 'G', at Central Institute of Mining and Fuel Research (CIMFR), Dhanbad, Jharkhand, India, delivered a lecture on the "Wireless Information and Safety System for Mines" on February 23, 2010.

9. Mr. Harpreet Singh, Practice Head, Cloud Computing at HCL Infosystems, Noida, India delivered a lecture on the "Neuro Informatics Devices, Filters and Brain Indexes", on February 24, 2010.
10. Mr. A. P. Roy, former General Manager, MECON, delivered a Lecture on Energy Conservation.
11. Dr. Rakesh Dwivedi, CMPDI, delivered a Lecture on CFD Application in the Design of Dust Handling Systems.
12. Prof. Anupam Banerjee, Prof Emeritus, School of Architecture, University of Waterloo, Canada, delivered a lecture on 'Transformation of Architecture over the era' during January 03-04, 2010.
13. Er. Ajay Singh, Superior Global Infrastructure, delivered a lecture on 'Design of underground MTRS facilities of Kolkata East-West Metro Corridor' on January 27, 2010
14. Ar. Santosh Shekhar, Incredible Arts, delivered a lecture on 'Organic Architecture' on February 6, 2010.
15. Sri Nandalal Nayak, Folk Artist, Filmmaker & Music Director, delivered a lecture on 'Confluence of Modern Art Forms' on February 20, 2010.
16. Mr. D. R. Dhariwal, President, Birla White delivered a lecture on 'Excellence in Corporate World' on February 26, 2010.
17. Many eminent scientists visited the Department of Applied Physics during the last year which include; Dr. A. Roy of IUAC, New Delhi, Dr. A. K. Das of BARC, Mumbai, Dr. B. Saha of NCCS, Pune, Dr. J. Maharana of IOP, Bhubaneswar, Dr. T. Pal of IIT, Kharagpur, Dr. G. B. N. Chainey of Utkal University, Bhubaneswar, Dr. K.P. J. Reddy of IISC, Bangalore, Dr. S. Pattanayak of IOM, Bhubaneswar, Dr. A. Pal of IIT, Kharagpur and Dr. R. Bandichore of Reddy's Lab, Hyderabad to deliver lectures at the DST INSPIRE CAMP.
18. H. E., Shri Anil Wadhwa, Ambassador of India to Sultanate of Oman visited the Institute on May 20, 2009 and donated 150 books in the Library.
19. Dr. A. K. Dorle, Retired Prof. Emeritus, Nagpur University visited Dept. of Pharmacy and delivered a lecture on "Research- the adventure in Knowledge" on Aug. 27, 2009.
20. Dr. Jagdev Singh, Former Scientist, RRL Jammu delivered a lecture on "Advances in Herbal Drug Technology" in the Dept. of Pharmacy on Aug. 30, 2009.
21. Dr. H. C. Rolf Hilgenfeld, Director, Institute of Biochemistry, University of Luebeck, Germany delivered a lecture on "Expecting the unexpected: Structure based Discovery of Antiviral for future outbreaks" in the Dept. of Pharmaceutical Sciences on January 28, 2010.
22. Prof. (Dr.) Volker Buck, University of Duisburg, Germany visited the Department of Applied Physics during Dec. 12 – 15, 2009 and delivered a lecturer on "Plasma Deposition of Nanostructured Carbon Films".
23. Prof. R.E.H. Clerk, University of Texas, San Antonio, USA visited the Department of Applied Physics during Nov. 30 - Dec. 2, 2009 and delivered a series of lecturers on "Modeling of Plasma Fusion, Atomic Structure Calculations and Excitation and Ionization Processes".

4. MEMORANDUM OF UNDERSTANDING (MOU)

The Institute signed the following MOUs during this year:

- The Department of Computer Science & Information Technology has signed an MoU with the University of Houston for dual degree in which BE degree will be offered by BIT, Mesra, Ranchi and MS in Computer and Systems Engineering will be offered by University of Houston.

- The Department of Applied Mathematics has signed an MoU with Indian Institute of Tropical Meteorology, Pune to study the effect of aerosol and potential evapotranspiration over the region for the better understanding of monsoon forecasting.
- Dept. of BMI has signed an MOU with RIMS, Ranchi for one-semester Clinical Internship Project Training Program for B.Sc. (Medical Lab. Technology) students.
- Dept. of Biotechnology has signed an MOU with University of Padova, Italy and Manheim University of Applied Science, Germany.
- Department of Pharmaceutical Sciences has signed an MOU with Himalayan Pharmacy Institute, Majhitar, East-Sikkim for Collaborative Research and Doctoral programme.
- Department of Pharmaceutical Sciences has signed an MOU with DUSAP Pharmaceuticals, Kolkata to work on Potassium Iodate tablet under DRDO Project.

5. AWARD / DISTINCTION / FELLOWSHIP / MEMBERSHIP / HONORS RECEIVED

I take this opportunity to highlight some of the achievements of our faculty members and students.

Under the existing MoU's with the Industry, different awards were distributed to student achievers:

- LG Best Student Award (For top ranking PG Student from ME EEE/Mechanical)
- TCS Best Student Award (For top ranking UG Student from CS/IT)
- TCS Best Project Award (For UG students)
- Dr. D. K. Mohanta, Professor, Dept. of EEE, appointed as Associate Editor, International Journal Power and Electric Systems (ACTA press, Canada)
- Shri R. K. Keshri received ERASMUS MUNDUS Fellowship for 34 months to carry out Doctoral work in University of Padova, Italy in the area of Electric Vehicle Propulsion System.
- S. Dinesh and Neha Prasad of BE (CSE) have received the TCS best project award on 08-02-2010.
- Dr. A. K. Chatterjee was nominated Chairman of (i) Aerospace Engineering Division Board, The Institution of Engineers (India) and (ii) Indian Society for Technical Education (Bihar & Jharkhand Section).
- Dr. Mohan Varma was elected Member of the National Executive Council, High Energy Materials Society of India. He has also been nominated Expert Member on DRDO Project Assessment Committee for HEMRL, Pune.
- Dr. B. N. Sinha, Professor at the Department of Pharmaceutical Sciences, has collaborated with Prof. Dr. Rolf Hilgenfeld of Univ. of Lubeck, Germany in two Indo German Projects as an Indian partner.
- Dr. J. K. Prasad was elected Member, Executive Committee, National Society of Fluid Mechanics and Fluid Power and he has been nominated Member of Executive Committee, National Wind Tunnel Society of India.
- Sanjay Kumar, Member, Technical Program Committee (TPC), International Symposium on Applied Sciences in Biomedical and Communication Technologies (Isabel 2010), Rome, Italy.
- Minakshi Kumari and Ravi Tiwari, students of ME Quality Engineering and Management presented a paper on 'Quality Assessment Tool for enhancing the effectiveness and social responsibility of Indian Television News Channels' and got 'S.K. Mukherjee Gold Medal for Research Excellence in National

students Research convention, "Anveshan-09" at Bengal engineering and Science University (BESU) Howrah. They were declared first and awarded a cash prize of Rs one lakh and International Scholarship worth 2200 Euros per month for France and Netherland.

- Dr. Ashok Misra appointed as Member of (i) Research Board of Advisors: The American Biographical Institute, USA and (ii) Editorial Board of International Journal of Mathematical Modeling, Simulation and Applications (IJMMSA).
- Prof. (Mrs.) Richa Pandey appointed as reviewer for International Conference on Mechatronics, China
- Ajanta De Sarkar awarded Doctor of Philosophy (Engineering) degree of Jadavpur University in Department of Computer Science & Engineering, November 2009.
- Radha Tamal Goswami, Nomination Committee member of Computer Society of India Kolkata Chapter.
- Dr. R. K. Sinha, Dept. of BMI, has been awarded with "Leverhulme Trust Visiting Fellowships" to work in the area of 'Brain-Computer Interface' in University of Ulster, UK.
- Dr. Gopal Pathak received an Award Certificate on Academic Leadership at the Indo-US Collaboration for Engineering Education (IUCEE) at Infosys, Mysore in June 2009.
- AMI unit (Jharkhand Chapter) established in the Department of Biotechnology has received recognition as one of the best unit. The Department is also entrusted to host the 51st AMI Meeting in this campus during December 2010.
- Architecture Department is the only Department in India to develop e-contents for six under-graduate architectural subjects for the sanctioned project under the 'SAKSHAT' scheme of MHRD, GOI.
- Prof. P. K. Barhai was
 - Member in Academic Advisory Council, Aalborg University, Denmark (2009).
 - Director, INSPIRE DST, New Delhi Camp for XI and XII toppers of Jharkhand during Jan. 27-31, 2010.
 - Invited to speak on Plasma Technology at the Workshop on 'Sustainable Manufacturing, Energy and Plasma Technology', 'The Future of Printing in a Changing Environment and Manufacturing Technology' and 'Quality Control in Automotive Production' held by Research in Germany jointly with Mahratta Chamber of Commerce, Industries and Agriculture during Mar. 12-13, 2010.
- Dr. A. M. Agrawal has been nominated as Chairperson of Academic Committee of Indian School, Muscat.
- Ms. Ritu Kuhu were awarded IDMA G. P. Nair award by the Indian Drug Manufacturer's Association for standing 1st in B. Pharm. examination held in 2008.
- Ms. Pooja Sheokhand, M. Pharm. student, was awarded the second prize in essay competition organised by Lachoo Memorial College of Science and technology, Jodhpur, Pharmacy on the occasion of 14th Annual National Convention of APTI.
- Dr. Swastika Ganguly was conferred the degree of Chartered Chemists by the Institution of Chemists (INDIA).
- Dr. M. S. Nathawat awarded Baden-Wuerttemberg Fellowship-2009 under Indo-German Cultural Exchange Programme and nominated member for 6th round survey of research on Geography in ICSSR, Gol.

6. SEMINAR / SYMPOSIA / SHORT TERM COURSES ORGANIZED

The Institute and its Extension / International Centres organized as many as 38 Seminars / Symposia / Workshops:

1. A meet on "Campus Placements- Evolving Paradigm" was organized by the Training & Placement Division at BIT, Mesra on the 9th & 10th April'09, in which Placement heads of the major Institutions of Eastern region along with the select HR heads of different sectors, participated.
2. A 3-Day Workshop on Soft Skills was organized by the Training & Placement Division for faculty members from across all BIT centre's from the 17th to 19th September 2009.
3. Several Workshops for Faculty as well as students were organized in partnership with TCS, Mindtree Consulting, Accenture and IBM.
4. Two lectures on "Overview of Iron & Steel Industry" and "Iron & Steel Industry-Blast Furnace with Special emphasis on use of Instrument & Control" were delivered by Mr. Nirbhar Neogi, Steel Authority of India, Ranchi, on 19th Sept. and 13th Nov. 2009.
5. Seminar on "Future Trend in Industrial Automation & prospects for Steel Industry" delivered by Mr. Nirbhar Neogi, Steel Authority of India, I spat Bhavan, Doranda, Ranchi-834002 on 8th Jan'10
6. A talk on "When & Why to Use Computers?" delivered by Prof. V. Ramanarayanan, Dept. of Electrical Engg., Indian Institute of Science , Bangalore, Jan. 25, 2010.
7. Workshop on Concrete Mix Design was jointly organized by BIT, Mesra and Ultratech cement on Dec. 12, 2009.
8. 3rd National Workshop on - Precision Forming (Modelling, analysis and System development) was held at the Department of Production Engineering, BIT Mesra, Ranchi during February 15 -16, 2010.
9. Three Workshops were organized based on different theme. Workshop on Italian cuisine was conducted by Chef Praveen Jha, Excutive Chef, Hotel Element on 13th Oct. '09. This was followed by Workshop on Rangoli from 27th Oct. – 29th Oct. '09 and workshop on Flower arrangement from Feb. 1 – 3, 2010.
10. Three Departmental seminars were conducted. Seminar on "Facing an Interview – the right approach" on 7th Nov. '09, Seminar on "Key Issue in Hospitality Industry" on 21st Nov.'09 and on "Role of Tourism in the sustainable development of Jharkhand" on Jan. 27, 2010.
11. Two Colloquiums on Doctoral Research were held during September 7 – 9, 2009 and from February 17 -18, 2010 by the Dept. of Management.
12. One-day Workshop on "Power Sector Reforms, IT application & Skill Development" was organised in December 2009.
13. Two-day Workshop on "Ethical Hacking" was conducted by Kyrion Digital Securities, Delhi in January 2010.
14. Two day Workshop on "Automotive & Engine Design" was conducted by Metawing, Delhi in February 2010.
15. A short sanitization programme on "Current R & D Status & career opportunities in Biotechnology: study scope and objectives" was organised on 5th September 2009.
16. Department of Architecture organised the Zonal meet of the 'National Association of Students of Architecture- ZONASA ' during October 1 – 3, 2009.

17. DST – INSPIRE CAMP on basic Science was organised at Mesra campus during January 27-31, 2010.
18. NCERT programme for the awardees of National Talent Search (studying in IX STD) is being organised from March 22-26, 2010 by the Department of Applied Physics.
19. BITEC Noida organized a two-day “BIT National Management Conclave 2010” on the theme ‘Managerial Challenges of 21st Century in Corporate World’ on February 12 - 13, 2010.
20. 3rd Graduation Ceremony of BITIC Muscat was held on 26th December 2009 and a Workshop on Research proposal & Thesis writing was held during December 16 – 17, 2009 at BITIC Muscat.
21. Case Method of Teaching in collaboration with IBS, Ahmedabad was held during November 4 – 5, 2009 at BITIC Muscat.
22. A Seminar on “How to Keep Motivation Alive for Working Executives” was conducted in June 2009 at BITIC Muscat.
23. Dept. of Pharm. Sciences organized:
 - AICTE sponsored (i) Quality Improvement Programme on Drug Discovery Approaches during May 4–16, 2009, (ii) Quality Improvement Programme on Emerging Trends In Herbal Drug Technology on May 18 - 30, 2009 and (iii) Quality Improvement Programme on Advances in Targetted Drug Delivery Systems on June 1 – 13, 2009; and also
 - UGC & IPS sponsored Seminar on “Clinical Research and Pharmacovigilance” on Sept 18, 2009.

7. STUDENT ACTIVITIES

1. Abhishek Sharma (V Sem, B.E) was awarded DAAD WISE scholarship to work in the area of ‘Robot Vision’ at Ilmenau University of Technology, Germany during May-July 2009.
2. Grant of Rupees Fifty Thousand for R&D project was awarded to Amy Kumar and Sonam Lal to work on “Development of Automation System for Prototype Power Distribution System” by the Institution of Engineers (India).
3. Students of Deoghar Extension Centre won first prize in technical paper presentation and second prize in Cruise control event at IIT Kanpur and win first prize in technical paper presentation at IIT Kanpur and second and third prize in different events at ISMU Dhanbad.
4. Students of HMCT Department organized two food festivals – “Rajasthani Food festival” from Aug 27 – 29, 2009 and “Wild Wild West” from Feb. 18 – 20, 2010.
5. Students of HMCT Department organized Industrial visit to Moreish bread factory was arranged for the students for getting insight to the functioning of commercial bakery.
6. Students of HMCT Department have formed the HOSPITALITY CLUB which organizes various functions to develop their event management skills.
7. Two-day All India Annual B-School Fest was held for the 8th consecutive time on the 11th and 12th of April, 2009 by the Department of Management.
8. The Student Chapter of Indian Society of Heating, Ventilation and Air-conditioning Engineers (Indian Division of American Society of Heating, Ventilation and Air-conditioning Engineers) was established in the Department of Mechanical Engineering

9. The Department of Architecture organised the Zonal meet of the 'National Association of Students of Architecture' (NASA) in 2009.
10. A team comprising Mr. M. Meghanathan, Mr. Vignesh Shankar, Mr. Hehboklang Khyriem and Mr. Umamahesh [all 7th semester students] won the 4th position in the Annual Students' Design Competition 2009 organized by INSDAG [Institute for Steel Design and Growth]. The design topic was Bus Terminus.
11. 26 students of the Department of Architecture participated in annual NASA held at SRM University Chennai from 27th – 30th December 2009.
12. Srishti '09 was organized by BIOTS (Society of Biotechnologists) during October 23 – 25, 2009.
13. Mr. Prakhar Goel (BE/1005/07), a student of VI semester of Dept. of Biotechnology, was one of the 20 member delegates in the Conference of Parties 15, UNFCCC held during December 7-18, 2009 at Copenhagen.
14. The Annual Sports & Athletic Meet-2010 was held at BITEC Allahabad during first week of Feb. 2010.
15. The students of technical committee of BITEC Allahabad organized Techno-Management Fest -2009 at the centre from 5th to 7th November 2009.
16. BITIC Muscat organized Awareness Campaign for clean environment.
17. Oman National Day was celebrated at BITIC Muscat. H. E. the Under Secretary in the Ministry of Regional Municipalities for Water Resources was the Guest of Honour.
18. Tree Plantation was organised at College Campus by the students at BITIC Muscat.
19. Ms. Pallavi Joyti of BIT Mesra was awarded the Paramahansa Yogananda Scholarship for Professional Course Students (in memory of Sri Vikash Jaiswal) of Rs. one lac on 24th January, 2010.
20. Elocution contest on the topic " Pharmacist Role in Health Care Management and Research" was held on 21st October 2009 in the Dept. of Pharmacy.
21. IBM Technology Day was organized on the 9th August 2009.
22. Mahindra Auto Quiz – Auto Quotient was organized on the 18th September'09.

8. SPORTS

- The institute Basketball team participated in Spardha 2010 organized by IT BHU where the institute team was runners-up of the event.
- In Spardha 2010 organized by IT BHU, the institute team won 4 Gold, 1 Silver and 3 Bronze medals in athletics.

9. AWARD OF DEGREES

I may mention here that during this convocation a total of 3004 students have been awarded Degrees and Diplomas in various disciplines, out of which 88 students have received Post Matriculation 3 years Diploma, 1978 Graduate Degree, 908 Post Graduate Degree, and 30 Ph.D. Degree.

I take this opportunity to convey my sincere and hearty gratitude on behalf of myself and the entire BIT family to His Excellency the Governor of Jharkhand and the Chancellor of the Institute, Shri M. O. H. Farook, who has been taking inspirational and result oriented steps for the growth of higher education in the state. I most sincerely thank Dr. Salman Khurshid, Hon'ble Union Minister of State (Independent Charge), Corporate &

Minority Affairs who was our esteemed Chief Guest in last Convocation of the Institute held on 23rd March 2010. His thought provoking convocation address and words of encouragement to the degree/diploma recipients was well received.

We pay our homage to our Late Chairman Shri G P Birla. I take this opportunity to express my sincere gratitude to Shri C K Birla, Chairman, Board of Governors for his continued guidance and support. I also thank members of the Board of Governors for their support and encouragement.

I take the opportunity to convey sincere thanks to the different Departments and agencies of the Government of India as well as the Government of Jharkhand and also to the Chancellor's Secretariat.

I also express my thanks to all my colleagues, students and well-wishers of the Institute for their cooperation, help and commitment to maintain the high standard which has been attained by the Institute in the domain of Science & Technology, Engineering and Management.

We would like to assure all the stake holders of higher education that with their support and good gesture, we shall continue to strive to be globally competent and help the nation to achieve the goals of India - Vision 2020 which says **"India has the potential of converting its strong R&D infrastructure into a global research, design and development platform"**. I would also like to quote a very pertinent observation of the India Vision 2020 document which is-

"Full development of India's enormous human potential will require a shift in national priorities, to commit a grater portion of the country's financial resources to the education sector. India currently invests 3.2 – 4.4 per cent of GNP on education. This compares unfavourably with the UMI reference level of 4.9 per cent, especially with countries such as South Africa, which invests 7.9 per cent of GNP on education. A near doubling of investments in education is the soundest policy for quadrupling the country's GDP per capita".

Introduction



Birla Institute of Technology, Mesra-Main Building

The Institute was established as an All India Institute of Technical Education by renowned philanthropist and visionary industrialist, Late Sri B. M. Birla in July 1955. Initially it was started as an affiliated college of the erstwhile Bihar University and later in 1960 upon creation of new universities in the state, its affiliation was transferred to Ranchi University. In pursuance of the recommendation of the Education Commission, Government of India (1964 – 1966) and on the basis of the report of a joint Selection Committee of the UGC and AUDIT, in March 1972, the institute was granted the status of an 'Autonomous' College by making special provision in Bihar State University Act. The chancellor of the University of Bihar made the rules for its governance.

The achievement of the Institute in terms of research and excellent academic programme led to its attaining the status of a Deemed University in August 1986 under section 3 of the UGC Act 1956.

The Institute has constantly improved on its technical facilities as well as academic performance in order to keep pace with the fast changing technological scenario, thereby acquiring a pride of place amongst the institutions offering technical education in the country.

Administration

BIT Mesra is a "Deemed University" under Sec. 3 of the UGC Act 1956. The Governor of Jharkhand is the Chancellor of the University. It functions under the overall supervision, direction and control of a high power Board of Governors, comprising representatives of the Ministry of Education, Government of India, UGC, State Government, AICTE, The Hindustan Charity Trust and the Institute Faculty. Shri C.K. Birla is the Chairman of the Board of Governors. Composition of the Board of Governors is given in Annexure – II.



Department of Pharmaceutical Science

The Finance Committee advises the Institute on financial matters. Building & Works Committee extends its advice to the Institute in all the matters related to building and construction. The composition of these committees is given in annexure – III and IV.



At the entrance of R & D Building

The Technical council decides the academic policy of the Institute. It approves the curriculum, courses and the examination results. It appoints committees like Regulation Committee for Under – Graduate and Post – Graduate Courses, Semester Programme Coordination Committee, Admission Committee, Scholarship Committee, and Students Welfare Committee etc. Departmental Board of Studies looks into specific academic matters arising from time to time. The teaching, training and research activities of various Departments at the Institute are regularly reviewed. The Vice – Chancellor of the Institute is the Chairman of the Technical

Council. Members of the Technical Council have been listed in Annexure – V.

Institute Campus

The Institute is fully residential and extends over 780 acres. The main building of the Institute covers an area of 30,000 sq. mtrs. which accommodates the various research and training laboratories, administrative offices and lecture rooms.

The workshop annexure has covered area of 4,000 sq. mtrs. The laboratories and offices of the Department of Space Engineering & Rocketry are situated in a sub – Campus, about half a Kilometer away from the main building, for security reasons. As a part of continuing education programme, Part –Time courses in Engineering and Management are conducted in city at our BIT Lapur Extension Center which was established in 1976.

The campus is self - contained having well – laid lawns, sports complex, protected water supply, shopping centre, dispensary, bank, ATMs, post-office and school.

Institute Building

(Sq. Mtrs.)

Main building & Administration block	-	3700
Class room & laboratory, Drawing halls, Staff room's etc	-	19300
Library block	-	2600
Mini – Auditorium	-	450
Services & Circulation area	-	3950

Space Engg.& Rocketry block (Including Explosive, Fuel cell & Cryogenic laboratory)	-	2490
Workshop sheds, General stores, Garage/ Godown	-	4880
Gymnasium	-	850
Indoor Badminton Stadium	-	1000
Animal House	-	400
R & D Building	-	7200
Multi – Purpose Halls	-	785
Biotechnology Centre	-	3477
Polymer Engineering	-	744
Lecture Theatre – I	-	1143
Lecture Theatre – II	-	1535
Hotel Management Building	-	2835
Pharmacy Building	-	3220
Golden Jubilee Auditorium	-	3280

Residential Complex

Staff quarters in different categories	-	422
Residential complex for supporting services (Guards, Dairy Shopkeepers, Washer man etc.)	-	116

Hostel Accommodation

Eleven Boy's Hostel	-	2552 Rooms (Single)
Four Girl's Hostel	-	338 Rooms (Double) & 196 Rooms (Single)
Research Scholar Hostel	-	112 Rooms (Single)

Others

Consumer's co-operative stores	-	375 Sq. Mtrs.
NCC Block	-	400 Sq. Mtrs.
Rifle Firing Range	-	1 No.
NCC Parade ground	-	1 No.
Community Hall	-	1 No.
Canteen	-	2 Nos.

Guest Accommodation

The Institute has two Guesthouses with 38 well-furnished rooms besides one VIP Guest house with 3 deluxe bedrooms to accommodate the Institute's Guests.

Auditorium

The Institute has two auditoriums. There is a small auditorium attached to the main building having seating capacity of about 500. Another one is Golden Jubilee auditorium, having seating capacity of approximately 3000, is used for convocation and other large scale functions of the Institute.

Games & Sports Complex

The Institute has Sports Complex which is spacious enough to arrange indoor and outdoor games having following facilities:

Gymnasium including Multi – Gym	-	1
Stadium for Track & Fields for Sports/ Athletics	-	1
Cricket ground including net	-	2
Football grounds	-	2
Hockey grounds	-	2
Basket Ball courts	-	4
Volley Ball courts	-	6
Tennis courts	-	6
Badminton courts (three indoor & five outdoor)	-	8
Kho – Kho ground	-	1
Kabaddi ground	-	1

Dispensary – Cum – Health Centre

Facilities Available

O.P.D Services	-	8 A.M to 12 .00 Noon 4.00 P.M. to 8.00 P.M.
Emergency Services	-	Round the clock
Total No. Beds	-	12 (Male -8, Female – 4)
X – ray		
E. C.G		
Oxygen Facility		
Suction Machine Facility		
Speciality Services		
Pathological Test Facility		
Medical Officers	-	05
Pharmacists	-	03
Dressers	-	03
X – ray Technician	-	01
Pathological Technician	-	01
Staff Nurse	-	01
Visiting Physician	-	05
Lady Attendant	-	03
Male Attendant	-	03
Sweeper	-	01

Special Services (Part – Time)

Physiotherapist	-	10.00 A.M. to 12.00 Noon (Monday to Saturday)
Dentist	-	8.00 A.M to 11.30 A.M., 4.00 P.M. to 7.00 P.M.
Child Specialist	-	Every Tuesday, Thursday & Saturday of the week (2.00 P.M. to 4.00 P.M.)
Homeopathic Physician	-	8.00 A.M to 11.30 A.M., 4.00 P.M. to 7.00 P.M.
Skin Specialist	-	Wednesday and Saturday of the week 8.30 A.M. to 10.30 A.M.
Eye Specialist	-	Every Sunday 10.00 A.M. to 12.00 Noon
Gynaecologist	-	Wednesday and Saturday 4.00 P.M. to 6.00 P.M. , Sunday 10.00 A.M. to 11.00 A.M.
Anti Natal Clinic	-	During OPD Timing except Sunday and Institute's Holidays
Ambulance Facilities	-	Round the Clock
Pathological Lab Facility	-	8.00 A.M to 12.00 Noon & also during emergency (Institute has three ambulances for this purpose)
Pathological Lab. facility	-	8.00 A.M. to 12.00 noon and also during emergency (Also samples are collected and sent to Dr. J. Sharan's Clinic / or any Path. Lab. As per patient's desire)
Immunization	-	8.00 A.M to 12.00 Noon(Every Wednesday)

Besides this, Institute has dispensaries at University Polytechnic, BIT Extension Centre Lalpur for their staffs and students. A Rural Dispensary is functioning for villagers residing near BIT Mesra under Community Health Services Scheme of the Institute.

Other Related Activities

- Blood donation camp, Eye camp, Gynaecological camp are organized frequently.
- Pulse Polio immunization, T.B. eradication programme, Leprosy eradication programme, Blindness removal programme etc. are regularly organized under National Services Scheme.
- During emergency, patient is referred either to RIMS or to any private Nursing Home including APOLLO HOSPITAL depending upon the situation as per desire of the patient / Attendants of patients
- Permanent faculty and staff members are covered under Group Mediclaim Policy in case hospitalization.
- Community Health services are also carried out by organizing Medical camp in villages.

Shopping Centre

A well-maintained Cooperative store serves the daily requirements of the campus of nearly 5,000 residents. Additional Shopping Complexes situated at strategic locations within the campus serve the sundry needs of the residents.

The Students' Halls of Residence

The Institute is completely residential and all the students are provided with rooms in one of the hostels or Halls of Residence. The campus has thirteen hostels for boys and four separate hostels for girls. All the hostels are spacious with beautiful lay out in the serene and pleasant campus. The front portion has well maintained lawns with flowerbeds, elegant bushes and strategically planted ornamental trees. The interior of the hostels includes spacious dining halls, common rooms, and reading rooms. Rooms located on both sides of the entrance. The rooms are constructed in a row with a wide veranda in all along the length with air gaps and balconies well set for common use.

The students are provided with a single – seated rooms furnished with steel cot, table chair and a built – in almirah. The girl students avail a shared furnished room which is quite spacious and airy. Each room has a cupboard, wardrobe and a sizeable rack. Indoor games like table tennis carom and chess etc. are available in the common rooms of each hostel. The reading room subscribes to a numbers of magazines, periodicals and newspapers covering wide taste of reading of the residents. The entertainment hall, in each hostel, has also been provided with colour television set. Inter-hostel tournament in indoor and outer games quizzes, competitions and adventure trips are very attractive features of the hostel life.

The hostel night organized by the inmates is a memorable yearly event where students interact with the faculty members amidst culture and music programmes fun and frolic, in festive mood. The halls are tastefully decorated to marks the occasion.

Each hostel has an independent Mess, completely managed by the students through Mess committee members elected from the residents themselves. The committee looks after the billing under the supervision of the Superintendent/ Assistants Superintendents of the hostels

Student Intake

Courses & Degree Programmes

Currently the Institute is offering a variety of Programmes as detailed below

Main Campus

Programme	Year of Introduction of the Courses	Duration of the Course	Intake Capacity
Bachelor of Engineering			
Electrical & Electronics Engineering	1955	4 Years	60
Mechanical Engineering	1955		90
Civil Engineering	1957		60
Electronics & Communication	1964		120
Production Engineering	1964		30
Computer Science	1983		120
Polymer Engineering	1995		30
Information Technology	2001		60
Biotechnology	2002		60
Bachelor of Pharmacy	1972	4 Years	60
Bachelor of Architecture	1993	5 Years	40
Bachelor of Hotel Management & Catering Technology	2002	4 Years	60
B.Sc. Food Processing Technology	2009	3 Years	40
Master of Engineering			
Electrical Specialization – 1. Control system 2. Power system	1964	2Years	24
Mechanical Specialization 1. Heat Power Engineering 2. Design of Mech. Equipment	1964	2Years	12

Civil Specialization 1. Soil Mechanics 2. Structure & Foundation Engineering	1964	2Years	24
Electronics & Communication Specialization 1. Instrumentation 2. Microwave	1965	2Years	24
Space Engineering & Rocketry Specialization 1. Rocket Propulsion 2. Aerodynamics	1965	2Years	24
Computer Aided Design & Drafting Specialization 1. Comp. Aided Analysis & Design 2. Tribology	1999	2Years	18
Automated Manufacturing System	1996	2Years	25
Software Engineering	2000	2Years	15
Quality Engineering & Management	2002	2Years	25
Polymer	2003	2Years	18
Master of Technology Programme			
Remote Sensing	1997	2 Years	18
Fuel & Combustion	2002	2Years	25
Computer Science	1994	2Years	16
Scientific Computing	2002	2Years	16
New Material & Processing Technology	2002	2Years	18
Environmental Science & Engineering	2002	2Years	18
Polymer Science & Technology	2009	2 Years	15
Master of Pharmacy Specialization 1. Pharm. Chemistry 2. Pharmaceutics 3. Pharmacology 4. Pharmacognosy	1983 1983 2004 2002	2 years	36 + 8(QIP)
M.Pharm in Clinical Research	2009	2 years	18
MS Clinical Research & Pharmacovigilance	2009	2 years	18
PG Diploma in Bio-analytical Techniques	2009	1 year	30
Master of Urban Planning	2006	2Years	12
Master of Science Programme			
Biomedical Instrumentation	1992	2 Year	20
Information Science	1993	2Years	20
Bio Informatics	2006	2Years	20

Geo Informatics	2006	2Years	20
Applied Physics	2008	2 Years	15
Applied Chemistry	2008	2 Years	15
Applied Mathematics	2008	2 Years	15
Master of Business Management Specialization 1. Marketing 2. Finance 3. System 4. Industrials Management	1980	2 Years	120
Master of Computer Application	1984	3 Years	60

Continuing Education (Part Time) Post – Graduate Programme

To enable working Engineers to update their technologies, the part – time Post – graduate Programme offers 3 levels

1. A certificate of Merit after Completing 6 units.
2. A diploma after completing 12 units.
3. Degree after completing 20 unites.

Extension Centres

Course	Allahabad	Jaipur	Lalpur	Kolkata	Noida	Patna
B. E		80				120
BCA	100	80	200	90	80	
BBA	40	80	200	90	80	
B. Sc.(A&M)		60			80	
B.Tech	20					
MCA	45	45	105	45	60	
MBA		45	60		60	
MBA(PT)			30			
MCA(PT)			30			
M. Tech. (CS),PT			30			
M. E.(P.T)						
M. Sc.(I.T)			30			
M. Sc. Bioinformatics		30		30		

* Courses are offered subject to availability of minimum number of candidates for the programme and approval of the Department.

Doctor of Philosophy Programme

The Institute offers Research Programmes leading to Ph. D. Degrees in all above disciplines.

Total Number of Students Enrolled (2009 -2010)

During the academic year 2009 – 2010, total of **9585** students were registered in various courses. The branch – wise enrolment is given below.

Sl.No.	Course	No. of Students Enrolled
1.	Bachelor of Engineering	2971
2.	Bachelor of Architecture	163
3.	Bachelor of Pharmacy	181
4.	Bachelor of Hotel Management & Cat. Tech.	117
5.	Bachelor of Computer Application	1289
6.	Bachelor of Business Administration	1389
7.	Bachelor of Technology	59
8.	B. Sc. (A & M)	110
9.	B. Com(E. Comm)	28
10.	Master of Business Administration	604
11.	Master of Computer Applications	940
12.	Master of Pharmacy	86
13.	Master of Engineering	170
14.	Master of Technology	118
15.	M. Sc. (Information Science)	11
16.	M. Sc.(Bio Medical Instrumentation)	25
17.	M. Sc. (IT)	47
18.	M. Sc. (Bio-informatics)	35
19.	M. Sc. (Geo-Informatics)	19
20.	M.Sc. (Applied Physics)	5
21.	M.Sc. (Applied Chemistry)	13
22.	M.Sc. (Applied Mathematics)	4
23.	Inst. Of Engg.	23
24.	MUP	3
25.	Diploma in Engg.	319
26.	B.Sc. (MLT)	100
27.	B.E. (Marine)	325
28.	B.Sc. (N.Sc.)	2
29.	BAM	225
30.	MS(CR&P)	13
31.	MBA(W.END)	20
32.	M.Sc.(A&D)	30
33.	BioTech.	117
34.	Food processing & Technology	22
35.	PG(BAT)	2
	Total	9585

Admission during (2009 – 2010)

In the academic year 2009– 2010, **3290** students were admitted in various disciplines. The branch – wise break-up is given below.

Sl. No.	Course	Total
1.	B. E.	1058
2.	B. Pharm.	40
3.	B. Architecture	34
4.	B. H. M. C.T.	22
5.	B. B.A	440
6.	B. C. A	348
7.	B. Com.(E. Commerce)	28
8.	Bio- Tech	23
9.	B. Tech	7
10.	B. Sc. (A & M)	37
11.	B.Sc. (MLT)	36
12.	BAM	78
13.	Diploma in Engineering	110
14.	M. B. A.	282
15.	M. C. A	309
16.	M. Sc. (BMI)	14
17.	M. Sc. Geo- informatics	16
18.	M. Sc. Bio- informatics	29
19.	M. Sc. Information Science (MIS)	9
20.	M. Sc. Information Technology (MIT)	23
21.	M.Sc. (Applied Physics)	4
22.	M.Sc. (Applied Chemistry)	11
23.	M.Sc. (Applied Mathematics)	4
24.	ME-Civil	12
25.	ME- Electrical(EEE)	21
26.	ME-Electronics(ECE)	28
27.	ME- CAAD	6
28.	ME- AMS	7
29.	ME-Mechanical	12
30.	ME-Software Engg.	11
31.	ME-S.E.R	21

32.	M. Tech. (Comp. Sc.)	42
33.	M.Tech(Polymer)	4
34.	M. Tech(R. S)	17
35.	M. Tech(F.C.)	2
36.	M. Tech (Sc. Compt.)	7
37.	M. Tech(NMPT)	6
38.	M. Tech(E.S.E)	17
39.	M. Pharm	50
40.	MUP	1
41.	BFPT	14
42.	M.Sc.(A&D)	30
43.	MS(CR&P)	13
44.	ME(QEM)	6
45.	ME(POLYMER)	1
	Total	3290

Enrolment in Ph. D. Programme

177 new scholars have been registered for the Ph. D. Programme in the area of Engineering Science, Pharmacy and Management during the session 2009 – 2010. The details are given below

Sl. No.	Name of the Scholar	Department/Centre	Title of the Ph.D. Thesis
1.	Mr. Udit Narayan Pal	Applied Physics	Analysis and optimization of discharge parameters for efficient dielectric barrier discharge (DBO) based VUV/ UV source
2.	Ms. Sreya Kumbhakar	Biotechnology	Production of Biopolymers Utilizing Industrial Waste and Wastewater as Raw Material
3.	Mr. Partha Sarathi Bishnu	BITEC Lalpur	Improvisation of Clustering Algorithms in Data Mining
4.	Mr. Nitesh Bhatia	BITEC Lalpur	Human Resource Audit in Central PSU's – A Case Study of MECON Ltd.
5.	Mr. Sujeet Kumar Mishra	Mechanical Engg.	Electromagnetic Radiation during Plastic deformation in Sintered metals
6.	Mr. Ram Kumar Tyagi	Mechanical Engg.	Study of some aspects of of Velocity Shear Instability.
7.	Mr. Anjini Kr. Tiwary	Electronics & Comm. Engg.	Design and Development of Printed Filter Configurations of EMI/EMC Applications.
8.	Ms. Arpita Sen	Electronics & Comm. Engg.	Design, Development and analysis of Reconfigurable Microstrip antennas for multiband wireless communications.

Sl. No.	Name of the Scholar	Department/Centre	Title of the Ph.D. Thesis
9.	Mr. Sunil Kr. Panigrahi	Applied Mathematics	A Novel Approach to Evaluate Time Complexity in Parallel Computing Using Statistical Bounds and Their Empirical Estimates.
10.	Mr. Shashi Bhushan Singh	Applied Mathematics	Therapeutic Aspects of some North Indian Ragas: A statistical study of RIMS patients.
11.	Ms. Smita Pati	Applied Mathematics	Contributions to the Qualitative Study of Periodic Solutions of Differential Equations and Difference Equations in Population Dynamics.
12.	Ms. Siddhi Gupta	Polymer Engg.	Development of Polymer based Soft Nanocomposites for tissue engineering
13.	Mr. Upendra Kumar	Information Technology	Defending against Viruses and Worms in Computer Network.
14.	Mr. Sachin Singh	Electrical & Electronics Engg.	Optimal Multi-stage Distribution System Planning.
15.	Mr. Abhay Srivastava	Electrical & Electronics Engg.	Some Investigation on Lightning Phenomena using Monte Carlo Techniques.
16.	Mr. Sanjaya Kumar Swain	Applied Chemistry	Synthesis and evaluation of metal-impregnated absorbents for the removal of fluoride from aqueous solutions.
17.	Mr. Ritesh Jha	Computer Science & Engg.	Development of a Decision Support system Using Data Mining Technique.
18.	Mr. Indrajit Mukherjee	Computer Science & Engg.	Web Information Retrieval and Performance Analysis using Data Mining.
19.	Mr. Sudip Kr. Sahana	Computer Science & Engg.	Dynamic Ant Colony Approach using Neural Network.
20.	Mr. Tarun Narayan Shankar	Computer Science & Engg.	On the Design of Cryptosystems using Elliptic Curves.
21.	Md. Amir Khusru Akhtar	Computer Science & Engg.	Designing Novel Methodologies for Secured Routing in MANETs.
22.	Ms. Jyotsna Singh	Applied Mathematics	Finite Difference Modeling for Seismic wave propagation in composite material.
23.	Mrs. Mita Pal	Applied Mathematics	A Statistical Algorithm Time Complexity Analysis with special Emphasis on Parameterized Complexity.
24.	Mr. Dharmendra Singh	Biotechnology	Analysis of differentially expressed transcripts as defense response in wheat plants during leaf rust infection.
25.	Ms. Bratati Choudhary	Biotechnology	Gene expression studies and in vitro anthocyanin production in <i>Syzigium cumini</i> .

Sl. No.	Name of the Scholar	Department/Centre	Title of the Ph.D. Thesis
26.	Mr. Prabhat Kr. Singh	Biotechnology	Purification and Characterization of Bacterial Polymers and their product development.
27.	Mr. Santosh Kumar Jha	Biotechnology	Development of indigenous Technology for the Production of Recombinant Therapeutic Protein (L-Asparaginase)
28.	Mr. Shankaracharya	Biotechnology	Development of an intelligent system for early detection of diabetes risk in Indian population and evaluation of its performance.
29.	Ms. Neha Panjari	Biotechnology	Microbial production of bio-emulsifier and their role in bioremediation of oil spills and oil contaminated sites.
30.	Mr. Shashank Mishra	Biotechnology	Microbial Transformation of Eugenol to Ferulic Acid and other Methoxyphenol Aromas for Food and Pharmaceutical Uses.
31.	Mr. Sunil Kumar	Biotechnology	Study of Biodiversity and molecular documentation of Chlorophycean microalgae of Jharkhand using biotechno-logical approach .
32.	Ms. Suchi Smita	Biotechnology	Comparative functional analysis of abiotic stress inducible pathways in rice.
33.	Ms. Shalini Singh	Information Science	Impact of Right to information in Information seeking and Information Delivery mechanism in the State of Jharkhand.
34.	Ms. Annapurna S.M.	Electronics & Comm. Engg.	Race and Nationality Identification from facial Images.
35.	Mr. Priyank Saxena	Electronics & Comm. Engg.	Noise Reduction in 2D and 3D Medical Images.
36.	Ms. Leena Varshney	Electronics & Comm. Engg.	Optimization of Antenna Design on EBG Substrate.
37.	Mr. Priyadarshi Suraj	Electronics & Comm. Engg.	Design and Development of Ultra Wide Band Patch Antenna.
38.	Ms. Swati Prasad	Electronics & Comm. Engg.	Soft Computing and Advanced Techniques in Biomedical Applications.
39.	Ms. Megha Dadel	Electronics & Comm. Engg.	Some Investigations on Active Microstrip Array Antenna.
40.	Mr. Somnath Sengupta	Electronics & Comm. Engg.	Modeling of Superstructure Fiber Bragg Grating for Multiparameter Sensing and High Speed Optical Networking.
41.	Mr. Gajendra Kant Mishra	Electronics & Comm. Engg.	Flexible Spectrum Usage for Local Area Indoor Development in IMT-Advanced.
42.	Mr. Babu Lal Shahoo	Electronics & Comm. Engg.	Design and Development of Advanced Microwave circuits using fractal Geometries.

Sl. No.	Name of the Scholar	Department/Centre	Title of the Ph.D. Thesis
43.	Mr. Uma Kant Gupta	Production Engg.	Investigations into Tribological Aspects of Precision Forming Processes.
44.	Mr. Ramkesh	Production Engg.	Development of Additive Mix Wire Cut Electric Discharge Machine AMWEDM and its Performance Analysis.
45.	Mr. Shashank Shekhar	Remote Sensing	Water Resource Assessment with Spatial Emphasis on Flouride Contamination in Hard Rock Terrain (Palamau and Garhwa District, Jharkhand India) Using Remote Sensing and GIS Techniques.
46.	Ms. Swagata Ghosh	Remote Sensing	Assessment of Glacier Dynamics in Parts of Great Himalayan Range, Ladakh, India, Using Geoinformatics.
47.	Mr. Nagendra Prasad Tiwary	BITEC Lalpur	The Impact of User Participation on Implementation of Secured Web-Based Information System in India
48.	Mr. Pankaj Mishra	Electrical & Electronis Engg.	Development of Pricing Mechanism and Generation Scheduling for Indian Power Market.
49.	Mr. Surendra Kumar	Biomedical Instrumentation	Brain signal analysis in alcoholism.
50.	Ms. Ruchika Kumar	Biomedical Instrumentation	Study and Design of CMOS Signal Conditioning Circuit for Smart Cardiac Pacemakers with Biosensors in VLSI.
51.	Mr. Vijay Chatterjee	Applied Physics	Synthesis and study of optical and electronic properties of ultra-nanocrystalline diamond films deposited using Microwave Plasma Enhanced Chemical Vapour Deposition
52.	Mr. Yashpal Singh	Applied Physics	Investigation of light propagation through photonic crystals for all optical devices.
53.	Ms. Shraddha Prasad	Applied Physics	Investigation of optical beam propagation innonlinear media spatial soliton formation and their interaction for all optical devices
54.	Ms. Debanaina Chakraborty	Applied Physics	Study of thermal and mechanical properties of Hafnium carbide (HfC) and Silicon carbide (SiC) multiplayer thin films for high temperature application.
55.	Mr. A.B. Panda	Applied Physics	Study of bactericidal efficiency and plasma process parameters of nano structured TiO ₂ thin films developed by RF magnetron sputtering.
56.	Mr. Pinaki Laha	Applied Physics	Synthesis and characterization of surface and interface properties of nano structured multiplayer metal oxide films for optical and electronic applications.
57.	Mr. Sharath N.	Applied Physics	Chemical kinetics of 3-careen at high temperature and pressure
58.	Mr. Shailendra Singh Rajput	Applied Physics	Studies on transport properties of CMR-Dielectric composites.
59.	Mr. Sabyasachi Parida	Applied Physics	Development of Nano Crystalline High Permittivity Lead free Material for Microwave Application.

Sl. No.	Name of the Scholar	Department/Centre	Title of the Ph.D. Thesis
60.	Mr. Priyank Kumar	Space Engg. & Rocketry	Study of Flow over Slender Bodies at Large Angles of Attack at Subsonic Speed.
61.	Mr. Sushil Kumar Dhiman	Space Engg. & Rocketry	Study of flow field and heat transfer around cylinders.
62.	Mr. Bal Ram	Information Science	A study of the impact of U.G.C. Infonet E-Resources Consortium on the users of Universities in Eastern India.
63.	Mr. Rajesh Laik	Electronics & Comm. Engg.	Design of CMOS Signal Conditioning Circuits with Biosensors for the detection of early stage of Cancer.
64.	Mr. Paresh M. Dholakia	Electronics & Comm. Engg.	Multi Operator Flexible Spectrum Usage for Local Area Indoor Deployment scenario for IMT- Advanced
65.	Mr. Suman Shekhar	Polymer Engg.	Development of Thermoresponsive hydrogel for water separation from aqueous solution.
66.	Mr. Jawed Iqal	Environmental Sc. & Engg. Group	Prediction of Groundwater vulnerability of Pollution using Fuzzy Techniques.
67.	Mr. Rajeshwar Prasad	Environmental Sc. & Engg. Group	Study of drinking water and sanitation quality in the rural areas of Ranchi District and its impact on Public health.
68.	Mr. Vishwambhar Pathak	BITIC Ras A Khaimah (UAE)	Artificial Immune System Based Density-Concerned Learning.
69.	Mrs. Chhaya Yadav	BITEC, Patna	Developing Pro-Poor innovative technological strategies for sustainable Development in India.
70.	Mr. Sanjeev Kumar	BITEC, Patna	Studies of some transition metals modified Lithium titanate ceramics for breeder blanket application of fusion reactor.
71.	Mr. Sandip Dutta	Applied Mathematics	Network Security using Biometric and Cryptography.
72.	Mr. Dilip Kumar	Applied Mathematics	Optimality Conditions and Duality in Mathematical Programming Problem with Generalized convexity.
73.	Mr. Nishikant Kr. Upadhyaya	Remote Sensing	Geo-spatial approach for ecosystem analysis of Palamu National Park, Jharkhand State
74.	Mr. Neeraj Parihar	Remote Sensing	Mining Hazard Vulnerability & Risk Assessment of Jharia Coal Fields, India- A Multi Sensor Approach.
75.	Mrs. Nidhi Tiwari	BITEC, Allahabad	Women Entrepreneurs in Uttar Pradesh: Problems, Prospects and Challenges.
76.	Mr. Mohd. Asif Gandhi	Management	Congruence of Supply Chain Orientation and Environmental Orientation and their Impact on Green Supply Chain Practices.
77.	Mr. Priyabrata Bhattacharjee	Management	Prospects of Contract Labour in India.

Sl. No.	Name of the Scholar	Department/Centre	Title of the Ph.D. Thesis
78.	Mr. Kailash Ch. Panday	Management	Role of HR in Execution of Turnkey Project.
79.	Ms. Shyama Kumari	Management	A Study of Female Portrayal in India Advertising and its impact on marketing Communication.
80.	Ms. Padmashree Santosh	Management	Employee Performance Management System: Some Studies.
81.	Mr. Glenn Gaffield Cronning	Management	A Study on Leadership Potential Predictability.
82.	Mr. P.S. Kamalakar Rao	Management	Impact of Marketing Strategies on Performance of Financial Services Firms in India.
83.	Mr. Niles R. Nekaljay	Management	The Determinants of Emotional Intelligence for the Development of Indian Young Managers.
84.	Ms. Arpita Pandey	Management	A comparative study of Hedonic and Utilitarian Value Perception for Retail Products.
85.	Mr. Prem Sherin Raj	Management	Determinants of Employee Turnover in Indian Organizations an Empirical Study.
86.	Mr. Sathesan P.	Management	An Empirical Study of Quality Measures Adopted by Micro, Small and Medium Enterprises to Evolve Quality Trilogy Strategy in Indian Environment.
87.	Mr. Rajshekhar S. Inglay	Management	Facility Layout Planning for Hypermarket: Some Analytical Studies.
88.	Mr. P. Goverdhan	Management	Impact of HRM System on organizational Performance: A System Dynamics Study.
89.	Mr. K.Y.Ravi Kumar	Management	A Study of Entrepreneurs ability and success Metrics among small and micro enterprises with respect to Tamil Nadu.
90.	Mr. Purnendu Paul	Management	Effect of Total quality Management on Indian Banking Performances.
91.	Mr. C. Mohan Kumar	Management	A Study of the Dimensions of Employee Engagement Leading passion to excel, Productivity, Profitability and employee retention in Indian Petroleum refineries.
92.	Ms. Sudhanshu Bala Singh	Management	Impact of Total Quality Management in Indian Pharmaceutical.
93.	Ms. Babita Saharia	Management	An Exploratory Study of the Linkage Between Information Culture and Information Use.
94.	Mr. N. Muralidaran	Management	Model for Re-Architecting Legacy System for High Performance.
95.	Mr. Ravi Tandon	Management	Role of Commercial Banks in the Development of Tourism for Uttarakhand State.
96.	Mr. Prabhash Ch. Mishra	Management	Information Technology as an enabler for Knowledge Management

Sl. No.	Name of the Scholar	Department/Centre	Title of the Ph.D. Thesis
97.	Ms. Rajeshwari Chatterjee	Management	Managing Sustainability of Bio-diesel Production to Enhance Profitability.
98.	Mr. K.P. Srivastava	Management	Improving Agility of a Maintenance System.
99.	Mr. Dinesh Kumar Jain	Production Engg.	Development of High Strength Corosion Resistant Materials.
100.	Mr. Sudershan Kumar	Pharm. Sciences	Therapeutic Equivalence of Orlistat Capsule in Healthy Adult Male Human Subjects
101.	Mr. Ajay Kumar	Pharm. Sciences	Development and Validation of Bioanalytical LC-MS/MS Assay Methods for Olmesartan and Hydrochlorothiazide in Human Plasma and their Application to Pharmacokinetics Studies.
102.	Mr. Pankaj Omprakash Partani	Pharm. Sciences	Development and Validation of Bioanalytical Assay Methods for A Typical Drugs in Human Plasma and their Application to Pharmacokinetics Studies.
103.	Mr. Dilip Kumar Gupta	Pharm. Sciences	Development & Evaluation of Nanoparticles as a Delivery System for Antimalarial Drugs.
104.	Ms. Atiya Akhtar Khan	Pharm. Sciences	Pharmacognostical Studies on Commercial varieties of Piper betel Linn. Family: Piperaceae.
105.	Mr. Mahesh R. Mishra	Pharm. Sciences	Studies on Influence of Exposure to Electrical and Electromagnetic fields of some Drugs During Crystallization on Crystal Habits and Pharmaceutical Utility.
106.	Mr. Dinesh M. Biyani	Pharm. Sciences	Formulation and Evaluation of Ghrita: A Ayurvedic Preparation Containing Ghee.
107.	Mr. Jeetendra Kr. Gupta	Pharm. Sciences	Synthesis and Biological Evaluation of Some Novel Triazoles.
108.	Ms. Saumya Das	Pharm. Sciences	Phytochemical and Pharmacological Studies of Berberis aristana DC and Hemidesmus indicus R. Br.
109.	Mr. Shakti Deep Pachauri	Pharm. Sciences	Phytopharmaceutical Evaluation of Morinda Citrifolia L. (Noni) and Developmet of Herbal Formulation.
110.	Mr. Rahul Kr. Verma	Pharm. Sciences	Pulmonary Delivery of Microparticles Containing Nitric Oxide Donors as Mediators of Macrophage Activation in Tuberculosis.
111.	Ms. Radha Shekar	Pharm. Sciences	Chiral Method Development for some New Anti-tubercular Drugs and Studies on Enantiomer Specific Anti-tubercular Activity after Chiral Separation of the Racemates.
112.	Mr. Manas Kumar Das	Pharm. Sciences	Psychopharmacological Studies of Butea monosperma (Lam. Kuntz.)
113.	Mr. Hari Krishan Tiwari	Pharm. Sciences	Evaluation of Dog as an Animal model for Comparative Bioavaiability Studies on Drug Products with the overall Goal to Serve as a Substitute for Human Data in Pilot biostudies.

Sl. No.	Name of the Scholar	Department/Centre	Title of the Ph.D. Thesis
114.	Mr. Satish Kr. Kalivarapu	Pharm. Sciences	Studies to Control the Impact of Phase-II Metabolites During Quantitation of Drugs in Biological Matrices.
115.	Ms. Poonam Vats	Pharm. Sciences	Matrix Effect Evaluation of Drugs using Different model of Sciex Mass Spectrometer by Different Ionization and Sample Processing Techniques and its Application in BA/BE Studies.
116.	Mr. P.P. John	Pharm. Sciences	Standardization of Antidiabetic Formulation with special reference to Salacia reticulate.
117.	Mr. Venkata Krishna Akula	Pharm. Sciences	Analytical method Development and Validation for a few Antihistaminic Drugs by High Performance Liquid Chromatography.
118.	Mr. Nagendra Prasad Tiwary	BITEC, Lalpur	The Impact of User Participation on Implementation of Secured Web-Based Information System in India.
119.	Mr. Ranviay Kumar	BITEC, Patna	Synthesis and chracterization of Methacrylic acid graft Psyllium (Psy-g-PMA) and its application.
120.	Mr. Abhishek Kr. Singh	Production Engg.	Adoption of Green Manufacturing in Indian Manufacturing Environment.
121.	Mr. Manish Oraon	Production Engg.	Laser assisted micro forming.
122.	Mr. Reet Kamal Tiwari	Remote Sensing	Effect of Climatic Changes on Water Resources Potentialities and Future Perspectives in Damodar River Basin, India, A Geoinformatics Approach.
123.	Mr. Durga Prasad Dube	Management	A study of Performance Appraisal System of Employees of Public Sector Undertakings with Special Reference to NTPC Ltd.
124.	Mr. Ashutosh Kumar	Applied Physics	Study of effect of ion implementation and gamma irradiation on wide band gap semiconductors.
125.	Mrs. Debomita Ghosh	Electrical & Electronics Engg.	Co-ordination of Relays with Reliability Analysis of Power Systems Network.
126.	Mr. Prabhat Kumar	Mechanical Engg.	Design and Development of energy Efficient Burner for Sinter Making.
127.	Ms. Sambita	Applied Physics	Growth and characterization of N-doped diamond like carbon and ultrananocrystalline diamond by MW-PACVD
128.	Ms. Swati Sucharita Pradhan	Applied Physics	Study of TiO ₂ and doped TiO ₂ (Al/Si/Cu/N) thin films by reactive sputtering
129.	Ms. Koel Mukherjee	Biotechnology	Computational and functional analysis of transcription factor containing helix turn helix motifs in eukaryotes.
130.	Ms. Sneha Singh	Biotechnology	Microbial synthesis of gold nanoparticles.

Sl. No.	Name of the Scholar	Department/Centre	Title of the Ph.D. Thesis
131.	Ms. Asha Mishra	Biotechnology	Dynamics of plant growth promoting Rhizobacteria in maize based Intercropping system in Jharkhand.
132.	Ms. Ayashaa Jena	Biotechnology	Morphological, cytological and genome size studies focused towards exploration of taxonomic characters in lac insect populations belonging to Kerria in India.
133.	Mr. Amit Katiyar	Biotechnology	High Throughput Analysis of Abiotic Stress-Responsive miRNA in Crops.
134.	Mr. Vijay Kumar	Biotechnology	Micropropagation and genetic transformational studies of Swertia chirayita: A critically endangered medicinal plant for its conservation and secondary metabolite production
135.	Mr. Chiranjib Banerjee	Biotechnology	Molecular Characterization and identification of novel hydrogen producing algal species and their biotechnological potential.
136.	Mr. Tyagaraj T.	Mechanical Engg.	Experimental and Numerical Analysis of Pulsating Heat Pipe.
137.	Mr. G.L. Narayana	Mechanical Engg.	Investigation on Non-metallic De Laval Nozzles for Cold Flow Applications.
138.	Mr. Chanchal Kumar Mishra	Pharm. Sciences	Phytochemical and Pharmacological Studies of leaves, fruits and roots of Carissa Carandas Linn.
139.	Mr. Amit Kumar	BITEC, NOIDA	Performance testing of web based application.
140.	Mr. Anurag Joshi	BITEC, NOIDA	Video Watermarking Systems
141.	Mr. Pankaj Gupta	BITEC, NOIDA	Modeling Churn Behavior of Credit-Card Bank Customer using Data Mining.
142.	Ms. Alka Joshi	BITEC, NOIDA	HR Issues in Franchising (A Comparative Study of India & other Asian Countries).
143.	Ms. Smitha Jha	BITEC, NOIDA	Scheduling Problem in Grid Heterogeneous System.
144.	Ms. Charu Wahi	BITEC, NOIDA	A Secured Routing Protocol for Mobile Ad hoc Network (MANET)
145.	Ms. Shreya Chakravorty	BITEC, NOIDA	Gender Sensitive Development Communication – An Aspect of Social Work: An Indian Study.
146.	Mr. Niket Mehta	BITEC, NOIDA	21 st Century Approach to Communication: Gaming a prime tool of New Media.
147.	Mr. Rakesh Singh	BITEC, NOIDA	The Role of Communication in Environment Protection.
148.	Mr. Mrinal Verma	BITEC, NOIDA	A Study of Work Culture in Indian Mills in different Cities influencing business Performance.
149.	Mr. Najmul Hoda	BITEC, NOIDA	An Empirical Study on Faith-Based Microfinance as an Alternative Tool of Poverty Alleviation.
150.	Mr. Nirmalya Chakraborty	BITEC, NOIDA	Risk Analysis Framework for handling Employee Healthcare data

Sl. No.	Name of the Scholar	Department/Centre	Title of the Ph.D. Thesis
151.	Mr. Anirudh Saxena	BITEC, NOIDA	Knowledge Sharing Culture and KCRM and its effect on Organizational Performance – a comparative Study in Indian Service Sector.
152.	Mr. Avinash Manoharan	BITEC, NOIDA	A Study on Impact of Information Technology on Human Resource Management functions in Oil Sector.
153.	Ms. Aradhana Singh	BITEC, NOIDA	Emerging issues in retail banking in India.
154.	Ms. Swati Singh	BITEC, NOIDA	Impact of Strategic Human Resource Management implementation on firm performance.
155.	Mr. Subhash Chand Gupta	BITEC, Jaipur	Finger print analysis and recognition.
156.	Mr. Vikas Sangwan	BITEC, Jaipur	Design of Layout for Cellular Manufacturing System.
157.	Mrs. Anju Sharma	BITEC, Jaipur	Design and Analysis of distributed system architecture for efficient routing.
158.	Mr. Shashank Sharma	BITEC, Jaipur	Luminance Efficacy Enhancement in Plasma Display Panels.
159.	Mr. Ravindra Kumar	BITEC, Jaipur	Studies on low pressure plasma nitriding of steels with various alloying concentrations.
160.	Mr. Aman Verma	BITEC, Jaipur	Analysis of Impact of Consumer Behaviour on Contemporary Retail Business.
161.	Mr. Janardan Sahay	Electronics & Comm. Engg.	Performance Analysis of Cognitive Radio for Future Wireless Communication System.
162.	Mr. Arun Kr. Dwivedi	Electrical & Electronics Engg.	Lightning Impact on Satellite Signal Propagation.
163.	Mr. Nirmalya Chakraborty	BITEC, NOIDA	Risk Analysis Framework for handling Employee Healthcare data.
164.	Mr. Ambuj Khare	BITIC, Ras-Al-Khaimah (UAE)	Strategic Analysis of Supply chain of Consumer Electronics & Durable industry in Gulf Cooperation Council (GCC): Constraints and Opportunities.
165.	Mr. Kejy K. Thariyan	BITIC, Ras-Al-Khaimah	Problems and Prospects of Small and Medium Enterprises – A study of select units.
166.	Mr. Soofi Anwar	BITIC, Ras-Al-Khaimah	Factors Influencing Knowledge Sharing in Higher Education – A study of Faculty Perspective.
167.	Mr. Shiv Kumar Choubey	BITEC, Patna	Synthesis of some II-VI group compound semiconductors and their optical Characterization.
168.	Mr. Vijay Kumar Mandal	BITEC, Patna	Development of a competent replacement model for Indian SME's through integrated lean sigma maintenance technology.
169.	Ms. Kasturi Sahay	Management	Traditional Leadership and E-Leadership – A study of Organizational Effectiveness in Today's Scenario.

Sl. No.	Name of the Scholar	Department/Centre	Title of the Ph.D. Thesis
170.	Ms. Monika Srivastava	Management	Achieving Competitive Edge Through Advertising Avenues by Smaller and Medium Sized Manufacturing Firms.
171.	Ms. Brishti Panna	Management	Impact of Celebrity Endorsement on Brand Management
172.	Mr. Amit Kr. Srivastava	Space Engg. & Rocketry	Impact & Fatigue Analysis of Under-carriage for Fighter Aircraft by Finite Element Approach.
173.	Mr. Subhankar Joardar	BITEC, Lalpur	Swarm Intelligence Based optimization of Manet's Simulation & Congestion Control.
174.	Mr. Vinay Singh	BITEC, Lalpur	Evaluation and Application of Metrics in Assessing Software Quality.
175.	Ms. Gulshaz Shamim	Biotechnology	Identifying the genes related to resin and colour pigment synthesis in the Indian lac insect, Keria lacca (Kerr) (Homoptera; Tachardiidae): A Functional Genomics Approach.
176.	Mr. Sanjay Kumar	Polymer Engg.	Development of novel Conducting Polyaniline Coating and Corrosion resistance behavior of such coating in Marine Environment.
177.	Ms. Kalpana Kiran	Polymer Engg.	Interpenetrating polymer network based on Hydrophobic and Hydrophilic Acrylics.

Convocation, Results, Degrees / Diploma Awarded

Upon recommendation of the Board, the following scholars who have cleared the programme during 2009-10 were awarded Degree / Diploma in the convocation held on 23rd March 2010.

Degrees / Diplomas awarded

CONVOCATION - 2009						
		Branch	ID	I	II	Total
I	Doctor of Philosophy					30
II	Post-Graduate					
	Master of Engineering	AMS	1	1	-	2
		CAAD	0	2	-	2
		Civil	2	1	-	3
		Electrical	14	4	0	18
		Electronics & Communication	27	6	1	34
		Mechanical	20	2	0	22
		Polymer	1	0	-	1
		Quality Engineering Management	4	0	-	4
		Software	3	1	0	4
		Space Engineering & Rocketry	3	1	-	4
	Master of Pharmacy		33	10	1	44
	Master of Technology	Computer Science	9	11	2	22
		Environmental Science & Engg.	6	0	-	6
		Fuels & Combustion	1	0	0	1

		NMPT	6	0	-	6
		Remote Sensing	5	0	-	5
		Scientific Computing	5	4	0	9
	Master of Science					
		Bioinformatics	19	20	2	41
		Biomedical Instrumentation	5	8	2	15
		Geoinformatics	3	0	0	3
		Information Science	2	1	0	3
		Information Technology	17	4	0	21
	Master of Business Administration		102	137	4	243
	Master of Computer Applications		154	199	40	393
	Master of Urban Planning		1	1	0	2
						938
III	Under-Graduate Degrees		ID	I	II	Total
	Bachelor of Engineering					
		Biotechnology	20	18	-	38
		Civil	19	27	-	46
		Computer Science	48	64	-	112
		Electrical & Electronics	19	24	-	43
		Electronics & Communication	84	67	-	151
		Information Technology	13	26	-	39
		Mechanical	25	38	-	63
		Marine	63	25	-	88
		Marine Technology	187	0	0	187
		Polymer	6	11	-	17
		Production	20	12	-	32
	Bachelor of Pharmacy		19	14	-	33
	Bachelor of Architecture		9	3	-	12
	Bachelor of Science	Animation & Multimedia	117	23	0	140
		Medical Lab. Technology	19	18	0	37
		Nautical	48	-	-	48
	Bachelor of Hotel Management & Catering Technology		17	17	-	34
	Bachelor of Business Administration		320	122	2	444
	Bachelor of Computer Applications		283	120	3	406
	Bachelor of Technology	Civil	1	2	0	3
		Electrical & Electronics	1	1	0	2
		Mechanical	1	2	0	3
IV	Diploma in Technology					1978
		Automobile Engineering	10	6	0	16
		Computer Science	14	10	-	24
		Electronics Engineering	13	14	-	27
		Manufacturing Engineering	7	14	-	21
			Total			88
			Grand Total			3004

Faculty position (including India and Abroad)**Summary of the faculty position**

Sl. No.	Category	As on 30.06.10
1.	Professor	57
2.	Asso. Prof.	54
3.	Reader	30
4.	L (S G)	7
5.	Sr. Lecturer	49
6.	Lecturer	324
7.	Associate Lect.	82
8.	S O	19
9.	R A Cum Tutor	4
10.	Others	24
	Total	650

Department Wise Details of Faculty Position: Main Campus (As On 30.06.2010)**Department of Architecture**

S.No.	Name	Designation
1	Dr. Manjari Chakraborty	Professor & Head
2	Mr. N.R. Mandal	Associate Professor
3	Dr. D. J. Biswas (on deputation)	Reader
4	Dr. Satyaki Sarkar	Reader
5	Mr. S.P. Bhattacharya	Senior lecturer
6	Mrs. Ritu Agrawal	Senior lecturer
7	Mrs. Harshit Lakra	Senior lecturer
8	Mr. Sanmarga Mitra	Senior lecturer
9	Mrs. Smriti Misra	Senior lecturer
10	Mr. Gaurav Singh (on deputation)	Senior lecturer
11	Mrs. Parama Mitra	Lecturer
12	Mr. Anuj Toppo	Lecturer
13	Mr. Bimal Chandra Roy	Lecturer
14	Mr. Rajan Chandra Sinha	Lecturer
15	Mr. Sashi Kant pandey	Lecturer
16	Mrs. Naina R. Singh (on deputation)	Lecturer
17	Mrs. Sangita	Associate Lecturer
18	Mr. Biswajeet Chakraborty	Associate Lecturer
19	Mr. Anand Kumar	Scientific Officer

Department of Applied Chemistry

S. No.	Name	Designation
1	Prof. Dr. U. Jha	Professor, HOD
2	Dr. B. Verma	Associate Professor
3	Dr. J. P. Pandey	Associate Professor
4	Dr. R. P. Bhatnagar	Principal Scientific Officer
5	Dr. A. Sharon	Assistant Professor
6	Dr. C. Bal	Assistant Professor
7	Dr. R. U. Islam	Assistant Professor
8	Dr. S. Naskar	Assistant Professor
9	Dr. Deepshikha	Assistant Professor
10	Dr. S. Mishra	Assistant Professor
11	Mr. R. Sharma	Assistant Professor
12	Mr. G. K. Agarwal	Associate Lecturer
13	Mr. G. Sen	Associate Lecturer

Department of Applied Mathematics

S. No.	Name	Designation
1	Prof. N.C. Mahanti	Prof. & Head
2.	Dr. S. S. Roy	Associate Professor
3.	Dr. S. K. Chakraborty	Associate Professor
4.	Dr. Bimal Kumar Mishra	Associate Professor
5.	Dr. Seshadev Padhi	Reader
6.	Dr. Soubhik Chakraborty	Reader
7.	Dr. Manoj Kumar	Lecturer (SG)
8.	Dr. Manish Trivedi	Assistant Professor
9.	Dr. (Mrs.)Anjana P. Ghorai	Assistant Professor
10.	Dr. Anurag Jaiswal	Assistant Professor
11.	Dr. Santa K Sunanda	Assistant Professor
12.	Dr. Prabjot Kaur	Assistant Professor
13.	Mrs. Swati Pandey	Associate Lecturer

Department of Applied Mechanics

S. No.	Name	Designation
1	Prof. A. K. Ray	Professor & Head
2	Dr. R. P. Singh	Professor
3	Mr. U. S. Prasad	Lecturer (Selection Grade)
4	Mr. Sankha Bhaduri	Lecturer

Department of Applied Physics

S. No.	Name	Designation
1	Dr. P. K. Barhai	Professor & Head
2	Dr. D. Jairath	Professor & Dean Admission
3	Dr. N. K. Joshi	Principal Scientific Officer & Adjunct faculty
4	Dr. N. Nayak	Principal Scientific Officer & Adjunct faculty
5	Dr. S. Konar	Professor
6	Dr. Sarang Medhekar	Professor
7	Dr. (Mrs.) S. Keshri	Associate Professor
8	Dr. S. K. Sinha	Associate Professor
9	Sri M. K. Sinha	Sr. Scientific Officer
10	Dr. S. K. Rout	Assistant Professor
11	Dr. S. K. Mahapatra	Assistant Professor
12	Dr. (Mrs.) I. Banerjee	Assistant Professor
13	Dr. Rajeev Kumar	Assistant Professor
14	Dr. Samrat Mukherjee	Assistant Professor
15	Dr. Kingshuk Bose	Assistant Professor
16	Dr. Gajendra Pd. Singh	Assistant Professor
17	Mr. Ravikant Choubey	Assistant Professor
18	Mr. Rishi Sharma	Scientific Officer
19	Mr. Balendu Pathak	Assistant Scientific Officer
20	Sri S. K. Mukherjee	Jr. Research Officer
21	Sri K. K. Singh	Senior Technical Assistant
22	Sri D. N. Mahto	Lab. Technician
23	Sri R. N. Mahto	Jr. Lab. Technician

Department of Biotechnology

S. No	Name	Designation
1	Dr. Ambarish S. Vidyarthi	Professor & Head
2	Dr. Kunal Mukhopadhyay	Professor
3	Dr. Pratyosh Shukla	Reader
4	Dr. Dev Mani Pandey	Reader
5	Dr. Ramesh Chandra	Reader
6	Dr. Salil Ghosh	Reader
7	Dr. Rajib Bandopadhyay	Sr. Lecturer
8	Dr. Manish Kumar	Sr. Lecturer
9	Dr. Raju Poddar	Sr. Lecturer
10	Dr. Avneesh Pareek	Lecturer
11	Dr. (Mrs.) Shashwati Ghosh Sachan	Lecturer
12	Mr. Santosh Kumar Jha	Lecturer
13	Dr. Ashish Sachan	Lecturer

14	Dr. (Mrs.) Sheela Chandra	Lecturer
15	Dr. Hare Ram Singh	Lecturer
16	Ms. Koel Mukherjee	Lecturer
17	Dr. (Mrs.) Shubha Rani Sharma	Lecturer
18	Ms. Sneha Singh	Assoc. Lecturer
19.	Mr. Shankaracharya	Assoc. Lecturer

Bio-Medical Instrumentation Group

S. No.	Name	Designation
1	Dr. Rakesh Kumar Sinha	Reader
2	Mr. Surendra Kumar	Assistant Professor
3	Mr. Supriyo Kumar Das	Associate Lecturer
4	Mr. Yogender Aggarwal	Associate Lecturer
5	Ms. Anjana Dwivedi	Associate Lecturer

Department of Civil Engineering

Sl. No.	Name	Designation
1	Dr. K. V. Krishnamurthy	Dean, Head and Professor
2	Prof. K. R. Roy Chowdhury	Professor
3	Dr. Balram Singh	Professor
4	Dr. Anand Kumar Sinha	Dean and Professor
5	Dr. Arun Kumar	Associate Professor
6	Dr. (Ms.) Sudeshna Chakravarty	Associate Professor
7	Dr. Rajiv Ranjan Sahay	Associate Professor
8	Dr. Indrajit Roy	Associate Professor
9	Dr. (Ms.) Bindhu Lal	Reader
10	Mr. Birendra Kumar Singh	Lecturer(SG)
11	Dr. Siddhartha Sengupta	Reader
12	Mr. Jitu Kujur *	Assistant Professor
13	Dr. Umesh Chandra Sahoo	Assistant Professor
14	Mr. Avijit Burman	Assistant Professor
15	Mr. Koushik Paul	Assistant Professor

* Ph D Scholar at IIT, Delhi under QIP

Department of Computer Science & Engineering

S. No.	Name	Designation
01	Dr. R. Suresh Kumar	Prof. and Head
02	Mr. D.K.Mallick	Asst.Prof
03	Mr. S.K.Chatterjee	Asst.Prof
04	Mr. I. Mukherjee	Asst.Prof
05	Mr. Kishore Kumar Senapati	Asst.Prof
06	Mr. Abhijit Mustafi	Asst.Prof

07	Ms. Itu Snigdha	Asst.Prof
08	Mr. P.Paul	Asst.Prof
09	Dr. K.Sridhar Patnaik	Asst.Prof
10	Ms. Shruti Garg	Asst.Prof
11	Ms. Sanchita Paul	Asst.Prof
12	Ms. Amiritanjali	Asst.Prof
13	Mr. Sudip Kumar Sahana	Asst.Prof
14	Mr. Shashank Pushkar	Asst.Prof
15	Mr. Abul Aula Jasser	Associate Lecturer
16	Dr. Sujan Kumar Saha	Asst.Prof
17	Mr. Plaban Kumar Bhowmick	Asst.Prof

Department of Electronics & Communication Engineering

S. No.	Name	Designation
1	Prof. Nisha Gupta	Prof. & Head
2	Prof. S. K. Ghorai	Professor
3	Mr. Madhukar Puri	Associate Professor
4	Dr. Srikanta Pal	Associate Professor
5	Mr. K . K . Masand	Associate Professor
6	Mr. N. Poddar	Associate Professor
7	Mr. S. Devendra K.Verma	Senior Scientific Officer
8	Mr. Basab Bijay Pal	Associate Professor
9	Dr. Vibha Rani Gupta	Associate Professor
10	Dr. Mahesh Chandra	Reader
11	Mr. Sandeep Singh Solanki	Associate Professor
12	Dr. Sanjay Kumar	Associate Professor
13	Mr. Avireni Srinivasulu	Lecturer(SG)
14	Dr. Neela Chhittoraj	Reader
15	Dr. Shweta Srivastava	Reader
16	Mr. Sukanta Kumar Dash	Assistant Professor
17	Mr. Kartik Mahto	Assistant Professor
18	Mr. Bharat Gupta	Assistant Professor
19	Mr. Sanjeet Kumar	Assistant Professor
20	Mr. Janardan Sahay	Assistant Professor
21	Dr. Rajesh Kumar Lal	Assistant Professor
22	Mr. Vishal H . Shah	Assistant Professor
23	Mr. Sanjay Shankar Tripathy	Assistant Professor
24	Mr. Prabhat Kumar Upadhyaya	Assistant Professor
25	Mr. Gajendra Kant Mishra	Assistant Professor
26	Mr. Somnath Sengupta	Assistant Professor
27	Mr. Aminul Islam	Assistant Professor

28	Mrs. Annapurna S.M	Assistant Professor
29	Mr. D.K. Upadhyay	Assistant Professor
30	Ms. Swati Prasad	Assistant Professor
31	Mr. Manoj Kumar Mukul	Assistant Professor
32	Mr. Priyank Saxena	Assistant Professor
33	Dr. Vijay Nath	Assistant Professor
34	Dr. Mrinal Mishra	Assistant Professor
35	Mr. Anjini Kumar Tiwary	Assistant Professor
36	Mr. Alok Kumar	Assistant Professor
37	Mrs. Soumya Sidhishwari	Associate Lecturer
38	Mr. Rupesh Kumar Sinha	Associate Lecturer
39	Ms. Saba Firdous	Associate Lecturer
40	Mr. Santashraya Prasad	Associate Lecturer
41	Mr. Jitendra Kumar Saini	Associate Lecturer

Department of Electrical & Electronics Engineering

S. No.	Name	Designation
1.	Dr. T. Ghose	Professor & Head
2.	Prof. R. K. Narayan	Professor
3.	Prof. D. Bhagat	Professor
4.	Dr.(Mrs.) N. L. Nath (On Lien)	Associate Professor
5.	Dr. R. C. Jha	Professor
6.	Dr. D. K. Mohanta	Professor
7.	Dr. P. R. Thakura	Reader
8.	Dr. S. G. Kadwane	Lecturer (Selection Grade)
9.	Mr. K. C. Jana	Assistant Professor(senior scale)
10.	Mrs. S. Chakraborty	Assistant Professor(senior scale)
11.	Mrs. Vijaya Laxmi	Assistant Professor(senior scale)
12.	Mr. Prem Prakash	Assistant Professor(senior scale)
13.	Dr. Subhojit Ghosh	Assistant Professor(senior scale)
14.	Mr. Abinash Prasad	Assistant Professor
15.	Mr. Ritesh Kumar Keshri	Assistant Professor
16.	Mrs. Debomita Ghosh	Assistant Professor
17.	Mr. G. S. Gupta	Assistant Professor
18.	Ms. Aparna Gautam	Assistant Professor
19.	Mr. B M Prasad	Assistant Professor
20.	Mrs. Sushma Kadwane	Assistant Professor

Department of Hotel Management & Catering Technology

S. No.	Name	Designation
1.	Mr. Sitesh P. Srivastava	Professor
2.	Dr. Sonia Gupta	Reader
3.	Mr. Praveen Srivastava	Asst. Professor
4.	Mr. Abhinav K. Shandilya	Asst. Professor
5.	Mr. Abhishek Jana	Asst. Professor
6.	Mr. Nishikant	Asst. Professor
7.	Mrs. Snigdha Priya	Asst. Professor
8.	Mr. Sanjeev Srivastava	Asst. Professor
9.	Ms. Rajeshwari	Asst. Professor
10.	Mr. Amit Saran	Asso. Lecturer
11.	Mr. Gautam Shandilya	Asso. Lecturer
12.	Mrs. Pratima Ekka	Asso. Lecturer
13.	Mr. Rajesh Langiya	Bakery Chef

Department of Food Processing

S. No.	Name of the Faculty	Designation
1.	Mr. M. P. Chopra	Senior Scientific Officer
2.	Mr. Amit Kumar Tiwari	Food Technologist
3.	Mr. Ashok Kumar Kannaujia	Assistant Food Technologist

Department of Information Technology

S. No.	Name	Designation
1	*Dr. G. Sahoo	Professor
2	Sri Sandip Dutta	Associate Professor
3	Dr. Aruna Jain	Reader
4	Dr. Bhaskar Karn	Reader
5	@ Dr. Soumya Banerjee	Reader
6	Sri V.K. Jha	Assistant Professor
7	Sri V.S. Shankar Sriram	Assistant Professor
8	Sri Anup Kumar Keshri	Assistant Professor
9	Sri B.K. Chanda	Assistant Professor
10	Sri B.K. Chanda	Assistant Professor
11	Sri Ritesh Jha	Assistant Professor
12	Sri B.K. Sarkar	Assistant Professor
13	@ Sri A. Srivastava	Assistant Professor
14	Sri Saunak Paul	Assistant Professor
15	@ Sri Indradeo Ram	Assistant Professor
16	@ Sri Arindam Dutta	Associate Lecturer
17	Ms. Debjani Mustafi	Associate Lecturer
18	Ms. Sabina Priyadarshini	Associate Lecturer

Department of Management

S No	Name	Designation
1	Dr S K Bose	Professor
2	Dr Utpal Baul	Professor
3	Dr Manju Bhagat	Associate Professor
4	Dr S.Shivani	Associate Professor
5	Dr R N Bhagat	Professor
6	Mr S.C. Mishra	Associate Professor
7	Dr Vijay Agrawal	Sr Lecturer
8	Dr P C Jha	Sr Lecturer
9	Dr J B David	Lecturer
10	Dr Rohit Pande	Lecturer
11	Mr Anand Kumar	Lecturer
12	Ms Shelly Shrivastava	Lecturer
13	Dr Tanushree Dutta	Lecturer
14	Mr Amitabh Verma	Lecturer
15.	Ms Sujata Priyamvada Dash	Associate Lecturer
16	Mr Anand Kr Sinha	Associate Lecturer
17	Mr Kapil Toppo	Associate Lecturer

Department of Mechanical Engineering

S.No.	Name	Designation
1.	Dr. Ashok Misra	Professor
2.	Dr. Arbind Kumar	Professor
3.	Prof. P.K.Choudhary	Associate Professor
4.	Dr. R.P. Sharma	Associate Professor
5.	Dr. Rajeev Kumar	Associate Professor
6.	Sri S.K. Sinha	Assistant Professor (L.S.G.)
7.	Sri D.B. Lata	Assistant Professor (L.S.G.)
8.	Sri Girish Pathak	Assistant Professor
9.	Mrs. Richa Pandey	Assistant Professor
10.	Sri J. Singh	Assistant Professor
11.	Sri S.K.Dhiman	Assistant Professor
12.	Sri P. Mishra*	Assistant Professor
13.	Sri Sandip Kumar	Assistant Professor
14.	Sri B.S.Choudhary	Assistant Professor
15.	Sri O.P.Pandey	Assistant Professor
16.	Sri B.K.Prabhakar	Assistant Professor
17.	Sri Sujeet Kumar Mishra	Assistant Professor
18.	Sri Arun Dayal Udal*	Assistant Professor

Department of Pharmaceutical Sciences

S. No.	Name	Designation
1	Dr. D. Sasmal	Professor
2	Prof. C.M. Prasad	Professor
3	Dr. P.R.P. Verma	Professor
4	Dr. B.N. Sinha	Professor
5	Dr. S. Samanta	Professor
6	Dr. S. Jha	Professor
7	Mrs.S.G. Panpalia	Assoc. Professor
8	Dr. R. N. Gupta	Assoc. Professor
9	Dr. (Ms.) S. Ganguly	Assoc. Professor
10	Dr. Jayaram Kumar	Assoc. Professor
11	Dr. (Mrs.) P. Mitra Mazumder	Reader
12	Dr.(Mrs.)S. M. Verma	Reader
13	Mr. Ashok Pattanaik	Sr. Assistant Professor
14	Mr. J. Venkatesh	Sr. Assistant Professor
15	Mr. D. Biyani	Sr. Assistant Professor
16	Mr. Manik	Assistant Professor
17	Mr. A. Basu	Assistant Professor
18	Mr. N. Mishra	Assistant Professor
19	Mr. S.P. Pattanayak	Assistant Professor
20	Mr. A. Dev	Assistant Professor
21	Mr. B. Sarkar	Assistant Professor
22	Ms. T. Bal	Assistant Professor
23	Mrs. A. Pandey	Assistant Professor
24	Mrs. Neelima Sharma	Assistant Professor
25	Mr. Sandeep Kumar Singh	Scientific Officer
26.	Dr. Animesh Ghosh	Assistant Professor

Department of Polymer Engineering

S. No.	Name	Designation
1.	Prof. (Mrs) M. Mukherjee	Professor & Head & Dean Development Programmes
2.	Dr. Gautam Sarkhel	Reader
3.	Dr. (Mrs.) Sudipta Goswami	Reader
4.	Dr. Akhil Kumar Sen	Reader
5.	Mr. Kaushik Kumar	Scientific Officer
6.	Dr. Arup Choudhury	Assistant Professor
7.	Mr. Sumit Kumar Jana	Assistant Professor
8.	Dr. Amar Nath Mishra	Assistant Professor
9.	Dr. Susanta Sinha Mahapatra	Assistant Professor
10.	Mr. Sudeepan.J	Assistant Professor
11.	Mr. Pulak Datta	Assistant Professor
12.	Mrs. Debasree Ghosh	Assistant Professor
13.	Dr. Pradip Kar	Assistant Professor

Department of Production Engineering

S. No.	Name	Designation
1.	Dr. B.K. Singh	Prof. & Head
2.	Sri Atul Anand	Associate Professor
3.	Sri A. K. Thakur	Associate Professor
4.	Dr. Alok Varma	Associate Professor
5.	Dr. Vinay Sharma	Associate Professor
6.	Dr. Sanjay Kumar Jha	Associate Professor
7.	Dr. Ritesh Kumar Singh	Associate Professor
8.	Dr. L.N. Pattanaik	Associate Professor
9.	Dr. Vijay Pandey	Reader
10.	Dr. S. C. Srivastava	Reader
11.	Sri Rajeev Agrawal	Assistant Professor
12.	Sri Joyjeet Ghose	Assistant Professor
13.	Sri Binay Kumar	Assistant Professor

Department of Remote Sensing

S. No.	Name	Designation
1	Dr. M. S. Nathawat	Professor & Head
2	Dr. N. Patel, Dr. A.P. Krishna	Professor
3	Dr. A. C. Pandey	Reader
4	Er. B. K. Singh	Sr. Scientific Officer
5	Mrs. R.N.K.Sharma	Assistant Professor
6	Mr. S. Chelliah	Assistant Professor
7	Dr. L. K. Sharma	Assistant Professor
8	Dr. V. S. Rathore	Assistant Professor
9	Dr. Mili Ghosh	Assistant Professor
10	Mr. Nitish Kumar Sinha	System Analyst
11	Mr. Ripunjai Kumar Shukla	Associate Lecturer
12	Dr. (Mrs.) Parven Zahra	Cartographer

Department of Space Engineering and Rocketry

S. No.	Name	Designation
1.	Dr. A. K. Chatterjee	Professor and Head
2.	Dr. P. C. Joshi	Professor
3.	Dr. J. K. Prasad	Professor
4.	Prof. Sudip Das	Assistant Professor
5.	Prof. Priyank Kumar	Assistant Professor

Department of Physical Education & Sports

Sl.No.	Name	Designation
1.	Dr. Rama Shankar Singh	Sr. Sports Officer
2.	Mr. Mahendra Kumar	Sr. Lecturer

Environment Science and Engineering Group

S.No.	Name	Designation
1	Dr.Gopal Pathak	Professor
2	Mr. Kirti Avishek	Assistant Professor
3	Dr. Amit Kumar Gorai	Assistant Professor
4	Ms. Nidhi Singh	Associate Lecturer
5	Mr. Jawed Iqbal	Associate Lecturer
6	Ms. Neeta Kumari	Associate Lecturer

Central CAD Laboratory

S. No.	Name	Designation
1.	Mr. N. K. Nag	Principal System Analyst
2.	Mr. Pramod Kumar	Jr. System Administrator

B.I.T. Extension Centre: Allahabad

S. No.	Name	Designation
1.	Prof. B.N.Giri	Director
2.	Shri S.Kanungo	Asst. Professor
3.	Shri R.S.Pandey	Asst. Professor
4.	Mrs. A.Kushwaha	Asst. Professor
5.	Shri S.C.Pandey	Asst. Professor
6.	Shri K.N.Mishra	Asst. Professor
7.	Shri S.S.Kumar	Asst. Professor
8.	Shri D. Mahto	Asst. Professor
9.	Dr. A.K.Mahanty	Asst. Professor
10.	Shri A.K.Keshri	Asst. Professor
11.	Shri K. Nikhil	Asst. Professor
12.	Dr. S.K.Pandey	Asst. Professor
13.	Dr. P.C.Srivastava	Asst. Professor
14.	Shri R.Mishra	Asst. Professor
15.	Shri B.N.Singh	Associate Lecturer
16.	Mrs. Sweta	Associate Lecturer
17.	Shri P.Munda	Associate Lecturer
18.	Mrs. N.Tiwari	Associate Lecturer
19.	Shri A.M.Dubey	Associate Lecturer
20.	Mrs. A. Shukla	Associate Lecturer
21.	Shri N. Trivedi	Associate Lecturer

B.I.T. Extension Centre: Deoghar

S. No.	Name	Designation
1.	Prof. M.K. Banerji	Director
2.	Mr. Praveen James Sanga	Lecturer
3.	Mr. Ranjan Chattaraj	Assoc. Lecturer
4.	Mr. Amit Kumar	Assoc. Lecturer
5.	Mr. Prafulla Kumar Manoharan	Assoc. Lecturer
6.	Mr. Swapan Kumar Borat	Assoc. Lecturer
7.	Mr. Varun Kumar Singh	Jr. Scientific Officer
8.	Mr. Rana Jitendra Kumar Singh	Research Associate
9.	Mr. Mahendra Kumar Pandey	Tutor

B.I.T. Extension Centre: Jaipur

S. No.	Name	Designation
1	Dr. Abhinav Dinesh	Director
Computer Science Department		
1	Dr.(Mrs.) Madhavi Sinha	Associate Professor
2	Mr. P.K. Sharma	Assistant Professor
3	Dr. O.P. Rishi	Assistant Professor
4	MR. B. Pathak	Assistant Professor
5	MR. Shripal Vijayvargiya	Assistant Professor
6	MR. Madan Mohan Agarwal	Assistant Professor
7	MR. Alok Pandey	Sr.System Manager
8	Dr. Gurminder Singh Malhotra	Assistant Professor
9	Dr. Anuj Kumar Jhankal	Assistant Professor
10	Mr. Subhash Chand Gupta	Assistant Professor
11	Mrs. Archana Bhatnagar	Assistant Professor
12	Mrs. Seema Gaur	Assistant Professor
13	Mrs. Anju Sharma	Assistant Professor
14	Mr Inder Kumar Dadheech	Assistant Professor
15	Mr Santosh Kumar Sharma	Assistant Professor
16	Dr. Bhawna Agarwal	Assistant Professor
17	Mr S.K. Sharma	Programmer
18	Mrs. Deepa Mordia	Associate Lecturer
19	Mr Santhosh Kumar Agarwal	Associate Lecturer
20	Mrs. Senha Shastri	Associate Lecturer
Electronics Department		
1	Mr S.P. Sarkar	Sr.Scientific Officer
2	Mr D.P. Chirania	Visiting Professor
3	Mr Jankiballabh Sharma	Assistant Professor
4	Mr eepak Chaturvedi	Assistant Professor
5	Mr Prashant Singh Rathore	Assistant Professor

S. No.	Name	Designation
6	Mrs. Aparajita Pandey	Assistant Professor
7	Mr J. Goswami	Assistant Professor
8	Ms. Jyoti Sharma	Assistant Professor
9	Ms. Swati Gupta	Assistant Professor
10	Mr Ankur Agarwal	Associate Lecturer
11	Mr Puneet Sharma	Associate Lecturer
Management Department		
1	Dr. Roopali sharma	Associate Professor
2	Mr Prabhu Narian Gupta	Associate Professor
3	Dr. Ritu Arora	Assistant Professor
4	Mrs. Pankaj Sharma	Assistant Professor
5	Ms. Aditi Sharma	Assistant Professor
6	Mr. Sumit Kulshrestha	Associate Lecturer
7	Mr. Priyanshu Sharma	Associate Lecturer
8	Ms. Purvi Mathur	Associate Lecturer
Animation Department		
1	Dr. Vibhuti Pandya	Assistant Professor
2	Mr. Vivek Sharma	Assistant Professor
3	Mr. Gautam Kumar Goswami	Assistant Professor
4	Mr. Bidyut Jyoti Baruah	Assistant Professor
5	Mrs. Neeraja Sharma	Scientific Officer
6	Mr. Manish Kumar	Associate Lecturer
7	Mrs. Rishika Sharma	Associate Lecturer
Physics Department		
1	Dr. Ram Prakash	Associate Professor
2	Mr. Anand Kumar Srivastava	Assistant Professor
3	Mr. Ravindra Kumar	Associate Lecturer
Chemistry Department		
1	Dr. S.K. Sharma	Professor
2	Dr. (Mrs) Ranjana Agarwal	Assistant Professor
3	Mrs. Rajani Agrawal	Jr. Scientific Officer
Remote Sensing Department		
1	Ms. Nidhi Agarwal	Assistant Professor
2	Ms. Aditi Sharma	Assistant Professor
3	Dr.(Mrs.) Sunita Payra Verma	Assistant Professor
Bio-Tech Department		
1	Dr. M. Krishna Mohan	Professor
2	Dr. V.K. Nigam	Associate Professor
3	Mr. P.S.Solanki	Assistant Professor
4	Dr. R.K. Gothwal	Assistant Professor
5	Ms. Shivani Chandra	Associate Lecturer

B.I.T. Extension Centre: Kolkata

S. No.	Name	Designation
1	Prof. R T Goswami	Professor
2	Prof. Subho Chaudhuri	Associate Professor
3	Dr. (Mrs.) Sraboni Mukhopadhyaya	Associate Professor
4	Dr. (Mrs) Ajanta De Sarkar	Reader
5	Dr. Sandip Kumar Sengupta	Assistant Professor
6.	Prof. Tanmoy Kumar Banerjee	Assistant Professor
7.	Prof. Ambar Dutta	Assistant Professor
8.	Dr. (Mrs) Ruchira Mukherjee	Assistant Professor
9.	Mrs. Sanchita Ghosh	Assistant Professor
10.	Mrs. Sraboni Dutta	Assistant Professor
11.	Prof. Soumendra Bhattacharjee	Assistant Professor
12.	Prof. Rohit Kamal Chatterjee	Assistant Professor
13.	Mr. Khalid Ashraf	Associate Lecturer
14.	Sri Ranadeep Mukherjee	Associate Lecturer
15.	Ms. Keka Das	Associate Lecturer
16.	Ms. Sohini Ghosh	Associate Lecturer
17.	Mr. Soumya Ray	Associate Lecturer

B.I.T. Extension Centre: Lalpur

S. No.	Name	Designation
1.	Dr. A. N. Jha	Professor (In-Charge- BITEC Lalpur)
2.	Dr. Pranab Kumar	Assistant Professor
3.	Mr. Abhaya Ranjan Srivastava	Assistant Professor
4.	Mr. Arun Kumar Singh	Assistant Professor
5.	Ms. Anupama Sahai	Assistant Professor
6.	Mr. Somnath Mukherjee	Assistant Professor
7.	Mr. S. N. Sahdeo	Assistant Professor
8.	Mr. Ashutosh Mishra	Assistant Professor
9.	Mr. S. A. Haider	Assistant Professor
10.	Mr. Amitabh Chandan	Assistant Professor
11.	Ms. Mili Dutta	Assistant Professor
12.	Mr. J. Bhagat	Associate Lecturer
13.	Mr. Soumitro Chakravarty	Associate Lecturer
14.	Mr. Satrajeet Choudhary	Associate Lecturer
15.	Mr. Avinash Sinha	Associate Lecturer
16.	Ms. Swati Priyadarshani	Associate Lecturer
17.	Ms. Sayantoni Choudhury	Associate Lecturer
18.	Ms. Niharika Srivastava	Associate Lecturer
19.	Ms. Shikha Devi	Research Associate cum Tutor

S. No.	Name	Designation
1.	Dr (Mrs). Vandana Bhattacharjee	Associate Professor
2.	Mrs. Amrita Priyam	Assistant Professor
3.	Mrs. Onima Tigga	Assistant Professor
4.	Mr. N.K. Singh	Assistant Professor
5.	Mr. N. P. Tiwari	Assistant Professor
6.	Ms. Jaya Pal	Assistant Professor
7.	Mr. Kuntal Mukherjee	Assistant Professor
8.	Mr. Sanjay Kumar	Assistant Professor
9.	Mr. Amar Kumar	Assistant Professor
10.	Ms. P. S. Bishnu	Assistant Professor
11.	Mr. Binod Kr. Sharma	Assistant Professor
12.	Mr. D. K. Mishra	Associate Lecturer
13.	Mr. Umesh Prasad	Associate Lecturer
14.	Ms. Shamama Anwar	Associate Lecturer

B.I.T. Extension Centre: NOIDA

S. No.	Name	Designation
1.	Prof. S.C. Goel	Director
2.	Dr. C.P.Srivastava	Advisor (Education)
3.	Mr. V.P.Singh	Advisor (Corporate Relations)
4.	Dr. P.C.Saxena	Dean (ICT)
5.	Dr. B.K. Jha	Professor
6.	Dr. S.L. Gupta	Professor
7.	Dr. Munish Makad	Professor
8.	Dr. Asha Prasad	Associate Professor
9.	Mrs. S. Mallika	Assistant Professor
10.	Mr. Pankaj Gupta	Assistant Professor
11.	Mr. Anil Kumar	Assistant Professor
12.	Dr. Vandana Sharma	Reader
13.	Mr. C.S. Suryanarayan	Assistant Professor
14.	Mrs. Mrinalini Mehta	Assistant Professor
15.	Mr. S.P. Singh	Assistant Professor
16.	Mrs. Vibha Kaw	Assistant Professor
17.	Mrs. Soma Sircar	Assistant Professor
18.	Dr(Mrs) Ila Sahay	Assistant Professor
19.	Mrs. Shruti Kohli	Assistant Professor
20.	Mr. Aruna Malik	Assistant Professor
21.	Mr. Rayees Ahmed	Assistant Professor
22.	Mrs. Sheetal Dhir	Assistant Professor
23.	Mrs. Pramila Joshi	Assistant Professor
24.	Mrs. Muntaha Ahmad	Assistant Professor
25.	Mrs. Smitha Jha	Assistant Professor

26.	Mr. Anurag Joshi	Assistant Professor
27.	Dr.(Mrs). Suparna Dutta	Assistant Professor
28.	Mrs. Meenakshi Sharma	Assistant Professor
29.	Mrs. Rachana Pratik	Assistant Professor
30.	Mrs. Harpreet Charanjit	Assistant Professor
31.	Mrs. Ritu Jain	Assistant Professor
32.	Mrs. Preety Bajaj	Assistant Professor
33.	Mr. Arun Mittal	Assistant Professor
34.	Mr. K.B. Singh	Assistant Professor
35.	Mrs. Priti Sharma	Assistant Professor
36.	Mrs. Siba Mitra	Assistant Professor
37.	Ms. Charu Wahi	Assistant Professor
38.	Ms. Monika Bisht	Assistant Professor
39.	Dr. Abhishek Singh	Assistant Professor
40.	Mr. Prashant Kumar	Assistant Professor
41.	Mrs. Seema Sharma	Sr. Software Engg.
42.	Mrs. Lipika Jha	Associate Lecturer
43.	Mr. Rakesh Singh	Associate Lecturer
44.	Mrs. Kusum Lata Mishra	Associate Lecturer
45.	Mrs. Anupama Sharan	Associate Lecturer
46.	Mrs. Vijaya Lakshmi	Jr. Scientific Officer

B.I.T. Extension Centre: Patna

S. No.	Name	Designation
1.	Dr. K.K. Srivastava	Director
2.	Prof. K.P. Singh	Visiting Professor
3.	Prof. D.P.Singh	Visiting Professor
4.	Prof. R.U. Sinha	Visiting Professor
5.	Mr. Niloy Bhattacharya	Principal System Analyst
6.	Mr. Surendra Mohan Sahay	Project Executive
7.	Mr. Satish Chandra Mishra	Manager (Technical Training)
8.	Mr. N. Poddar	Reader
9.	Dr. Pradeep Choudhary	Reader
10.	Dr. Chinmoy Kr. Panigrahi	Sr. Lecturer
11.	Mr. Kanhaya Lal	Sr. Lecturer
12.	Dr. S.K. Sinha –II	Sr. Lecturer
13.	Mr. Baboo Rai	Sr. Lecturer
14.	Mrs. Anubha Singh	Lecturer
15.	Mr. Sudipta Kishore Pradhan	Lecturer
16.	Dr. Kaushlendra Sharma	Lecturer
17.	Mr. Soumen Mandal	Lecturer
18.	Dr. Anurag Jaiswal	Lecturer
19.	Mr. Prashant Kumar	Lecturer

20.	Dr. Kamala Pati Tiwary	Lecturer
21.	Mr. Dileep Kr. Upadhyay	Lecturer
22.	Mr. Vijay Kr. Mandal	Assoc. Lecturer
23.	Mr. Madhup Kumar	Assoc. Lecturer
24.	Mr. Umesh Prasad	Assoc. Lecturer
25.	Mrs. Neelam Kumari	Assoc. Lecturer
26.	Mr. Rajnish Kumar	Assoc. Lecturer
27.	Mr. S.S. Yadav	Sports Instructor

B.I.T. International Centre: Muscat

S. No.	Name	Designation
1.	Dr. Mohan Varma	Dean & Director
2.	Dr.(Mrs) Padmini P	Asst. Dean & HoD – Biotech
3.	Dr. Neeraj Kumar Pandey	Reader
4.	Mr. Vikash Sharma	Lecturer (Selection Grade)
5.	Dr. G.P. Mishra	Lecturer (Selection Grade)
6.	Mr. A. Prakash	Sr. Lecturer
7.	Mr. Iftekhar Ahmad	Sr. Lecturer
8.	Mr. Jyoti K Chandel	Sr. Lecturer&HoD Management
9.	Mr. Mithun Srivastava	Sr. Lecturer
10.	Mr. Sayeed Aulia	Sr. Lecturer
11.	Mr. Pranav Naithani	Sr. Lecturer
12.	Ms. P. Vijaya	Sr. Lecturer & HoD Comp. Science
13.	Mr. Satish Chander	Sr. Lecturer
14.	Mr. Sanjay Kumar	Sr. Lecturer
15.	Mr. Shahid Ali	Sr. Lecturer
16.	Mr. Santosh Kumar Ray	Sr. Lecturer
17.	Mr. A.K. Choudhary	Sr. Lecturer
18.	Mr. Kumar Rajnish	Sr. Lecturer
19.	Mr. Akhilesh Roy	Sr. Lecturer & HoD ECE
20.	Mr. Mohd. Mohatram	Sr. Lecturer
21.	Dr. Prabal Datta	Sr. Lecturer
22.	Mr. Niraj Mishra	Sr. Lecturer
23.	Mr. Sushil Kumar	Sr. Lecturer
24.	Mr. Arvind Hans	Lecturer
25.	Mr. Praveen James	Lecturer
26.	Mr. Rajeev Ranjan	Lecturer
27.	Mrs. Soofi Asra Mobeen	Lecturer
28.	Dr. Sadaf Zahra	Lecturer
29.	Mrs. Atiya Tabassum	Lecturer

30.	Mr. Anil Kumar Sharma	Lecturer
31.	Ms. Shashi Dua	Lecturer
32.	Ms. Seema Varshney	Lecturer
33.	Ms. Srilekha Goveas	Lecturer
34.	Ms. Nupur Sen	Lecturer
35.	Ms. Blossom Christina	Lecturer
36.	Ms. Neelufer Aslam	Lecturer
37.	Dr. Sheeba Khan	Lecturer
38.	Ms. Sameena Begum	Lecturer
39.	Ms. Sinyamol	Lecturer
40.	Ms. Cimi Thomas	Lecturer
41.	Ms. Anu Manchanda	Lecturer
42.	Ms. Alycia Sebastian	Lecturer
43.	Ms. R.M. Vallikannu	Lecturer
44.	Ms. Smita Felix	Lecturer
45.	Ms. Sharmila Queenthly	Lecturer
46.	Ms. Indrani Basu	Lecturer & HoD English
47.	Ms. Smita Prasad	Lecturer
48.	Mr. David Manohar	Lecturer
49.	Mr. El Amin El Nur	Lecturer
50.	Mr. Kenneth McGowan	Lecturer
51.	Ms. Anasuya Patil	Associate Lecturer
52.	Ms. Nejma Mohd	Associate Lecturer
53.	Ms. Nabila Al Ghenami	Assistant Lecturer
54.	Ms. Sara Al Haddabi	Assistant Lecturer
55.	Mr. Khalid Al Gharibi	Assistant Lecturer

B.I.T. International Centre: Ras Al Khaimah (UAE)

S. No.	Name	Designation
1.	Dr. Praveen Dhyani	Director
2.	Prof. Bal Ram	Professor
3.	Dr. Peeyush Tiwari	Sr. Lecturer
4.	Mr. Dileep Tanksali	Sr. Lecturer
5.	Mrs. Indu Nair	Sr. Lecturer
6.	Mrs. N. Mallika	Sr. Lecturer
7.	Dr. Nalini Raja	Sr. Lecture
8.	Mrs. A.S. Padmashree	Sr. Lecturer
9.	Mrs. Thaseen Fatima	Sr. Lecturer
10.	Mrs. Sreelatha Sudhir	Asst. Professor
11.	Mr. Avnish Vijay	Lecturer

12.	Mr. V.C.S.M.R.Pujari	Lecturer
13.	Mr. Bharathan Viswanathan	Lecturer
14.	Mr. Sunil	Lecturer
15.	Mr. V. Rajesh	Lecturer
16.	Mrs. Abhirami T.	Lecturer
17.	Mr. Rejy K Thariyan	Lecturer
18.	Mr. D. Ravikumar	Lecturer
19.	Mr. S.P. Bhattacharya	Lecturer
20.	Mr. Sanmarga Mitra	Lecturer
21.	Mrs. Parama Mitra	Lecturer
22.	Mr. Tanweer Eqbal	Lecturer
23.	Mr. K.N.Murugavel	Lecturer
24.	Mrs. Halima Biwi	Lecturer
25.	Mrs. Srija Praveen	Lecturer
26.	Mrs. Sivasankari S.	Lecturer
27.	Mr. Ranjeet Ranjan	Lecturer
28.	Mrs. Shimna Shafeek	Lecturer
29.	Mrs. Uma Laxmi	Lecturer
30.	Mrs. Sajeena Nizam	Lecturer
31.	Mrs. Mincy Oommen	Lecturer

University Polytechnic

S. No.	Name	Designation
1	Mr. Devendra Kumar Jain	Director
2	Dr. G. G. Sarkar	Principal Scientific Officer
3	Mr. Ramkesh	Sr. Lecturer
4	Mrs. Meena Singh	Lecturer
5	Mr. Pradeep Toppo	Lecturer
6	Mr. Manish Oraon	Lecturer
7	Dr. B. N. Sanyal	Lecturer
8	Mr. Ramnish Sinha	Lecturer
9	Mr. Satish Kumar	Lecturer
10	Mr. Sunil Kumar Sahay	Lecturer
11	Mr. Gholam Mursalin Ansari	Jr. System Analyst
12	Mr. Nand Kishore Mukherjee	Associate Lecturer
13	Mr. Rakesh	Associate Lecturer
14	Mrs. Sumana Kumari	Associate Lecturer
15	Mrs. Neeru Singh	Associate Lecturer
16	Mr. Abhay Kumar	Associate Lecturer

17	Mr. Trilok Kumar Parashar	Associate Lecturer
18	Mrs. Sandhya Kumari	Associate Lecturer
19	Mr. Niraj Kumar	Associate Lecturer
20	Mrs. Rekha Kumari	Associate Lecturer
21	Mr. Rajendra Mahto	Jr. System Analyst
22	Ms. Nirupam	Associate Lecturer
23	Md. Maqbool Hossain	Associate Lecturer

Department of Architecture



Architectural Design Studio

The Department of Architecture was established in BIT Mesra in the year 1993. Architecture is primarily the art and science of designing spaces for serving the multifarious activities of human beings and for meeting their specific needs in a meaningful built environment. Architecture calls for originality, creativity, conceptualization, perception, aesthetic values and a holistic judgment of people, places, objects and events. Imparting these values, our eleven batches of architecture students have graduated till now and they have found gainful employment in planning,

design and construction sector. Many of our students have opted for higher studies in India and abroad in the disciplines of Urban Design, City Planning, Landscape architecture, Conservation and Construction Management. Our students have also opted for diversified fields such as Visual Design, Product Design, Fashion Design, Management and Software Development related with architecture.

The Department has attained a rare feat of being the first ever Department of Architecture in the country to be awarded research grants under **the Department Research Support (DRS) level of the Special Assistance Programme (SAP) of University Grants Commission (UGC)**. The Department acquired latest computers and software with the help of this support and involved in quality research now.

Considering the needs of urban development in the new state, the Department has started offering the Master in Urban Planning degree course from January 2007 with a maximum intake capacity of 12. The first batch of ten students have passed out as Planners in December 2008.

The Department of Architecture of BIT Mesra has also stood the sixth best Department as per survey conducted by Outlook and the first in the country as an Architecture Department to publish an internationally refereed bi-annual research journal named ABACUS since August 2006. Six issues of the journal have been published.

The Department offers following programmes

- UG : 5-Year B. Arch degree course in Architecture
- PG : 2-year Master in Urban Planning degree course.
- Ph.D

Sponsored Project**Ongoing Projects**

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	National Mission Project on Education through ICT	Dr. Manjari Chakraborty, N. R. Mandal, S.P. Bhattacharya, Dr. S. Sarkar, S.K. Pandey, Harshit Lakra, Anuj Toppo, B.C.Roy, R.C. Sinha, Sangita	MHRD	September 2009-ongoing	31.2 Lac	3 Years
2.	Research support grant under DRS at level 1 of SAP, UGC Projects undertaken: 1. Formulating a Planning Approach for some of the Newly Made District Head Quarters at Ranchi, the Capital of Jharkhand state.	Prof. (Dr.) Manjari Chakraborty & Prof. N.R. Mandal, (Project Coordinator)	DRS scheme of the Special Assistance Programme (SAP), UGC	26 th February 2007	33 Lacs. For 3 projects	years

Seminar / Conferences / Short – term Courses Conducted by the Department

Sl. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1.	Workshop by Professor Emeritus Anupam Banerji from School of Architecture, Waterloo University, Canada	Harshit Lakra	BIT	4-5th December, 2009

One day Colloquium

Sl. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1	"Excellence in profession" Special Lecture by Mr. D. R. Dhariwal, President, Birla White	Bimal C. Roy	Birla White	26th February 2010
2	" Sound Design" - Special Lecture by Nandlal Nayak, Internationally renowned Folk Artist, Film Maker and Music Director	Harshit Lakra	BIT	20th February 2010.

3	"Innovative Architecture" - Special Lecture by Architect Santosh Shekar from Incredible Art, Jharkhand	Dr. Satayki Sarkar	BIT	6th February 2010.
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Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Month Date, Year
1	M Chakraborty	Conservation of Tribal Heritage & Environment of Tribal Areas	Govt of Jharkhand	INTACH	ICFAI University, Ranchi	March 10-11 th , 2010
2	N R Mandal	of 58 th National Town & Country Planners Congress on 'Inclusive Planning for Empowering Urban Poor'	BIT	ITPI	Nagpur	January 4 – 6 th , 2010
3	Harshit S. Lakra	Eighth Session of the United Nations Permanent Forum on Indigenous Issues, organized by United Nation Permanent Forum on Indigenous Issues (UNPFII)	Ford Foundation	United Nation Permanent Forum on Indigenous Issues (UNPFII)	United Nations Headquarters, New York.	18 - 29 May, 2009
4	Ritu Agrawal	Statistical Modeling and Data Analysis	-	Dept. of Management, IIT Kharagpur	Indian Institute of Technology, Kharagpur	21-24th Dec, 2009

Publications

International Journals

1. N. R Mandal,; Private Action and Community Participation in Development of Building Infrastructure for Elementary Schools; ABACUS, Vol. 4 No.2; (2009); pp. 35 – 42 [ISSN: 0973-8339]
2. S.P.Bhattacharya, S.K.Chakraborty, Performance based Architectural Design Guideline for Multi-storied Buildings in Seismic zones, Disaster Advances, Vol.3(1) (2010) 24-31.
3. Sangita, S. Sarkar, Technique for Identifying Land Suitability for Urban Development in Stretches around the Proposed Ring Road, Spatio-Economic Development Record, Volume 16, No. 2, (March – April 2009), pp..16-22.

National Journal

1. Sangita, S.Sarkar, Methodology for organizing future growth in areas abutting proposed ring roads: a case study of newly formed state capital, ITPI Jornal,6-4, (October-December 2009),101-104.

Proceedings

1. Mandal, N. R.; Overcoming Socio-political Barrier with Community Participation for Better Access to Social Infrastructure; Proceedings of 58th National Town & Country Planners Congress on 'Inclusive Planning for Empowering Urban Poor'; Nagpur, 4 – 6th January 2010, pp335 – 341.

2. S. Sarkar, A. Sarkar, Approaching Inclusive Planning for Urban Slums in Indian Megacities using Geographic Information System; Proceedings of 58th National Town & Country Planners Congress on 'Inclusive Planning for Empowering Urban Poor'; Nagpur, 4 – 6th January 2010, pp 298-300.
3. H.S. Lakra and A.R. Tete and R. Agarwal and S Mishra, S.K. Pandey, Developing Model for Empowering Domestic Laborers in Jharkhand, Inclusive Planning for Empowering Urban Poor, Proceedings of 58th National Town and Country Planners Congress, Nagpur, 4-6th January 2010.

Departmental Students' Activities

S. No.	Name of the Activity	Students' co ordinator, if any	Date/Duration
1.	ZONASA	Mr. Aditya Singh	1 st – 3 rd October 2009
2.	Student's Tour	Mr. Maharshi Bhattacharya & Ms. Suryabala Sha	15 th – 27 th December 2009

Members on Board of Studies (UG/PG)

Internal

- Dr. Manjari Chakraborty, Prof. & Head, Department of Architecture
- Mr. N.R. Mandal, Associate Professor, Department of Architecture
- Mr. S.P. Bhattacharya, Senior Lecturer, Department of Architecture
- Dr. K.V. Krishnamurthy, Prof. & Head, Department of Civil Engineering
- Dr. M.S. Nathawat, Prof. & Head, Department of Remote Sensing

External (any two)

- Prof. B.K. Sengupta, Prof. & Head, Department of Architecture, IIT Kharagpur
- Prof. S.S. Roy, Prof. & Head, Department of Architecture, CET Bhubaneswar
- Mr. Amit De, Deputy General Manager, Architecture Division, MECON, Ranchi
- Mr. Rajiv Chadda, Professional Architect, Ranchi

Any Other Information

Ms. Ishanie Niyogi, a 7th semester student of the Department won the First Place Prize for the 2010 BERKELEY PRIZE Essay Competition for her entry "The Story of a Prison Cell"

Department of Applied Chemistry



Applied Chemistry Research Laboratory

The Department of Applied Chemistry was established in 1956 and supports the Institute's undergraduate, postgraduate and Ph.D. programmes in pure and applied chemistry including a multidisciplinary programme M Tech in Environmental Science & Engineering.

The Department has started a post graduate programme **M.Sc. in Applied Chemistry** from Session 2009. It is an interdisciplinary program designed to provide an in-depth knowledge in various aspects of Applied Chemistry relevant to current educational and research prospects in Organic &

Medicinal Chemistry, Environmental & Inorganic Chemistry and Materials & Computational Chemistry. The aim of this program is to prepare students for advanced research, academics and careers in R & D.

The Department has quality research programs supported by UGC, DST, UNICEF and the World Bank. There have been more than 30 publications from the Department in journals of high impact factor in the year 2009-10. Three projects (two DST & one UGC) have been sanctioned during 2009-10.

Through the funds obtained from UGC XIth plan, the Department has developed a state of art Synthetic Chemistry Lab which will cater to the needs of PG students as well as our research scholars & faculty members.

The Department has been developed as a nodal centre to answer problems related to Qualitative and Quantitative Analysis of Various Environmental Pollutants and Engineering Materials. Faculty members of the Department have actively participated in the "**INSPIRE**" programme which was an initiative of the DST to induct & encourage students to enter into the realms of basic science education & research. The Department is actively involved in promoting environmental awareness amongst the tribal and rural population in Jharkhand

Innovative R&D Efforts:

- Development of novel materials for detection & removal of toxic pollutants.
- Development of functionalized polymeric biomaterials
- Molecular Modeling & Drug Design

Introducing Green-Chemistry Practices

- Replacement of hazardous chemicals by non toxic substitutes.
- Waste Minimization by introduction of semi micro/micro methods of analysis.
- An introduction to computational chemistry, molecular modeling & virtual chemistry lab.

Services to Community

- Water Quality Monitoring & Control.
- Environmental Mass Awareness Drive
- Development of a Portable Water Purification Kit
- Food adulterant Detection Kit

Programmes Offered	Intake
M.Sc. In Applied Chemistry -2 Year (4-Semester)	15
Ph.D.(in Pure & Applied Chemistry)	

Sponsored Project

Ongoing Projects

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1	The target based discovery of carbocyclic nucleosides as an anti-HCV agent through computer assisted drug design and synthesis.	Dr. A. Sharon	DST	Jan 2010	17.0 L	3 Year
2	Computer Assisted Design and Synthesis of carbocyclic nucleosides as an anti-hepatitis agent.	Dr. A. Sharon	UGC	Feb 2010	5.9 L	3 Year
3	Discovery of HepDirect Nucleotide Prodrug as Anti-Hepatitis B Agent	Dr. C. Bal	DST	Mar 2010	18.8 L	3 Year

Projects Completed

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1	Water Quality monitoring & surveillance	Dr. U. Jha	UNICEF		11.0 L	
2	Introduction of semi-micro analytical technique	Dr. U. Jha	World Bank		20.0 L	
3	Development & application of hydrolyzed and unhydrolyzed polyacrylamide grafted tamarind kernel powder (TKP) as flocculant for wastewater treatment	Dr. U. Jha Dr. G. Sen	DST		8.0 L	
4	Synthesis and Evaluation of polymeric adsorbents for the removal of Fluoride.	Dr. Usha Jha Dr. R. K. Dey	UGC		5.8 L	

Seminar / Conferences / Short – term Courses Conducted by the Department

Sl. No.	Title of Seminar	Speaker/ Organization	Funding / Sponsoring Agency	Date of Seminar
1	Ethnomedicinal Antivirals: Scope and opportunity	Dr. D. Chattopadhyay/ ICMR Virus Unit, Kolkata	ICMR	12 April 2010
2	Green Chemistry: Application in Industry	Dr. R. Bandichhor/ Senior Scientist, Dr. Reddy's Lab, Hyderabad	Dr. Reddy's Lab	29 Jan, 2010

Conferences/ Seminars/ Workshops/ Staff Development Programs attended

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Month Date, Year
1	Dr. A. Sharon	Staff Development Program, AICTE / Seminar Title: HepDirect approaches for liver-targeted drug delivery	AICTE	Dept. of Pharmaceutical Sciences, BIT Mesra, Ranchi	BIT Mesra, Ranchi	May, 2010
2	Dr. A. Sharon	PHARMACON 2010 / Co-Chair Person in Plenary Lectures		Indian pharmacological society and Pharmaceutical Sciences, BIT Mesra, Ranchi	BIT Mesra, Ranchi	April, 2010
3	Dr. A. Sharon	National talent Search (IX-X standard) / Lecture Title: 'A beautiful world of crystal and chemistry'	NCERT	BIT Mesra	BIT Mesra, Ranchi	March, 2010
4	Dr.S. Naskar	National Seminar on "Recent advances in selected topics in chemistry"	UGC	BESU-Shibpur	Dept. of Chemistry, BESU-Shibpur	January, 2010
5	Dr. A. Sharon Dr. Rafique Dr. C Bal Dr. S.Naskar, Mr. Rahul, Mr. G. Sen	DST Inspire / Natural product awareness (Experimental Briefing)	DST	BIT Mesra	BIT Mesra, Ranchi	January, 2010
6	Dr. Sumit Mishra	As expert to "Career Prospective for Engineering aspirants"	Delhi Public School, Ranchi	SRM University	Delhi Public School, Ranchi	Feb 2010
7	Dr. S. Naskar	Faculty Workshop on Soft Skills		BIT-Mesra	BIT-Mesra	Sep, 2009
8	Dr. S. Naskar	Symposium on Modern trends in Inorganic Chemistry: MTIC-XIII,	DST, CSIR, BNRS, JNCASR, IISC	Department Of Inorganic & Physical Chemistry, Indian institute of Science, Bangalore,	Indian institute of Science, Bangalore,	December 2009
9	Dr. A. Sharon	Current R & D status and career opportunities in biotechnology / Drug discovery as lucrative Career: Global opportunities		Association of Microbiologist of India, Ranchi Unit, Dept. of Biotechnology, BIT Mesra	BIT Mesra, Ranchi	September, 2009

10	Dr. U. Jha Mr. Sandipto	International conference on Recycling and reuse of Materials) held at on		IMSE, Kottayam, Kerala		July 2009
11	Dr. Deepshikha	Advanced Ceramics and composites	Tata Steel	Indian Ceramic Society, National Metallurgical Laboratory	Auditorium Jubilee Park Road, Jamshedpur	May 2009

Publications

International Journals (2009- 2010)

1. Rao, J. R.; Jha, A. K.; Rawal, R. K.; Sharon, A.; Day, C. W.; Barnard, D. L.; Smee, D. F.; Chu, C. K., (-)-Carboline: enantiomeric synthesis and in vitro antiviral activity against various strains of influenza virus including H5N1 (avian influenza) and novel 2009 H1N1 (swine flu). *Bioorg Med Chem Lett* **2010**, 20, (8), 2601-4.
2. Bal, N. C.; Sharon, A.; Gupta, S. C.; Jena, N.; Shaikh, S.; Gyorke, S.; Periasamy, M., The catecholaminergic polymorphic ventricular tachycardia mutation R33Q disrupts the N-terminal structural motif that regulates reversible calsequestrin polymerization. *J Biol Chem* **2010**, 285, (22), 17188-96.
3. Gautam Sen, Sumit Mishra, Usha Jha, Sagar Pal, Microwave initiated synthesis of polyacrylamide grafted guar gum (GG-g-PAM) – characterizations and application as matrix for controlled release of 5-amino salicylic acid, *International Journal of Biological Macromolecules*, **2010**, 47, 164-170.
4. Gautam Sen, R.P.Singh, Sagar Pal, Microwave-initiated synthesis of polyacrylamide grafted sodium alginate: Synthesis and characterization, *Journal of Applied Polymer Science*, **2010**, 115, 63-71.
5. Shikha, D.; Jha, U.; Sinha, S.; Singh, A.; Barhai, P.; Nair, K.; Dash, S.; Tyagi, A.; Kothari, D., A Comparative Study of Corrosion Resistance in Ringer Solution of Nitrogen-Implanted Alumina at Different Energies for Orthopedic Implants. *International Journal of Applied Ceramic Technology* **2010**, 7, (2), 156-163.
6. Sen, G.; Singh, R. P.; Pal, S., Microwave-initiated synthesis of polyacrylamide grafted sodium alginate: Synthesis and characterization. *Journal of Applied Polymer Science* **2010**, 115, (1), 63-71.
7. Sen, G.; Mishra, S.; Jha, U.; Pal, S., Microwave initiated synthesis of polyacrylamide grafted guar gum (GG-g-PAM)-characterizations and application as matrix for controlled release of 5-amino salicylic acid. *Int. J. Biol. Macromol.* **2010**.
8. Mishra Sumit and Singh, Gurdeep "A Study on Particle Size Distribution Profile of Coal Combustion Residues from Thermal Power Plants of India", *Asian Journal of Research in Chemistry*, **2010**, 3, 2, 386-388
9. Naskar, S.; Figgie, H.; Sheldrick, W.; Chattopadhyay, S., Synthesis, crystal structures and spectroscopic properties of two Zn (II) Schiff's base complexes of pyridoxal. *Polyhedron* **2010**, 29, (1), 493-499.
10. Naskar, S.; Butcher, R.; Chattopadhyay, S., Synthesis, X-ray crystal structures and spectroscopic properties of two Ni (II) complexes of pyridoxal Schiff's bases with diamines: Importance of steric factor in stabilization of water helices in the lattices of metal complex. *Inorganica Chimica Acta* **2010**, 363, (2), 404-411.
11. Kim, Y. A.; Rawal, R. K.; Yoo, J.; Sharon, A.; Jha, A. K.; Chu, C. K.; Rais, R. H.; Al Safarjalani, O. N.; Naguib, F. N.; El Kouni, M. H., Structure-activity relationships of carbocyclic 6-benzylthioinosine analogues as subversive substrates of *Toxoplasma gondii* adenosine kinase. *Bioorg Med Chem* **2010**, 18, (10), 3403-12.

12. Karuppasamy, M.; Mahapatra, M.; Yabanoglu, S.; Ucar, G.; Sinha, B. N.; Basu, A.; Mishra, N.; Sharon, A.; Kulandaivelu, U.; Jayaprakash, V., Development of selective and reversible pyrazoline based MAO-A inhibitors: Synthesis, biological evaluation and docking studies. *Bioorg Med Chem* **2010**, 18, (5), 1875-81.
13. Deshmukh, A.; Islam, R.; Witcomb, M.; van Otterlo, W.; Coville, N., Catalytic Activity of Metal Nanoparticles Supported on Nitrogen-Doped Carbon Spheres. *ChemCatChem* **2010**, 2, (1), 51-54.
14. Hean, J.; Crowther, C.; Ely, A.; Islam, R. U.; Barichievy, S.; Bloom, K.; Weinberg, M. S.; van Otterlo, W.; de Koning, C. B.; Salazar, F.; Marion, P.; Roesch, E.; LeMaitre, M.; Herdewijn, P.; Arbuthnot, P.; Inhibition of hepatitis B virus replication in vivo using lipoplexes containing altitol-modified antiviral siRNAs, **Artificial DNA: PNA & XNA**, **2010**, 1, 1-10.
15. Zhang, J.; Heiss, C.; Thorne, P. G.; Bal, C.; Azadi, P.; Lynd, L. R., Formation of ethyl beta-xylopyranoside during simultaneous saccharification and co-fermentation of paper sludge. *Enzyme Microb. Technol.* **2009**, 44, (4), 196-202.
16. Swain, S. K.; Dey, R. K.; Islam, M.; Patel, R. K.; Jha, U.; Patnaik, T.; Airoidi, C., Removal of Fluoride from Aqueous Solution Using Aluminum-Impregnated Chitosan Biopolymer. *Separation Science and Technology* **2009**, 44, (9), 2096-2116.
17. Shikha, D.; Jha, U.; Sinha, S. K.; Barhai, P. K.; Nair, K. G. M.; Dash, S.; Tyagi, A.; Kalavathy, S.; Kothari, D. C., Microstructure and biocompatibility investigation of biomaterial alumina after 30 keV and 60 keV nitrogen ion implantation. *Surf. Coat. Technol.* **2009**, 203, (17-18), 2541-2545.
18. Sen, G.; Pal, S. Polyacrylamide Grafted Carboxymethyl Tamarind (CMT-g-PAM): Development and Application of a Novel Polymeric Flocculant, 2009; John Wiley & Sons: 2009; pp 100-111.
19. Sen, G.; Pal, S., Microwave initiated synthesis of polyacrylamide grafted carboxymethylstarch (CMS-g-PAM): Application as a novel matrix for sustained drug release. *Int. J. Biol. Macromol.* **2009**, 45, (1), 48-55.
20. Sen, G.; Pal, S., A Novel Polymeric Biomaterial Based on Carboxymethylstarch and its Application in Controlled Drug Release. *Journal of Applied Polymer Science* **2009**, 114, (5), 2798-2805.
21. Sen, G.; Kumar, R.; Ghosh, S.; Pal, S., A novel polymeric flocculant based on polyacrylamide grafted carboxymethylstarch. *Carbohydr. Polym.* **2009**, 77, (4), 822-831.
22. Pal, S.; Ghosh, S.; Sen, G.; Jha, U.; Singh, R. P., Cationic tamarind kernel polysaccharide (Cat TKP): A novel polymeric flocculant for the treatment of textile industry wastewater. *Int. J. Biol. Macromol.* **2009**, 45, (5), 518-523.
23. Naskar, S.; Naskar, S.; Drew, M. G. B.; Gorelsky, S. I.; Lassalle-Kaiser, B.; Aukauloo, A.; Mishra, D.; Chattopadhyay, S. K., Structural and spectroscopic properties of Ru(II) complexes of 4-(aryl) thiosemicarbazones of thiophen-2-carbaldehyde. *Polyhedron* **2009**, 28, (18), 4101-4109.
24. Mishra, N.; Basu, A.; Jayaprakash, V.; Sharon, A.; Basu, M.; Patnaik, K. K., Structure based virtual screening of GSK-3beta: importance of protein flexibility and induced fit. *Bioorg Med Chem Lett* **2009**, 19, (19), 5582-5.
25. Majumdar, K. C.; Muhuri, S.; Islam, R. U.; Chattopadhyay, B., Synthesis of Five- and Six-Membered Heterocyclic Compounds by the Application of the Metathesis Reactions. *Heterocycles* **2009**, 78, (5), 1109-1169.
26. Liang, Y.; Sharon, A.; Grier, J. P.; Rapp, K. L.; Schinazi, R. F.; Chu, C. K., 5'-O-Aliphatic and amino acid ester prodrugs of (-)-beta-D-(2R,4R)-dioxolane-thymine (DOT): synthesis, anti-HIV activity, cytotoxicity and stability studies. *Bioorg Med Chem* **2009**, 17, (3), 1404-9.

27. Kim, H. J.; Sharon, A.; Bal, C.; Wang, J.; Allu, M.; Huang, Z.; Murray, M. G.; Bassit, L.; Schinazi, R. F.; Korba, B.; Chu, C. K., Synthesis and anti-hepatitis B virus and anti-hepatitis C virus activities of 7-deazaneplanocin A analogues in vitro. *J Med Chem* **2009**, 52, (1), 206-13.
28. Jha, A. K.; Sharon, A.; Rondla, R.; Chu, C. K., Regioselective synthesis of 3-deazacarbvir and its 3-deaza-adenosine analogues. *Tetrahedron* **2009**, 65, (45), 9362-9367.
29. Islam, R.; Hean, J.; van Otterlo, W.; de Koning, C.; Arbuthnot, P., Efficient nucleic acid transduction with lipoplexes containing novel piperazine-and polyamine-conjugated cholesterol derivatives. *Bioorganic & Medicinal Chemistry Letters* **2009**, 19, (1), 100-103.
30. Dey, R. K.; Patnaik, T.; Singh, V. K.; Swain, S. K.; Airoidi, C., Attachment of linear poly(amido amine) to silica surface and evaluation of metal-binding behavior. *Appl. Surf. Sci.* **2009**, 255, (18), 8176-8182.
31. Dey, R. K.; Oliveira, A. S.; Patnaik, T.; Singh, V. K.; Tiwary, D.; Airoid, C., Grafting of organosilane derived from 3-glycidoxypyltrimethoxysilane and thiourea onto magnesium phyllosilicate by sol-gel process and investigation of metal adsorption properties. *J. Solid State Chem.* **2009**, 182, (8), 2010-2017.
32. Dey, R. K.; Jha, U.; Patnaik, T.; Singh, A. C.; Singh, V. K., Removal of Toxic/Heavy Metal Ions Using Ion-Imprinted Aminofunctionalized Silica Gel. *Separation Science and Technology* **2009**, 44, (8), 1829-1850.
33. Avishek, K.; Pathak, G.; Nathawat, M.; Jha, U.; Kumari, N., Water quality assessment of Majhiaon block of Garwa district in Jharkhand with special focus on fluoride analysis. *Environmental Monitoring and Assessment* **2009**, 1007-1014.

Proceedings

International

1. N. C. Bal, Ashoke Sharon, S. C. Gupta, N. Jena, S. Gyorke and M. Periasamy An alternately charged residue cluster at the N-terminal end forms a ring system and dynamically regulates calsequestrin polymerization. *Biophysical Journal*, Supplement, V 98, p 634a. **2010**.
2. J. R. Rao, A.K. Jha, Ashoke Sharon, C.W. Day, D.L. Bernard, D.F. Smee and C.K. Chu Anti-H5N1 Influenza Virus Activity of Carbocyclic Cytosine Nucleosides, *Antiviral Research*, 82, Issue 2, **2009**, A62-A63.
3. S. Naskar, S. Naskar, W. S. sheldrick, H. m. iggie, J. tercero, M. Corbella, S. K. Chattopadhyaypt. Cu(II) and Ni(II) complexes of tridentate thiosemicarbazone ligands. Magnetic and DFT study of one of the Cu(II) complex. *Proceedings for the Symposium on Modern trends in Inorganic Chemistry*, P56, **2009**

National

1. Preeti Rani, Shweta Sinha, Sumit Mishra and Gautam Sen, "Bioleaching in Ash ponds: An unaddressed phenomenon", National Seminar on Applications of Biotechnology and development of Bihar", BIT-Patna, 22-24 March, 2010.
2. Reeti Kumar, Ankita Mukul, Amrita and Sumit Mishra, "Applications of Biotechnology for water treatment: A chemist's perspective", National Seminar on Applications of Biotechnology and development of Bihar, BIT-Patna, 22-24 March, 2010.

Books

1. A. Sharon, A. Jha, C. K. Chu. "Clevudine (L-FMAU): A Unique Antiviral Agent for the Treatment of Chronic Hepatitis B Virus (HBV) Infection" Analogues Based Drug Discovery, Publisher: IUPAC (International Union of Pure and Applied Chemistry), Wiley **2010**.

2. K.C. Satpathy, **U. Jha**, "Environmental Science & Engineering" Vrinda Publications,
3. K. Mallick, **R. U. Islam**, M. J Witcomb, M. S Scurrall, "Palladium-polymer' functional nanocomposite: Discussion of catalytic performance" "Progress in Nanoparticles Research" Nova Science Publishers, USA,
4. K. Mallick, **R. U. Islam**, M. J Witcomb "Gold nanoparticles in organic system: Applications in catalysis, sensors and electronics" "Nanocomposites: Preparation, Properties and Performance" Nova Science Publishers, USA.
5. **Rahul**, Solved Problems in Organic Chemistry, BookLand Publishers, New Delhi.

Award / Recognition Bestowed on Faculties (State / National / International)

S. No.	Name of the Faculty	Title of the Award/ Honors	Organization	Year / Duration
1.	G. Sen	Fellow member. Membership No: F/6978	Indian Chemical Society (FICS)	Life membership from 2009

Members on Board of Studies (UG/PG):

Chairman: Dr. Usha Jha, Head of the Department

Members:

- | | | |
|--------------------|---------------------|-------------------------|
| 1. Dr. J P Pandey | 2. Dr.Ashoke Sharon | 3. Dr. S. Mishra |
| 4. Dr. S. Naskar | 5. Dr. Deepshikha | 6. Dr. Rafique ul Islam |
| 7. Mr. Rahul | 8. Dr. C. Bal | |
| 9. Dr.M. Mukherjee | 10. Dr. M. Varma | |

Panel of experts from outside the Institute

1. Dr. M. K. Mishra, Vice Chancellor, Lucknow University.
2. Dr. T. Pal ,Professor, Department of Chemistry , IIT Kharagpur
3. Dr. M.K.Bannerjee: Professor Dept. of Chemistry NIT Jamshedpur
4. Dr. N.M Mishra : Associate Professor ISM Dhanbad
5. Dr. R. K Dey, Reader, Department of Chemistry, Ravenshaw Unitary University
6. Dr.Ashok Kumar, Head, Medicinal Chemistry, IPCA Lab Ltd. Mumbai
7. Dr. Ian Cliffe, Director- Head, Medicinal Chemistry, New Drug Discovery Research, Ranbaxy laboratories Ltd.R & D Centre. New Delhi

Department of Applied Mathematics



Micrometeorology Tower

The Department of Applied Mathematics is one of the oldest Departments of the Institute handling all the Mathematical Courses offered in different branches of Engineering, Sciences, Management, and Pharmaceutical Sciences. The Department has started the Post Graduate M.Tech. in Scientific Computing programme in 2002, which is approved by the AICTE. A new Interdisciplinary Course of M.Sc. in Applied Mathematics has been started from year 2009.

The faculty members of the Department are actively engaged in teaching and research activities. The specific areas of research in which the Departments is actively engaged are: Statistical Modeling, Fuzzy Logic/Optimization, Differential and Difference Equation, Cyber Attack and Defense, Mathematical Modeling on Blood Flow, Operations Research, Seismology, Computational Fluid Dynamics, Solid Mechanics, Heat and Mass Transfer, Sampling Theory, Agrometeorology and Land Surface Processes, Thunderstorm, Aerosol, Atmospheric Boundary Layer, Drought Characterization, Statistics in Music, Statistical Modeling in Forest fire modeling etc.

As Jharkhand is situated along the trough axis over its extreme eastern end, DST, MoES, ISRO, IITM Pune etc. have chosen Ranchi as a focal point for the study of thunderstorm, land surface processes and aerosol.

The Department has received several research and experimental projects funded by various agencies like National Board for Higher Mathematics (Dept. of Atomic Energy), NRDMS, Dept. of Science & Technology (GOI), Space Application Centre (ISRO), Vikram Sarabhai Space Centre (ISRO), ISRO HQ. on various aspects of environmental as well as mathematical problems. Department of Applied Mathematics of the Institute has established Land surface atmosphere and micrometeorological observational system (LATAMOS) under CTCZ programme of DST, New Delhi at its main campus with a 32-m micrometeorological tower equipped with slow response as well as fast response weather sensors with ground equipments.

Sponsored Project

Project Sanctioned

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Short term oscillation study of surface boundary layer during total solar eclipse on 22 nd July, 2009 & 15 th Jan 2010	Dr. Manoj Kumar (PI) & Prof. N.C. Mahanti (Co-PI)	ISRO (HQ), Bangalore	15-5-2009	Rs. 2.0 Lakhs	2009-10
2.	An ARFI network observatory at BIT, Mesra, Ranchi	Dr. Manoj Kumar (PI), Prof. N. C. Mahanti & Dr. M. Trivedi (Co-PI)	ISRO-GBP Programme, SPL, VSSC, Bangalore	November, 2009	Rs 60 Lakhs	2009-13

3.	An ABLN&C Centre at BIT Mesra	Dr. Manoj Kumar (PI) & Prof. N C Mahanti (Co-PI)	ISRO-GBP Programme, SPL, VSSC, Bangalore	March, 2010	55.0 lakhs	2010-13
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Ongoing Projects

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Energy & Mass Exchange in Vegetative System	Dr. Manoj Kumar (PI)	SAC(ISRO), Ahmedabad	24-3-3008	7.4 Lakhs	2008-12
2.	Observational study of land surface atmosphere interaction in the monsoon trough along its active eastern end	Prof. N.C. Mahanti (PI) & Dr. Manoj Kumar (Co-PI)	DST (GOI), New Delhi	7-12-2006	62.0 Lakhs	2007-11
3.	Development of forest fire forecasting system for Jharkhand state using statistical techniques and GIS	Dr. Manish Trivedi (PI), Dr. Manoj Kumar & Prof. N.C. Mahanti (Co-PI)	NRDMS (DST), New Delhi	19-5-2007	29.5 Lakhs	2007-10
4.	Monitoring and detection of lightning system (with EEE Dept.)	Dr. Manoj Kumar & Dr. Manish Trivedi as Co-PI	DST, Govt. of Jharkhand	2008	75.0 Lakhs	2008-11
5.	Green's function, existence & asymptotic behaviour of periodic solutions of functional differential equations	Dr. Seshadev Padhi (PI)	National Board of Higher Mathematics, DAE, GOI	26-2-2007	12.0 Lakhs	2007-12
6.	NBHM-Library Grant to strengthen the Departmental Library		National Board of Higher Mathematics, DAE, GOI	2008	4.0 Lakhs	Continue Scheme

Seminar / Conferences / Short – term Courses Conducted by the Department

Sl. No.	Title of Seminar / Conferences / Short – term Courses	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1.	One Day Seminar on “Recent trends in Statistics”	Dr. Manish Trivedi	SPSS, South Asia Private Limited, Bangalore	June 29, 2009 On Behalf of Jharkhand Statistical Society, at B.A.U., Doranda, Ranchi

Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Month Date, Year
1.	Prof. N.C. Mahanti	Group Monitoring Workshop	DST, New Delhi	Indian Institute of Geomagnetism, Mumbai	IIG, Mumbai	10-12 Dec, 2009
2.	Dr. S. Chakraborty	National Symposium on Acoustics	BIT Mesra	Acoustical Society of India	Hyderabad	Nov. 26-28, 2009
		International Symposium on Frontiers of Research in Speech and Music (FRSM) 2009	Self	ITC SRA, Kolkata CDAC, Kolkata ABV IITM, Gwalior BIT Mesra CVRCPM, Jadavpur University	Gwalior	Dec 15-16, 2009
		7th Triennial International Calcutta Symposium on Probability and Statistics	Univ. of Kolkata	Calcutta Statistical Association and Univ. of Kolkata	Kolkata	Dec 28-31, 2009
		Music Beyond Music	Jadavpur University	CVRCPM, Jadavpur University	Kolkata	Feb 10, 2010
3.	Dr. Manoj Kumar	One Day Seminar on “Recent trends in Statistics”	SPSS, South Asia Private Limited, Bangalore	Jharkhand Statistical Society	B.A.U. , Kanke, Ranchi	June 29, 2009
		Group Monitoring Workshop	DST, New Delhi	Indian Institute of Geomagnetism, Mumbai	IIG, Mumbai	10-12 Dec, 2009
		Scientific Steering Committee on CTCZ	DST, New Delhi	DST, New Delhi	DST, New Delhi	Dec 16, 2009
		Workshop on CTCZ: Initial Results	DST, New Delhi	IITM, Pune	IITM, Pune	April 28-30, 2010
4.	Dr. Manish Trivedi	One Day Seminar on “Recent trends in Statistics”	SPSS, South Asia Private Limited, Bangalore	Jharkhand Statistical Society	B.A.U. , Kanke, Ranchi	June 29, 2009

Publications

International Journals

1. Anjana P. Ghorai, S.K. Samal, and N.C. Mahanti.2009. Love waves in a fluid saturated porous layer under a rigid boundary and lying over an elastic half space under gravity. *Applied Mathematical Modeling*, Vol.34 (2010), 1873-83
2. Anurag Jayswal and Rajnish Kumar, Some nondifferentiable multiobjective programming under generalized d-V-type-I univexity "Journal of Computational and Applied Mathematics" 229 (2009) 175-182.
3. Anurag Jayswal, Dilip Kumar and Rajnish Kumar, Second order duality for nondifferentiable multiobjective programming problem involving (F, α , ρ , d)-V-type I functions "Optimization Letters" 4 (2010) 211-226.
4. Anurag Jayswal, On sufficiency and duality in multiobjective programming problem under generalized α -type I univexity "Journal of Global Optimizations" (2009), DOI 10.1007/s10898-009-9418, 46 (2010) 207–216.
5. B. P. Das and S. Chakraborty, On an algorithm that generates an interesting maximal set $P(n)$ of the naturals for any $n \geq 2$, *Advances in Mathematical Sciences Journal*, Vol.1, 2010
6. Bimal Kumar Mishra, Priyabrata Pradhan, T. C. Panda , Effect of shear stress, resistance, and flow rate across mild stenosis on blood flow through blood vessels- *The Cardiology*, 5(1), 4-11,2010, DOI: 10.3923/tcard.2010.4.11
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10. Bimal Kumar Mishra, Ghoolam Mursalin Ansari, Predator – prey models for the attack of malicious objects in computer network, *Journal of Engineering and Applied Sciences* 4 (3): 215-220, 2009
11. Bimal Kumar Mishra, Hemraj Saini, Cyber Attack Classification by Game Theoretic Weighted Metrics Approach, *World Applied Science Journal*, Volume 7 (Special Issue for Computer & IT), 206-215,2009
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16. Bimal Kumar Mishra, Syed Jaleeluddin Hyder, Manju Bhagat, Impact of Accreditation on Human Resource Development and Management of a Hospital through HR Balance Score Card- *International Journal of Business Management*, 4(2):89-98, 2010
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19. D. Sahani and S. Chakraborty. How many interchanges does the selection sort make for iid geometric(p) input?, *Annals. Computer Science Series*, Vol. VII, Fasc. 2, 2009, 67-76.
20. Gyan K. Agarwal, Manish Trivedi, Usha Jha, Rajendra K. Jha and Ripunjai K. Shukla; Tobacco Use And Its Impact On Respiratory Health: A Statistical Approach, *Statistics in Transition*, Vol. 11, No. 1, 2010, PP- 106-117.
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27. Manish Trivedi, S. Padhi and Quasi Chuan ; Global Attractivity of Positive Periodic Solutions of Lasota-Ważewska Model, Accepted in "Electronic Journal of Differential Equation".
28. Manish Trivedi. Pooled Estimation Technique Under Post-Stratified Cluster Sampling Scheme, *InterStat*, Vol. 2, # 1, (2009), p.p.1-16.
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55. S.P. Bhattacharya and S.K. Chakraborty. Performance based architectural design guidance for multi-storied building in seismic zones, J. Disaster Advances, Vol. 3(1), 24-31, 2010.
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National Journal

1. Manish Trivedi, Manoj Kumar and Kanhaiya Narayan Mishra; Land Use / Land Cover Dynamics In A Coal Mining Area In Jharkhand State, Madhya Bharti, Journal of Physical and Natural Sciences, Vol. 55, 2010, pp. 100-111.
2. Ripunjai Shukla, M. Trivedi and Manoj Kumar; On the Use of Neural Network: A Case Study Of Extreme Temperature In Humid Subtropical Monsoon Region Of India, Revised Paper Submitted to MAUSAM, Indian Metrological Society.
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4. S. Chakraborty, M. Kumari, S. S. Solanki, S. Chatterjee, On What Probability can and cannot do: A case study in Raga Malkauns, Journal of Acoustical Society of India, Vol. 36, No. 4, 2009, p. 176-180.

Proceedings

1. S. Chakraborty, M. Kumari, S. S. Solanki and S. Chatterjee, On what probability can And cannot do: A case study on raga Malkauns, National Symposium on Acoustics 2009 (published proceedings in a CD) held on Nov 26-28, 2009 at RCI, Hyderabad, India
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9. B.S. Murthy, Manoj Kumar, N.C. Mahanti, R. Lata and Jyotsna Singh. Spectra of wind, soil moisture and rainfall in the atmospheric surface layer at BIT, Ranchi. In: Proceedings-cum-Extended Abstract Volume "Workshop on CTCZ-PILOT: Initial Results", 179-182. 2010.
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11. M.N. Patil, Manoj Kumar, R. T. Waghmare, T. Dharamraj and N.C. Mahanti. Simulations of land surface parameters over Ranchi using NOAA LSM. In: Proceedings-cum-Extended Abstract Volume "Workshop on CTCZ-PILOT: Initial Results", 221-230. 2010.
12. Manoj Kumar, G.S. Bhat, N.C. Mahanti, and Anil Kumar. 2010. On the measurement of surface fluxes and radiation balance for the monsoon season of 2009 over extreme eastern end of active monsoon trough. In: Proceedings-cum-Extended Abstract Volume "Workshop on CTCZ-PILOT: Initial Results", 231-238. 2010.
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14. A.K. Srivastava, M. Mishra, Manoj Kumar, A. K. Dwivedi, and P. Prakash. 2010. Morkov chain method for lightning during pre-monsoon and monsoon season over Ranchi. In: Proceedings-cum-Extended Abstract Volume "Workshop on CTCZ-PILOT: Initial Results", 251-258. 2010.

Books Published

1. Soubhik Chakraborty, Suman Kumar Sourabh, A Computer Experiment Oriented Approach to Algorithmic Complexity, Lambert Academic Publishing, Germany, ISBN: 978-3-8383-7743-8, 2010
2. Lecture Notes in Calculus: Bimal Kumar Mishra, I. K. International (P) Ltd., Delhi, 2010, ISBN: 9789380578286

MoUs / Collaborations

S. No.	Name of Organisation / University	Purpose / Area	Year / Duration
1.	Space Physics Laboratory, VSSC (ISRO), Trivandrum	ARFI Network station at BIT	November 2009
2.	Space Physics Laboratory, VSSC (ISRO), Trivandrum	Atmospheric Boundary Layer Network Programme	March 2010
3.	Scientific Research Department, ITC Sangeet Research Academy, Kolkata	Scientific Research in Hindustani Classical Music	August 2009
4.	Space Application Centre, ISRO, Ahmedabad	On Energy and Mass Exchange over Vegetative Systems	April 2008-2012

Members on Board of Studies (UG/PG)

Internal Members

- | | | |
|-------------------------|---|----------|
| a) Head of Department | - | Chairman |
| b) Dr. S.S. Roy | - | Member |
| c) Dr. S.K. Chakraborty | - | Member |
| d) Prof. Sukesh Kumar | - | Member |
| e) Prof. G. Sahoo | - | Member |

External Members

- i. Prof. K.S. Chaudhari
D/O Mathematics
Jadhavpur University, Kolkata – 700 073
- ii. Prof. Satyojit Roy
D/O Mathematics
IIT Chennai
- iii. Prof. K.C. Prasad
Retd. Professor
Dept. of Mathematics
Ranchi University, Ranchi

Any Other Information

Dr. Soubhik Chakraborty became an Associate Editor of Ninad, Journal of ITC Sangeet Research Academy and a Reviewer of IEEE Transactions on Computers. He also participated in an online Academic Reputation Survey of ranking of universities globally (selected by Thomson Reuters).

Ph.D. Awarded:

- Dr. M. Sathiyamoorthy
- Dr. (Ms.) Prabjot Kaur
- Dr. S. K. Sarkar

Ph.D. Thesis Submitted

- Mr. Ripunjai K Shukla
- Ms. Shilpee Srivastav
- Mrs. Swati Pandey

Labs/Facilities added in the last four years

Department of Applied Mathematics of the Institute has established Land surface atmosphere and micrometeorological observational system (LATAMOS) under CTCZ programme of DST, New Delhi at its main campus with a 32-m micrometeorological tower equipped with slow response as well as fast response weather sensors with ground equipments. These instruments are, instrumented with temperature, humidity, wind speed and wind direction, soil temperature and soil flux sensors. In addition to this, the various other instruments available are albedometer (at 32 m height.), sonic anemometer (gives u_x , u_y , u_z and sonic T at 10 Hz), heat flux plate, portable infrared thermometer, portable automatic weather station and sky radiometer, Athalometer, Sunphotometer and planning to procure Metek Sonic anemometer, Li7500 gas analyzer, SODAR and will install GPS Sonde within couple of months. In addition to this, the Department is having collaborative work with IITM Pune and ISRO in different areas of Meteorology. As Jharkhand is situated along the trough axis over its extreme eastern end, DST, MoES, ISRO, IITM Pune etc. have chosen Ranchi as a focal point for the study of thunderstorm, land surface processes and aerosol.

Department Of Applied Mechanics

The **Department of Applied Mechanics** was established in 1995 as a service Department for all BE programmes that BIT, Mesra offers for its various branches of engineering. However the Department has added its own post-graduate programme in Computer-Aided Analysis and Design and Ph.D programme later. It is continuing its added programme along with its previous commitment of serving other engineering programmes at BIT, Mesra. The post-graduate degree programme got its approval of AICTE in 2004 for the first time and consequently the programme got its accreditation in 2008 by NBA.

The Department has the expertise in the areas like System Dynamics, Neural Network, System Design, Vibration, Composite Materials, System Modelling & Design, Signature Analysis of Machinery etc.

The Department uses the most recent state of the art softwares in the central CAD lab to aid the research and learning process of its post-graduate students and conduct meaningful design projects and research.

Members on Board of Studies (UG/PG)

PG Programme on Computer-Aided Analysis & Design:

Internal Members:

1. Prof. A. K. Ray, Professor & Head, Department of Applied Mechanics
2. Dr. R. P. Singh, Professor, Department of Applied Mechanics
3. Dr. Surendra Kumar, Professor & Ex-Head, Department of Production Engineering
4. Prof. S. Sengupta, Ex-Professor, Department of Civil Engineering
5. Mr. Kishan Chaudhury, Ex- Lecturer, Dept. of Applied Mechanics, now in NIT, Agartala

External Members:

1. Dr. Gautam Pohit, Professor, Department of Mechanical Engineering, Jadavpur University, Kolkata-700032
2. Dr. Ranjan Bhattacharjee, Professor, Department of Mechanical Engineering, IIT, Kharagpur, WB

Department of Applied Physics

The Department of Applied Physics has been a part of BIT Mesra since the Institute's inception in 1955 offering undergraduate Physics courses to students of engineering, postgraduate and Ph.D. programmes in pure and applied Physics including a multidisciplinary programme M tech in New Materials and M. Tech. in Nano Technology The objective of the Department is to develop the best experimental facilities in the areas of –

- Nonlinear Optics
- Composites
- Colossal magnetoresistive materials
- Plasma Science & Technology
- Biomedical instrumentation.
- Thin Film & Coating
- Diamond Like Coatings (DLC), both nanocrystalline and ultrananocrystalline
- Optical communication
- High Tc superconductors
- Laser applications
- Nanoscience & Nanotechnology
- Ion beam modification of Materials
- Graphene

To keep pace with the technology development, the Department regularly updates the ongoing R & D activities as well as its UG, PG courses and laboratories.

Postgraduate Programmes

At present, apart from an M. Sc. in Applied Physics, the Department offers M.Tech. in New Materials & Processing Technology and Nanoscience & Nano Technology.

Doctoral Programmes

The Department of Applied Physics at BIT Mesra offers Ph.D. programmes in various branches of pure and applied physics. In addition R&D activities in the areas of Lasers and Plasma have been extensively carried on since the sixties. Over the years it has produced many Ph.Ds in both experimental and theoretical physics and a number of dedicated research scholars are presentably working towards their Doctoral degrees.



Plasma Nitriding System

New Programmes introduced

Programmes Offered	Subject	Semester	Intake
M. Tech.	Nanoscience and Nano Technology	I-IV	15

Following Programmes are being offered

Programmes Offered	Course/Subject	Semester	Intake
M.Sc.	Applied Physics	4	15
M. Tech.	M. Tech. in New Materials & Processing Technology	4	15

Sponsored Project

Project Sanctioned

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount (lac)	Duration of the Project
1	Investigation of plasma instability and its correlation with deposited species during nitride and oxynitride colored film deposition	Dr. S. K. Mahapatra/ Dr. I. Banerjee/ Prof. A. K. Das	BRNS, DAE, Mumbai	26/2/2010	19.41	3 years

Ongoing Projects

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project (year)
1	Study of Photocatalytic Activity of Nano Structured TiO ₂ Thin Films by Plasma Assisted Process and Correlation with Plasma Parameters"	Prof. P. K. Barhai/ Dr. I. Banerjee/ Prof. A. K. Das	BRNS, DAE, Mumbai	27/1/2009	18.53	3
2	Development and Characterization of multilayer thermal barrier coatings of Hafnium carbide (HfC) and Silicon carbide (SiC) for Aerospace Applications, ISRO, 3 years (2008).	P. K. Barhai	ISRO	27.11.2008	12.09	3
3	Synthesis of Ultrananocrystalline Diamond films for Field Emission Applications using Microwave Plasma Enhanced Chemical Vapour Deposition	P. K. Barhai	DST	25.03.2009	34.78	3
4	Developments of nano crystalline high permittivity lead free materials for microwave applications	CO-PI –P. K. Barhai	DST	25.03.2009	23.35	3
5	ESR study of magnetic homogeneity in thin film of colossal magnetoresistive manganites	Dr. (Mrs.) S. Keshri	UGC		4.89	3
6	Studies on ferromagnetic-ferroelectric composites and their electronic applications.	S. Keshri	DST	2009-2012	17.67 Lacs	3
7	Simulation and analytical investigation of nonlinear optical pulse propagation in photo refractive crystal	Dr. S. Konar	DRDO		14.84	3
8	FDTD Modeling of Photonic Crystal Fibers: Fundamental Properties and Device Applications	Dr. S. Konar	DST		15.97	3

9	Development of nano crystalline high permittivity lead free materials for microwave application	Dr. S. K. Rout	DST		23.354	3
10	Investigation of Optical Beam Propagation in Nonlinear Media: Spatial Soliton Formation and Their Interaction for All-Optical Devices	Dr. S. Medhekar	UGC		8.27	
11	Modeling and Analysis of Mach-Zhender Interferometer based Nonlinear Waveguide Devices for All-Optical Switching and Logic Gates	Dr. S. Medhekar	DST		24.68	3

Projects Completed

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount(lac)	Date of completion of the Project
1	Field emission study of diamond like carbon and nanocrystalline diamond films. Indo-German Bilateral Cooperation	P. K. Barhai	Indo-German Bilateral Cooperation DST 2008	07.02.2008	5.808 & € 8841.59	07.02.2010
2	Effect of low temperature on fracture toughness of fibre composites	Dr. A. K. Shrivastava/ Dr. S. Medhekar	AICTE	26.02.2007	4.00	26.02.2009
3	Low temperature effect (-50oC) on behavior of Carbon Epoxy Composites Manufacturer by VERITY Process	Dr. A. K. Shrivastava/ Dr. S. Medhekar	AR&DB	10.10.2007	10.00	31 st March 2010
4	Oxidation resistance studies of titanium alloys in the temperature range 500-700°C. The effect of coatings and trace element addition	Dr. S. K. Sinha & Dr. P.K.Barhai Dr. D. C. Kothari	AR&DB	20.9.2005	7.429	20.9.2009

5	Development of nanostructured Carbon nitride coatings for Nano-tribological applications,	P. K. Barhai	AICTE	05.03.2008	5.75	05.03.2010
6	ESR study of magnetic homogeneity in thin film of colossal magnetoresistive manganites	Dr. (Mrs.) S. Keshri	UGC		4.89	Sept. 2009

Seminar / Conferences / Short – term Courses Conducted by the Department

Sl. No.	Title of Seminar / Conferences / Short – term Courses	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1	NCERT Nurture Program	Banerjee	NCERT	22-25 March 2010
2	DST-INSPIRE	S. K. Mahapatra	DST	27-31 Jan 2010

Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Month Date, Year
1	S. Keshri	6th International Workshop on Nanomagnetism and Superconductivity	B. I. T. and CSIR	Universitat de Barcelona	Barcelona, Spain	30 June – 4 July, 2010
2	S. Keshri	International Conference on Electroceramics	DST	Delhi University	Delhi, India	13-17 Jan., 2010
3	S. Keshri	National Conference on Solid State Ionics	DST	Dr. Hari Singh Gour University	Sagar, MP	7-9 Dec., 2010.
4	S. Keshri	International Conference on Transport and Optical Properties of Nanomaterials	UGC	Allahabad University	Allahabad, UP, India	05-08 Jan., 2009

Publications

International Journals

1. I Banerjee, Neelam Kumari, Ashis K Singh, Pinaki Laha, AB Panda, S.K. Pabi, P K Barhai, S K Mahapatra, Influence of rf power on the electrical and mechanical properties of nano-structured carbon nitride thin films deposited by RF magnetron sputtering, Thin Solid Films, DOI: 10.1016/j.tsf.2010.05.002, In-press
2. P. Laha, A. B. Panda, S. Dahiwal, K. Date, S. I. Patil, P. K. Barhai, A. K. Das, I. Banerjee, S. K. Mahapatra, Effect of leakage current & dielectric constant on single & double layer oxides in MOS structure, Thin Solid Films, 2010, Accepted
3. I. Banerjee, A. B. Panda, Pinaki Laha, P. K. Barhai, S K Mahapatra, Study of bactericidal efficiency of magnetron sputtered TiO₂ films deposited at varying oxygen partial pressure, Surface Coatings and Technology, 2010, Accepted

4. P.K.Barhai, Neelam Kumari, I. Banerjee, S.K.Pabi, S.K.Mahapatra, Study of the effect of plasma current density on nitrides and oxynitrides titanium thin films prepared by Reactive DC Magnetron Sputtering, Vacuum, 84 (2010) 896
5. I. Banerjee, N.K.Joshi, S.Karmakar, N.V.Kulkarni, S. K. Mahapatra, P K Barhai, S. V. Bhoraskar and A. K Das, Effect of ambient pressure on the axial behavior of Ar-H₂ transferred thermal arc plasma column, IEEE Transactions on Plasma Science, 38 (2010), 982-989
6. H. M. Lee, S. K. Mahapatra, J. K. Anthony, F. Rotermund and C. K. Kim, Effect of the titanium ion concentration on electro deposition of nanostructure TiNi films, J. of Mat. Science, Vol 44, 2009, 3731.
7. I. Banerjee, Soumen Karmakar, Naveen V. Kulkarni , Ashok B. Nawale, V. L. Mathe, A. K. Das, S. V. Bhoraskar, Effect of ambient pressure on the crystalline phase of nanoTiO₂ particles synthesized by a dc thermal plasma reactor, J. Nanopart Res (2010) 12:581–590
8. I. Banerjee, N. V. Kulkarni , S. Karmakar , V. L. Mathe , S. V. Bhoraskar and A. K. Das, Optical Emission Spectroscopic Study During the Evaporation of Aluminium in the Thermal Plasma Reactor, (2010), Plasma Sci. Technol. 12 27
9. Naveen V. Kulkarni, Soumen Karmakar, Indrani Banerjee, S.N. Sahasrabudhe, A.K. Das, S.V. Bhoraskar, Growth of nano-particles of Al₂O₃, AlN and iron oxide with different crystalline phases in a thermal plasma reactor", Materials Research Bulletin, Volume 44, Issue 3, (2009), Pages 581-588,
10. Sangeeta B. Punjabi, T. K. Das, N. K. Joshi, H. A. Mangalvedekar, B. K. Lande, A. K. Das, The effect of various coil parameters on ICP Torch simulation, J. Phys: Conf. Series, 208(2010), 012048
11. Sangeeta B Punjabi, T. K. Das, N. K. Joshi, H. A. Mangalvedekar, B. K. Lande, A. K. Das, The effect of swirl velocity on ICP Torch simulation, J. Phys.-Conf. Series: 208(2010), 012055
12. Rakesh Kumar Dewangan, Sangeeta B Punjabi, N. K. Joshi, D. N. Barve, H. A. Mangalvedekar, B. K. Lande, State-space modeling of the radio frequency inductively-coupled plasma generator, J. Phys.-Conf. Series, 208 (2010), 012056
13. Nirupama Tiwari, S. N. Sahasrabudhe, N. K. Joshi , A. K. Das, Study of jet fluctuations in DC plasma torch using high speed camera, J. Phys- Conf. Series, 208(2010), 012134, 2010
14. S. N. Sahasrabudhe, N. K. Joshi, D. N. Barve, S. Ghorui, N. Tiwari, A. K. Das, Temperature of thermal plasma jets: A time resolved approach, J. Phys: Conf. Series, 208(2010), 012135
15. M. Kakati, B. Bora, U.P. Deshpande, D.M. Phase, V. Sathe, N. P. Lalla, T. Shripathi, S. Sarma, N.K. Joshi, A.K. Das, Study of a supersonic thermal plasma expansion process for synthesis of nano- Structured TiO₂ ,Thin Solid Films, 518(2009), 84- 90
16. N. Nayak Papri Saha and A. S. Majumdar Study of atomic entanglement in multimode cavity optics, Int. J. Theo. Phys., Group, Theo. & Nonlinear Opt., In press (2010).
17. Papri Saha, S. Singh and A. S. Maumdar, N, Nayak, Collapse and revival of atomic entanglement in a generalized Jaynes-Cummings interaction, Int. J. Quant. Information, In press (2010)
18. S. S. Hassan, R. K. Bullough, M. N. Ibrahim, R. Saunders and T. Jarad, N. Nayak Nonlinear refractive index theory (II): numerical studies, , Int. J. Theo. Phys., Group, Theo. & Nonlinear Opt. 13, 355-364 (2010)
19. Teleportation via maximally and non-maximally entangled mixed states, S. Adhikary, A. S. Majumdar, P. Roy and B. Ghosh, N. Nayak, Quantum Information and Computing, 10, 398-410 (2010).
20. S. S. Hassan and R. N. Deb, N. Nayak Atomic squeezed states in a driven Dicke model, Phys. Lett. A373, 3697-3700 (2009).

21. B. Ghosh and A. S. Majumdar, N. Nayak, Atomic entanglement mediated by a squeezed cavity field, *Int. J. Theo. Phys., Group Theo. & Nonlinear Opt.* 13, 86 (2009).
22. Leena Joshi, Shailendra Singh Rajput and Sunita Keshri, Phase Transitions; Structural and magneto transport properties of LCMOSTO composites, (Taylor & Francis Publication) (In Press).
23. Leena Joshi and Sunita Keshri; Magneto-transport properties of Fe- doped LSMO Manganites, Measurement (Elsevier Publication) (In Press).
24. Leena Joshi and Sunita Keshri; Enhanced CMR properties of $\text{La}_{0.67}\text{Ca}_{0.33}\text{MnO}_3$ sintered at different temperatures, Phase Transitions (Taylor & Francis Publication) 83 (2010) 263-275.
25. Sunita Keshri, Leena Joshi, Sanat Kumar Mukherjee and V. F. Kraidonov; LabVIEW measurement and analysis of enhanced CMR properties of sintered at different temperatures, Journal of Electromagnetic 26. Analysis and Applications (Scientific Research Publishing, Inc. USA) 2 (2010) 372-375.
27. Sunita Keshri (Shaw), Leena Joshi and Sanjeeb Kumar Rout; Influence of BTO phase on structural, magnetic and electrical properties of LCMO, Journal of Alloys and compounds (Elsevier Publication), 485 (2009), 501-506.
28. L. Joshi, V. Dayal, N. Rama and S. Keshri; Existence of Griffiths phase in $\text{La}_{0.67}\text{Ca}_{0.33}\text{Mn}_{0.93}\text{Fe}_{0.07}\text{O}_3$, Journal of Alloys and compounds (Elsevier Publication) 497 (2009) 879-882.
29. Electronic transport in LCMO/BTO composites, L. Joshi, S. Keshri, and S. K. Rout; Phase Transitions (Taylor & Francis Publication) 82 (2009) 123-130.
30. L. Joshi, S. Keshri and S.K. Rout, "Electronic transport in LCMO-BTO composites", Phase transition, 82(2) (2009) 123-130.
31. Sunita Keshri (Shaw), Leena Joshi, Sanjeeb Kumar Rout, "Influence of BTO phase on structural, magnetic and electrical properties of LCMO", Journal of Alloys and Compounds, 485
32. A. Hussain, C.W. Ahn, H.J. Lee, I.W. Kim, J.S. Lee, S.J. Jeong, S.K. Rout, "Anisotropic Electrical Properties of $\text{Bi}_{0.5}(\text{Na}_{0.75}\text{K}_{0.25})_{0.5}\text{TiO}_3$ Ceramics Fabricated by Reactive Templated Grain Growth (RTGG)", Current Applied Physics, 10(1), (2010) 305-310.
33. S. K. Rout, E. Sinha, A. Hussain, and I. W. Kim "Frequency-Temperature response of $\text{CaBi}_4\text{Ti}_4\text{O}_{15}$ ceramic prepared by soft chemical route: Impedance and Modulus spectroscopy characterization", , Current Applied Physics, 10(3), (2010), 917-922.
34. S. K. Rout, E. Sinha, A. Hussain, P. K. Barhai "Anisotropic dielectric and electrical properties of hot-forged $\text{Sr Bi}_4\text{Ti}_4\text{O}_{15}$ ", and I. W. Kim, International Journal of Applied Ceramic Technology, 7[S1] (2010) E114-E123.
35. T. Badapanda, S.K. Rout, L.S. Cavalcante, J.C. Sczancoski, S. Panigrahi, T. P. Sinha, E. Longo "Structural and dielectric relaxor properties of yttrium-doped $\text{Ba}(\text{Zr}_{0.25}\text{Ti}_{0.75})\text{O}_3$ ceramics", , Materials Chemistry and Physics, 121 (2010) 147-153.
36. J.C. Sczancoski, L.S. Cavalcante, T. Badapanda, S.K. Rout, S. Panigrahi, V.R. Mastelaro, J.A. Varela, M. Siu Li, E. Longo "Structure and optical properties of $[\text{Ba}_{1-x}\text{Y}_{2x/3}](\text{Zr}_{0.25}\text{Ti}_{0.75})\text{O}_3$ powders", Solid State Sciences, Available online 10 April 2010 (In Press)
37. S.K. Mukherjee, M.K. Sinha, B. Pathak, S.K. Rout, P.K. Barhai, A.K. Balamurugan, A.K. Tyagi, "Investigations on the structure, composition and performance of nanocrystalline thin film thermocouples deposited using anodic vacuum arc", F.L. Ng, Thin Solid Films (In press) 2009.
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39. Nisha Gupta, S. K. Rout, K. Sivaji "Characteristics of Cylindrical Dielectric Resonator Antenna", Microwave Review, 15 (2) (2009) 29-32.

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41. T. Badapanda, S.K.Rout, L.S. Cavalcante, J.C. Sczancoski, S. Panigrahi, E.Longo and M. Siu Li "Optical and dielectric relaxor behavior of $\text{Ba}(\text{Zr}_{0.25}\text{Ti}_{0.75})\text{O}_3$ ceramic explained by means of distorted clusters", Journal of Physics D: Applied Physics, 42 (2009) 175414-9p
42. S.K. Rout, L.S. Cavalcante, J.C. Sczancoski, T. Badapanda, S. Panigrahi, M. Siu Li, E. Longo, "Photoluminescence property of $\text{Ba}(\text{Zr}_{0.25}\text{Ti}_{0.75})\text{O}_3$ powders prepared by solid state reaction and polymeric precursor method", Physica B: Condensed Matter, 404 (2009) 3341-3347
43. Gilho Kim, Jungsik Bang, Yunseok Kim, S.K. Rout, Seong IhWoo "Structural, electrical and optical properties of boron doped ZnO thin films using LSMCD method at room temperature", , Applied Physics A: Mat. Sc. Proces. 97 (2009) 821-828.
44. S.K.Rout, E.Sinha, A. Hussian, and I.W.Kim "Electrical anisotropy in the hot-forged $\text{CaBi}_4\text{Ti}_4\text{O}_{15}$ ceramics", , Solid State Science, 11 (2009) 1144-1149.
45. S.K.Rout*, E.Sinha, A.Hussian, J.S.Lee, C. W. Ahn, I.W.Kim and S.I.Woo, "Phase transition in $\text{ABi}_4\text{Ti}_4\text{O}_{15}$ (A=Ca, Sr, Ba) Aurivillius oxides prepared through a soft chemical route", Journal of Applied Physics, 105(2), (2009) 024105-6p
46. S.K.Rout, A.Hussian, J.S.Lee, I.W.Kim and S.I.Woo, Impedance spectroscopy and morphology of $\text{SrBi}_4\text{Ti}_4\text{O}_{15}$ ceramics prepared by a soft chemical method, Journal of Alloys and Compounds, 477(1-2) (2009) 705-711.
47. E..Sinha and S.K.Rout, Influence of fibre-surface treatment on structural, thermal and mechanical properties of jute fibre and its composite", Bulletin of Materials Science, 32(1)(2009) 65-76.
48. T.Badapanda, S.K.Rout, S.Panigrahi, T.P.Sinha, and S.I.Woo, "Effect of Dy substitution on dielectric properties of BTZ relaxor ceramics", Ferroelectrics, 385 (2009) 177-186
49. T.Badapanda, S.K.Rout, S.Panigrahi, T.P.Sinha, "Phase formation and Dielectric study of Bi doped $\text{BaTi}_{0.75}\text{Zr}_{0.25}\text{O}_3$ ceramic", Current Applied Physics, 9(4) (2009) 727-731.
50. S.K.Rout, S.Panigrahi, P.K. Barhai and I.W.Kim, "Synthesis of $(\text{Ba}_{0.5}\text{Sr}_{0.5})(\text{Ti}_{1-x}\text{Zr}_x)\text{O}_3$ ceramics: Effect of Zr content on room temperature electrical properties", Journal of Electroceramic, 23 (1) (2009) 37–42.
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52. "Optimally Stabilized Beam Pairs", Punya Prasanna Paltani and S. Medhekar, OPTIK (in press).
53. All-optical Circulator Based on Cross Phase Modulation in a Nonlinear Mach-Zehnder Interferometer, Punya Prasanna Paltani and S. Medhekar, OPTIK, (accepted).
54. Switching of One Beam by Another in a Kerr Type Nonlinear Mach-Zehnder Interferometer, Arpita Srivastava and S. Medhekar, Optics & Laser Technology, DOI information: 10.1016/j.optlastec.2010.04.021 (in press)
55. Switching Behaviour of a Nonlinear Mach-Zehnder Interferometer, Arpita Srivastava, Punya Prasanna Paltani and S. Medhekar, Pramana, Vol.74 Number 4 (2010) p. 575-590.
56. A. K. Lal, S. K. Sinha, P.K.Barhai, K.G.M.Nair, S. Kalavathy, and D. C. Kothari, Effect of 60 keV nitrogen ion implantation on oxidation resistance of IMI 834 titanium alloy", Surf. Coat. & Tech. 203 (2009) 2605–2607.
57. Deep Shikha, Usha Jha, S. K. Sinha, P. K. Barhai, K. G. M. Nair, D. C. Kothari, "A comparative study of corrosion resistance in Ringer solution of nitrogen implanted alumina at different energies for orthopedic implants", Int. J. Appl. Ceram. Technol., 7 [2] 156–163 (2010).

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Proceedings

International

1. P.K.Barhai, Neelam Kumari, I. Banerjee, S.K.Pabi, **S.K.Mahapatra**, Study of the effect of plasma current density on nitrides and oxynitrides titanium thin films prepared by Reactive DC Magnetron Sputtering Accepted for a CONTRIBUTED ORAL presentation at the International Conference on Metallurgical Coatings and Thin Films, April 27, 2009 in San Diego, CA, USA.
2. B. Panda, Pinaki Laha, Harish K., Bisatrish Sarkar, S. Chaure, Wasim Sayeed, G.R Kulkarni, P. K. Barhai, A. K. Das, S K Mahapatra and **I. Banerjee**, Study of bactericidal efficiency of magnetron sputtered TiO₂ films deposited at varying oxygen partial pressure, ORAL presentation at the International Conference on Metallurgical Coatings and Thin Films, April 26, 2010 in San Diego, CA, USA.
3. Pinaki Laha, Atala Bihari Panda, Biswajit Saha, P. Chakraborty, P.K. Barhai, A K Das, **Indrani Banerjee** and S.K. Mahapatra Leakage Current and Dielectric Constant Dependencies on Single and Double Layer of Oxides in MOS Structure, , ORAL presentation at the International Conference on Metallurgical Coatings and Thin Films, April 26, 2010 in San Diego, CA, USA.

National

1. M. K. Sinha, **N. K. Joshi**, S. K. Mukherjee, R. Kumar, B. Pathak, P. K. Barhai, Investigation of Anodic Vacuum Arc Plasma Properties using Optical Emission Spectroscopy, Proc. 24th National Symposium on Plasma Science & Technology, (PLASMA- 2009), NIT, Hamirpur (HP), Dec. 8-11, 2009
2. Sangeeta B. Punjabi, D. N. Barve, S. N. Sahasrabudhe, T. K. Das, **N. K. Joshi**, Mayank Prakash, B. K. Lande, H. A. Mangalvedekar, A. K. Das, Measurement and Simulation of plasma impedance of an ICP torch, Proc. 24th National Symposium on Plasma Science & Technology (PLASMA-2009), NIT, Hamirpur (HP), Dec. 8-11, 2009
3. Nirupama Tiwari, **N. K. Joshi**, S. N. Sahasrabudhe, P. K. Soni, A. K. Das, High speed visualization of jet fluctuations in a cascaded DC plasma torch, Proc. 24th National Symposium on Plasma Science & Technology (PLASMA-2009), NIT, Hamirpur (HP), Dec. 8-11, 2009
4. **N. K. Joshi**, Plasma diagnostics (**Invited talk**), Workshop on plasma technology in surface engineering & mineral processing, MGU, Kottayam, June 2-5, 2009.
5. Dr. S. Medhekar Delivered an Invited Talk on "All-optical Switching in a Nonlinear Mach-Zehnder Interferometer" in National Seminar on Photonics and Materials (NASPAM) held in the Department of Applied Physics, I. S. M. Dhanbad during 25-27 March 2010. He was also the Chairperson for one session.

Award / Recognition Bestowed on Faculties (State / National / International)

S.No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1	Dr. P.K. Barhai	An Indo-German collaborative research project	DST	3
2	Dr. S. Konar	Senior Associate of International Center for Theoretical Physics (ICTP, Italy)	ICTP, Italy	(January 2007-December 2012).

MoUs / Collaborations

S. No.	Name of Organisation / University	Purpose / Area	Year / Duration
1 P. K. Barhai	<ol style="list-style-type: none"> 1. Indian Institute of Science, Bangalore 2. Central Electronics Engineering Research Institute, Pilani 3. FCIPT, Institute of Plasma Research, Gandhinagar 4. Bhaba Atomic Research Center, Mumbai 5. Saha Institute of Nuclear Physics, Kolkata 6. TISCO, Jamshedpur 7. NML, Jamshedpur 8. IIT, Kanpur 9. Institute of Minerals & Materials Technology (IMMT), Bhubaneswar (previously RRL, Bhubaneswar) 10. RDCIS, SAIL, Ranchi 11. NIT, Jamshedpur 12. NPL, Delhi 13. CAT, Indore 14. IIT, Kharagpur <ol style="list-style-type: none"> 1. University of Duisburg, Germany 2. University of TOMSK, Russia 3. University of Sheffield, UK 	<ol style="list-style-type: none"> 1. Indian Institute of Science, Bangalore for joint guidance of PhD students (One has been awarded). 2. Central Electronics Engineering Research Institute, Pilani for joint guidance of PhD students. 3. FCIPT, Institute of Plasma Research, Gandhinagar, India for joint supervision of M. Tech. Project work. 4. Bhaba Atomic Research Center, Mumbai, for Ultra Nano-Crystalline Diamond Films Technology. 5. Saha Institute of Nuclear Physics, Kolkata, for Plasma Processing of Nano-Materials. 6. TISCO, Jamshedpur for Joint Supervision of M. Tech. Projects. 7. NML, Jamshedpur for Joint M. Tech. Project supervision. 8. IIT, Kanpur for Joint M. Tech. Project supervision. 9. Institute of Minerals & Materials Technology (IMMT), Bhubaneswar (previously RRL, Bhubaneswar) for joint guidance of PhD students. 10. RDCIS, SAIL, Ranchi for Joint M. Tech. Project supervision and sharing of facilities of the Physical Metallurgy section. 11. NIT, Jamshedpur for joint guidance of PhD students. 12. NPL, Delhi for Joint M. Tech. Project supervision. 13. CAT, Indore for Joint M. Tech. Project supervision 14. IIT, Kharagpur for joint research and publications on nano-structured thin films International <ol style="list-style-type: none"> 1. University of Duisburg, Germany for an Indo-German Project under Bilateral Co-operation on Science & Technology on Development of Nanocrystalline Diamond for Field Emission Applications 2. University of TOMSK, Russia on Shape Memory Materials for Aerospace and Nanopowder. 3. University of Sheffield, UK on Plasma Surface Engineering. 	

2. Dr. S Medhekar	University of Hartford CT, USA	On all-optical transistor was reported in widely circulated PHOTONICS SPECTRA of Laurin Publication (USA). pp.106, May 2005. University of Hartford CT, USA invited Dr S Medhekar for a collaborative research work to demonstrate the proof-of-concept (POC) feasibility of All-Optical Passive Transistor (AOPT) proposed by Dr S Medhekar.	visited the University of Hartford during 25th Dec. 2007 to 16th Jan. 2008
3. Dr. S. K. Sinha	Department of Physics, University of Padova	For sample characterization using RBS/ Channeling	As required
	IGCAR Kalpakkam	Sample Characterization	
	IOP Bhubneshvar	Sample Analysis using RBS	
	Mumbai University	Nanoscience & Technology	
4. Dr. S. K. Rout	University of Ulsan, South Korea		
5. S. K. Mahapatra	NCL Pune	Development of spintronics device	To date
6. Dr. N. K. Joshi	BARC, Mumbai	Modeling of Inductively Coupled Plasma Reactor and plasma diagnostics	
7. Dr. S. Keshri	International: Institute of High Pressure Physics of Russian Academy of Sciences, Troitsk, Moscow Institute of Physics, Acad. Sci. Czech Rep., Czech Republic. University Technology of Mara, Malaysia. National: Collaboration with NPL, New Delhi; IIT Madras; IUC Indore; UGC-DAE Consortium for Scientific Research, Kolkata etc	For high pressure studies on CMR samples. For some measurements of CMR samples and microwave ceramics in GHz range. We have carried out some magnetic measurements for their samples. For different experimental works of Magnetoresistance, XRD, TEM etc.	

Members on Board of Studies (UG/PG)

S. No.	Name	Designation
1	Dr. P. K. Barhai	Chairman
2	Dr. D. Jairath	Member
3	Dr. N. K. Joshi	Member
4	Dr. N. Nayak	Member
5	Dr. S. Konar	Member
6	Dr. Sarang Medhekar	Member
7	Dr. (Mrs.) S. Keshri	Member

8	Dr. S. K. Sinha	Member
9	Dr. S. K. Rout	Member
10	Dr. S. K. Mahapatra	Member
11	Dr. (Mrs.) I. Banerjee	Member

Any Other Information

i. Dr. P. K. Barhai

1. Life member (LM 14002) : Indian Society for Technical Education (ISTE).
2. Life member (LM 863) : Instrument Society of India (ISO, Bangalore)
3. Life member (LM 135) : Plasma Science Society of India (PSSI).
4. Life Member (LM 58) : Power Beam Society of India (BARC)
5. Member : American Vacuum Society (Membership No.957033008)
6. Professional Member : IEEE (Membership No 90756476)
7. Life Member : International Film & Television Club, Marwah, Studio Complex, FC-14/15, Film City, Sector-16A, NOIDA-201301
8. Member : Academic Advisory Council, Centre for TeleInfrastruktur (CTIF), Aalborg University, Denmark (2009).
9. Member : Academic Council Central University, Jharkhand.
10. Member : Academic Council, St. Xavier's College, Ranchi.

Reviewer of Journals

- (i) Journal of Surface & Coatings Technology
- (ii) Journal of Nanoscience & Nanotechnology
- (iii) Indian Journal Pure & Applied Physics
- (iv) Journal of Failure Analysis and Prevention, ASM International

ii. Dr. N. K. Joshi

Awards and Honors:

IETE student Journal award for a paper entitled "Surface acoustic wave devices" in 1981

Brief biographical sketch included in 16 th edition (1999) of Marquis's "Who's Who in The World"

Membership of Professional Societies:

1. Lifeumbai
2. Life Member, Hindi Vigyan Sahitya Parishad, Mumbai

Reviewer:

1. IEEE Trans. Plasma Science, USA
2. Indian J. of Pure & Appl. Phys., New Delhi
3. PRAMANA, Bangalore

iii. **Dr. N. Nayak** : Visiting Professor at the S. N. Bose National Centre for Basic Sciences, Kolkata

iv. **Dr. S. Konar** : Dr. S. Konar is the Reviewer of following International Journals

- Applied Physics Letters
- Optics Express (Optical Society of America)
- IEEE J Quantum Electronics (IEEE)
- Optics Communication (Elsevier)
- Journal of Modern Optics
- Progress in Quantum Electronics (Elsevier)
- Journal of Electromagnetic Waves and Applications (VSPP)
- Progress in Electromagnetic Research (VSPP)
- Indian Journal of Physics
- Dynamics of Continuous, Discrete and Impulsive Systems; Series A (CANADA)
- International Journal of Theoretical Physics (Springer)
- Optics and Laser Technology (Elsevier)
- Communications in Nonlinear Science and Numerical Simulations (Elsevier)
- Applied Mathematics Letters (Elsevier)
- International Journal of Chemical Reactor Engineering
- Z. Naturefrusch A: Physical Sciences (Germany)
- Optics and Photonics Letters
- Journal of Light wave Technology (IEEE& Optical Society of America)
- Dr. S. Konar has been invited by the International Center For Theoretical Physics (ICTP), Italy, to nominate a young researcher of international reputation for **Young Scientist Award** of the ICTP
- Dr. S. Konar has been invited by the Catholic University of Daegu, South Korea for the collaborative research work in the field of applied photonics.

v. **Dr. S. Medhekar** : Dr. S. Medhekar has been invited to nominate a person for the International Advisory Committee for Optical Society of America (OSA) Publications. He has also been given an opportunity to vote on the final list of candidates.

Dr. S. Medhekar has become Reviewer for Chinese Optics Letters, published by renowned Optical Society of America.

Dr. S. Medhekar was invited to Redondo Optics, Leos Angeles, CA and University of Hartford, CT for the collaborative research work to demonstrate the proof-of-concept (POC) feasibility of All-Optical Passive Transistor recently proposed by Dr. S. Medhekar and R. K. Sarkar.

Extracts of the paper entitled "All-Optical Passive Transistor (AOPT)" has appeared as a report entitled "Theorists propose an all-optical Transistor" in highly reputed PHOTONICS SPECTRA of Laurin Publication (USA)., pp.106, May 2005. The paper was published by S. Medhekar and R. K. Sarkar

vi. Dr. (Mrs.) S. Keshri

- Dr. S. Keshri has become Reviewer of the following journals during 2009-2010:
- Physica C (Elsevier Publication),
- Journal of Applied Physics (American Institute of Physics),
- Materials Chemistry and Physics (Elsevier Publication), and
- Journal of Alloys and Compounds (Elsevier Publication),
- Journal of Magnetism and Magnetic Materials (Elsevier Publication).
- Dr. Keshri was invited as an Invited Speaker in 6th International Workshop on Nanomagnetism and Superconductivity, held in Barcelona, Spain during 30 June – 4 July, 2010.
- Dr. S. Keshri has been invited as an expert of NCERT for the 'School Level National Talent Search' Interview.

vii. Dr. S. K. Sinha

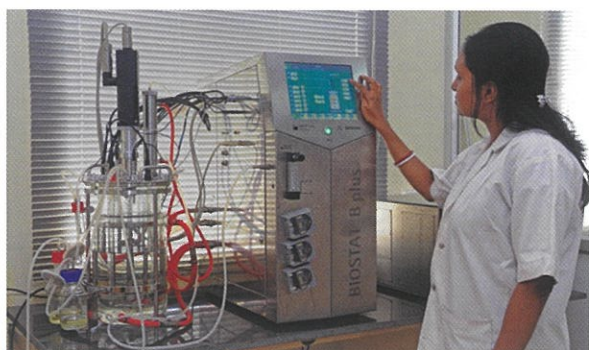
- Membership of Scientific/Educational/Industrial Institutions:
- Indian Physics Association (IPA): Kal/LM/1124
- Indian Vacuum Society (IVS): LM-581
- The All Indian Society for Technical Education (AISTE): LM 32017
- Plasma Society of India: LM 470

Reviewers

- i. Corrosion Science (Elsevier)
- ii. International Journal of Applied Ceramics & Technology (Blackwell)
- iii. Advances in Applied Research (India)

viii. Mr. Rishi Sharma : Visited University of Duisburg, Germany under DST-BMBF Indo-German Bilateral Cooperation in Science & Technology to work on an Indo-German Project entitled "Field Emission Study of Diamond-like Carbon and Nano-Crystalline Diamond Film" (From 09 Nov 2009 to 5 Feb 2010).

Department of Biotechnology



Biostat B Plus Fermentor

The Department has received magnificent financial supports from both Union and State Government for establishing state-of-the-art facility for academic and research activities since its inception in the year 2002. Well planned Department building situated on the bank of Suverna Rekha River has attracted almost every visitor of the Institute. The visitors composed of government officials, diplomats, technocrats, scientists and industrialists have recognized the Department as centre of excellence for research based academics and expressed

their desires to participate and propel the scientific and technological endeavor with BIT.

Department's unique culture, in which the staffs & students are treated as assets and stakeholder of the scientific achievement, provides a congenial environment to apply multidimensional approaches to solve the scientific problems. Students of this Department are well placed in company jobs and also admitted in MS and Ph. D. programmes of foreign Institutions.

Presently, B.E. Biotechnology and M. Sc. Bioinformatics are the courses offered by the Department. M. Tech Biotechnology course will commence from July 2010. Seventeen students enrolled in the Ph.D. programme in various fields of biotechnology such as Genomics, Proteomics and Transcriptomics, Industrial biotechnology, product development and biotechnology management in the Department and one candidate has submitted Ph.D. thesis in this year. The PhD degree was awarded to three scholars. About twenty students completed their projects on Bioinformatics at BTISnet Centre (DBT, GOI, New Delhi) of the Department. Homogenizer, PCR and Illuminated shaker have been recently added to the list of instrumentation facility in the Department. Department has taken lead to provide academic and scientific support to various institutions like NITs and Universities for setting up academic and research facility.

Sponsored Project

Projects Sanctioned

Sl. No.	Project Title	PI/Co-PI/ Collaborator, if any	Funding Agency	Date of sanction	Sanctioned Amount (Lakhs)	Duration of project
1.	Indigenous development of 1 μ m swept source optical coherence tomography (SSOCT) setup for noninvasive imaging of posterior segment of animal eye	PI: Dr. Raju Poddar Co-PI: Dr. P. Venkatesh [AIIMS, Delhi] Dr. P. K Barhai Dr. K. Bose	DST	June 2010 [No.IDP/ MED/2010/10]	25.00	Jun 10 to May 12

Ongoing Projects

Sl. No.	Project Title	PI/Co-PI/ Collaborator, if any	Funding Agency	Date of sanction	Sanctioned Amount (Lakhs)	Duration of project
1.	Development of Probes for early detection of micro organisms responsible for food spoilage during food processing and preservation	Dr. A. S. Vidyarthi (PI) Dr. K. Mukhopadhyay (Co-PI) Dr. P. Shukla (Co-PI)	Ministry of Food Processing Industries	45/MFPI/ R&D/ 2000/254 Dt. 29.03.2005	80.00	Jan 06 to Dec 08 (Extended till Dec 09)
2.	Establishment of Bioinformatics Centre under BTIS Net scheme	Dr. A. S. Vidyarthi (PI)	Department of Biotechnology, Govt. of India	February 2004 BT/ BI/04/065/04	68.0	Feb 05 to Mar 12
3.	Analysis of Host-Pathogen interaction in leaf rust infection of wheat: A transcriptomic approach.	(Network Project) Dr. K. Mukhopadhyay (PI) Dr. A. S. Vidyarthi (Co-PI) Dr. R. Bandopadhyay (Co-PI)	Department of Biotechnology, Govt. of India	Oct 2008 BT/ PR6037/ AGR/02/308/05	BIT Share 16.05	Oct 07 to Nov 10
4.	Overproduction of anthocyanin, the plant derived natural colourant, for food processing industries	Dr. K. Mukhopadhyay (PI) Dr. A. S. Vidyarthi (Co-PI) Dr. R. Bandopadhyay (Co-PI)	Ministry of Food Processing Industries	47/FMPI/ R&D/2006 Dt. 04.02.2008	45.00	Feb 08 to Feb 10
5.	Study of Antioxidative and DNA protective properties of Anthocyanins	Dr. K. Mukhopadhyay (PI)	University Grants Commission	31-1 (JH) SR Dt. 10.01.2009	15.13	Jan 09 to Jan 12
6.	To understand the nature of diversity in lac insects of <i>Kerria</i> spp. in India and the nature of insect x host interaction	(Network Project) Dr. A. S. Vidyarthi (Co-Investigator) Dr. K. Mukhopadhyay (Co-Investigator) Dr. B. N. Sinha (Dept. of Pharm Sciences)	NAIP, ICAR	NAIP/Comp-4/ C3007/ 2008-09 Dt. 10.01.2009	BIT Share 66.50	Apr 09 to March 12

7.	Development of Protocols for Micro propagation, elicitation and Hairy root culture Techniques for the conservation of critically endangered medicinal plant – Swertia chirayita : a potential source of Xanthone	Dr. S. Chandra (PI)	University Grants Commission	37-111/2009 (SR) Dt. 19.12.2009	7.82	Feb 10 to Feb 13
8.	Functional genomics approach towards validation of biologically important consensus promoter motifs in rice (<i>Oryza sativa</i> L.) under submergence	Dr. D. M. Pandey	University Grants Commission	37-113/2009 (SR) Dt. 19.12.2009	10.31	Feb 10 to Feb 13
9.	Production of Natural Flavour Compounds from Ferulic Acid by Microbial Transformation	Dr. S. Ghosh (Sachan) (P.I.) Dr. A. S. Vidyarthi (Co-P.I.)	University Grants Commission	37-115/2009 (SR) Dt. 19.12.2009	8.26	Feb 10 to Feb 13
10.	The culture of local mosses for production of glycosylation enzymes for use in in vitro post translational modification of mammalian proteins expressed in prokaryotes	Dr. R. Chandra (P.I.)	University Grants Commission	37-116/2009 (SR) Dt. 19.12.2009	11.31	Feb 10 to Feb 13
11.	Enhanced production of L-Asparaginase by Extractive Fermentation using aqueous two phase system	Mr. S.K. Jha (P.I.) Dr. H. R. Singh (Co-P.I.)	University Grants Commission (Minor research project)	37-625/2009 (SR) Dt. 12/01/10	1.80	Feb 10 to Feb 12

Seminar/ Conferences/ Short-term courses conducted by the Department

Sl. No.	Title of Seminar/Conferences/Short-term Courses	Coordinator	Funding/ Sponsoring Agency	Date of Seminar/ Conferences/Short-term Courses
1.	Current R & D Status & career opportunities in Biotechnology: study scope and objectives	Dr P. Shukla	Institute	5 September 2009

Seminar / Conferences / Short Term Courses attended by the faculty

Sl. No.	Name of the faculty	Title of the Conferences/ Seminar/Workshop	Funding Agency	Organizers	Venue	Month Date, Year
1.	Dr. H. R. Singh	Workshop on "Molecular Biological Techniques"	DBT, GOI	Dept. of Zoology, Univ. of Burdwan	Dept. of Zoology, Univ. of Burdwan	September 07-19, 2009
2.	Dr. K. Mukhopadhyay, Dr. P. Shukla	Workshop on soft skills	Institute	Training and placement Dept, BIT Mesra	BIT Mesra	September 17-19, 2009
3.	Dr. R. Bandopadhyay (Resource person)	Three-Day National Workshop on "BIOINFORMATICS: SEQUENCE ANALYSIS"		BISR Jaipur	BISR Jaipur	September 23-25, 2009
4.	Dr. R. Bandopadhyay, Dr. K. Mukhopadhyay, Dr. S. K. Ghosh, Dr. P. Shukla, Dr. A. Sachan, Dr. (Mrs.) S. Ghosh (Sachan)	Workshop on Pedagogy research project	IIT Kharagpur	CET, IIT Kharagpur,	IIT Kharagpur, Kolkata Campus	October 11-12, 2009
5.	Dr. A. Sachan	Short-term course on 'Waste Minimization & Bioenergy Recovery'	IIT Kharagpur	Dept. of Civil Engg., IIT Kharagpur	Dept. of Civil Engg., IIT Kharagpur	November 22-26, 2009
6.	Dr. R. Bandopadhyay, Dr. P. Shukla	One day workshop on Project Management system	BIT Mesra	Dept. of Management, BIT Mesra	Seminar Hall I, BIT	February 13, 2010
7.	Dr R. Poddar (Resource person)	Refresher Course on Application of Bioinformatics on Modern Biology	DBT, GOI	Bioinformatics Infrastructure Facility (BIF) Centre, Vidyasagar Univ.	Dept. of Microbiology, Vidyasagar Univ.	March 8-31, 2010

8.	Dr. R. Bandopadhyay (Resource person)	National Seminar on Productivity Enhancement and Value Addition of Bamboos		Jharkhand State forest Development Corpn. Ltd. And Institute of Forest Productivity	Hotel Ashoka, Ranchi	March 9-10, 2010
9.	Dr. R. Bandopadhyay (Resource person)	NCERT Programme for NTS awardees		Dept of Physics, BIT Mesra	BIT	March 22-26, 2010
10.	Dr. R. Bandopadhyay (Chairperson & Resource person)	2 nd Indian Youth Science Congress (IYSC-2010)	SRM University	SRM University and MSSRF	SRM University	June 26-28, 2010

Publications

International Journals

1. I. Haque, M. Kumar, K. Mukhopadhyay, A Rapid and Simple UPLC-MS-MS based Simultaneous Determination of the Medicinally Important E- and Z-Guggulsterone from Oleo-Gum Resins of Naturally Occurring *Commiphora wightii* Plants, *Chromatographia*, 70 (2009) 1613-1619.
2. H.R. Singh, R.R. Singh, A.K. Dubey, S.K. Jha, A.S. Vidyarthi, Effect of Intravaginal Neem oil treatment on Uterine Total Phosphorus Level in Albino rats, *Journal of Experimental Zoology, India*, 12 (2) (2009) 391-393.
3. S. Rustgi, R. Bandopadhyay, H.S. Balyan, P.K. Gupta, EST-SNPs in Bread Wheat: Discovery, Validation, Genotyping and Haplotype Structure, *Czech J. Genet. Plant Breed.*, 45, (3) (2009) 106-116.
4. S. Shrivastava, P. Shukla, K. Mukhopadhyay, R. Poddar, Study of codon bias perspective of fungal xylanase gene by multivariate analysis, *Bioinformation*, Thomsan Gale, USA: 3(10), 2009.
5. R. Poddar, A. Mathur, O.U. Kawalekar, A. Rai, A. Bhatnagar, Modifications of ampicillin structure and its implication: an in-silico approach, *Int. J. Bioinf. Res. Appl.*, 5(6) (2009) 616- 624.
6. I. Haque, R. Bandopadhyay, K. Mukhopadhyay, Intraspecific Variation in *Commiphora wightii* Populations Based on Internal Transcribed Spacer (ITS1- 5.8S-ITS2) Sequences of rDNA, *Diversity*, 1(2009) 89-101.
7. H.R. Singh, R.R. Singh, A.K. Dubey, S.K. Jha, A.S. Vidyarthi, Study of Ovarian and Uterine Ascorbic Acid Level after Intravaginal Neem Oil treatment in Albino rat: *PHARMBIT*, Vol. XX No. 2 (2009) 154-157.
8. A. Kumar, S. Smita, N. Sahu, V. Sharma, Shankaracharya, A.S. Vidyarthi, D.M. Pandey, *In silico* analysis of Motifs in Promoter of Differentially Expressed Genes in Rice (*Oryza sativa* L) under Anoxia, *Int. J. Bioinf. Res. Appl.*, 5(5) (2009) 525-547.
9. Z. Meng, P. Shukla, M. Ayyachamy, K. Permaul, S. Singh, Improved bioethanol production through simultaneous saccharification and fermentation of lignocellulosic agricultural wastes by *Kluyveromyces marxianus* 6556, *World J. Microbiol. Biotechnol.*, 26(6) (2010) 1041-1046.
10. I. Haque, R. Bandopadhyay, K. Mukhopadhyay, Population genetic structure of the endangered and endemic medicinal plant *Commiphora wightii*. *Mol. Biol. Rep.*, 37 (2) (2010) 847-854.

11. A. Sachan, S. Ghosh, A. Mitra, Transforming *p*-coumaric acid into *p*-hydroxybenzoic acid by the mycelial culture of a white rot fungus *Schizophyllum commune*. *Afr. J Microbiol Res.*, 4 (2010) 267-273.
12. P. Gupta, R.S. Singh, A. Sachan, A.S. Vidyarthi, A. Gupta, N. Tripathi, Study on Biogas Production from Vegetable Waste Indigenous Microbes, *Int. J. Appl. Env. Sci.*, 5 (2010) 169-178.
13. Shankaracharya, B. Srivastava, A.S. Vidyarthi. Structure modeling of VRK1 Protein and Its Molecular Docking study with Ribavirin analogs. *Int. J. Pharma and BioSciences*, 1(3) (2010) 1-10.
14. Shankaracharya, P. Sharma, A.S. Vidyarthi. Homology Modeling of Tubulin β -1 chain and its Docking study with Colchicine Analogs, *Int. J. Pharm. and Technol.*, 3 (1) (2010) 515-530.
15. V. Kumar, A. badve, S. Das, S. Ghosh, R. Bandopadhyay, The 2009 Nobel prize in chemistry: for studies of the Structure and function of the ribosome. *Int. J. Appl. Biol. Pharma. Technol.*, 1 (1) (2010) 95-103.
16. S. Chandra, R. Bandopadhyay, V. Kumar, R. Chandra, Acclimatization of tissue cultured plantlets: from laboratory to land, *Biotechnol. Lett.* DOI: 10.1007/s10529-010-0290-0.

Proceedings

International

1. D. Prasad and A.S. Vidyarthi, Highly sensitive colorimetric method for the detection of *Salmonella* spp. in environmental and clinical samples, 14th European Congress on Biotechnology, Barcelona, Spain. September 13-16, 2009.
2. D. Prasad, A.S. Vidyarthi, M. Ferretti, A. Masi, Colorimetric screening of recombinant RNAi vectors without using PCR, 14th European Congress on Biotechnology, Barcelona, Spain. September 13-16, 2009.
3. S. Rani, J. Srivastava, A. Kumar, V. Kumar, P. Kumar, A. S. Vidyarthi, D.M. Pandey, In Silico Study on Intron Retention in Alternatively Spliced Genes of Rice (*Oryza sativa* L.) and Their Response under Anoxia, In: Proceedings of 6th Rice Genetics Symposium and 7th International Symposium on Rice Functional Genomics (ISRFG'2009), Manila, Philippines. November 16-19, 2009.
4. A. Kumar, A. Kumari, S. K. Agarwal, A. Baxi, A.S. Vidyarthi, D.M. Pandey, Expression Analysis of Two Component System Genes in Rice (*Oryza sativa* L.) under Submergence, In: Proceedings of 6th Rice Genetics Symposium and 7th International Symposium on Rice Functional Genomics (ISRFG'2009), Manila, Philippines. November 16-19, 2009.
5. S.K. Ghosh et al., Indo-US epigenetic and genome control workshop, CCMB, Hyderabad, India. December 16-18, 2009.
6. V. Nath, R.N. Gupta, A.S. Vidyarthi, R. Laik, K.S. Yadav, L.K. Singh, S.K. Paul, Study and Detection of early stage Breast cancer with Smart Embedded Decision Systems, International Conference on Systemics, Cybernetics and Informatics (ICSCI 2010), Pentagonam Research Centre Pvt. Ltd., Hyderabad. January 27-30, 2010.
7. P. Parashar, S.K. Singh, A.K. Dubey, H.R. Singh, K. Mishra, K.N. Tiwari, Changes in salivary and seminal ascorbic acid level in men of different body mass index (BMI) range group, International symposium on Endocrinology and Reproduction: Molecular Mechanism to Molecular Medicine. Organised by: SRBCE at JNU Delhi. February 04-06, 2010.

National

1. Sneha K. Agarwal, B. Samyukta, A. Baxi, A. Singh, P. Shukla, Approaches in Enzyme engineering through in silico modelling for improvement in catalytic binding site on some microbial enzymes: an overview, 50th AMI Annual Conference at NCL Pune. December 15-18, 2009.
2. J. Bhagat, P. Shukla, K. Mukhopadhyay, Proteomic studies for understanding interaction between *Xanthomonas campestris* pv *oryzae* and rice (*Oryza sativa*), 50th AMI Annual Conference at NCL Pune. December 15-18, 2009.
3. R. Bandopadhyay, B. Singh, K. Mukhopadhyay, Comparative genome analysis of bamboos, towards characterization of diversity and conservation, National Seminar on Productivity Enhancement and Value Addition of Bamboos, Organized by Jharkhand State Forest Development Corp Ltd. and Institute of Forest Productivity (Indian Council of Forestry Research and Education). March 9-10, 2010.
4. A. Dev and S. Singh, Vaccination with Recombinant Immunodominant Protein: A Composite Approach for the Treatment of Multiple Drug Resistance (MDR) in Tuberculosis, National Seminar on Applications of Biotechnology and development of Bihar, BIT Patna campus, Patna. March 22-24, 2010.
5. S.K. Jha, S.K. Srivastava, H.R. Singh, A.S. Vidyarthi, Optimization of Streptokinase Production by Taguchi DOE Methodology, National Seminar on Applications of Biotechnology and development of Bihar, BIT Patna campus, Patna. March 22-24, 2010.
6. V. Nath, A.S. Vidyarthi, R. Laik, R.N. Gupta, H.R. Singh, C.B. Sahay, Detection of Brain Tumor using Modalities like MRI as a Biomedical Instrumentation System, National Seminar on Applications of Biotechnology and development of Bihar, BIT Patna campus, Patna. March 22-24, 2010.
7. A. Kumar, V. Kumar, P. Kumar, S.K. Agarwal, A. Baxi, Megha, A. S. Vidyarthi, D. M. Pandey, Study on molecular mechanism towards submergence tolerance in rice (*Oryza sativa* L.): A functional genomics approach, National Seminar on Applications of Biotechnology and development of Bihar, BIT Patna campus, Patna. March 22-24, 2010.
8. A. Kumar, K. Yadav, V. Kumari, D. Prasad, A.S. Vidyarthi, D.M. Pandey, Preliminary study on gene responsible for medicinally important compound of Citronella (*Cymbopogon winterianus* L.), National Seminar on Applications of Biotechnology and development of Bihar, BIT Patna campus, Patna. March 22-24, 2010.
9. S. Kumar and A. Pareek, Algal biodiesel production: A sustainable solution to energy and environmental problems, National Seminar on Applications of Biotechnology and development of Bihar, BIT Patna campus, Patna. March 22-24, 2010.
10. D. Singh, R. Bandopadhyay, B. Govind, K.V. Prabhu, K. Mukhopadhyay, Expression profiling of defense genes during leaf rust infection of wheat, National Seminar on Applications of Biotechnology and development of Bihar, BIT Patna campus, Patna. March 22-24, 2010.
11. D. Jabin, D. Sahu, K. Mukherjee, R. Bandopadhyay, Bioinformatics approach towards the discovery of Anti-influenza drug, National Seminar on Applications of Biotechnology and development of Bihar, BIT Patna campus, Patna. March 22-24, 2010.
12. D. Odedra, M. Mallick, R. Bandopadhyay, N-myristoyltransferase : A potential novel drug target site as a tool for eradicating Kala-azar, the prominent disease in the state of Bihar, National Seminar on Applications of Biotechnology and development of Bihar, BIT Patna campus, Patna. March 22-24, 2010.

13. C. Banerjee, P. Shukla, R. Bandopadhyay, R. Chandra, An Overview of Hydrogen Producing Potential of Few Indigenous Microalgae, National Seminar on Applications of Biotechnology and development of Bihar, BIT Patna campus, Patna. March 22-24, 2010.
14. S.K. Deo, S. Shekhar, S. Ghosh, A. Sachan, Microbial release of ferulic acid from agrowaste and its subsequent biotransformation into value-added compounds, National Seminar on Applications of Biotechnology and development of Bihar, BIT Patna campus, Patna. March 22-24, 2010.
15. R.P. Bhatnagar, A.S. Vidyarthi, A. Sachan, Bioelectricity for rural development-Microbial fuel cell (MFC) a potential device, National Seminar on Applications of Biotechnology and development of Bihar, BIT Patna campus, Patna. March 22-24, 2010.
16. K. Mukherjee, Molecular dynamics simulation of TRF 2: Implication for human aging, National Seminar on Applications of Biotechnology and development of Bihar, BIT Patna campus, Patna. March 22-24, 2010.
17. P. Jyoti, J. Pathak, A. Pushplata, N. Bhattacharya, R. Bandopadhyay, Anticancer drug designing against telomerase activity: a bioinformatics approach, PHARMACON 2010, Dept of Pharmaceutical Science, BIT, Mesra, Ranchi. April 9-10, 2010.
18. S. Kumar, C.K. Singh, M. Kumari, B.N. Behra, K.J. Joemon, R. Bandopadhyay, 1, 3-DHA- A potent Drug Molecule, A Leap into Futuristic Visualization, PHARMACON 2010, Dept of Pharmaceutical Science, BIT, Mesra, Ranchi. April 9-10, 2010 (Best Oral presentation)
19. MVK Karthik, P. Singh, K. Mukherjee, P. Shukla, Homology modeling approaches for neuraminidase inhibitors and role of integrase in antiviral drug discovery for Human Immunodeficiency Virus (HIV), PHARMACON 2010, Dept of Pharmaceutical Sciences, BIT Mesra, Ranchi. April 9-10, 2010.
20. MVK Karthik, P. Singh, S. Shrivastava, P. Shukla, Molecular docking for rational enzyme design towards substrate stabilization in family 11 xylanases from *Thermomyces lanuginosus*, 2nd Indian Youth Science Congress- 2010, SRM University, Chennai and MSSRF, Chennai. June 26-28 2010.
21. S. Kumar, C.K. Singh, A. Sharon, R. Bandopadhyay, 1, 3-Dihydroxy 9, 10 anthraquinone, an inhibitory drug molecule for *Staphylococcus aureus* infection by targeting the HtsA receptor, 2nd IYSC, SRM University and MS Swaminathan Research Foundation, Chennai. June 26-28, 2010.
22. V. Kumar, S. Chandra, R. Bandopadhyay, M.M. Sharma, Unraveling the myth *Swertia chirayita* versus *Andrographis paniculata* by SEM, SDS PAGE & Germination studies, 2nd IYSC, SRM University and MS Swaminathan Research Foundation, Chennai. June 26-28, 2010.

Books

Book Chapters

1. R. Bandopadhyay, I. Haque, D. Singh, K. Mukhopadhyay, Levels and Stability of Expression of Transgenes, edited by Chittaranjan Kole, Charles H. Michler, Albert G. Abbott and Timothy C. Hall, Development and Deployment of Transgenic Crop Plants, Springer-Verlag, ISBN: 978-3-642-04808-1, DOI- 10 1007/978-3-642-04809-8, 2009.
2. P. Vyas, B. Chaudhary, K. Mukhopadhyay, R. Bandopadhyay, Anthocyanins: Looking Beyond Colors, edited by Pankaj K Bhowmik, Saikat K Basu and Aakash Goyal (Eds), Advances in Biotechnology, Bentham Science Publishers Ltd., 2009.

3. P. Shukla, D. Garai, S. Shrivastava, An overview of statistical optimization methods for microbial conversion of environmental samples for lipase production by hyperlipolytic fungi *Rhizopus oryzae* KG10. 171-180, In Environmental Microbiology, APH Publishers, New Delhi, 2009.

Patents (Applied/Granted)

S. No.	Name of the Inventor	Title of the Invention	Application / Patent No. (As applicable)	Year
1.	Dr. P. Shukla Smriti Shrivastava Dr. K. Mukhopadhyay	Novel β -1, 4-endoxyranase from <i>Thermomyces lanuginosus</i> SS-8 and the mode of action thereof.	141/KOL/2010; Filed on 15/02/2010 (Applied)	2010

MoUs/ Collaborations

Sl. No.	Name of organization/University	Purpose/Area	Year/ Duration
1.	Manheim Univ. of Applied sciences, Germany (MoU)	Research	In Process
2.	Heustan University, USA.	Research	In Process
3.	IARI, Pusa, New Delhi & CCS University Meerut (U.P)	Research	03
4.	IINRG, Namkum Ranchi & Dept. of Zoology , Delhi University	Research	03

Departmental Students Activities

Sl. No.	Name of Activity	Students' coordinator, if any	Date/ Duration
1.	Srishti '09	Organized by BIOTS (Society of Biotechnologists)	23 rd -25 th October 2009
2.	Conference of Parties 15, UNFCCC at Copenhagen	Mr. Prakhar Goel (BE/1005/07), one among the 20 member team as a delegate	December 7-18, 2009
3.	The 3 rd Amsterdam Global Conference on Sustainability and Transparency	Mr. Prakhar Goel (BE/1005/07), one of the five youths of the world selected as Young Sustainability Champions	May 26-28, 2010

Members on Board of Studies

Under Graduate Programme

Chairman - Dr. A. S. Vidyarthi, Head of the Department

Members-

1. Dr. P. Ghosh
2. Dr. K. Mukhopadhyay
3. Dr. (Mrs.) M. Mukherjee
4. Dr. P. Shukla
5. Dr. D. Sasmal

6. Mr. G. K. Sharma

7. Dr. V. P. Gupta

Post Graduate Programme

Chairman - Dr. A. S. Vidyarthi, Head of the Department

Members-

1. Dr. K. Mukhopadhyay

2. Dr. A. Sachan

3. Dr. S.P. Bhatnagar

4. Dr. (Mrs.) Usha Jha

5. Mr. R.T. Goswami

Panel of Experts from outside of the Institute: (Any two)

1. **Prof T. Ghosh,**
Emeritus Prof., IIT Delhi

2. **Dr. B. N. Mishra**
Co-ordinator, Biotechnology
Institute of Engineering & Technology
Sitapur Road
Lucknow - 226021

3. **Dr. T. Madhan Mohan**
Director
Dept. of Biotechnology, GOI
CGO Complex, New Delhi.

4. **Dr. Debbrata Das**
Dept. of Biotechnology
IIT Kharagpur

5. **Dr. Z. A. Haider**
Dept. of Biotechnology
Birsa Agriculture University
Kanke, Ranchi

6. **Dr. P. Ghosh**
Executive Director
BISR, Statue Circle
Jaipur

7. **Dr. Ranjana Srivastava**
Deputy Director & Head
Gene cloning Laboratory
Central Drug Research Institute
Lucknow – 226001

8. Mr. G. K. Sharma

Reliance Life Science
Mumbai-400001

9. Mr. Rajesh Soni, Director

Genom Biotech Pvt. Ltd.
504, Delphi, Orchard Avenue
Hiranandani Business Park
Powai, Mumbai – 400 076

Any Other Information

1. AMI unit (Jharkhand Chapter) established in the Department has received recognition as one of the best unit. The Department is also entrusted to host the 51st Association of Microbiologists in India (AMI) Conference in this campus from 14-17 December 2010.
2. Department of Biotechnology participated in hosting, DST Inspire Camp on Basic Science, a 5 day workshop sponsored by DST, GOI which was held during 27-31st January 2010.
3. Dr. P. Shukla is serving as Central Council member of Association of Microbiologists in India (AMI).
4. Dr. R. Bandhopadhyay has been nominated as a member of Research Advisory Committee, Institute of Forest Productivity (Indian Council of Forestry Research and Education), Ranchi.

Department of Civil Engineering



Digital Triaxial Test Equipment

Rapid changes due to modernization throughout the world, has yet again brought Civil Engineering discipline to the forefront. This fact is well reflected from the increasing preference among candidates seeking admission for opting for this Branch. With ever increasing attention being given throughout the world to infrastructure development, natural hazards mitigation, managing water resources – through construction of dams, penstocks for power generation, canals for water supply and water harvesting measures, or still touching every strata of populace, water supply for industry

and people, storm water and other drains, besides for every mode of transport – track for railways, highways, aprons and runways and hangars for aircrafts, docks including dry docks, harbours and lock-gates for shipping, launch pads for rockets, bridges and tunnels; chimneys for power plants and above all, the towering structures driving the sky to its limits. The list goes on, but is it not that, when it all began, Engineering was just Civil Engineering !

The Department offers 4 – year (eight Semester) under-graduate course and 2 – year (four Semester) post-graduate course and Doctoral Programme in Civil Engineering. The final Semester of the under-graduate programme includes a course in Disaster Management besides giving options to select two electives from a total of ten courses. Students take up vacation training programmes with reputed construction firms and a host of other organizations. The post-graduate programme has specialisations in two disciplines, viz. Soil Mechanics & Foundation Engineering and Structural Engineering. A new post-graduate course 'Master of Transportation Planning and Management', the course content for which is drawn from disciplines of Management, Architecture, Remote Sensing and Civil Engineering, is being offered from the Session 2010.

Sponsored Project

Ongoing Projects

Sl. No.	Project Title	PI / Co- PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration
1	Flood Modeling of North Bihar Rivers Using Soft Computing Techniques	R. R. Sahay	AICTE, New Delhi	March 08	5.5 lakhs	2 years
2	Flood Estimation and Forecasting across multiple sites in Kosi River Using Artificial Neural Network	R. R. Sahay	UGC	March 08	1 lakh	2 years
3	Study of Cilmate changes due to global warming in Jharkhand and a new intelligent model for air pollutant concentration prediction	Bindhu Lal	UGC	March 08	1 lakh	2 years

4	Development of guidelines for safe dump profile of dragline mines of Coal India	Dr. Indrajit Roy	Ministry of Coal through C I L R&D grant	01.02.10	51.5 lakhs	1.5years
5.	Slope Stability Study of Bhurkunda and Tapin mines of Central Coalfield Limited	Dr. Indrajit Roy	Central Coalfield Limited	02.07.09	2.5 lakhs	6 months
6.	Slope Stability Study of Dhudichua Opencast project of Northern Coalfield Limited	Dr. Indrajit Roy	Northern Coalfield Limited	20.01.10	3.5 lakhs	3 months
7.	Stability study of fly ash embedded in the back-filled dump of Opencast mines of Coal India	Dr. Indrajit Roy	Coal India Limited	19.09.08	5.50 lakhs	1 year

Projects Completed

Sl. No.	Project Title	PI / Co- PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion
1.	Slope Stability Study of Gevra, Kusmunda, Dipka and Baroud Opencast mines of South Eastern Coalfield Limited	Dr. Indrajit Roy	South Eastern Coalfield Limited	18.02.09	6.00 lakhs	27.06.09
2.	Slope Stability Study of Jhingurdah opencast mines of Northern Coalfield Limited	Dr. Indrajit Roy	Northern Coalfield Limited	13.06.09	4.00 lakhs	06.08.09
3.	Slope Stability Study of Highwall of Tikak Extension, North Eastern Coalfield, Assam	Dr. Indrajit Roy	Northern Coalfield Limited	02.07.09	2.00 lakhs	09.10.09
4.	Slope Stability Study of Sasti mine of Western Coalfield Limited	Dr. Indrajit Roy	Western Coalfield Limited	09.09.09	3.40 lakhs	06.11.09

Seminar / Conferences / Short – term Courses Conducted by the Department

Sl. No.	Lecture / Seminar / Workshop	Date	Presenter / Collaborator
1.	Lecture on "Soil & Materials for Construction of Earthen Dams"	11.11.09	Shri Ram Chand, Ch. Engr. (Retd.), Irrigation Dept., Punjab
2.	Workshop on Concrete Mix Design	12.12.09	UltraTech Cement Ltd.
3.	Seminar on Portland Slag Cement	24.03.09	A C C Ltd.

Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

Sl. No.	Name of the Faculty	Title of the Conference / Seminar/Workshop	Funding Agency	Organizers	Venue	Month Date, Year
1.	Abhijit Burman	Earthquake Analysis of Dams	I.I.T. Kharagpur	IIT Kharagpur	Bhubaneswar	August 17-21, 2009
2.	U. C. Sahoo Koushik Paul	Workshop on Autocad	BIT, Mesra TEQIP	BIT, Mesra	BIT, Mesra	Nov. 3-13, 2009
3.	Indrajit Roy	Problems of Handling Mining and Power Plant Solid Waste with its solution in India	B.I.T. Mesra	Khulna Engineering University	Khulna, Bangladesh.	November, 2009
4.	R. R. Sahay	Modernisation in Construction Industry by Mechanisation	BIT Mesra	IE (I), Jharkhand State Centre	Mecon, Ranchi	Dec 28-29, 2009
5.	U.C.Sahoo	Modernisation in Construction Industry by Mechanisation		IE (I), Jharkhand State Centre	Ranchi	Dec 28-29, 2009
6	U C Sahoo	PIARC International Seminar on Sustainable Maintenance of Rural Roads		World Roads Association and NRRDA	Hyderabad	Jan 21-23, 2010
7	Indrajit Roy	Slope Stability of Internal Dumps in Deep Opencast Coal Mines of Northern Coalfields Limited	Northern Coal field	Asian Mining Congress	Kolkata, India.	January, 2010
8	Anand Sinha	Project Management Systems	B.I.T, Mesra	B.I.T, Mesra	B.I.T, Mesra	February 13, 2010

Publications

1. **R. R. Sahay**, S. Dutta : Prediction of longitudinal dispersion coefficients in natural rivers using genetic algorithm, Hydrology Research, 40.6 (2009) 544-552.
2. **R. R. Sahay** : Prediction of longitudinal dispersion coefficients in natural rivers using artificial neural network. Environ Fluid Mech DOI 10.1007/s10652-010-9175-y
3. **R. R. Sahay** : Optimal Sizing of a Multiple Reservoir System using Simulation-Linked Dynamic Programming. IUP Journal of Soil and Water Sciences, Vol. III, No.3, pp.22-36
4. **Koushik Paul** : Removal of COD and nutrients from slaughter house waste water in a Sequencing Batch Reactor, International Journal of Applied Environmental Sciences. 4(3) 2009
5. **U. C. Sahoo**, K. S. Reddy : Terminal Condition for Thin Surfaced Low Volume Roads, International Journal of Pavement Engineering and Asphalt Technology, Vol. 11, Issue 1 (2010), pp. 47-59

6. **A. Burman**, D. Maity and S. Sreedeeep (2009) : "The behavior of aged concrete gravity dam under the effect of isotropic degradation caused by hygro-chemo-mechanical actions", International Journal of Engineering Studies, Vol. 1 (2), pp. 93-110
7. **A. Burman**, D. Maity and S. Sreedeeep (2010) : "Iterative analysis of concrete gravity dam-nonlinear foundation interaction", International Journal of Engineering, Science and Technology, Vol. 2 (4), 85-99
8. **A. Burman**, D. Maity and S. Sreedeeep (2010) : "Long term influence of concrete degradation on dam-foundation interaction", International Journal of Computational Methods (In press)
9. P. Agrawal, **A. Burman** and D. Maity : "Coupled Dam-Foundation Analysis using a simplified direct method of soil-structure interaction", Soil Dynamics and Earthquake Engineering (Submitted after 1st review)

Proceedings

1. **R. R. Sahay**, Determination of Optimal Cost Of Maithon Reservoir using Simulation linked Dynamic Programming. Proceedings All India Seminar on Modernisation in Construction Industry by Mechanisation, Institution of Engineers (I), Jharkhand State Centre, Dec 28-29, 2009
2. **U. C. Sahoo**, Cold-in-place Recycling of Asphalt Pavements, Proceedings All India Seminar on Modernisation in Construction Industry by Mechanisation, Institution of Engineers (I), Jharkhand State Centre, Dec 28-29, 2009.
3. **U. C. Sahoo**, M. A Reddy, K. S. Reddy, Rational Design Criteria for Sustainable Rural Roads, Proceedings of PIARC International Seminar on Sustainable Maintenance of Rural Roads, Hyderabad, Jan 21-23, 2010
4. P. Agrawal, **A. Burman** and D. Maity (2009) "Couple dam-foundation analysis using direct method of soil-structure interaction", 3rd International Congress on Computational Mechanics and Simulation (ICCMS-09) held during 1-5th December at IIT Bombay, pp. 167-168
5. S. Bhusan, **A. Burman** and D. Maity (2010) "An efficient GUI based methodology for the finite element analysis of dam-foundation-reservoir system", Proceedings of 3rd International Earthquake Symposium, Bangladesh, 5-6 March, 2010, pp. 325-331
6. **Bindhu Lal**, Sanjaya Shankar Tripathy (2010) "Dust Concentration in Coal Mines by Probabilistic Neural Network", International Journal of Applied Environmental Sciences", Vol. 5, No. 4, pp. 591-602

Books

Abhijit Burman : "Stability Analysis of Concrete Gravity Dams" (Chapter contribution) in coursework for the QIP course "Earthquake Analysis of Dams" conducted by IIT, Kharagpur

Course coordinator : Dr. Damodar Maity (IIT / Kg) 17-21 Aug., 2009 Bhubaneswar

Departmental Students' Activities

Sl. No.	Name of the Activity	Students' coordinator, if any	Date/Duration
1.	Educational Trip to Sports Complex, and other Construction Sites – cross-over Bridge on River Swarnarekha (NH-33)	Dr. C. K. Singh Mr. Birendra Kr. Singh Dr. U. C. Sahoo	10/04/2009

Members on Board of Studies(UG/PG)

- | | | |
|----------------------------------|---|----------|
| 1. Head of the Department | - | Chairman |
| 2. Prof. K. R. Roy Chowdhury | - | Member |
| 3. Dr. Balram Singh | - | Member |
| 4. Dr. Anand Kumar Sinha | - | Member |
| 5. Dr. Arun Kumar | - | Member |
| 6. Dr. Ashok Mishra | - | Member |
| Professor, Mechanical Engg. | | |
| 7. Dr. (Ms.) Manjari Chakraborty | - | Member |
| Professor, Architecture | | |
| 8. Dr. Ashok Kumar Khan | - | Member |
| Professor, N. I. T., Jamshedpur | | |
| 9. Dr. R. P. Sharma | - | Member |
| Professor, B. I. T., Sindri | | |

Students' Activities

Participation in Workshops / Projects / Training Programmes :

Vacation Projects at other Institutions :

Sl. No.	Name and Roll No.	Project	Faculty
1	Kalpna Rani M. G. (BE/1029/07)	Fabrication and modeling of MRGEL (Magneto-Rheological Gel)	Prof. Sivakumar (I.I.T. / M)
2	Prachi Sharma (BE/1390/07)	A review on Climate Change and its Impact Assessment in India over a Century	Prof. Deepak Khare (I.I.T., Roorkee)
3	Shivangi Verma (BE/1434/07)	Statistical Assessment of Trend Analysis of Rainfall in Eastern Part of Orissa	Prof. K. C. Patra (N. I. T., Rourkela)
4	Sulagna Mishra (BE/1047/07)	Analysis of Dam Break and Flood Inundation and Development of Algorithm for Analysing River Flow Problems (DRDO Project)	Dr. P. K. Mohapatra (I. I.T., Kanpur)

Fellowship :

- Arjun Goyal (BE/1040/07) was recipient of Tata Jagriti Fellowship-2009, selected in top 1 percentile of the country for the annual 18-day tour throughout India

Product Development :

Varun Nath (BE/1324/07), Prachi Sharma (BE/1390/07), Sulagna Mishra (BE/1047/07) : Development of a Mobile Micro-utility Plant; Sponsored by The Ecosphere, U K

Any Other Information

- Industrial visit by Faculty : Dr. Arun Kumar visited the Cement Manufacturing unit of UltraTech at Raipur in Jan., 2010
- General : The Department provides services to Public and Private sectors in testing for Construction Materials quality, Concrete mix design, Site Investigation for foundations, Rehabilitation of Structures, Investigations into failures of Structures and Pavements, Safe Mining, etc.
- Parimal Pradhan (BE/1146/07) as Production Manager and In-Charge, Personality Development, RAWA (International NGO)

Department of Computer Science



Computer Laboratory

The Department of Computer Science and Engineering was established in the year 1983. Now the Department is recognized as one of the leading Departments in the country with infrastructure and facilities to match the very best in the country. The Department remains committed towards its mission which is twofold. One is to provide students with the fundamental knowledge and problem solving skills in Computer Science required for a fulfilling carrier. The other goal is to create and disseminate knowledge to improve Computer Science research, education and practice.

The Department is vibrant and growing and has changed substantially in recent years in many ways. The number of faculty has significantly increased in the last four years. This was followed by a massive up gradation of the Departmental infrastructure in an effort to keep pace with the rapidly changing needs of the industry. The Department has successfully deployed the COLAMA University Edition to carry out UG and PG lab courses on an experimental basis.

The Department currently offers the following programmes, all of which are approved by the All India Council for Technical Education (AICTE).

Programmes Offered	Intake
B.E in Computer Science (4 years :8-semesters)	120
M.E.in Software Engineering(2 years: 4-semesters)	15
M.Tech in Computer Science(2 years:4-semesters)	16
Ph.D.Programmes	

Seminar / Conferences / Short – term Courses Conducted by the Department

Sl. No.	Title of Seminar / Conferences / Short – term Courses	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1	Computer as a Tool to Study GeoScience	Mr.Girija Mukherjee, Indian Institute of Geomagnetism, Mumbai	BIT	07/09/2009.
2	Efficient Fingerprint authentication on a fixed-point processor	Mr.Bill Thies	Microsoft Ltd	06/02/2010
3	System Engineering	Dr.Kesavasamy	TCS	08/02/2010

4	Biologically Inspired Approach for Solving Combinatorial Problems	Prof.S.K.Sahana	BIT	03/09/2009
5	Feature Selection for Rule Based Induction System	Prof.I.Mukherjee	BIT	18/08/2009

Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Month Date, Year
1	Shruti Garg	Analysis of Algorithms	IUCEE	IUCEE	Infosys, Mysore	June 29-July 03,2009
2	Shruti Garg	Distributed Operating System	IUCEE	IUCEE	JIIT,Noida	June 28-July 01,2010
3	P.Paul	Optical networks	AICTE	Dept of E&ECE	IIT, Kharagpur	22.6.09 to 3.7.09

Publications:

International Journals:

- 1) A. K. Keshri, B. N. Das , D. K. Mallick , R. K. Sinha, "Parallel Algorithm to Analyse Brain Signals: Application on Epileptic Spices," Journal of Medical Systems (Springer Verlag), ISSN-0148-5598, 2009.
- 2) P.Paul, S.Sinha, "Routing and Wavelength Assignment Problem in WDM mesh network using limited Grooming resources". IJAST vol-19,23-42,June -2010.
- 3) P.Paul, S.Shrivastava , "Traffic Grooming in WDM network using ILP", IJCA(0975-8887),vol-4, No-3,1-8, July 2010.
- 4) Shashank Pushkar, Abhijit Mustafi, Akhileshwar Mishra "A Metaheuristic Approach for IT Projects Portfolio Optimization" Journal of Computer Science and Engineering" Vol 1, Issue 1, 42-47, May 2010.
- 5) Shashank Pushkar, Sharma .R .R , Akhileshwar Mishra "Dynamic Programming Approach to Optimize Portfolio of Interdependent IT Projects" CiiT International Journal of Artificial Intelligent Systems and Machine Learning, Vol 1,No.4,127-131, July 2009.
- 6) Sanchita Paul., Mangesh. K. Rajak., Gadadhar Sahoo., "A Fast Exact Pattern Matching Algorithm for Biological Sequences", Journal of Computational Intelligence in Bioinformatics, Vol 2, No 3, pp. 147-158, 2009.
- 7) Swaraj Bharti, Abhimanyu. K. Singh, Sanchita Paul, G. Sahoo., "DNA Nanorobot: Movement Control Algorithm for Cancer Cell Detection Using Fuzzy Logic Rules", CiiT International Journal of Fuzzy Systems, Vol. 1 No. 1, pp 6 – 11, 2009.
- 8) Sanchita Paul., Gadadhar Sahoo., "Simplification of Boolean Algebra through DNA Computing", International Journal of Computer Applications, Vol. 1 No. 17, pp 34-43, 2010.

- 9) Sanchita Paul., Abhimanyu. K. Singh., "Identification of Metastatic Tumors by Using DNA Nanorobot: A Fuzzy Logic Approach ", International Journal of Computer Applications, Vol. 1 No. 24, pp 5-14, 2010.
- 10) Sanchita Paul., Gadadhar Sahoo., "Procedure for Multiplication based on DNA Computing", 2009 International conference on Advance in Computing, Control and Telecommunication Technologies, ACT 2009, Trivandrum, India, Dec. 28-29, IEEE Computer Society, pp 772-774, 2009.
- 11) Sanchita Paul, Abhimanyu K. Singh, G. Sahoo., "Peptic Ulcer detection using DNA Nanorobot based on fuzzy logic rules", 12th International Conference, RSFDGrC 2009, IIT Delhi, India, Dec 15-18, 2009, Lecture Notes in Artificial Intelligence, Springer, 5908, pp. 287–294, 2009.

Proceedings

- 1) I. Mukherjee, S. Banerjee, "Feature Selection and Rule Induction using Genetic Algorithm", Proceeding of National Seminar on Recent Advance of Information Technology, RAIT-2009, ISM Dhanbad.
- 2) I. Mukherjee, S. Banerjee, A. Chatterjee, " E-Mail Analysis based on Text Mining", International Conference on Innovative Technologies (ICIT-09).
- 3) Nagendra Kumar, Rajeev Kumar, D. K. Mallick , P. K. Jana, "The Hamiltonicity of General OTIS Network," , Lecture Notes on Computer Science, LNCS 5935, (Springer), Heidelberg, 459-465, 2010.
- 4) Sanchita Paul, Gadadhar Sahoo., "Procedure for Multiplication based on DNA Computing", 2009 International conference on Advance in Computing, Control and Telecommunication Technologies, ACT 2009, Trivandrum, India, Dec. 28-29, IEEE Computer Society, pp 772-774, 2009.
- 5) Sanchita Paul, Abhimanyu K. Singh, G. Sahoo., "Peptic Ulcer detection using DNA Nanorobot based on fuzzy logic rules", 12th International Conference, RSFDGrC 2009, IIT Delhi, India, Dec 15-18, 2009, Lecture Notes in Artificial Intelligence, Springer, 5908, pp. 287–294, 2009.
- 6) Sanchita Paul, G. Sahoo., "Simplification of Boolean algebra through DNA Computing", International Conference on Futuristic Computer Application ICFCA 2010, March 20-21, IISc Bangalore.
- 7) Sanchita Paul, A. Singh., "Identification of Metastatic Tumors by Using DNA Nanorobot: A Fuzzy Logic Approach", International Conference on Futuristic Computer Application ICFCA 2010, March 20-21, IISc Bangalore
- 8) S.Banerjee , I.Mukherjee , P.K.Mahanti," Analyzing the impact of Information Retrieval using Fuzzy Logic," Proceedings of the 11th International Workshop on Computer Science and Information Technologies, CSI T, Crete, Greece, 2009.
- 9) S.Banerjee, I.Mukherjee, P.K.Mahanti, "Cloud Computing Initiative using Modified Ant Colony Framework," International Conference on HCI, Singapore, 2009

MoUs / Collaborations

S. No.	Name of Organisation / University	Purpose / Area	Year / Duration
01	University of Mannheim	Research Collaboration	2009

Members on Board of Studies (UG/PG)

- | | | |
|----|--------------------------|----------|
| 1. | Prof. Dr.R. Suresh Kumar | Chairman |
| 2. | Mr. A. Mustafi | Member |
| 3. | Mr. D.K.Mallick | Member |
| 4. | Mr. S.K.Chatterjee | Member |
| 5. | Prof. Dr.G.Sahoo | Member |
| 6. | Prof. Dr. Nisha Gupta | Member |

External Experts (Any two)

1. **Dr.C.R. Tripathy,**
Prof. & Head, Dept. of MCA
NIT, Jamshedpur
2. **Dr. S.Bhattacharya**
Director, NIT, Durgapur
3. **Dr. Chandan Majumdar**
Dept. of Computer Science
Jadavpur University (WB)
4. **Dr. Rajib Mall**
Professor, Dept. of Computer Science
IIT Kharagpur

Department of Electronics & Communication Engineering



Antenna Measurement in Anechoic Chamber

The Department of Electronics and Communication engineering established in the year 1955, currently offers BE degree in Electronics and Comm. Engineering with an intake of 120 students per year. It also offers PG programs with the specializations in Instrumentation, Microwave and Wireless Communication. It has collaborative Academic and Research Programs with Aalborg University (Denmark), University of Leeds (UK), and University of Roma Tor Vergata (Italy). The Department has established an International Centre for wireless and mobile Communications (ICWMC) on March

28, 2004, under EAGER Netwic project of ASIA-Link program, which is actively engaged in carrying out R & D in several aspects of wireless communications.

The doctoral programmes of the Department are mainly in the fields of Wireless Communications, Fiber Optic Instrumentation and Communication,

- Printed RF and Microwave Circuits/Antennas for various applications,
- Computational Electromagnetics,
- VLSI and Embedded Systems and
- Image Processing, Signal Processing and Speech Processing.

Currently, more than 35 scholars are enrolled in the Department for Ph. D. programme while six have received Ph. D. degree in the year 2008-2010. Department has currently a strength of 40 faculty members and enrollment of more than 500 UG and PG students. Five faculty members are pursuing the doctorate program in various IITs and abroad. The faculty members of the Department have more than 50 journal publications to their account over the last five years.

External Agencies such as DST, UGC, CSIR, ISRO, AICTE and World Bank through TEQIP have continuously supported the Department through various research projects and schemes.

Apart from funding through several research projects, in year 2010, the Department received financial support of Rs. 52.5 Lacs under the DRS programme of UGC under SAP II. A further support of Rs.5 lacs were received from UGC for student's projects.

The Department has well equipped Fibre Optic Research lab., VLSI design Lab., Antenna Lab., Advance Instrumentation Lab, Advanced Communication, and Wireless Networking lab. for carrying out research work at ME and Ph. D. levels. Some of the equipments worth mentioning here are Optical Spectrum Analyzer, Optical Time Domain Reflectometer, Vector Network Analyzer, Signal Generators, Spectrum Analyzers, etc. and softwares such as Cadence, Beampro, Labview, System view, Multisim, Ultiboard, Commsim, Sonnet, AWR, IE3D, MD Spice, Fidelity, etc.

Sponsored Project**Ongoing Projects**

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Design of Active Microstrip Antenna for Wireless Communication	Dr. S. Srivastava	DST	2006	8.60 lacs	3 years
2.	Embedded Fiber Optic Sensor based Instrumentation System for Structural Health Monitoring	Prof. S. K.Ghorai / Dr. R. K. Lal	ISRO	2009	15.00 lacs	2 years
3.	Design of Microstrip Antennas for Wearable Applications	Dr. V. R. Gupta / Prof. Nisha Gupta	AICTE	2009	6.00 lacs	3 years
4	Special Assistance Programme-2 (SAP-2) at the level of Department Research Support (DRS)	Prof. Nisha Gupta	UGC	2009	52.50 lacs	5 years

Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Month Date, Year
1.	Dr. Vijay Nath	IEEE Conference, ARTCom-2009		ACEEE, Kottayam, Kerala	Kerala	Oct. 28 -29, 2009
2.	Dr. Vijay Nath	International Conference CSCIT2010		Department of Computer Science & Information Technology, Yeshwanta Mahavidyalaya, Nanden, Maharastra	Maharastra	Jan. 9- 11, 2010
3.	Dr. Vijay Nath	National Conference in Electrical, Power Engineering, Electronics and Computer (TECH-MEET-2010)		Pailan College of Management and Technology in collaboration with IEEE, Kolkata	Kolkata	Feb. 12- 13, 2010
4.	Dr. Mahesh Chandra	Communication Software and Networks-2010			Singapore	Feb 26-28, 2010
5.	Dr. Mahesh Chandra	Digital Image Processing-2010			Singapore	Feb 26-28, 2010

Publications

International Journals

1. Mrinal Mishra, Nisha Gupta, Quasi Monte Carlo Integration Technique for Method of Moments Solution of EFIE in Radiation Problems, Applied Computational Electromagnetics Society Journal, Vol..24 No. 3(2009).
2. Mrinal Mishra, Nisha Gupta, Ankhuri Dubey, Shradha Shekhar, Application of Quasi Monte Carlo Integartion Technique in Efficient Capacitance computation, Progress In Electromagnetics Research, PIER 90, (2009), 309-322.
3. Nisha Gupta, K. Kaushal, A. K. Yadav, V. Kumar, Experimental Investigations on Radiation Characteristics of IC Chips, Progress In Electromagnetics Research Letters, 7(2009), 161-169.
4. Mrinal Mishra, Nisha Gupta, Application of Quasi Monte Carlo Integration Technique in EM Scattering from Finite Cylinders, Progress In Electromagnetics Research Letters, 9(2009), 109-118.
5. Nisha Gupta, Md. Anjarul Haque, Design of Printed Log Periodic EMI Sensor, International Journal of Microwave and Optical Technology, 4(2009), 205-210.
6. Ritesh Kumar Badhai, Nisha Gupta, Reduced Size Monopole Antenna for Land Mine detection, International Journal of Microwave and Optical Technology, 52(2009), 338-343.
7. Mrinal Mishra, Nisha Gupta, Monte Carlo Integration Technique for Method of Moments Solution of EFIE in Scattering Problems, Journal of Electromagnetic Analysis and Applications, Vol. 1(2009), 254-258.
8. Ritesh Kumar Badhai, Nisha Gupta, Reduced Size Bow-Tie Slot Monopole Antenna for Land Mine detection, Microwave and Optical Technology Letters, Vol. 52(2010), 122-125.
9. Nisha Gupta, S. K. Rout, K. Shivaji, Characteristics of Cylindrical Dielectric resonator Antenna, Microwave Review, 15(2009),29-32.
10. Anjini Kumar Tiwary, Nisha Gupta, Performance of Two Microstrip Low Pass Filters on EBG Ground Plane, Microwave Review, 15, (2009) 37-40.
11. D. Pal, Avireni Srinivasulu, B. B. Pal, A. Demosthenous, B. N. Das, Current conveyor based square/ triangular – waveform generators with improved linearity, IEEE Transactions on Instrumentation and Measurement Journal, 58(2009). 2174-2180.
12. Priyadarshi Suraj, Vibha Rani Gupta, Analysis of a Rectangular Monopole Patch Antenna, International Journal of Recent Trends in Engineering, 2(2009).
13. S.Konar, S.K.Ghorai, Rakhi Bhatta charya, Highly Birefringent Microstructure fiber with zero dispersion wavelength at 0.64 μ m, Fiber and Integrated Optics ,28(2009)138-145.
14. S.K.Ghorai, Soumya Sidhishwari, S.Konar, Phase Retrieval in Optical Fiber Modal Interference for Structural Health Monitoring, Optics Communication, 283(2010), 1278-1284.
15. S. Chakraborty, R. Ranganayakulu, S. Chauhan, S. S. Solanki, K. Mahto, An interesting comparison between a morning raga with an evening one using graphical statistics, Philomusica online N.7,2008, published in 2009
16. Shyam Lal, Mahesh Chandra, Gopal Krishna Upadhyay, Noise Removal Algorithm for Images Corrupted by Additive Gaussian Noise International Journal of Recent Trends in Engineering, 2(2009), 199-206.

Proceedings

International Proceedings

1. Priyadarshi Suraj, Vibha Rani Gupta, Manish Saxena, Improvement in Performance of Monopole Patch Antenna Using Genetic Algorithm For UWB Application, Proceedings of Recent Trends In Management, Technology and Environment, S. D. College of Engineering & Technology & S.D.College of Management Studies Muzaffarnagar, (U.P.) , November 28 - 29 2009.
2. Priyadarshi Suraj, Vibha Rani Gupta, On the Behavior of the Monopole Patch Antenna, Proceedings of International conference on microwaves, antenna, propagation & remote sensing (ICMAR-2009, International Centre For Radio Science , Jodhpur), December 19-21, 2009.
3. Sukhmeet Singh Kalsi, Vibha Rani Gupta, Slotted Planar Microstrip Antenna for HIPERLAN/2 Application, Proceedings of IEEE Applied Electromagnetics Conference, Organized by Antennas and Propagation/ Microwave Theory and Techniques Chapter, IEEE Calcutta Section , Kolkata, India, December 14-16 , 2009.
4. Avireni Srinivasulu, Current Conveyor-Based Square-Wave Generator with Tunable Grounded Resistor/ Capacitor, Proceedings of the *IEEE AEIC-09 (Applied Electronics 2009 International Conference)*, Pilsen, Czech Republic, September 9-10, 2009.
5. Sanjay Kumar, Nicola Marchetti, Ramjee Prasad, Light Cognitive Radio Enabled Inter Operator Flexible Spectrum Usage for IMT-Advanced, Frist UK India International Workshop on Cognitive Radio Systems (IEEE UKIWCWS 2009) , IIT Delhi, 11-12 Dec, 2009.
6. Priyank Kumar, M.V. Rajashekhar, S.K. Ghorai, Multi-Parameter Sensing System Using Sampled Fiber Bragg Grating, Proceeding of International Conference on Optics & Photonics ICOP-2009, Central Scientific Instruments Organisation (CSIO), Chandigarh, India, October 30 - November 1, 2009.
7. Aminul Islam, Mohd. Hasan, Design and Development of Clocked Transmission Gate Cross-coupled Adiabatic Circuit, International Conference on Advances in Computing, Control, and Telecommunication Technologies, ACT 2009, Trivandrum, Kerala, India, December 28-29, 2009.
8. V. Nath, Rajesh Laik, A.S. Vidyarthi, R. N. Gupta, K.S. Yadav, L.K. Singh, S.K. Pal, Study and Detection of Early Stage Cancer with Smart Embedded Decision System, Proceedings of International Conference SCI-2010, Pentagonam Research Centre, Pvt. Ltd., Hyderabad, (A.P.),India, January 27-30, 2010.
9. V. Nath, Aparna Gautam, B.M. Karan, Design of Smart VLSI Systems for Auto Motor Control Proceedings of International Conference CSCIT2010, Department of Computer Science & Information Technology, Yeshwanta Mahavidyalaya, Nanden, Maharastra, India, from 9th- 11th January 9-11, 2010.
10. S. S. Solanki, S. S. Tripathy, Sayan Roy, K. Mahto, S. Chakraborty, Raga Identification Using Probabilistic Neural Network (PNN), Proceedings of International Symposium on Frontiers of Research in Speech and Music, FRSM-09, IIITM, Gwalior, India, December 15-16, 2009.
11. A. N. Mishra, M. C. Shrotriya, S. N. Sharan, Comparative Wavelet, PLP and LPC Speech Recognition Techniques on the Hindi Speech Digits Database, Proceedings of International Conference on Digital Image Processing, Singapore, February 26-28, 2010.
12. Mahesh Chandra, Astik Biswas, A. N. Mishra, S. N. Sharan, Omar Farooq, Cepstral based features for Language Identification, Proceedings of International Symposium Frontiers of Research on Speech and Music, IIIT Gwalior, December 2009.

13. V. K. Gupta, Mahesh Chandra, S. N. Sharan, Omar Farooq, Performance Evaluation of LMS and NLMS Algorithms for Noise Minimization from Speech Signals, Proceedings of International Conference on Signals Systems and Automation, Vallabh Vidyanagar, Gujarat, December 28-29, 2009.
14. Shyam Lal, Mahesh Chandra, Gopal Krishna Upadhyay, Akhilesh R. Upadhyay, Additive Gaussian Noise Removal Algorithm Based on Mathematical Morphology Proceedings of ICSCI-2010, Hyderabad-India, January 27-30, 2010.
15. Shyam Lal, Mahesh Chandra, G. K. Upadhyay, Contrast Enhancement of Compressed Image in Wavelet Based Domain, Proceedings of ICRAES-2010, Tamil Nadu, India, January 08-09, 2010.
16. Shyam Lal, Mahesh Chandra, Gopal Krishna Upadhyay, Akhilesh R. Upadhyay, Enhancement of Digital Images using Non-Linear Filters, Proceedings of IEEE ACVIT-2009, DBAM University, Auranagabad (M.S.)-India, December 16-19, 2009.
17. Mahesh Chandra, Sridhar Chintala, Medium Access Control Protocol for Directional Antenna in Ad-Hoc Networks, Proceedings of International Conference on Emerging Trends in Computer Science, Communication and Information Technology, Nanded, India, January. 2010.
18. T.K.Parasar, Meena Singh, R. K. Lal, Modeling of an InAs/InAsSb Based Hetrojunction Infrared photodetector for CH₄ gas detection, Proceedings of National Conference on Advances in Microwave Communication, Devices & Applications, Institute of Engineering and Technology (RIET), Jaipur, Rajasthan, February 16 – 17, 2010.

National Proceedings:

1. V. Nath, Abhijeet Dey, Binod Kumar Choudhary, Arijit Chakraborty, Ricky Laishman, Design of Smart Embedded System for Anti Collision Detection in Metro Train Proceeding of National Conference in Electrical, Power Engineering, Electronics and Computer (TECH-MEET-2010), Pailan College of Management and Technology, Joka, Kolkata India, February 12-13, 2010.
2. V. Nath, Abhijeet Dey, Arijit Chakraborty, Ricky Laishman, Intelligent Detection of Distributed Denial-of-Service Attack using Threat Rank and Entropy, Proceeding of National Conference in Electrical, Power Engineering, Electronics and Computer (TECH-MEET-2010), Pailan College of Management and Technology, Joka, Kolkata India, February 12-13, 2010.
3. Wriddhi Bhowmik, Shweta srivastava Optimum Design of a Butler matrix array components for WLAN, Proceeding of National Conference in Electrical, Power Engineering, Electronics and Computer (TECH-MEET-2010), Pailan College of Management and Technology, Joka, Kolkata India, February 12-13, 2010.
4. Harsh Kumar, Shweta srivastava Circular Patch Antenna for Millimetre wave on Thick Substrate Proceeding of National Conference in Electrical, Power Engineering, Electronics and Computer (TECH-MEET-2010), Pailan College of Management and Technology, Joka, Kolkata India, February 12-13, 2010.
5. Alok Kumar, 0.35µm CMOS Oscillator, Proceedings of NCMEC-09 , SRM University, April, 2009

Books

1. Nicola Marchetti, Muhammad Imadur Rahman, Sanjay Kumar, Ramjee Prasad, Chapter OFDM: Principles and Challenges, in New Directions in Wireless Communications Research, Springer Publications, USA, 2010
2. Vijay Nath, L.K. Singh, K.S. Yadav, Fundamental of Embedded System Design and Applications, ACM Learning, New Delhi India, 2010.

Award / Recognition Bestowed on Faculties (State / National / International)

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1.	Ms. Swati Prasad	Erasmus Mobility for Life Fellowship for doctoral research	European Commission	2010

Departmental Students' Activities (Please arrange chronologically)

S. No.	Name of the Activity	Students' co ordinator, if any	Date/ Duration
1.	Presented a paper in IEEE Applied Electromagnetics Conference, Kolkata, India.	Sukhmeet Singh Kalsi	December 14-16, 2009
2.	Presented a paper in IEEE Applied Electromagnetics Conference, Kolkata, India.	Ankhuri Dubey, Shradha Shekhar	December 14-16, 2009
3.	Presented a paper in 4th Int.Conf. on Computers and Devices for Communication CODEC 09, Kolkata, India.	Apoorva Gopal Jha, Arka Pratim Das, Abhinav Kumar	December 14-16, 2009
4.	Presented a paper in National Seminar in Electrical, power engineering, electronics, and computer, Pailan college of management and technology, Joka, Kolkata, India	Wriddhi Bhowmik	February 12-13, 2010
5.	Presented a paper in National Seminar in Electrical, power engineering, electronics, and computer, Pailan college of management and technology, Joka, Kolkata	Harsh Kumar	February 11-13, 2010
6.	Presented a paper in 3rd Bihar science conference, at Gaya College (Magadh university)	Vikram Kumar	February 11-13, 2010
7.	Presented a paper in 3rd Bihar science conference, at Gaya College (Magadh university)	Manu Raj	February 12-13, 2010
8.	Student Participant Award based on Academic Career and research Activities in Antenna Field in Workshop of Advanced Antenna Technology	Rashi Mehrotra	31May-1 June 2010
9.	Student Participant Award based on Academic Career and research Activities in Antenna Field in Workshop of Advanced Antenna Technology	Sakshi Kumari	31May-1 June2010

Members on Board of Studies (UG/PG)**Panel for Board of Studies from institute-**

1. Dr. Nisha Gupta - Chairman
2. Dr. S. K. Ghorai - Member
3. Dr. S. Pal - Member
4. Dr. Vibha Rani Gupta - Member
5. Dr. S. Konar - Member
6. Dr. R. C. Jha - Member

Panel of Expert from outside the Institute:

1. **Dr. Sarat Kumar Patra**
Professor and Head
Dept. of Electronics & Comm. Engg
N.I.T, Rourkela- 769008(Orissa)
2. **Dr. G. Panda**
Dept. of Electrical Engg
I.I.T.Bhubneshwar
Samantpuri, Nandan Kanan Road
Bhubneshwar- 751013
3. **Dr. V. Kumar**
Head, Dept. of Electronics Engg
Indian School Mines University (ISMU)
Dhanbad- 826004(Jharkhand)
4. **Dr. P. K Goswami**
Professor
Dept. of Radio Physics & Electronics
Calcutta University
92, Acharya Prafulla Chandra Road
Kolkata-700009

Any Other Information

1. Department received financial assistance of Rs. 5.0 Lacs for student projects under SAP(II) UGC programme in 2009.
2. Inclusion of the published article of Dr. Mrinal Mishra and Dr. Nisha Gupta, entitled "Monte Carlo integration technique for method of moments solution of EFIE in scattering problems," of Journal of Electromagnetic Analysis and Applications, December 01, 2009 issue as a report in www.encyclopedia.com , in 2010, link: <http://www.encyclopedia.com/doc/1G1-216183025.html>

Department of Electrical & Electronics Engineering



Electrical Machines Laboratory

The Department is dedicated to the current needs of the industry and has the flexibility to tune its programs according to different requirements. The Department has various collaborative projects with neighboring industries like RDCIS (SAIL); Meditron Pvt. Ltd., Ranchi and Century Transformer Pvt. Ltd., Kolkata. (Mr. N. Neogi, Executive Director, SSO, Sail, Doranda, Ranchi has been conferred with, AICTE- INAE 'Distinguished Professorship' in the Department from Industry). The ME course in Power Electronics under our

Department was approved by technical council and subsequently by AICTE this year. The Department has been a center for research in the areas of power systems, control systems, digital image processing, power electronics and sensors. Currently fourteen number of Ph.D. scholars are working in the areas of image processing and machine learning technique; study of sensors using vector nature of light, lightning phenomena, satellite signal propagation, modeling of biological systems, induction generator, FPGA application in drives, multi-level inverter, power system operation in India, distribution system planning, digital signal processing, and reliability analysis of computer relaying using wavelet micro fuzzy combined approach. The Department has received this year Rs. 19.25 lakhs from DST, Govt. of India for development of magneto-optic material based current sensor for industrial application. The institution of engineers has sanctioned Rs 50 thousand for one BE project titled 'Development of Labview based prototype distribution system automation'. The Department has applied to DST for a research grant under SAP-I and presented three projects in AICTE, New Delhi on distribution system automation, hybrid vehicle and health care systems. Department has completed this year a project of 35 lakhs granted by DST through NaMPET co-ordinated by C-DAC, Trivendrum for the modernization of Power Electronics lab. Major equipments like Sparton -3 based FPGA board including power module and motors, three phase inverter stack for PWM inverter, JTac emulator for interfacing the DSP, d-Space add-on cards, three phase power quality analyzer and Fluke 434 have been added in power electronics lab under the grant. An AICTE project on speed control of DC motor has also been completed this year.

Sponsored Project**Project Sanctioned**

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Design Development and Characterization of Magneto-Optic material based Current Sensor for Industrial Application	Mrs. S. Chakraborty (PI) Co-PI: Dr. S.K. Ghorai Dr. S. C. Bera Professor Calcutta University) Industrial Partner: Century Transformers Pvt. Ltd.,Howrah	Department of Science and Technology (DST), GOI, New Delhi	Nov. 25, 2009	Rs. 25,98,200/-	Two Years
2.	Development of prototype distribution system automation	Ms. Amy Kumar, Ms Sonam Lal, Mr. A. Agarwal Supervisor : Dr. T. Ghose	IE (I) Grant for UG Project	2009	Rs 50,000	One year

Ongoing Projects

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Design & Development of Lightning Prediction & Protection System	Dr. B. M. Karan Prof. Prem Prakash	DST Jharkhand Govt	2008	150 Lakhs	3 Years
2.	Development of suitable pedagogical contents and e-learning through ICT	Mr. K. C. Jana	MHRD	April, 09		2 years

Projects Completed

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1.	Infrastructure development of Power Electronics Lab	Dr. B.M. Karan (PI), Mr.K.C.Jana, (Co-PI)	NaMPET, C-DAC (T),DIT, GOI	March, 2008	35.029 Lakhs	2 years
2.	Speed Control of DC Motor using AI Techniques	Dr. S.G. Kadwane	AICTE	2007	8.3 lac	2010
3.	Control of multifunction prosthesis through simulation of myoelectric signals	Dr. R. K. Sinha	UGC		2.775	4

Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference /Seminar	Funding Agency	Organizers	Venue	Month Date, Year
1.	K. C Jana	Workshop of Pedagogic Research Project	MHRD under National Mission on Education through ICT	IIT Kharagpur, under National Mission on Education through ICT	IIT, KGP Kolkata Ext. centre	Oct, 12-15, 2009
2.	Ritesh Kumar Keshri	National workshop on Power Electronics (NWPE 2009)	BIT Mesra, Ranchi	CDAC Thiruvananthapuram Under NaMPET	CDAC Thiruvananthapuram	October 22- 23, 2009
3.	Ritesh Kumar Keshri	Workshop of Pedagogic Research Project	MHRD under National Mission on Education through ICT	IIT Kharagpur, under National Mission on Education through ICT	IIT Kharagpur, Kolkata, Ext. centre	October 11-12 2009
4.	Ritesh Kumar Keshri	Workshop on Power Electronics Education-3 (WPEE-3)	NaMPET	Electrical Engineering Department, NIT Rourkela under NaMPET	Electrical Engineering Department, NIT Rourkela	July 13-14, 2009
5.	Ritesh Kumar Keshri	Special Course on Finite Element Methods in Magnetic "FEMM"	Department of Electrical Engineering, University of Padova, Italy	Prof. (Dr.) Nicola Bianchi, Department of Electrical Engineering, University of Padova, Italy	Department of Electrical Engineering, University of Padova, Italy	November 28, 2009

Publications**International Journal:**

1. S. Chakraborty, S.C.Bera, Interaction of polarized beam with Copper surface and its application for metal-dielectric discrimination of Vero board, Journal of Optics,38(1),2009,1-15, Springer publication.
2. S.Chakraborty, S.C.Bera, Design of Stokes Polarimeter using Rotators, accepted in Journal of Optics, Springer publication, Ref.: Ms. No. OPTI-D-09-00043R1
3. S.Chakraborty, S.C.Bera, A.K.Chakraborty, Simulation of a polarization pupil filter with magneto-optic lens under elliptically polarized illumination, under publication in OPTIK-The International Journal of Light and Electron Optics(IJLEO), Elsevier Publication, Reference: doi:10.1016/j.ijleo.2010.04.009
4. V. Laxmi, B. M. Karan, Vehicle Identification Automation Using Wavelet-Probabilistic Neural Network Combined Approach, International Journal of Signal and Image Processing, 1(2010), pp. 62-68.
5. V. Laxmi, M. Das, D. K. Mohanta, B. M. Karan, Extraction of Vehicle License Plate through Extended Hough Transform, CIIT International Journal of Digital Image Processing, 2(2010), pp. 31-37.

6. Velega Sreerama Murthy, K.Tarakanath, D. K. Mohanta, Sumit Gupta, Insulator Condition Analysis for Over Head Distribution Lines Using Combined Wavelet-Support Vector Machine (SVM), IEEE Transactions on Dielectrics and Electrical Insulation, Vol. 17, Issue 1, pp. 89-99, February 2010.
7. D. Sinha Roy, Aditya Anil, D. K. Mohanta, A. K. Panda, Well-Being Analysis of Safety Critical Software: A Case Study for Computer Relaying, International Journal on Electric Power Components & Systems (Taylor & Francis Publications) [In Press].
8. S. Ghosh, S. Maka, A fuzzy clustering based technique for piecewise affine approximation of a class of nonlinear systems Communications in Nonlinear Science and Numerical Simulation (Elsevier publication), Volume 15, Issue 9, September 2010, Pages 2235-2244.
9. S. Ghosh, S. Maka, A NARX modeling-based approach for evaluation of insulin sensitivity, Biomedical Signal Processing and Control (Elsevier publication), Volume 4, Issue 1, January 2009, Pages 49-56.
10. S. Ghosh, S. Maka, Genetic algorithm based NARX model identification for evaluation of insulin sensitivity, Applied Soft Computing (Elsevier publication), In Press, Corrected Proof.
11. S. Ghosh, S.Maka, Analysis of Glucose Regulation Using Fuzzy Clustering Based Piecewise Affine Approximation Approach, Journal of Biological Systems, Vol. 18, Issue: 2(2010) pp. 299-324

National Journal :

1. S.Chakraborty, S.C.Bera, Over-Current Detection by Optical Null Method, accepted for publication in the, Journal of Instrument Society of India.

Proceedings:

International Conferences:

1. G. Buja, R. Keshri, R. Manis, Performance of Z-source Inverter Feeding PM Brushless Motor, Proceeding of IECON '09, pp. 1230-1235, Alfandega Congress Center, Porto, Portugal, November 3-5, 2009
2. M. Bertoluzzo, G. Buja, R. Keshri, Brushless DC Drive Operation during Phase Commutation under Various Switching Patterns, The 7th IEEE International Symposium on Diagnostics for Electric Machines, Power Electronics and Drives, 2009, SEDEMPED '09, pp 1-7, August 31-September 3, 2009.
3. S.Chakraborty, S.C.Bera, Simulation of a polarization pupil filter using magneto-optic lens, Proceedings of ICOP-2009, International Conference on Optics and Photonics, CSIO, Chandigarh, October 30-November 1, 2009.
4. D. K. Mohanta, Mayank Singh, R. C. Jha, M.S. Nathawat, V.S. Rathore, Electrical consumer indexing incorporating Geographical information system (GIS), International Conference on Recent Trends in Information, Telecommunication and Computing – ITC 2010, Kochi, Kerala, India, 12-13th March 2010.
5. Abhay Srivastava, M. Mishra, Manoj Kumar, A.K. Dwiwedi, P. Prakash, Markov Chain method for Lightning during pre-monsoon and monsoon season over Ranchi CTCZ pilot –Initial Results IITM Pune , 29-30 April 2010, PP.251-258.
6. Manoj Kumar, Abhay Srivastava, B.M. Karan, and Arun K Dwiwedi, Study of electric field during SW monsoon period associated with severe cyclone, AILA over Ranchi region CTCZ pilot –Initial Results IITM Pune , 29-30 April 2010, pp.185-190.

7. S.Ghosh, S.Maka, "Clinical Data Based Empirical Modeling of Blood Glucose Metabolism",IEEE sponsored conference on medical informatics (IAMI-09), Hyderabad, 14-15 November, 2009.
8. S. Chakraborty, S. C. Bera, Simulation of a polarization pupil filter using magneto-optic lens, Proceedings of ICOP-2009, International Conference on Optics and Photonics, CSIO, Chandigarh, October 30-November 1, 2009.
9. Sachin Singh, T. Ghose, S. K. Goswami, Additional cost based distribution system planning, presented in third Int. Conf. on Power Syst. (ICPS-09), IIT,Kharagpur,December,2009.

National Conference:

1. V. Ramana, T. Ghose, Effect of Bidding Parameter and Line Congestion in Competitive Power Market, Presented and Published in National Conference at Nirma University, Ahmedabad, November, 2009.
2. D. K. Mohanta, B.M. Karan, Role of Geographic Information System (GIS) in Manufacturing Technology and Management, National Conference, Recent Advances in Manufacturing Technology and Management (RAMTM 2010) , 19-20th February 2010, Production Engineering Department, Jadavpur University, Kolkata.

Books Reviewed:

Dr. D. K. Mohanta

1. Hayt & Kemmerly, Engineering Circuit analysis, 7th Edition, McGraw-Hill Publications, 2009.
2. Chapters 8 & 9 (Solar Energy Calculations & Solar thermal electric power plants), A Hand Book of Renewable Energy Technology, to be published by World Scientific Publishing Co., Singapore.
3. Nagrath and Kothari, Basic Electrical Engineering, McGraw-Hill Publications, 2009.
4. Chapter entitled Reliability-Redundancy Optimization Using a Chaotic Differential Harmony Search Algorithm , A Hand Book of Swarm Intelligence, to be published by Springer.

Mr. Gauri Shanker Gupta

Books at Post Graduate Level on

Integral Transform, Laplace & Fourier Transforms, IIT Objective Mathematics

Publisher : Pragati Prakashan, Merrut (U.P.).

Award / Recognition Bestowed on Faculties (State / National / International)

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1.	Ritesh Kumar Keshri	Erasmus Mundus Fellowship, under WILLPOWER	European Commission	2010, 34 Months
2.	Dr D. K. Mohanta	Senior Member	IEEE	2009-2010
3.	Mr. G. S. Gupta	Treasurer, Ranchi Chapter	IETE	2010
4.	Mrs. S. Chakraborty	Life Member	IETE	2009

MoUs / Collaborations

S. No.	Name of Organisation / University	Purpose / Area	Year / Duration
1.	Industrial Partner: Century Transformers Pvt. Ltd., Howrah-711201, West Bengal	Contribution of Rs.2.5lakh for Instrument Development related to R&D project sponsored by DST, GOI	2 years

Departmental Students' Activities

S. No.	Name of the Activity	Students' co ordinator, if any	Date/ Duration
1.	Drishtant 2010 Inter college Technical Fest organized by IET which was attended by around 60 participants from other colleges.	Dr. T. Ghose	Four days
2.	Organised a technical tour to SAIL, Bokaro	Dr. R. C. Jha Mr. P. Prakash	One day
3.	Technieek 2009 Intra college Technical Fest organized by IET in which 60 teams of five members each and about 150 individual participations were registered.	Dr. T. Ghose	Four days
4.	Workshop on Linux organized by IET	Dr. T. Ghose	One day
5.	Workshop on Robotics organized by IET	Dr. T. Ghose	One day
6.	Workshop on C and C++ organized by IET	Dr. T. Ghose	One day
7.	Entrepreneurship seminar by Mr. Soughata Basu, founder of daulatguru.com organized by IET.	Dr. T. Ghose	One day
8.	Seminar on Internship oppurtunities in India and Abroad organized by IET.	Dr. T. Ghose	One day

Members on Board of Studies (UG/PG)

1. HOD EEE - Prof. (Dr.) T. Ghose - Chairman
2. All Professors of the Department - Prof. R. K. Narayan, Prof. D. Bhagat, Dr. R. C. Jha, Dr. D. K. Mohanta,
3. One Reader of the Department - Dr. P. R. Thakura
4. One Lecturer of the Department - Dr. Shubhojit Ghosh
5. HOD, ECE. - Prof. (Dr.) Nisha Gupta
6. HOD, Computer Science & Engg. - Prof. (Dr.) R. Sukesh Kumar
7. Any two External Experts from the following list:
 - i. Dr. A. K. Sinha, Prof. IIT Kharagpur.
 - ii. Dr. D. Das Prof. IIT Kharagpur.
 - iii. Mr. N. Neogi Ex. Director SSO, Doranda, Ranchi.
 - iv. Dr. Sujeet Kumar Biswas, Prof. E.E. Jadavpur University, Kolkata.
 - v. Dr. Shivaji Chakrabarti, Prof., E.E., Jadavpur University, Kolkata.
 - vi. Prof. S.C. Bera, Instrumentation Engg., Applied Physics, Calcutta University Kolkata.
 - vii. Dr. S. B. L. Saxena, Prof. EE NIT Jamshedpur.

Department of Food Processing Technology



Processed Food Products

The Department of Food Processing Technology was established in 2006, and is offering the B.Sc. in Food Processing Technology programme from January 2009. The Department has a food Processing Laboratory and Quality Control Laboratory. The **Food Processing Laboratory** is equipped with: S.S.Pulper Machine, Hydraulic Press, S.S.Screw type Juice Extractor, Lug Cap sealing Machine, Refractometer, Homogenizer, Crown Cap Sealing Machine, Digital Thermometer, Digital pH Meter, Can Body Reformer, Hand Can Flanger, Exhaust Box 6' x 1.5', S.S.Vacuum Evaporator, Microwave Oven, Hot Air Oven, Microscope, Baby Boiler, Can Seamer, Steam Jacketed cooking Pan, Vacuum Bottle Filling Machine, Fill Pack Machine, Bottle Washing Machine, Canning Retort, Fruit Mill, Twin Screw Extruder, etc. The **Quality Control Laboratory** is equipped with: Lyophilizer, Polarimeter, Microscope, Laminar flow clean Air workstation, Autoclave, Hot Air Oven, Lab. Centrifuge, Melting Point

apparatus, Digital Colorimeter, Flame Photometer, UV-VIS Spectrophotometer, Precision Balance, Seven Easy pH Meter, Muffle Furnace (1050°C), Water Bath, BOD Incubator, Compound Microscope, HPLC, MP based Conductivity Meter, Digital Photoflurometer, etc. Other required equipments are available in the allied Departments of Pharmaceutical Sciences, Biotechnology and Central Instrumentation Facility. Apart from basic subjects such as Chemistry, Mathematics, Electrical & Electronic Engineering, Energy, Ecology & Environment Science, Material Science, Heat & Mass Transfer, the students are taught about Food Plant Sanitation, Food Microbiology, Food Composition & Chemistry, Food Bio Chemistry & Human Nutrition, Storage Engineering, Food Preservation, Food Analysis, Fruits & Vegetables Processing, Packaging Technology, Waste Management, etc, with corresponding laboratory courses, and Industrial Tour and Project in final semester. Electives include Dairy Technology, Instrumentation Methods of Food Analysis, Post Harvest Technology, Food Biotechnology and Oil Seed & Pulses Technology. The laboratory of the Department is a registered unit under F.P.O. Act and is now registered for 5 years. Some of the food items prepared at the centre are being sold at B.I.T.C.C.Stores and well accepted by the residents.

Currently faculty drawn from allied Departments (Department of Applied Chemistry, Deptt. of Applied Physics, Deptt. of Applied Maths, Deptt. of Computer Science, Deptt. of Polymer Engg, Deptt. of Management, Humanities, Deptt. of Environment Sci. & Engg and Deptt of Polymer Engineering) to run the programme. Recruitment process to recruit other suitable number of faculties in appropriate subject has been initiated.

Programme Offered:

B.Sc. Food Processing Technology: 3 years (6- semester).

Department of Hotel Management & Catering Technology



Students at work in Kitchen

The Department of Hotel Management and Catering Technology established in January 2003 offers a 4 years (8 semesters) programme leading to a Bachelor's Degree in Hotel Management and Catering Technology (BHMCT) approved by AICTE. The foremost objective of the Department is to produce the most competent hospitality professionals for various Managerial position.

The Department has been declared as 10th best Institute of Excellence (Survey conducted by CSR – GHRDC, 2009) in just six year of its operation.

The Department has various well-equipped laboratories such as food production Laboratory, food and beverage services Laboratory, Accommodation Operations Laboratory, Front office Laboratory and Bakery. The housekeeping laboratory is one of the best equipped in the country. There is a separate housekeeping and a well-equipped laundry. The Departmental and central libraries provide access to a wide range of Hospitality and tourism related books, magazine and research Journals including on line journals to students and faculty members.

Department publishes a Biannual blind refereed national research journal "JOHAR – Journal of Hospitality Application and Research", the first of its kind in India. The maiden issue was released by the then Hon'ble chief Minister of Jharkhand Shri Arjun Munda in March 2006 and since then eight issues have been published. Johar is gaining popularity and respect in the academic field for its research contributions.

For the overall development of the students and to provide real life experiences in the field of event management, the Department regularly organizes numerous programs and events.

Department has added a well equipped Front Office Lab. with IDS – A Property Management system Software installed in it. Department has also added state of Art Food Production & Bakery Laboratory for the training of students.

Seminar / Conferences / Short – term Courses Conducted by the Department

Sl. No.	Title of Seminar / Conferences / Short – term Courses	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1.	Seminar on Classical Italian Cuisine	Mr. Sitesh P Srivastav	BIT Mesra	13 th Oct. '10
2.	Seminar on Facing an Interview – The right approach	Mr. Sitesh P Srivastav	BIT Mesra	07 th Nov. ' 10
3.	Seminar on Key Issues in Hospitality Industry	Mr. Sitesh P Srivastav	BIT Mesra	21 st Nov. '10
4.	Workshop on Rangoli	Dr. Sonia	BIT	27 th – 29 th October '10
5.	Seminar on Role of Rural Tourism in Sustainable development of Jharkhand	Mr. Sitesh P Srivastav	BIT Mesra	27 th Jan' 10
6.	Workshop on Flower Arrangement	Dr. Sonia	BIT Mesra	1 st – 3 rd Feb. '10

Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Month Date, Year
1.	Mr. Sitesh P Srivastav	Conservation of Tribal Heritage & Environment of Tribal Area.		INTACH, ICFAI University & Dept. of Art & Culture	ICFAI University Hall, Ranchi	10 th – 11 th March '10
2.	Mr. Sitesh P Srivastav	Role of Local Tourist Guide (Paryatak Mitra) in Tourism Promotion		Dept. of Tourism, Govt. of Jharkhand	Jharkhand, Ranchi	3 rd September
3.	Mr. Praveen Srivastava	Role of Local Tourist Guide (Paryatak Mitra) in Tourism Promotion		Dept. of Tourism, Govt. of Jharkhand	Jharkhand, Ranchi	3 rd September
4.	Mr. Sitesh P Srivastav	Classical Italian Cuisine	BIT Mesra	Dept. of HMCT BIT Mesra.	Dept. of HMCT	13 th Oct. '10
5	Mr. Abhinav Kr. Shandilya					
6	Mr. Rajesh Langiya					
7	Mr. Gautam Shandilya					
8	Mrs. Pratima Ekka					
9	Mr. Sitesh P Srivastava	Facing an Interview – The right approach	BIT Mesra	Dept. of HMCT	Seminar Hall, R & D Building BIT Mesra	07 th Nov. '10
10	Mr. Praveen Srivastava					
11	Mr. Sanjiv Kr. Srivastav					
12	Mr. Gautam Shandilya					
13	Mr. Abhishek Jana					
14	Mr. Nishikant Kumar					
15	Mr. Sanjay Kumar					
16	Mr. Abhinav Kr. Shandilya					
17	Mr. Rajesh Langiya					
18	Mr. Amit Saran					
19	Ms. ajeshwari Chatterjee					

20	Mr. Sitesh P Srivastav	Key Issues in Hospitality Industry	BIT Mesra	Dept. of HMCT	Semianr Hall, R & D Building BIT Mesra	21 st Nov. '10
21	Mr. Abhinav Kr. Shandilya					
22	Mr. Amit Saran					
23	Mr. Sanjiv Kr. Srivastava					
24	Mr. Abhishek Jana					
25	Mrs. Snigdha Priya					
26	Mr. Sitesh P Srivastav	Role of Rural Tourism in the sustainable development of Jharkhand	BIT Mesra	Dept. of HMCT	Seminar Hall, R & D Building BIT Mesra	27 th Jan'10
27	Mr. Abhinav Kr. Shandilya					
28	Mr. Praveen Srivastava					
29	Mr. Nishikant Kumar					
30	Dr. Sonia					
31	Mr. Sanjiv Kr. Srivastava					
32	Mr. Gautam Shandilya					
33	Mr. Amit Saran					
34	Ms. Rajeshwari Chatterjee					
35	Mrs. Snigdha Priya					

Publications

National Journals:

1. Chatterjee R, Threatened Biodiversity of Sunderban Biosphere Reserve with Reference to Faunal Habitat & Need for its Preservation. Mapana. Vol 8(1), (2009), 56-71.
2. Chatterjee R, Municipal Solid waste Management in Kohima City, Nagaland, India. Waste Management. Vol 29(ii), (2009), 2909-2910
3. Chatterjee R., Dr. Sonia Gupta & Atul Gupta, LTC (Leave Travel Concession) As a means to promote tourism in Jharkhand" Journal of Hospitality Applications And Research Vol4, No2, (Jul 2009),93 -107.
4. Dr. Sonia Gupta, Kundan Kumar, Hospitality in the hotels of Eastern India :a study of Guest Perceptions, Journal of Hospitality Applications and Research Volume 5, Issue 1, (Jan 2010).
5. Dr. Sonia Gupta, "Attitude of students of Hospitality Management towards Impact of Formal Dressing on their Training and Profession" The Alternative Journal of Management Studies and Research Vol VIII, No. 2 (April – September 2009), 95 – 104.

6. Dr. Sonia Gupta, Alok Prasad & Pramod Srivastava, Dining Experiences and Return Patronage – Study of Hotel's Restaurants in Delhi, India, Journal of Hospitality Applications & Research Vol4, No2, (Jul 2009) issue, 45 – 61.
7. Dr. Sonia Gupta & Atul Gupta, Study on effects of Human Resource Policies On the employees of Two leading Hotel Groups in Ranchi – Case study, International Journal Of Tourism and Travel Vol. 2 No. 2 (July 2009), 52 – 57.

Departmental Students' Activities

S. No.	Name of the Activity	Students' coordinator, if any	Date/Duration
1.	Rajasthani Food Festival	Mr. Sanjiv Srivastava, Mr. Ahinav Kr. Shandilya & Mr. Abhishek Jana	27 th – 29 th Aug.'09.
2.	Industrial Visit of Moresih Bread Factory	Mr. Abhinav Kr. Shandilya and Mr. Rajesh Langiya	29 th Jan '10
3.	Student participated in the exhibition and competition on Flower arrangement	Dr. Sonia	1 st – 3 rd Feb. '10
4.	Food Festival "Wild Wild West"	Mr. Sanjiv Srivastava, Mr. Ahinav Kr. Shandilya & Mr. Abhishek Jana	18 th – 20 th Feb. '10
5.	Student participated in Basketball Team for Annual Sports held at IT BHU, Varanasi	Nil	17 th – 21 st Feb. '10

Members on Board of Studies(UG/PG)

Following are the members of Board of Studies: -

- | | | |
|---|---|----------|
| 1. Prof. Sitesh P Srivastav, Prof. & Head, Dept. of HMCT, BIT Mesra | – | Chairman |
| 2. Dr. B.K. Chakarvarti, Advisor, Dept. of HMCT, BIT Mesra | – | Member |
| 3. Prof. S.P.Bhatnagar, Advisor Technical Dev & Training, BIT Mesra | – | Member |
| 4. Dr. S.K. Bose, Prof. & Head, Dept. Of Management, BIT Mesra | – | Member |
| 5. Prof. Kamal Manektola, Head, School of Hospitality and Tourism | – | Member |
| 6. Mr. Tarun Dacha, Corporate Chef, Sarovar Park Plaza, New Delhi | – | Member |
| 7. Prof. Sajal Mukherjee, Dept. of Economics and Tourism, Vinoba Bhave University, Hazaribagh | – | Member |

Department of Information Technology

The Department of "Information Technology" is a personification of the Institute's vision in the field of IT and its applications. The Department is committed to producing professionals who will be up to the challenges of implementing viable and sound IT oriented solutions to various emerging domains. With a rapidly increasing demand for such professionals, the Department is gearing up to the challenge of introducing its students to the demands of the industry from the very outset of their technical education program.

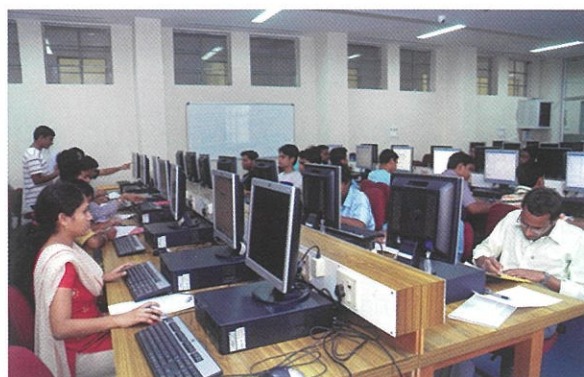
Programmes offered

The Department of Information Technology currently offers following programmes

Programmes Offered	Courses Started	Intake
B.E. Information Technology – 4 year (8-semester)	2001	60
Master of Computer Applications (MCA) – 3 year (6-semester)	1984	60
M.Sc. Information Science – 2 years (4- Semester)	1993	20
M.Tech. Information Security – 2 Years (4 – Semester)	2010	18
Ph.D. Programmes		

Facilities

The Department has state of art laboratory facilities, at par with the best in the country, with three fully equipped laboratories and a host of software and hardware platforms. The students are free to make use of the additional resources at the Central Computing Facility, and also have access to advanced laboratories of the Department of Computer Science, Electrical & Electronics and Electronics & Communication Engineering. The PARAM 10000 parallel computing super computer (courtesy C-DAC) is also available to students for implementing their projects.



Information Technology Laboratory

The available platforms are Windows, UNIX and its clones, Solaris etc. The Department has an array of application software suites from all leading developers (including Microsoft, Oracle, Adobe, Rational etc.) The Department plans to upgrade its laboratory facilities with new laboratories in network simulation, multimedia, biometric analysis etc.

Sponsored Project

Ongoing Projects

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1	PG Diploma in Language Technology	Dr.G.Sahoo & Prof. S.Dutta	Department of Information Technology, Govt. of India	28.11.05	64	5

Projects Completed

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1	DNA based computing for solving N-P complete problems	Dr. G.Sahoo	UGC	1.5.2006	Rs.8,2,100/-	30.4.2010

Seminar / Conferences / Short – term Courses Conducted by the Department

Sl. No.	Title of Short – term Course	Coordinator	Funding / Sponsoring Agency	Date of Short – term Courses
1	DB2 Training & Certification	V.S.Shankar Sriram	IBM	12th-14 th Feb., 2010

Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference /Seminar	Funding Agency	Organizers	Venue	Month Date, Year
1	Dr.Bhaskar Karn	IASLIC XXVII		KIIT	Bhubneswar	26-29 Dec.09

Publications**International Journals**

1. G.Sahoo, R.K.Tiwari, Hiding Secret Information in Movie Clip: A Steganographic approach, International Journal of Computing and Application, Vol.4, No.1, June 2009, pp.87-94.
2. R.K.Tiwari, G.Sahoo, A New Methodology for Data Coding and Embedding for High Capacity Transmitting, International Journal of Electronic Security and Digital Forensics, Inderscience Publisher, Vol.3, No.2, 2010, pp.27-40.
3. Kuntal Mukherjee, G.Sahoo, A Framework for achieving better Load Balancing and Job Scheduling in Grid Environment, International Journal of Information Technology & Knowledge Management, 2009, volume-2, No.1, pp.199-202.
4. Kuntal Mukherjee, G.Sahoo, Design of Algorithm for better Load Balancing and Job Scheduling in Grid Environment, International Journal of Computer Science and Communication, Vol.2, 2010.
5. T.N.Shankar, G.Sahoo, Cryptography by Karatsuba Multiplier with ASCII Codes, International Journal of Computer Science and Applications, Vol.1, No.12, pp.54-62.
6. T.N.Shankar, G.Sahoo, Cryptography with Elliptic Curves, International Journal of Computer Science and Applications, Vol.2, No.1, 2009, pp.38-42.
7. T.N.Shankar, G.Sahoo, Cryptography with ASCII codes, International Journal of Secure Digital Information Age, Vol.1, No.1, 2009, pp.114-121
8. Chingtham Tejbanta Singh, G.Sahoo, Optimization of Path Finding Algorithm using Clonal Selection: Application to Traveling Salesperson Problem, International Journal of Computer Theory and Engineering, Vol.2, No.2, 2010.
9. B. K. Sarkar, S. S. Sana, A Modified Version of Jacobi Approach, International Journal of Innovative Computing and Applications(IJICA), Inderscience publication, vol-2, no-1,(2009) 60-65.
10. B. K. Sarkar, S.S.Sana, K.S. Choudhury, Accuracy Based Learning Classification System, International Journal of Information and Decision Sciences (IJIDS), Inderscience publication, Vol-2, no-1, (2010), 68-85.

11. Sabina Priyadarshini, G.Sahoo, A New Pixel Scratching algorithm for Edge detection, International Journal of Computational Vision and Robotics, Vol.1, No.2, Inderscience Publications.
12. S.Dutta, S.Chakraborty, N.C. Mahanti, A Novel Method of Hiding Message using musical notes, International Journal of Computer Applications, Vol.1, issue 16, pp.87-91.

Proceedings

International

1. Kuntal Mukherjee, G.,Sahoo, Mathematical model of cloud computing framework using fuzzy bee colony optimization technique, IEEE CS International Conference on Advances in Computing Control & Telecommunication Technology ACT 2009, Trivandrum, Kerala, December 28,2009.
2. Kuntal Mukherjee, G.Sahoo, A Secure cloud computing , IEEE CS International Conference on Recent Trends in Information Technology & Computing ICT 2010, Kochi, Kerala, March 13,2010.

National

1. Kuntal Mukherjee, G.Sahoo, A Framework of Cloud Computing based e- Governance, National Conference on Computing & Systems, Dept. of Computer Science, University of Burdwan, January 29, 2010.
2. Bhaskar Karn, Bal Ram : " Availability of Electronic Publication through Consortia: Need and Importance" Proceedings of 55th ILA National Conference, 21-24 January 2010, BIMTECH, Greater NOIDA.

Members on Board of Studies (UG/PG)

- | | | |
|-------------------------|---|----------|
| 1. Dr.G.Sahoo | - | Chairman |
| 2. Mr. S. Dutta | - | Member |
| 3. Dr.(Mrs). Aruna Jain | - | Member |
| 4. Mr.V .S. S. Sriram | - | Member |
| 5. Mr. B. K. Sarkar | - | Member |
| 6. Dr. N. C. Mahanti | - | Member |
| 7. Dr. R. Suresh Kumar | - | Member |

External Experts

1. **Dr. C. Majumdar**
Department of Computer Science & Engg
Jadavpur University, Kolkata
2. **Dr. A. Mishra**
Department of MCA, NIT, Jamshedpur
3. **Dr. Rajib Mall**
Department of Computer Science & Engg.
IIT, Kharagpur
4. **Dr. B. Majhi,**
Department of Computer Science & Engg.
NIT, Rourkela

Any Other Information

- Dr. Bhaskar Karn delivered invited talk on " Information Industry" in DST sponsored Advanced Training Programme at Cambridge Institute of Technology Ranchi on 28th August -09
- Dr. Bhaskar Karn was invited as an expert for the development of "Definitional Dictionary of Library Science" organized by Govt. of India, Commission for Scientific & Technical Terminology (Ministry of Human Resource Development), Department of Higher Education during 24.4.2010 to 2.5.2010 at Central Library, B.I.T. Mesra, Ranchi.

Department of Management

The Department of Management was founded in 1979 to impart holistic management education to potential young managers and has completed 30 glorious years of its existence. The programme offered by the Department laid special emphasis on nurturing personal integrity and social responsibility among the students. With its massive infrastructure base of well-equipped library and computer labs, seminar and conference rooms, the Department of Management imparts better contemporary education to the students. The Department has maintained its academic leadership in the eastern region of India by its ambitious plans and commitment to qualitative requirements of the professional world. Some of the salient activities and initiatives taken by the Department during the last financial year are as follows:

- a. The bi-annual journal of the Department 'The Alternative' and quarterly newsletter, 'Manage-a-Bit' have gained in popularity in the management community. Many new institutions have shown their interest for subscription as well as in obtaining the journal on exchange basis.
- b. The annual B-school students' festival. SAMAGAM 2009 was organized during March 2010 in which students of reputed Management Schools participated.

Programme Offered

The following programmes are being offered by the Department-

1. Ph. D in Management
2. Master of Business Administration (2 years Full- Time / 3 years Part- Time)
3. M.E. (Quality Engg. & Management)
4. M.E. in collaboration with Institute of Engineers

Ongoing Projects

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Making of an Entrepreneur: A Study of Entrepreneurial Intent of Youth in India	Prof S Shivani	Indian Council of Social science Research. New Delhi	10/01/08	Rs 5.42 Lacs	2.5 yrs

Seminar / Conferences / Short – term Courses Conducted by the Department

The Department organized two consecutive colloquiums on Doctoral research on 17-18 February, 2010 and 23-24 April, 2010.

Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S.No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Month Date, Year
1.	Dr. Vijay Agrawal	Value based Management	SRMS	SRMS Bareilly sponsored by AICTE, New Delhi	SRMS Bareilly	November 12 & 13 2009
2.	Dr. Vijay Agrawal	Corporate Strategies in present Scenario organized by and the year 2010.	SNSIBM	SNSIBM sponsored by AICTE, Ministry of HRD, New Delhi	SNSIBM	January 15 to 17 2010
3.	Dr. Vijay Agrawal	Achieving Sustainable Competitive Advantage in Global Recession	ISM	ISM Pundag, Ranchi in the year 2010.	ISM	February 15 & 16 2010
4.	Dr. Vijay Agrawal	The role of Financial Management in Corporate World	CIT	Cambridge Institute of Technology,	CIT	July 19 th 2009
5.	Dr. Vijay Agrawal	Indian economy: problems and prospects of Globalisation rganized by	NDIMS	New Delhi Institute of Management Studies. Ministry of HRD, New Delhi-110066 in the year 2010 at	NDIMS	March 21 2010
6.	Dr S Shivani	Industry Academy Partnership – The Emerging Landscape	CII, Eastern Region	CII, Eastern Region	The Oberoi Grand, Kolkata	14 th October, 2009
7.	Dr S K Bose	HR Issues in Indian Universities	UGC	UGC	Indian Habitat Centre, New Delhi	Sept.09
8	Dr S K Bose	National Seminar on Value based Management	SRMS College of Engg, Bareilly	SRMS College of Engg, Bareilly	SRMS College of Engg, Bareilly	Sept., 09
9.	Dr S K Bose	SWOT Analysis of HEC Ltd.	HEC Ltd, Ranchi	HEC Ltd, Ranchi	CRPF Guest House, Dhurwa	1 st Nov., 09

10.	Dr Manju Bhagat	National Seminar on 'Poverty & Employment Status in India'	Institute of Human Development, Eastern Region, Ranchi	Institute of Human Development, Eastern Region, Ranchi	Institute of Human Development, Eastern Region, Ranchi	5 th July, 2010
11.	Mr Anand Kumar	International Conference on Management Technologies and Information Security	IIIT Allahabad	IIIT Allahabad	IIIT Allahabad	21 st -24 th Jan, 2010
12.	Mr Nitesh Bhatia	Research Week	University of Mauritius	University of Mauritius	University of Mauritius	February 15-19, 2010
13.	Dr J B David	International Conference on "Diaspora Space"	UGC	Jamshedpur Women's College, Jamshedpur	Jamshedpur Women's College, Jamshedpur	February 20-22, 2010

Publications

International Journals

1. Harvinder Singh, S.K.Bose, Vinita Sahay, Management of Indian shopping malls: Impact of the pattern of financing, Retail & Leisure Property , Volume 9 / Number 01 Issue – February, 2010 published by Macmillan Publishers Ltd. U.K, pp55-64.
2. S Shivani, T Chattopadhyay, "Determinants of Brand Equity: A blue print for building strong brands: A study of the automobile segment in India", African Journal of Marketing Management, Vol. 1 (4) July 2009, pp 109 - 121.

National

1. Harvinder Singh, S.K.Bose, Vinita Sahay, Mélange: The Highway Mall, Select Cases in Management-book published by Allied Publishers Pvt. Ltd., A-104, Mayapuri Phase II , New Delhi.(Page:95-118).
2. D. D. Mukherjee, S.K.Bose, On the Merits of Equated Monthly Installments Method of Term Financing: Some Analytics and Arithmetic, The Icfai Journal of Management Research, Vol. 8, No. 01,(2009) pp. 73-93.
3. Vijay Agarwal, Significance of Knowledge Capital in Indian Economy: a Paradox, BIZCRAFT, Journal of Department of Management science SRMS College of Engineering and Technology, Bareilly, (U.P.) - India, RNI - UPENG/ 2007/ 19207, Vol. III No.1, (2009), pp. 22-28.
4. Vijay Agarwal, India banks on Patent power: Battle's won or lost with reference to Pharmaceutical Sector, ACME, Journal of Management & IT Amrapali Institute, Haldwani (U.P.), Vol. VIII., (2010), pp. 5-8.
5. Vijay Agarwal, Effective Financial Strategy: An Approach towards Sustainable Corporate Growth, Growth, Journal of Management Training Institute, SAIL, Ranchi, Vol. 38, No. 1, 2010, pp. 39-43.
6. Manju Bhagat , Bimal Kr Mishra , Syed Jalalludin Hyder , Impact of Accreditation on Human Resource Development through Balance Scorecard , International Journal of Business Management, 4 (2):, 2010, pp89-98

7. Manju Bhagat, Bimal Kr Mishra , Syed Jalalludin Hyder , Perception of Accreditation in Human Resource Development and Management in Hospitals Accredited by CCHSA, ISI, NABH : A Comparative Study, Journal of Economic Theory, 4(1), 2010,pp20-24
8. Amitabh Verma, S K Bose, Integrating trust and computer self efficacy in Virtual Banking: An empirical assessment of customer acceptance of Banking Information System in India", Gyanpratha, July 2009, Journal of Accaman Institute , New Delhi .
9. Amitabh Verma, S K Bose, "The Impact of technology on Productivity and Profitability of Indian Banks in Post liberalization Period", Abhigyan ,27(2) july-Sept 2009 , Fore School of Management, New Delhi
10. Amitabh Verma, S K Bose, "Technological innovation and Banking in India : An evaluation of Customer perception" , AUR Journal of ISM, Pundag, Ranchi,Vol 6,Dec 2009, Published in June 2010
11. N Bhatia, P Kumar, "Human Resource Audit- A Concrete Scaffold", Growth, Journal of MTI SAIL, 37(4), Jan 2010, pp 33-37
12. Rohit Pande, "Corporate Social Responsibility: A Human Face for the Global Economy", The Alternative, 8(2), 2009, pp 57-67
13. Rohit Pande, "Outsourcing: The New Age Mantra" , Bizcraft, 3(2), 2009, 52-58

Proceedings

National

1. Amitabh Verma, S K Bose, "Biometric Authentication in the real world: The Development of Destination" proceedings of BIT National Management Conclave 2010 on 12th -13th Feb, 2010 in BIT, Noida.
2. Anand Kumar, "Study on Employee Motivation in Functional Level Employees in Indian Organisations", Proceedings of the 1st International conference (ICMIS), , IIIT Allahabad, 21-24 January, 2010
3. Vijay Agrawal, Indian Economy – An Incomplete saga of Reforms", Proceedings of 6th National Conference of Economic and Globalisation, NDIMS, New Delhi, 20-21 March, 2010
4. N Bhatia, P Kumar, "HR Audit: A Prominent tool for an Admirable Corporate Culture", proceedings of 3rd Research Week, Feb 2010.

Departmental Students' Activities

S. No.	Name of the Activity	Students' co ordinator, if any	Date/Duration
1.	SAMAAGAM, All India B-Schools Festival	Dr Tanushree Dutta, Mr Amitabh Verma	5-6 March, 2010
2.	Seminar on Personal effectiveness : Concerns, Issues & Wayouts	Dr P C Jha, Dr tanushree Dutta	30 th August,09

Members on Board of Studies (UG/PG)

I. MBA

1. Dr S K Bose – HOD, Deptt of Management – Chairman (ex-Officio)
2. Dr S Kumar, Professor, Deptt of Production Engineering- Member
3. Dr U Baul, Professor, Deptt of Management – Member

4. Dr S Shivani , Associate Professor, Deptt of Management- Member
5. Dr V Agrawal, Senior Lecturer, Deptt of Management – Member
6. Dr A S Sarkar, Professor, XLRI Jamshedpur – External Member
7. Dr Hariharan, Sr DyGM MTI, SAIL , Ranchi – External Member

II. ME QEM

1. Dr S K Bose – HOD, Deptt of Management – Chairman (ex-Officio)
2. Dr S Kumar, Professor, Deptt of Production Engineering- Member
3. Dr U Baul, Professor, Deptt of Management – Member
4. Mr S C Mishra, Associate Professor, Deptt of Management- Member
5. Dr Anjani Kumar, Professor. Deptt of Production Engineering, NIT Jamshedpur
6. Dr R K Srivastava, Professor. Deptt of Production Engineering, BIT Sindri

Any Other Information

Guest Lectures

1. Mr Ajay Agrawal, faculty MTI, SAIL, Ranchi delivered a lecture on Personal effectiveness on 30th August, 2009
2. Mr Ravi Prasad, Deputy Chairman, Himalaya Global Holdings Ltd, delivered a lecture on Global brand Building : The Himalaya Experience, on 13th February, 2010
3. Mr Pranav Naithani, Faculty, BIT International Centre, Muscat, delivered a lecture on “Secrets of High Impact Leadership”, on 19th February, 2010
4. Dr S K Chadha, professor UBS, Punjab University Chandigarh, delivered a lecture on “Knowledge Management”, on 25/02/10
5. Four Alumni of the MBA programme visited the Department and addressed the MBA students on Industry expectations from MBAs, on 6th March, 2010. The Alumni were:
 - Mr Pankaj Sinha, National Manager RGM & Pricing |Hindustan Coca Cola Beverages Private Limited,
 - Mr Pulkit Trivedi, Lead Manager, Intel technology India Pvt Ltd.
 - Mr Suchit Tripathy, manager- product support, Symantec Software Solutions
 - Mr Kumar Ranbir, AiDENT, Social welfare Organisation

Department of Mechanical Engineering



Solar Powered Spinning Wheel

Since its inception in 1955, the Department of Mechanical Engineering has a wide reputation for the quality of teaching and research. During the preceding year it has been awarded the top grades for both teaching and research activities from independent and government bodies. The excellent laboratory facilities, modern computer clusters, systematically designed curriculum, and dedicated faculty members make this Department a dynamic place to study. Graduates from the Department of Mechanical Engineering are highly employable and sought after by many prestigious companies. There is also an excellent careers centre on campus, which helps the

students to get entry into Multinational companies.

The Department of Mechanical Engineering offers the following programmes at undergraduate/postgraduate and Doctoral level:

- i. B.E. (Mechanical Engineering) sanctioned strength : 90
- ii. M.E. (Mechanical Engineering) sanctioned strength : 12
- iii. Specialization: Heat Power /Design of Mechanical Equipment.
- iv. Ph.D. in Mechanical and Interdisciplinary field of research.

In addition, the Department has also introduced a new two years M.Tech (Energy Technology) programme with the following eligibility criteria.

B.E. in any branch of Engineering/B.Arch. /M.Sc. (Physics/Chemistry/ Mathematics).

Sanctioned strength : 18

A Micro-Electro Mechanical Systems (MEMS) Design Centre has been established in the Department of Mechanical Engineering under National Program for materials and Smart Structures (NPMAS), an initiative by Government of India.

Under the joint Research Programme (Global Clinic Programme at Harvey Mudd College, USA) on "A Low Cost Solar Thermal Storage Mechanism for Rural Villages in India", three sixth semester Mechanical Engineering students, Sri Siddharth Menon, Sri Siddharth Murarka and Sri Abhishek Sadany, visited Harvey Mudd College, USA and successfully completed the projects.

Following equipments have been added in the Department during the session 2009-10:

Computerized Diesel Engine, Flue Gas Analyzer

Sponsored Project:**Project Sanctioned**

S.No.	Project Title	PI/Co-PI/ Collaborator if any	Funding Agency	Date of sanction	Sanctioned Amount	Duration of the project
1.	Design and Development of Hydrogen Assisted Dual Fuel Engine (2009-11)	Sri D.B. Lata Dr. Ashok Misra	Deptt. of Industries, Govt. of Jharkhand	2009	Rs. 10.00 Lakhs	Two years
2.	Development of New Health Care Monitoring system for Elderly using Emerging Communication Technologies (Vide letter No. SSD/NI/026/2008/ TIE dated Nov. 24, 2009 (December 2009-2012)	Mrs. Richa Pandey Dr. R.P. Sharma, Dr. Rajeev Kumar	DST	2009	Rs. 12.059 Lakhs	Three years

Ongoing Projects

S.No.	Project Title	PI/Co-PI/ Collaborator if any	Funding Agency	Date of sanction	Sanctioned Amount	Duration of the project
1.	Studies on acoustic Properties of Glass Fiber Reinforced Plastics (2009-11)	Dr. K.K.Srivastava	AICTE	2009	Rs. 6.50 Lakhs	Two years

Conferences/Seminars/Workshops/Staff Development Programmes attended

S.No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Month Date, Year
1.	K.K.Srivastava, B.G. Shankar	Indian Vacuum Society National Symposium.	Institute	Indian Vacuum Society	Pilani	November 11-13,2009

Publications:**International Journals:**

1. V.S. Chauhan, Ashok Misra (2010). "Electromagnetic radiation during plastic deformation under unrestricted quasi-static compression in metals and alloys". Int. J. Materials Research (Formerly: Zeitschrift für Metallkunde) 101, 855 – 864.
2. V.S. Chauhan, Ashok Misra. "Assessment of lattice parameters and grain size in titanium alloy through electromagnetic radiation technique." Int. J. Microstructures and Mater. Prop. (2010) (in press).
3. Arbind Kumar, (2010) "Manufacture and Study of Physico-Chemical Properties of Karanja Bio-diesel", World Applied Sciences Journal (WASJ. org) June 21.
4. Ashok Misra, R.C. Prasad, V.S. Chauhan, Rajeev Kumar "Effect of Peierls' stress on the electromagnetic radiation during yielding of Metals". Mechanics of Materials 42 (5), (2010), 505-521.
5. Richa Pandey, S. Kumar, L.N. Pattanaik, "A Reverse Engineering based process for Contextualizing and digitizing ancient technical objects", J. Manuf. Tech. Res. – an International Journal, 6 (2010) 1-2.

6. P. Anil Kishan, S.K.Dash "Prediction of Circulation Flow Rate using Discrete particle Modeling, ISIJ International, 49, (2009) 495-504.
7. D.P.Mishra, S.K.Dash, P. Anil Kishan (2009) "Isothermal Jet Suction through the Lateral openings of a Cylindrical Funnel", J. Ship Research (accepted for publication).
8. K.P. Chander, M. Vashista, K. Sabiruddin, S. Paul, P.P. Bandhopadyay, "Effects of Grit Blasting on surface properties of Steel Substrates", Materials and Design, 30, (2009) 2895 - 2900.

National Journals:

1. K. Sabiruddin, S. Das, A. Bhattacharya "Application of Analytic Hierarchy Process for optimization of Process parameters in GMAW", Indian Building Journal, Vol. 42, 2009, 38-41.

Proceedings:

National

1. Arbind Kumar & S.K.Dhiman "Bio-fuel Plant for Rural Electrification" International Conferences on Advances in Renewable Energy, MANIT, Bhopal, June 24-26, 2010.
2. Richa Pandey, S. Kumar, "A RE based Process for Retrival of Ancient Technical Objects" International conferences on CAD, UAE, June 21-25, 2010.
3. Richa Pandey, S. Kumar, "Application of Reverse Engineering and CAD tools to revive inventions of the past and to improve precision and accuracy" proceeding of National Seminar on Precision forming: Modeling, Analysis and System Development, B.I.T., Mesra, February 15-16, 2010.
4. Richa Pandey, "Life in Balance – A challenge for Optimizing safety and minimizing un-intended consequences", Globalization and Human Rights, BSA College, Mathura, June 9-10,2010.
5. K.K.Srivastava, B.G. Shankar " Optimization of Steady State Distributed Pumping Systems for Sychrotron Beam Lines", Proceeding of the Indian Vacuum Society National Symposium, Pilani, November 11-13,2009.

Award/Recognition Bestowed on Faculties (State/National/International):

S.No.	Name of the Faculty	Title of the Award/Honours	Organisation	Year/ Duration
1.	Dr. Ashok Misra	Reviewer	International Journal on "Polymers and Polymer Composites	2010
2.	Mrs. Richa Pandey	Reviewer	International Conference on Science & Social Research	June 2010

Departmental Students' Activities

Under the Collaboration between Birla Institute of Technology, Mesra, Ranchi and Harvey Mudd College, USA, three students from the Department of Mechanical Engineering, Sri Siddharth Menon, Sri Siddharth Murarka, and Abhishek Sadany (All sixth semester Mechanical Engineering students) were selected to jointly work with four students of Harvey Mudd College, Mr. Hufsa Ahmad, Ms. Julie Lapidus, Ms. Jennifer Lee, Mr. Andrew Xue, on "A Low Cost Solar Thermal Storage Mechanism for Rural Villages in India".

The Faculty Advisors were the following

- Prof. Anthony Bright – Harvey Mudd College, USA.
- Prof. Lisette dePillis – Harvey Mudd College, USA
- Prof. K.G. Pandey – B.I.T., Mesra
- Prof. Arbind Kumar – B.I.T., Mesra

Dr. Gordon Pickett Coordinated the implementation of this programme. The project work was successfully completed in accordance with requirements set fourth by Global Clinic Programme at Harvey Mudd College, USA on June 25, 2010. Under this programme, all the above three selected students from the Department of Mechanical Engineering visited Harvey Mudd College, USA for fifteen days.

Members on Board of Studies (UG/PG)

- Dr. Ashok Misra
- Dr. Arbind Kumar
- Prof. P.K.Choudhary
- Dr. R.P.Sharma
- Sri O.P. Pandey

Member from Allied Departments:

- Professor A.K.Chatterjee (SE & R)
- Professor B.K.Singh

External Experts:

- Professor B.N.Prasad, N.I.T Jamshedpur
- Mr. A.P.Mishra, Senior Vice President, Larson & Toubro, Kansbahal, Orissa.

Any Other Information

Dr. V.S. Chauhan and Dr. Ashok Misra have reported an additional phenomenon in Metal Physics, viz. Electromagnetic Emission during Quasi-static Compression in Metals, which has been published in International Journal of Materials Research (Formerly: Zeitschrift für Metallkunde) 101 (2010), by the Max Planck Research Institute, Germany.

Department of Pharmaceutical Science



Pharmaceutical Chemistry Laboratory

The Department of Pharmaceutical Sciences was established in 1972, recognizing the potential of this emerging field of Technology. The Department has a lively, stimulating and a robust scientific community with highly qualified and competent faculty and a large number of postgraduate students, research fellows and visiting scientists. It is well equipped for both teaching and research activities, which are undertaken across the whole spectrum of Pharmaceutical Sciences. The Department encourages and supports studies involving a range of research strategies and have expertise

and experience towards quality and innovative research.

The Department runs both B.Pharm and M. Pharm in Pharmaceutical Sciences. Specializations offered are Pharmaceutics, Pharmaceutical Chemistry, Pharmacology and Pharmacognosy. The courses are recognized by both Pharmacy Council of India and AICTE. The Department also provides facilities for Doctoral Research in various fields of Pharmaceutical Sciences and has State of the Art Instrumental Analysis and Molecular Modeling laboratories for this purpose.

The Department is supported by two major projects namely FIST of DST and SAP of UGC.

Infrastructure Development:

1. Addition of equipment:

- Microwave Organic Synthesis system
- Operon Lyophilizer
- Agilent Preparative HPLC
- Buchi Rotary Evaporator
- Stanford Precision Melting Point Apparatus
- Flex X Molecular Modeling software

2. Addition of faculty members : 01

- Mr. Animesh Ghosh

New Programmes:

Additional Courses Introduced:

- M. Pharm in Clinical Research in collaboration with LCRA, Bangalore
- M. Pharm in Quality Assurance and Drug Regulatory Affairs in collaboration with LCRA, Bangalore
- M.S. in Clinical Research and Pharmacovigilance in collaboration with LCRA, Bangalore
- Post Graduate Diploma in Bioanalytical Techniques in collaboration with LCRA, Bangalore
- Post Graduate Diploma in Pharmacovigilance in collaboration with LCRA, Bangalore

Academic Reforms and Capacity Building:

New B. Pharm and M. Pharm syllabus has been introduced from Monsoon 2009 session.

Sponsored Project**Project Sanctioned**

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Identification and optimization of some Anticancer lead molecules as Ribonucleotide reductase- Histone deacetylase dual inhibitors	Dr. B. N. Sinha, and Mr. Arijit Basu	UGC	Dec 2009	10.063 lacs	3 years
2.	Design, Synthesis and study of some NIDDM based antidiabetics linear and cyclopeptides and non peptides	PI: Dr.S. Samanta	UGC	Dec 20-09	10.818 lacs	3 years
3.	Gastroretentive floating drug delivery systems of antiretroviral drug-formulation and invitroevaluation	Mrs. T. Bal	UGC	Feb 2010	1.30 lacs	2 years
4	Design and development of AChE and MAO inhibitors possibly as dual inhibitors : A new insight for Alzheimer's disease treatment	Dr. D. Sasmal, and Mrs. N.Mishra	UGC	Jan 2010	1.3Lakhs	2 years
5	Staff Development Programme	Dr. D. Sasmal, Dr. R.N. Gupta and Mr. D. Biyani	AICTE	Dec 2009	7.0 lacs	1 year

Ongoing Projects

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	SAP :Improvement of Infrastructure for Total Quality Management (TQM) and Good Laboratory Practice (GLP)	Head, Department of Pharm. Scs., BIT, Mesra	UGC	Feb 2007	65 lacs	5 years
2.	FIST: Advancement of Facilities for Undergraduate and Postgraduate Teaching and Research	Head, Department of Pharm. Scs., BIT, Mesra	DST	Feb 2006	38 lacs	5 years

3.	Creation of Infrastructure facilities including extension services under the scheme for human resource development	Department of Pharmaceutical Sciences	MFPI	Dec. 2004	50 lacs	5 Years
4.	Synthesis, Evaluation and Molecular Modeling studies of Some Imidazole analogs as potential Non Nucleoside Reverse Transcriptase Inhibitors	Dr. Swastika Ganguly	UGC	May 2009	01.40 lacs	2 years
5.	Formulation and characterization of multiparticulate pulsatile delivery of methotrexate based on chronotherapy for rheumatoid arthritis and its in vitro studies	Mr. A. Dev	UGC	May 2009	01.50 lacs	2 years
6.	Causes of depression, length of inpatient stay, hospital re-admissions and the prescription patterns in psychiatric hospitals: proposition of community psychoeducation in Jharkhand.	Mr. S.P. Pattanayak	UGC	May 2009	1.25 lacs	2 years
7.	Documentation, Identification and Indexing of Medicinal and Aromatic Plants of Jharkhand	Dr. D. Sasmal and Dr. S. Jha	Govt. of Jharkhand	April 2009	22.00 lacs	1 year
8.	Study of Anti-oxidative and DNA protective properties of Anthocyanins	Dept. of Pharm. Scs. + Dept. of Biotechnology	UGC	Jan 2009	15.13 lacs	3 years
9.	Screening of Bioactive compounds synthesized from Aleuritic acid	Dept. of Pharm. Scs. + Indian Institute of Natural resins and Gums, Ranchi	ICAR	Sep2008	22.00 lacs	2 years
10.	Comparative evaluation of Physicochemical, anti-inflammatory, and hypo-lipidimic properties of Oleogum resins from Boswellia serrata, Commiphora mukul and Commiphora wightii (Indian plants)	Dept. of Pharm. Scs. + Indian Institute of Natural resins and Gums, Ranchi	ICAR	Apr 2008	02.15 lacs	2 years

11.	To understand the nature of diversity in lac insects of <i>Kerria</i> spp. In India and the nature of insect and host interaction	Head, Department of Pharm. Scs., BIT, Mesra	ICAR	Jan 2009	66.5 lacs	3 years
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Projects Completed

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1.	Design, Synthesis and Evaluation of some Novel DAMNI analogs as NNRTIS with broad spectrum chemotherapeutic properties	Dr. Swastika Ganguly	AICTE	April 2008	8.37 lacs	2 years
2.	Monitoring of A.D.R. of Newly Introduced drugs in Patients and awareness about ADRs and Banned drugs among health in Jharkhand	Dr. R. N. Gupta	UGC	April 2007	0.80 lacs	2 years
3.	Formulation development and Evaluation of Antiviral Drugs.	Dr. R. N. Gupta	UGC	April 2008	0.90 lacs	3 years
4.	Grid Based Virtual Screening for TB (GRIDVISIT)	Co PI: Mr. Venkatesh Dept. of Pharm. Scs + Computer Science	AICTE	April 2008	6.50 lacs	2 years
5.	Staff Development Programme	Dr. D. Sasmal, Dr. R.N. Gupta and Mr. D. Biyani	AICTE	Dec 2009	7.0 lacs	1 year

Seminar / Conferences / Short – term Courses Conducted by the Department

Sl. No.	Title of Seminar / Conferences / Short – term Courses	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1	Drug Discovery Approaches	Chief Coordinator: Dr. B .N. Sinha; Programme Coordinators : Dr. Swastika Ganguly and Dr. Papiya Mitra Mazumder	AICTE	May 4 – 16, 2009

2.	Emerging Trends In Herbal Drug Technology	Chief Coordinator : Dr. B .N. Sinha, Programme Coordinators : Dr. K. Jayaram and Mrs. Anima Pandey	AICTE	May 18 - 30, 2009
3	Advances in Targetted Drug Delivery Systems	Chief Coordinator : Dr. B .N. Sinha, Programme Coordinators : Dr. R. N. Gupta and Ms. T. Bal	AICTE	June 1 – 13, 2009
4.	Clinical Research and Pharmacovigilance	Dr. D. Sasmal	UGC & IPS	Sept 18, 2009.
5.	Pharmacon (Eastern Regional Conference of Indian Pharmacological Society)	Dr. D. Sasmal	BIT, Mesra and IPS	9-10 April 2010
6.	Novel Drug Delivery System	Dr. D. Sasmal, Dr. R. N. Gupta, Mr. D. M. Biyani	AICTE	11 th May- 25 th May 2010

4. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Month Date, Year
1.	Dr.S.P. Bhatnagar	IPA Convention	IPA Sponsored	IPA	Chennai	March 12-14, 2010
2	Dr.D Sasmal	IPA Convention	IPA Sponsored	IPA	Chennai	March 12-14, 2010
3	Dr.B.N.Sinha	IPA Convention	IPA Sponsored	IPA	Chennai	March 12-14, 2010
4	Mr. D. M. Biyani,	International Symposium on Clinical Pharmacy Education: Sharing the US Experiences Article in the Souvenir	AICTE	CIPPARA, Nagpur and Guru Nanak college of Pharmacy, Nagpur	Guru Nanak college of Pharmacy, Nagpur	27-28 Nov. 2009
5	Mr. D. M. Biyani	National Seminar on Nanotechnology: A versatile tool for Drug Design and Development Resource Person	AICTE	Agnihotri college of Pharmacy, Wardha	Agnihotri college of Pharmacy, Wardha	7 th June 2010
6	Mr. Manik	PHARMACON-2010: Eastern Regional Conference of Indian Pharmacological Society		Birla Institute of Technology, Mesra, Ranchi	Birla Institute of Technology, Mesra, Ranchi	Apr 09-10, 2010

7	Mr. Manik	NCPDPEP – 2009, XVIII APSI Scientists Meet 2009 and National Conference on “Plant Sciences: Diversity, Products & Environmental Planning	APSI	APSI & Marwari College, Ranchi	Shri Krishna Institute of Public Administration, Ranchi	Oct 11-12, 2009
8	Mr. Manik	UGC sponsored Seminar on “Clinical Research and Pharmacovigilance”	UGC	BIT, Mesra, Ranchi	BIT, Mesra, Ranchi	Sept 18, 2009
9	Mr. Manik	“Faculty Workshop on Soft Skills”,	Training & Placement Division, BIT Mesra	BIT, Mesra, Ranchi	BIT, Mesra, Ranchi	Sept 17-19, 2009
11	Mr. Manik	Training cum Demonstration on “Advanced Technology for Production of Medicinal and Aromatic Plants”	Central Institute of Medicinal and Aromatic Plants, Lucknow	Central Institute of Medicinal and Aromatic Plants, Lucknow	Forest Productivity Institute, Ranchi	Aug 21-23, 2009
12	K. Jayaram kumar	Pharmacon-2010: Eastern Regional Conference of Indian Pharmacological Society		Birla Institute of Technology, Mesra, Ranchi	Birla Institute of Technology, Mesra, Ranchi	Apr 09-10, 2010
13	S. P. Pattanayak	14 th annual national convention of association of pharmaceutical teachers association of india	APTI, India	Lachoo Memorial College, Jodhpur	Jodhpur	3 rd – 4 th Oct 2009
14.	Mr. D. M. Biyani,	International Symposium on Clinical Pharmacy Education: Sharing the US Experiences Article in the Souvenir	AICTE	CIPPARA, Nagpur and Guru Nanak college of Pharmacy, Nagpur	Guru Nanak college of Pharmacy, Nagpur	27-28 Nov. 2009
15	S. P. Pattanayak	14 th annual national convention of association of pharmaceutical teachers association of india	APTI, India	Lachoo Memorial College, Jodhpur	Jodhpur	3 rd – 4 th Oct 2009
16	Dr.R.N. Gupta	IPA Convention	IPA Sponsored	IPA	Chennai	March 12-14, 2010

Publications

International Journals: 87

1. Comparative evaluation of the efficacy of some Ayurvedic Formulations in attenuating the progression of Diabetic nephropathy, Reema Mitra, Papiya Mitra Mazumder and D. Sasmal, *Pharmacologyonline*, 1, 2010, 709 – 717.
2. Antiulcer activity of ethanolic extract of fruit of *Trapa bispinosa* Roxb in animals, D. M. Kar, L. Maharana, S. C. Si, M. K. Kar, D. Sasmal, *Der Pharmacia Lettre*, 2010, 2(2), 190 – 197.
3. Pharmacological evaluation of glutamate transporter 1 (GLT-1) mediated neuroprotection following cerebral ischemia/reperfusion injury, Rajkumar Verma, Vikas Mishra, Dinakar Sasmal, Ram Raghubir, *European Journal of Pharmacology*, 2010 (accepted).
4. Resurgence of Herbal Antihypertensives in Management of Hypertension, Rajkumar Verma, Kashif Hanif, Dinakar Sasmal and Ram Raghubir *Current Hypertension Reviews*, 2010, 6 (accepted).
5. P.R.P. Verma, A.R. Chandak, Development of Matrix Controlled Transdermal Delivery Systems of Pentazocine: In Vitro/In Vivo Performance *Acta Pharmaceutica*. 59(2) (2009) 171-186.
6. P.R.P. Verma, A. Khuroo, T. Monif, S. Gurule, Comparison of effect of fasting and of five different diets on the bioavailability single oral dose of clathiromycin 500 mg extended release tablet. *Clin. Res Reg Affairs*. 26(4) (2009) 73-83.
7. P.R.P. Verma, B.K. Razdan, S.K. Singh, Development and characterization of carvedilol loaded selfmicroemulsifying drug delivery systems of Carvedilol – *Clin Res Reg Affairs*. 26 (3) (2009) 50-64.
8. P.R.P. Verma, A.R. Chandak, Eudragit Based Transdermal Formulation of Pentazocine: Physicochemical, In-vitro, and In-vivo Evaluations. *Pharm. Dev. Tech.*, 15(3) (2010) 296-304.
9. P.R.P. Verma, B.K. Razdan, S.K. Singh, Selfnanoemulsifying drug delivery systems of Glibenclamide: Development and characterization. *Drug Dev. Ind. Pharm.*, 36(8) (2010) 933-945.
10. P.R.P. Verma, B.K. Razdan, S. K. Singh, Development and characterization of lovastatin loaded selfmicroemulsifying drug delivery systems. *Pharm. Dev. Tech.* (DOI: 10.3109/10837450903286537).
11. P.R.P. Verma, B.K. Razdan, S. K. Singh, Structural transitions of self-nanoemulsifying drug delivery system of glibenclamide, carvedilol and lovastatin upon progressive aqueous dilutions- *Journal of Dispersion Science and Technology*- (In Press)
12. P.R.P. Verma, B.K. Razdan, S. K. Singh, Atomic force microscopy, transmission electron microscopy and photon correlation spectroscopy: three techniques for rapid characterization of self-nanoemulsifying drug delivery system of carvedilol, lovastatin and glibenclamide- *Journal of Dispersion Science and Technology*- (In Press).
13. Anasuya Sahoo, Samiye Yabanoglu , Barij N. Sinha , Gulberk Ucar , Arijit Basu , Venkatesan Jayaprakash, Towards development of selective and reversible pyrazoline based MAO-inhibitors: Synthesis, biological evaluation and docking studies, *Bioorganic & Medicinal Chemistry Letters* 20 (2010) 132–136
14. Bhadaliya Chetan, Mahesh Bunha, Monika Jagrat, Barij Nayan Sinha, Philipp Saiko, Geraldine Graser, Thomas Szekeres, Ganapathy Raman, Praveen Rajendran, Dhatchana Moorthy, Arijit Basu, Venkatesan Jayaprakash, Design, synthesis and anticancer activity of piperazine hydroxamates and their histone deacetylase (HDAC) inhibitory activity, *Bioorganic & Medicinal Chemistry Letters* 20 (2010) 3906–3910

15. S. K. Bansal, B. N. Sinha, R. L. Khosa, A. J. Olson. "Novel GABA-AT inhibitors: QSAR & docking based virtual screening of phenyl substituted β -phenylethylidene hydrazine analogs" Medicinal Chemistry Research, 2010, 19(S1), S114.
16. S. K. Bansal, B. N. Sinha, R. L. Khosa. "QSAR & docking based computational chemistry approach to novel GABA-AT inhibitors: kNN-MFA based 3DQSAR model for phenyl substituted analogs of β -phenylethylidene hydrazine" Medicinal Chemistry Research, Published online 31 March 2010 (In Press).
17. S. K. Bansal, B. N. Sinha, R. L. Khosa, A. J. Olson. "Novel GABA-AT inhibitors: QSAR & docking based virtual screening of phenyl substituted β -phenylethylidene hydrazine analogs" Medicinal Chemistry Research, 2010, (In Press).
18. B.N. Sinha, S. K. Bansal, A.K. Pattnaik, " Phytochemical and Antimicrobial Activity of Extracts, Fractions and Betulin, 7- Methyl Juglone Obtained from *Diospyros paniculata*". Journal of Natural Remedies,(9), 2009.
19. Abhishek Kumar and B.N. Sinha , " Ayurvedic Processings of nux vomics : qualitative and quantitative determination of total alkaloidal contents and relative toxicity " Malayasian Journal of Pharmaceutical Scs, 2009, 7(2), 80-94.
20. Vadivelan S, Sinha BN, Tajne S, Jagarlapudi SA: Fragment and knowledge nased design of selective GSK 3-beta inhibitors using virtual screening models, Eur. J. Med. Chem., 44, 2361-71, 2009.
21. Chetan, B.; Bunha, M.; Jagrat, M.; Sinha, B. N.; Saiko, P.; Graser, G.; Szekeres, T.; Raman, G.; Rajendran, P.; Moorthy, D.; Basu, A.; Jayaprakash, V. Design, synthesis and anticancer activity of piperazine hydroxamates and their histone deacetylase (HDAC) inhibitory activity. Bioorg Med Chem Lett 2010.
22. Karuppasamy, M.; Mahapatra, M.; Yabanoglu, S.; Ucar, G.; Sinha, B. N.; Basu, A.; Mishra, N.; Sharon, A.; Kulandaivelu, U.; Jayaprakash, V. Development of selective and reversible pyrazoline based MAO-A inhibitors: Synthesis, biological evaluation and docking studies. Bioorg Med Chem 2010, 18, 1875-81.
23. Chakrabarty, S.; Jasmine.; Bhadaliya, C.; Sinha, B. N.; Mahesh, A.; Bai, H.; Blond, S. Y.; Jayaprakash, V. Inhibitors of Human Histone Deacetylase: Synthesis and Enzyme assay of Hydroxamate with piperazine linker. Arch. Pharm. (Weinheim, Ger.) (accepted: ardp.200900117.R1)
24. Arjun Patra, Shivesh Jha, P. Narsimha Murthy, Aher Vaibhav, D. Pronobesh Chattopadhyay, Ghanshyam, Panigrahi and Devdeep Roy (2009) Anti-Inflammattory and Antipyretic Activities of *Hygrophila spinosa* T. Anders, Leaves (Acanthaceae) Tropical Journal of Pharmaceutical Research, 8(2): 133-137.
25. K. Nagarajan, A. Mazumder, G. Umadevi, S. Jha, L.K.Ghosh, K. S. Prabha, V. Srividhya, P.C.Bhuvaneshvari, K. Kirthika, Evaluation studies of antimicrobial activity on the leaf extracts of *achyranthes aspera* Linn., Hamdard Medicus, 2009, 52(1) 108 – 111.
26. Arjun Patra, S. Jha, P.N. Murthy, Manik, A. Sharone. Isolation and characterization of stigmast-5-en-3 β -ol (β -sitosterol) from the leaves of *Hygrophila spinosa* T. Anders. International Journal of Pharma Sciences and Research, 2010, 1(2), 95-100.
27. Garvendra Singh Rathore, R. N. Gupta, Rakesh Gupta, "Spectrophotometric methods for estimation of tramadol hydrochloride in pharmaceutical dosage forms" Asian Journal of Chemistry, Volume: 21 Issue: 8 Article No: 46 PP: 6111 - 6115) .
28. Garvendra Singh Rathore, Pawan K Basniwal, Manish Suthar and R.N.Gupta, Spectrophotometric methods for the estimation of venlafaxine hydrochloride, Asian Journal of Chemistry. Volume: 21 Issue: 8 Article No: 17 PP: 5908 - 5912

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36. Papiya Mitra Mazumder, D. Sasmal, Surendra Pareta, Ram Garg, Protective effect of *Boerhaavia diffusa* (Nyctaginaceae) on Ethylene glucol induced nephrotoxicity in rats, Proceedings of 14th Annual National Convention of APTI, Jodhpur, Rajasthan, 3rd – 4th October, 2009, pg SA 92.
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43. S.M.Verma,D.Sasmal,B.K.Razdan,A.Verma,Molecular modeling and Drug design of Tropane analogs, International Conference of Indian Chemical Society,Vellore,Dec.2009
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47. S. P. Pattanayak, P.M. Mazumder,P. Sunita, S. Gupta, A.R. Singh, Effect of climate on mental health and prescription pattern in ranchi institute of neuro psychiatry and allied science, ranchi: an exploratory survey report, APTICON 2009, Jodhpur, Oct 3rd – 4th, 2009.
48. Manik, B. N. Sinha, D. Sasmal. "Antinociceptive Potential of Litsea polyantha Juss. Bark Extract", PHARMACON-2010: Eastern Regional Conference of Indian Pharmacological Society, Birla Institute of Technology, Mesra, Ranchi: Apr 09-10, 2010 (IPS-OP05: 12)
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51. Anshu Kumari, Bina K. Mehta, Manik Ghosh, Deepak Patel. "Similarity Study between Enzymes and Receptors of Human with Experimental Animals by Using Bioinformatics Tools-II", Indian Congress of Pharmacy & Pharmaceutical Sciences – 2010 and Indian Pharmaceutical Association Convention – 2010, Chennai: Mar 12-14, 2010 (PE-P038: 127-128)
52. Manik Ghosh, B. N. Sinha, D. Sasmal. "Neuropsychopharmacological Effects of Litsea polyantha Juss Bark Extracts in Mice", 61st Indian Pharmaceutical Congress, Ahmedabad: Dec 11-13, 2009 (D-130: 437-438)
53. Bina K. Mehta, Manik Ghosh, Rammani Prasad. "Similarity Study between Enzymes and Receptors of Human with Experimental Animals by Using Bioinformatics Tools", 61st Indian Pharmaceutical Congress, Ahmedabad: Dec 11-13, 2009 (D-202: 454)
54. Roy Suparna, B. N., Sinha Manik. "Estimation of constituents from Methanolic Extract of Aloe vera by HPTLC Technique", 61st Indian Pharmaceutical Congress, Ahmedabad: Dec 11-13, 2009 (C-37: 301)

55. Manik, B. N. Sinha. "Identification of Flavanoids by HPTLC Analyses of Litsea polyantha Juss Bark Extracts". National Seminar on "Advances and Regulatory Aspects for Pharmaceutical and Herbal Products", Chitkara College of Pharmacy, Chandigarh: Oct 31, 2009 (ARAPH-CCP-0945)
56. Manik Ghosh, B. N. Sinha, D. Sasmal, B. K. Roy. "Isolation and Characterization of Alkaloids and Flavonoids from Litsea polyantha Juss Bark Extracts". NCPDPEP – 2009, XVIII APSI Scientists Meet 2009 and National Conference on "Plant Sciences: Diversity, Products & Environmental Planning", Ranchi: Oct 11-12, 2009 (56: 28)
57. Manik Ghosh, B. N. Sinha, D. Sasmal, B. K. Roy. "TLC & HPTLC Analyses of Litsea polyantha Juss Bark Extracts". NCPDPEP – 2009, XVIII APSI Scientists Meet 2009 and National Conference on "Plant Sciences: Diversity, Products & Environmental Planning", Ranchi: Oct 11-12, 2009 (57: 29)
58. Rupali Ghosh. V. K. Singh, Manik Ghosh. "Standardization of Herbal Drugs". NCPDPEP – 2009, XVIII APSI Scientists Meet 2009 and National Conference on "Plant Sciences: Diversity, Products & Environmental Planning", Ranchi: Oct 11-12, 2009 (126: 64)
59. Manik Ghosh, B. N. Sinha, D. Sasmal, B. K. Roy. "Isolation and Characterization of Phytoconstituents Present In Litsea polyantha Juss Bark Extracts". APTICON-2009: 14th Annual National Convention of APTI, Lachoo Memorial College of Science and Technology (Pharmacy Wing), Jodhpur, Rajasthan: Oct 03-04, 2009 (D-59: SA112)
60. Arijit Basu, Barij N. Sinha Ligand Based Design of some N-Hydroxy-N'-aminoguanidines and N-Hydroxysemicarbazides as Anticancer Agents. 61st Indian Pharmaceutical Congress, Ahmedabad: Dec 11-13, 2009
61. S. P. Pattanayak, P.M. Mazumder, P. Sunita, S. Gupta, A.R. Singh, Effect of climate on mental health and prescription pattern in ranchi institute of neuro psychiatry and allied science, ranchi: an exploratory survey report, APTICON 2009, Jodhpur, Oct 3rd – 4th, 2009.
62. Anima Pandey, S.P.Bhatnagar and Rishi Kumar, "A Comparative Study On Wound Healing Activity Of Artocarpus Lakoocha Roxb, (Moraceae) And Pongamia Pinnata" Proceedings of 14th Annual National Convention of APTI, Jodhpur, Rajasthan, 3rd – 4th October, 2009.

Books

J.K. Kumar, S. Shimpi, Peganum Harmala, "A Potential Traditional Plant and House of Natural Leads (India)" RPMP Volume 28 : Ethnomedicine - Source & Mechanism-II Dr. Amani S. Awaad, Dr. J.N. Govil and Dr. V.K. Singh STUDIUM PRESS, LLC, P.O. Box- 722200, Houston, Texas: 77072, USA, 2009.

Award / Recognition Bestowed on Faculties (State / National / International)

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1	Dr. R. N. Gupta	Elected as VICE President of Indian Pharmaceutical Association HQ Mumbai	Indian Pharmaceutical Association	2010- 12
2	Dr. R. N. Gupta	Nominated as Member in PHARMACY COUNCIL OF INDIA Bridge course Group	PCI, India	2010
3	Dr. Swastika Ganguly	Chartered Chemist	Institution of Chemists (INDIA)	2009

Patents (Applied / Granted)

S. No.	Name of the Inventor	Title of the Invention	Application / Patent No. (As applicable)	Year
1.	Dr. R.N. Gupta	Formulation of orodispersible tablets of Stavudine by weight granulation method	Appl. No: 1043/K01/2009.	2009

MoUs / Collaborations

S. No.	Name of Organisation / University	Purpose / Area	Year / Duration
1.	Himalayan Pharmacy Institute, Majhitar, East- Sikkim	Pharmaceutical Research	2009
2.	DUSAP Pharmaceuticals, Kolkata	Project work on Potassium Iodate Tablet for DEFENCE Sponsored Project	2009

Departmental Students' Activities

S. No.	Name of the Activity	Students' co-ordinator	Date/Duration
1	BRAINSTORM 09		3 rd Aug 2009.
2	Awarded second prize in essay competition entitled " Expanding the minds through knowledge management "in APTICON 2009,	Pooja Sheokhand	3 rd – 4 th October 2009
3	Elocution contest on the topic " Pharmacist Role in Health Care Management and Research		21 st October 2009
4	IDMA G.P. Nair award	Ritu Kuhu	December 2009
5	Welcome Function 2009 for the first semester students	Pharm. Society	2009
6	Farewell Function 2009 for eighth semester students	Pharm. Society	2009
7	Welcome Function 2010 and Farewell function 2010	Pharm. Society	2010
8.	Paper Publication " An ab initio Hartree Fock reactivity study of epoxides with different amines, Journal of Chemistry, 2010, 1589	S. Bhakat	2010
9.	Paper accepted " Study of kinetics of cyclic reagents Diels Alder reaction via modern MO methods" in Organic Chemistry- An Indian Journal	S. Bhakat	2010

Members on Board of Studies (UG/PG)

- | | |
|-------------------------|----------|
| • Dr. D. Sasmal | Chairman |
| • Dr. Roop Khar | Member |
| • Dr. Tausif Monif | Member |
| • Prof. S. P. Bhatnagar | Member |
| • Prof. C.M. Prasad | Member |
| • Dr. P.R.P. Verma | Member |
| • Dr. B.N. Sinha | Member |
| • Dr. S. Samanta | Member |
| • Dr. S. Jha | Member |
| • Dr. (Mrs.) S.M. Verma | Member |
| • Dr. (Mrs.) Usha Jha | Member |
| • Dr. Mohan Varma | Member |

Any Other Information

International Research Collaborations: Professor B.N. Sinha has been sanctioned two INDO-GERMAN projects; in collaboration with Professor Rolf Hilgenfeld, Director, Institute of Biochemistry, University of Luebeck, Germany; to work in the area of Anti-viral drugs for the treatment of Dengue and Chikungunya.

Lectures by eminent personalities:

- Dr. A.K. Dorle, Retired Prof. Emeritus, Nagpur University delivered a lecture on "Research- the adventure in Knowledge" on 27th Aug 2009.
- Dr. Jagdev Singh, Former Scientist, RRL Jammu delivered a lecture on "Advances in Herbal Drug Technology" on 30th Aug 2009.
- Dr. H.C. Rolf Hilgenfeld, Director, Institute of Biochemistry, University of Luebeck, Germany delivered a lecture on "Expecting the unexpected: Structure based Discovery of Antivirals for future outbreaks" on 28th January 2010.

The IPA Jharkhand Branch received the Special Recognition award of the year at IPA convention, Chennai, held in March 2010.

Department of Polymer Engineering



Injection Moulding Machine

The Department of Polymer Engineering established in 1994, currently offers an undergraduate programme B.E(Polymer Engg), and two post Graduate programmes ME(Polymer Engg) and M.Tech (Polymer Science and Technology). The Department also provides facilities for Doctoral Research in Engineering and Technology in the areas related to Polymer Science and Engineering, Chemical Engineering etc. The M.Tech. (Polymer Science and Technology) programme has been introduced in present academic year.

The undergraduate and postgraduate courses are designed to serve the in-plant as well as R&D needs of Petrochemical Industries involved in Polymer Manufacture, Polymer Processing Industries, and Polymer Processing Machinery and Tool Manufacturing industries. The students get exposed to the advanced materials characterization techniques using instruments in the Department as well as the Central Instrumentation Facility. They gain hands on experience on various Industrial scale plastics processing machineries. Training is imparted in softwares in the areas of mould design, process simulation, mould manufacture, polymer processing, process simulation, molecular modeling etc. The students also undergo summer training in the various industries and are encouraged to take up industrial projects for their final year thesis.

The Department has the State of Art facilities in all the areas of Polymer Science & Engineering – Synthesis, Characterization, Processing, and Product Development & Testing. The Department has well equipped polymer synthesis facility including a High Pressure Computer Controlled Reactor. The facilities in the Polymer Characterization Laboratory include HAAKE Torque Rheometer with Mixer and Extruder, Oscillating Disc Rheometer, RIGAKU Miniflex X-ray Diffractometer, Instron Tensile Testing machine, ATLAS accelerated weathering system, Dynamic Mechanical Thermal analyzer, TA, Ultrafiltration unit, Karl Fisher Titrator etc. The facilities of Polymer Processing workshop include Injection Moulding machines - 80 ton L&T Ergotech and 25 ton Windsor, Extrusion Blow moulding machine with parison programming, Kolsite Single screw extruder, Kolsite Film blowing plant and PVC pipe Extrusion plant, Two roll mixing mill, Thermoforming, Compression moulding, Welding facilities – Ultrasonic and Hot air, PVC compounding mixer etc. The product Testing Laboratory is well equipped with testing facilities for various plastics products like films, sheets, pipes etc. The facilities in the Plastics Product Development laboratory includes Fused Deposition Modeling system, Stratasys, for rapid prototyping, MCP-HEK vacuum casting machine for prototyping and Mold Flow Software with Flow, Warp, and Stress Modules, 3 axis CNC EDM machine, Mould Wizard of NX Manufacturing Bundle etc. E-learning facility has been created with Paulsons Training Basic Injection Moulding, Simtech, Single Screw Extrusion, and Compounding with Twin Screw Extruder. The students are trained in Molecular Modelling using Materials Studio Software, which has the modules namely Synthia, Blends, Amorphous cell, MesoDyn, DPD and Discover with COMPASS forcefield. Major addition in the present academic year includes Incubator Shaker and BioSafety cabinet.

The faculty members are actively involved in research in the areas of polymer blends and composites, biomaterials, water desalination/purification, polymer electrolyte membranes for fuel cell/rechargeable batteries, conducting polymer based sensors, polymer waste recycling, from non petroleum sources, composites for aerospace application, hydrophobic paints, Hydrogels, product development, nano-composites, membrane technology, tissue engineering etc.

INTEGRATED INDUSTRIAL TRAINING PROGRAMME: In collaboration with BIT Extension Centre Muscat, the Department is conducting Integrated Industrial Training programme for a company Amiantit Oman, at Muscat. The Certificate courses offered are: Polymer Technology- Rotomoulding, Polymer Technology – PVC pipe production and Polymer Technology – HDPE pipe Production.

Design Development and Training Centre in Plastics Engineering:

Department of Polymer Engineering also coordinates the activities of “Design Development and Training Centre in Plastics Engineering”, a joint venture of Department of Industries, Government of Jharkhand and BIT Mesra. The ongoing programmes are one year Certificate Programme in Plastic Processing Machine Operator for matriculates, one year Certificate Programme for Mould Making Technician for ITI qualified machine operator and one year course on Plastics Processing for graduates. All the courses are aimed at manpower development for the Plastics Processing Industries of Jharkhand. Apart from the training programmes the Centre provides consultancy and product testing facilities to the Industries.

Sponsored Project:

Project Sanctioned

Sl. No.	Project Title	PI / Co- PI/Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount Rs lacs	Duration of the Project
1.	Development of Infrastructure for Polymer blends and nanocomposite Laboratory	Dr. (Mrs.) M. Mukherjee- Co-Ordinator Dr. G. Sarkhel Dr. S. Goswami Dr. A. Choudhury	DST- FIST	2009	65.000	3 Years

Ongoing Projects

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount Rs lacs	Duration of the Project
1.	Development of hybrid polymeric membrane for heavy metal separation from water	Dr. G. Sarkhel	DST, Govt. of Jharkhand	20.08.07	4.88	3 Years
2.	Design and Development of coir fibre based low cost air cooler	Dr. A. K. Sen	Coir Board, Govt. of India	22.09.08	9.79	2 Years
3.	Interpenetrating networks based on hydrophilic-hydrophobic acrylics	Dr. S. Goswami	DST Fast Track	21.03.09	10.23	3 Years

Projects Completed

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1.	Multi-objective optimization of the polymerization reactors	Dr. C. Guria	AICTE	01.08.06	7.20	3 Years

Seminar / Conferences / Short – term Courses Conducted by the Department

Sl. No.	Title of Seminar / Conferences / Short – term Courses	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1.	Training on AUTO CAD	Mr. Kaushik Kumar, Mr. Sudeepan.J	Training Programme by Deptt. of Polymer Engg.	Nov 03 – 13 th , 2009
2.	Training on PRO-E	Mr. Kaushik Kumar, Mr. Sudeepan.J	Training Programme by Deptt. of Polymer Engg.	Nov 23 rd – Dec 08 th , 2009
3.	Training on ANSYS	Mr. Kaushik Kumar, Mr. Sudeepan.J	Training Programme by Deptt. of Polymer Engg.	Feb 01 – 11 th , 2010
4.	Training on CATIA	Mr. Kaushik Kumar, Mr. Sudeepan.J	Training Programme by Deptt. of Polymer Engg.	Feb 15 – 25 th , 2010

Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/ Seminar/ Industrial visit	Funding Agency	Organizers	Venue	Month Date, Year
1.	Dr. Pradip Kar, Dr. Susanta Sinha Mahapatra, Mr. Sudeepan.J	Faculty Workshop on Soft Skills	BIT, Mesra	BIT, Mesra	BIT, Mesra	Sep 17 – 19th 2009
2.	Dr. Susanta Sinha Mahapatra, Mr. S.J. Rahaman	Symposium for Fuel Cell & Technology	BIT, Mesra	NMRL, Mumbai	Mumbai	Nov 09 – 14 th , 2009
3.	Dr. (Mrs.) M. Mukherjee, Mr. Kaushik Kumar	Consultancy work at Amianit, Oman, Muscat	Amianit, Oman	Amianit, Oman	Oman, Muscat	Nov 19 th – 23 rd 2009
4.	Dr. (Mrs.) S. Goswami	Polymer Congress APA 2009, "Polymer Science & Technology: Vision & Scenario"	DST, Govt. of India	Asian Polymer Association	IIT, New Delhi	Dec 17 – 20, 2009
5.	Dr. A.K. Sen, Mr. Suman Shekhar	International Symposium Research and Development on coir in the next decade	Coir Board	CCRI, Kerala	CCRI, Kerala	Feb 4 th -5 th 2010

6.	Dr. A.K. Sen, Mr. Randheer Kumar	International Conference on Advancements in Polymeric Materials	BIT, Mesra	CIPET, Bhubaneswar	CIPET, Bhubaneswar	Feb 20- 22nd 2010
7.	Dr. (Mrs.) M. Mukherjee, Dr. A.K. Sen, Dr. G. Sarkhel	Visit to DRDL Composites facility	DRDL	DRDL	Hyderabad	May 17 th – 18 th 2010
8.	Dr. (Mrs.) M. Mukherjee, Dr. A.K. Sen, Dr. G. Sarkhel	Visit to Centre for Fuel Cell Technology, Advanced Research Centre for Powder Metallurgy and New Materials	BIT	ARCI	Chennai	May 19 th 2010
9.	Dr. (Mrs.) M. Mukherjee, Dr. A.K. Sen, Dr. G. Sarkhel	Visit to CIPET Chennai – Characterization Facility	BIT	CIPET	Chennai	May 19 th 2010
10.	Dr M.Mukherjee	Visit to Photovoltaic Cell Manufacturing Facility, of Indo Solar Ltd.	BIT	IndoSolar Ltd.	Greater Noida	2 nd June 2010
11.	Dr M.Mukherjee	Visit of facilities of sustainable habitat, Retreat, TERI	BIT	Tata Energy and Resources Institute	Gwal Pahari, Gurgaon	3 rd June 2010
12.	Dr M.Mukherjee	Visit to Solar Energy Energy Centre, Ministry of New and Renewable Energy	BIT	MNRE	Gwal Pahari, Gurgaon,	3 rd June 2010

Publications

International Journals

1. Arup Choudhury "Dielectric and piezoelectric properties of polyetherimide/BaTiO₃ nanocomposites" Materials Chemistry Physics 121 (2010), 280-285.
2. Arup Choudhury, Pradip Kar, Mandira Mukherjee, Basudam Adhikari "Polyaniline/silver nanocomposite for acetone vapour sensor" Sensors Letters 7 (2009), 592-598.
3. Gautam Sarkhel, Arup Choudhury "Dynamic Vulcanisation of Polyethylene-Based Thermoplastic Elastomer Blends", Journal of Applied Polymer Science 105 (2010), 376-384.
4. P.P. Sengupta, P. Kar, B. Adhikari "Influence of dopant in the synthesis, characteristics and ammonia sensing behavior of processable polyaniline", Thin solid films 517 (2009) 3770-3775.
5. P. Kar, A.K. Behera, N.C. Pradhan, B. Adhikari, "Optimization for the chemical synthesis of conducting poly (m-aminophenol) in HCl using ammonium persulfate", High Performance Polymers 22 (2009) (Article in press) DOI:10.1177/0954008309105513.
6. P. Kar, N.C. Pradhan, B. Adhikari, "Application of sulfuric acid doped poly (m-aminophenol) as aliphatic alcohol vapor sensor material", Sensors and Actuators B: Chemical 140 (2009) 525-531.

7. P. Kar, N.C. Pradhan, B. Adhikari, "Isomeric effects on structures and properties of polyaminophenols synthesized in basic medium" *Journal of Macromolecular Science, Part A Pure and Applied Chemistry* 47 (2009), 282-290.
8. P. Kar, N.C. Pradhan, B. Adhikari, "Effect on structure, processability and conductivity of poly(m-aminophenol) of the initial acidity/basicity of the polymerization medium" *Journal of Macromolecular Science, Part B Physics* 49, (2010), 669-679.
9. P. Kar, N.C. Pradhan, B. Adhikari, "Doping of processable conducting poly(m-aminophenol) with silver nanoparticles" *Polymer Advanced Technologies* (in press) October 2009, DOI: 10.1002/pat.1622.
10. P. Kar, N.C. Pradhan, B. Adhikari, "Induced doping by sodium ion in poly(m-aminophenol) through the functional groups" *Synthetic Metals*, 160 (2010), 1524-1529.
11. Anu Anna Abraham, A. K. Sen. "Thermal and Swelling studies of hydrophobically modified polyacrylamide hydrogels" *Journal of Applied Polymer Science*, 117 (5), (2010), 2795 – 2802.
12. A.K. Sen, Sandeep Kumar. "Coir – fiber based fire retardant nano filler for epoxy composites" *Journal of Thermal Analysis and Calorimetry*, 101(1), (2010), 265 – 271.
13. Gautam Sarkhel, Ashwini B. "High density polyethylene-ethylene propylene rubber based thermoplastic elastomer: mechanical modeling, thermal and rheological study" *Polymer- Plastics Technology and Engineering* (in press), March 2010 (Accepted date), Paper no: LTPE-2009-0534.
14. Gautam Sarkhel, S.K.Manjhi "Effect of Maleic Anhydride grafted EPDM on the properties of kaolin reinforced EPDM rubber" *Journal of Applied Polymer Science*, (in press), May 2010 (Accepted date), Paper no: APP2009-12-3925.R2, DOI-33017.
15. S. Goswami and S.K.Manjhi, "Sequential Interpenetrating Polymer Networks of Novolac Resin and Poly (2-ethyl hexyl acrylate) thermal, mechanical and morphological studies", *Journal of Applied Polymer Science*, March 2010 (Accepted date), Paper No: APP-2010-03-0905.

Proceedings:

National

1. S. S. Mahapatra, A. Dutta, J. Datta, "Temperature dependence on methanol oxidation and format production on pd-modified pt electrode: A direct alcohol fuel cell in alkaline medium", *International Symposium & Exhibition on fuel Cell Technologies, FUCETECH 2009, Mumbai. Nov 11-13, 2009.*
2. Dutta, S. S. Mahapatra, J. Datta, "High performance of PtPdAu nanocatalyst for ethanol oxidation in alkaline medium", *International Symposium & Exhibition on fuel Cell Technologies, FUCETECH 2009, Mumbai. Nov 11-13, 2009.*
3. S.K.J.Rahaman, M.Mukherjee, G.Sarkhel, "Effect of degree of sulfonation on dynamic-mechanical and proton conducting properties of poly(ether sulfone) for fuel cell application", *International Symposium & Exhibition on fuel Cell Technologies, FUCETECH 2009, Mumbai. Nov 11-13, 2009.*
4. S. Goswami "Sequential Interpenetrating Polymer Networks of Novolac Resin and Poly (2-ethyl hexyl acrylate) thermal, mechanical and morphological studies", *Polymer Congress, APA – 2009 on Polymer Science & Technology: Vision & Scenario, New Delhi, Dec 17 – 20th, 2009.*
5. K. Sen and Shekhar Suman presented a paper on "Modification of coir fiber and its evaluation for air cooler application" at *International symposium Research & Development on coir in the next decade at CCRI, Kerala. Feb 4 – 5th, 2010.*

6. Randheer Kumar and A. K. Sen presented a paper on "Heavy metals in colored Plastics" at International conference on Advancements in Polymeric materials held at CIPET, Bhubaneswar. Feb 20 – 22, 2010.
7. A.K.Sen delivered lecture at short term courses on Alternative engineering Materials & Fuels (09-MAMF-01) organized at IRIMEE, Jamalpur 8-9th March 2010 on the topic "Nanotechnology in Composites in relation to Railway applications".
8. A.K.Sen was invited as Co-chairperson in PHARMACON 2010 of Eastern Regional Conference of Indian Pharmacological Society held at BIT Mesra, Ranchi on 9-10th April 2010.

Books/Monograph

- K. Kumar and Sudeepan. J, Training manual on "AUTOCAD Training Manual" for Short term training courses.
- K. Kumar and Sudeepan. J, Training manual on "CATIA Training Manual" for Short term training courses.
- K. Kumar and Sudeepan. J, Training manual on "ANSYS Training Manual" for Short term training courses.
- K. Kumar and Sudeepan. J, Training manual on "PRO - E Training Manual" for Short term training courses.

MoUs / Collaborations

Faculty of the Department of Polymer Engineering participated in the ongoing collaborations under MOU are with Coir Board of India, University of Houston Dual Degree Programme, UTRC US, Amiantit Oman, and Harvey Mudd College.

Departmental Students' Activities

S. No.	Name of the Activity	Students' co ordinator, if any	Date/Duration
1.	Research Assistantship in Project "Plastics waste Gasification and Pyrolysis" at Petroleum Institute, Abu Dhabi, UAE	Mr. Brajesh Mishra	19th June to 14th July 2009
2.	1st prize in Golden Jubilee National Essay competition – 2009, held at Rubber Technology Centre, IIT, Kharagpur.	Ms Siddhi Gupta (RS)	Nov, 6-7, 2009
3.	Prof. Shankar Lal Memorial National Seminar Competition held at Rubber Technology Centre, IIT, Kharagpur.	Mr Abhishek Bhusan, VII Semester	Nov, 6-7, 2009
4.	1st prize in Charles Good year Memorial National Quiz competition – 2009, held at Rubber Technology Centre, IIT, Kharagpur	Mr Ashish Modi(VIII Sem), and Ms Asmita Dey(VI Sem)	Nov, 6-7, 2009
5.	Presented paper at International Conference at CIPET Bhubaneswar	Mr Randheer Kumar(VII Sem)	Feb, 20 -22, 2010
6.	Institute Sports Captain and Best Athletes at Annual Athletic Meet	Mukul John Ekka(VII Sem)	2009-10

- Students fared very well in GATE Examination. Eight students qualified GATE examination.
- Outgoing students were placed in various companies like ApolloTyres, TCS, Seigwerk, IOCL, Haldia Petrochemicals and Birla Tyres. One Student joined Masters programmes in IIT Kharagpur.
- Students undertook Summer Training at Haldia Petrochemicals, Reliance Petrochemicals, IOCL, Birla Tyres, NEERI, IRMA, Uflex Ltd.

Members on Board of Studies (UG/PG)

Board of Studies

Undergraduate

Chairman : Dr. (Mrs.) M. Mukherjee, Head Dept. of Polymer Engg
Dr. G. Sarkhel
Dr. (Mrs.) S. Goswami
Dr. A. K. Sen
Prof Ashok Misra
Prof Usha Jha

Panel of expert from outside the Institute

1. **Prof. A. K. Ghosh**
Centre for Polymer Science and Engineering, IIT, Delhi,
2. **Prof. N. Bhatnagar**
Dept. of Mechanical Engg, IIT, Delhi,
3. **Prof. P. Sarkar**
Dept. of Polymer Sc. And Tech, University of Kolkata
4. **Prof. Parthapratim Gupta**
Dean, Research and Consultancy,
Department of Chemical Engg, NIT Durgapur

Post-Graduate :

Chairman: : Dr. (Mrs.) M. Mukherjee, Head Dept. of Polymer Engg
Dr. G. Sarkhel
Dr. (Mrs.) S. Goswami
Dr. A. K. Sen
Prof Ashok Misra
Prof Usha Jha

Panel of expert from outside the Institute

1. **Prof. B. Adhikari**
Material Science Centre, IIT, Kharagpur
2. **Prof. N. C. Pradhan**
Chemical Engineering Department, IIT, Kharagpur
3. **Prof. A. Banthia**
Material Science Centre, IIT, Kharagpur

4. **Dr. D. D. Kale**
Relience Industries Ltd.
5. **Dr. S. K. Nayak**
Director General, CIPET, Chennai

Any Other Information

Industry Institute Collaboration and Consultancy:

- Dr Mukherjee and Mr. Kaushik Kumar were invited by Amiantit Oman, Sultanate of Oman for a consultancy work – “Analysis of Failure of HDPE Manhole”.
- Testing work was conducted for : Minor Irrigation Quality Control Division (Ranchi, Bokaro, Latehar, Gumla, Giridhi), LPG Project (Jamshedpur), Polytex (Bokaro).
- Discussion ongoing for collaborative research with the following organizations:
 - DRDL Hyderabad – Composites for aerospace application
 - Shalimar Paints - Self Cleaning paints
 - Polyplex Corporation Ltd. , Biodegradable and Compostable plastics
- Department has designed a programme B.Tech (Polymer and Petrochemicals) to be conducted in part time basis at BIT Muscat Campus for Industry personnel. Dr Mukherjee was invited by Amiantit Oman for discussion regarding this new programme as well as ongoing Industry Integrated Training Programmes.

Collaboration with other Departments:

- Chemical Engineering Faculty, Mrs Debashree Ghosh and Mr. S. Jana were invited to take classes in Departments of Bio-Technology, Space Engg and Rocketry, Production Engg, Mechanical Engg, Food Technology, Pharmaceutical Sciences,
- Mechanical Engineering Faculty Mr Kaushik Kumar has taken classes for Production Engg, and Management.
- Laboratory classes were taken by faculty for students of Mechanical Engineering, Production Engineering, University Polytechnic, Environmental Science and Engineering and Applied Physics.
- Faculty members are involved in collaborative Research/projects with faculty of – Biotechnology, Pharmaceutical Sciences, Applied Chemistry etc.
- Prof. B.K.Shah, Department of Chemical Engineering, BIT Sindri, was invited as visiting faculty for course Polymer Reaction Engineering.
- Dr Akhil K. Sen is responsible for management of the Central Instrumentation Facility of the Institute
- Prof M.Mukherjee, Prof and Head Department, and Dean Development, is the coordinator for the World Bank Funded Projects TEQIP.
- Dr Jayant K. Singh, Assistant Professor, Department of Chemical Engineering IIT Kanpur visited the Department and delivered a talk on “Fluid near Surfaces” on 29th Jan. 2010.

Following Faculty members were involved in Institute Projects:

- Dr, S.S. Mahapatra – Water Treatment by ElectroCoagulation
- Mrs. D. Ghosh – Water Treatment by Sonoluminescence
- Dr Kaushik Kumar – Mobile MicroUtility, Wind Turbine Power Generation and Run of the River Power Generation.
- Dr M.Mukherjee – Direct Contact Membrane Distillation in collaboration with United Technology Research Centre, US.
- Prof M.Mukherjee and Mr. K.Kumar were involved in coordination of Summer Programme of Harvey Mudd Global Clinic Project on “Low cost Solar Energy Storage for Rural India”, held from 17th May to 5th June 2010.
- Department of Polymer Engineering is a member Department offering interdisciplinary programme M.Tech (Nano Technology) from this academic year.
- Ph.D. under Joint Guidance are ongoing with Dr M.K.Banerjee, NIT Jamshedpur, Dr. Arvind Sinha scientist ‘E’, NML Jamshedpur, and Prof.Gurmeet Singh Department dept. of Chemistry Delhi University.

Department of Production Engineering



FMS Laboratory

Since its inception in 1964, the Department of Production Engineering has been imparting quality education to under graduate and post graduate students by training them to meet the demands of the manufacturing industry. The Department has established links with the industry, R&D organizations, consultancy organizations and academic institutes of the nearby area in furtherance of the cause of manufacturing engineering. The Department sees itself as the pathfinder of emerging technologies and techniques in the area of production engineering, develops students to be

technologically and managerially sound to meet the challenges of the rapidly changing manufacturing scenario.

The major long- range goal of the Department is to develop itself as a centre of excellence in teaching, consultancy and research in various aspects of Production Engineering. An increasing number of institute-industry collaborations are shaping through sandwich training programmes, short term courses, workshops, and live projects for UG, PG and Doctor Level. In this respect, the Department has been able to establish well-equipped laboratories, upgrades the syllabi on regular basis and carries out its teaching and academic programme through its qualified and experienced faculty and visiting professors. Both our graduates and post-graduates have been doing well in industry and other Universities of higher learning in India and abroad.

Sponsored Project

Ongoing Projects

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Creating infrastructural facilities for training and research in precision forming.	Dr. B.K. Singh	UGC (SAP)	1.04.07	(32+20) lakhs	5 years
2.	Enhancing productivity and competitiveness of brassware manufacturing units of Jharkhand	Dr. S.K. Jha	Ministry of MSME Gov. of India	2008	3.4 lakhs	1 year

Projects Completed

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1.	Deformation and Fracturing Behaviour of Metallic Foams	Dr. S.Kumar / Dr. Vinay Sharma	AICTE (NCP)	2006	20 lakhs	2010

Seminar / Conferences / Short – term Courses Conducted by the Department

Sl. No.	Title of Seminar / Conferences / Short – term Courses	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1.	Third National workshop on Precision Forming: Modeling, analysis and system development	Dr. S. Kumar	UGC	Organized by Department of Production Engineering, B.I.T Mesra, Ranchi, 15 th -16 th Feb -2010.

Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Month Date, Year
1.	Rajeev Agarwal	25 th National Convention of Mechanical Engineers	Institution of Engineers	IEI Delhi State Center	New Delhi	6-7 Nov 2009
2.	S.K. Jha L.N. Pattanaik	3 rd National workshop on Precision Forming: Modeling, analysis and system development	UGC	Department of Production Engineering, B.I.T Mesra	Ranchi	15 th -16 th Feb -2010.

Publications**International Journals**

1. Ashish Jagani, Vijay Pandey, Evaluation of Circle Fitting Algorithm for Coordinate Measuring Machine, International Journal of Mechanical Engineering, July-December 2009, Volume 2, Issue 2, Serial Publications, New Delhi.
2. Pattanaik, L. N., Kumar, V., (2009), Multiple levels of reconfiguration for robust cells formed using modular machines, International Journal of Industrial and Systems Engineering (Inderscience Publishers), Vol 5, No. 4, pp-424-441.
3. Rajeev Agrawal, S.K. Shukla, S. Kumar, M.K. Tiwari, Multi-Agent system for distributed computer aided process planning problem in e-manufacturing environment, International Journal of Advance Manufacturing Technology, Springer vol44, issue 5, page 579-594, 2009
4. Pathak P, Jha. Sanjay Kumar, Singh A P, Tribological Approach for Improvement in Surface Quality of Hot and Cold Rolled Steel Strips, International Journal of Manufacturing Technology & Research, Vol. 5, No.1-2, Jan-Jun 2009.

National Journals

1. Vijay Pandey, Ashish Jagani, Dimensional Measurement Verification of CMM Software Using Matlab Code, Journal of SCI-TECH Research - Volume 1, Issue 1, ISSN: 0974-9780, Jan-Jun 2009.
2. S.Chattopadhyaya, P. Sehgal, Vinay Sharma, Aniruddha Ghosh, A Critical Linguistic Assessment of the Process Parameters on The Relative Ranks of the Yield Parameters for Nd: Yag Laser Drilling, Indian Welding Journal, October, 2009, PP, 21-25.
3. Sanjeev Kumar, S. Chattopadhyaya, Vinay Sharma, Green Manufacturing: Green Value Chain Practices for the Indian Enterprises, ISST journal of Mechanical Engineering, Vol. 1 Jan-June 2010

Proceedings

International Proceedings

1. Vijay Pandey, Ashish Jagani, Evaluation of Circle Fitting Algorithm for Coordinate Measuring Machine, Proceeding of Indo-German Conference on PDE, Scientific Computing and Optimization in Applications (supported by INSA-DFG, CSIR & DST), Department of Mathematics & Statistics, IIT, Kanpur, October 7-9, 2009.
2. Sanjeev Kumar, Somnath Chattopadhyaya, Vinay Sharma, Approach of Green Supply Chain Management for Indian Enterprises, , 5th SIMSR-ASIA Marketing Conference at SIMSR (K.J. Somaiya Institute of Management Studies and Research), Mumbai India, 2nd - 3rd January 2010.

National Proceedings

1. Rajeev Agrawal, S. Kumar, Advanced Planning And Scheduling System In Rolling Mill Industries, 25th National Convention of Mechanical Engineers, 6-7 November 2009, IEI Delhi State Center, New Delhi.
2. Pathak P, Jha. Sanjay Kumar, Singh A P, Rai D, Improvement in rolling rate of thin gauge steel strips at a tandem cold mill, CD Proceeding of 3rd National workshop on Precision Forming: Modeling, analysis and system development, B.I.T Mesra, Ranchi, 15th -16th Feb -2010.
3. Pattanaik, L. N., Applications of Soft Computing Tools in Metal Forming - A Review, Proceedings 3rd National Workshop on Precision Forming: (Modeling, Analysis & System Development), 15th and 16th February, 2010.
4. Sanjeev Kumar, Somnath Chattopadhyaya, Vinay Sharma, Supply Chain Management: a semiotics Approach, National Conference on Techno-Lingual Communication, Sunderdeep Engineering College Gaziabad, UP, 27 March 2010
5. Sanjeev Kumar, Somnath Chattopadhyaya, Vinay Sharma, Approach to lean and Green supply chain system: a case study, Managerial Challenges of 21st Century in corporate world, BIT Noida Campus,UP, 12-13 February 2010.

Members on Board of Studies (UG/PG)

1. Head of the Production Engineering Department-Chairman
2. Dr. B.K.Singh
3. Dr. Vinay Sharma, Associate Professor
4. Dr. J.K. Prasad, Professor, Department of SE & R
5. Dr. Ashok Mishra, Head, Mechanical Engineering Department

External

1. Dr. A.K. Jha, Professor, Mechanical Engineering Department, IT, BHU, Varanasi
2. Dr. Raghuvir Kumar, Professor, Mechanical Engineering Department, MNNIT, Allahabad

Department of Remote Sensing



Global Positioning System

The world is being scanned continuously by highly sophisticated Earth Resources Satellites like IRS (India), LANDSAT (USA), SPOT, (France), ERS (ESA), RADARSAT (Canada), IKONOS and Quickbird etc. Availability of repetitive remote sensing (RS) data in digital and pictorial forms has increased the scope of identifying, mapping, monitoring, classifying and evaluating different forms of renewable and non-renewable earth resources using multi-spectral, multi scanner and multi-temporal RS data products. The benefits of space technology, both direct and indirect, have introduced new dimensions into the study and understanding of Earth's processes and in improving the quality of life for the people living on it.

The application of Remote Sensing techniques, Geographic Information System (GIS) and Global Positioning System (GPS) in various activities including resources evaluation, environmental monitoring and land use/ land cover mapping etc, has grown considerably during the last three decades and RS data products are being increasingly used for plan formulation at all levels.

An essential pre-requisite to partaking in these opportunities is the building of various indigenous capacities for the development and utilization of space science and technology. This has led to a spurt in the demand for qualified manpower. Keeping this in view the Department of Remote Sensing was established at the Institute in 1997.

The Department has set up various laboratories to provide hands-on training to its postgraduate students such as for Digital Image Processing, GIS, GPS and Satellite Navigation, Photogrammetry and Digital Photogrammetry, Cartography & Image Interpretation. Forty-five Pentium-4 computers, workstations, server have been installed. The Department has procured and installed Magellan ProMark V Global Positioning system (GPS), LEICA DGPS, Umax Scanner, Widecom Scanner A0, HP A1 Printer, HP A0 Plotter, Procom-2 Optical Pantograph, Mirror Stereoscopes, GTR, etc. The Department has also procured latest software for GIS, Cartography and Digital Image Processing such as ArcGis, ERDAS Imagine, ERDAS Virtual GIS, LEICA Photogrammetry Suit, PCI Geomatica, Image Analyst, Modular GIS Environment (MGE), IIRAS, ENVI IDL, Geomedia Professional, Geomedia Intersite Interplot Professional, Microstation SE, Oracle 8.0, etc.

The Department of Remote Sensing is now DST-FIST sponsored and UGC SAP supported Department. The Department of Science of Technology, of the Govt. of India has identified the Department to establish the district NRDMS Center. The Department is also engaged in various R & D Project and consultancy jobs from ISRO, DOS, Government Organisations and other agencies.

Sponsored Project

Project Sanctioned

Sl. No.	Project Title	PI / Co- PI / Collaborator, if any	Funding Agency	Date of Sanctioned	Sanctioned Amount	Duration of the project
1.	ALOS-RA: COSMO Skymed A.O. Polarimetric, Radargrammetric, Interferometric and Differential Interferometric study.	Dr. M. S. Nathawat Dr. L. K. Sharma	Space Applications Centre, (ISRO), Dept. of Space, Govt. of India, Ahmedabad	April 2010	6.00 lakhs	2 Years

2.	Development of forest fire management system for Shimla forest division in Himachal Pradesh (India) using Geospatial Information System	Dr. L. K. Sharma	MoEF, GOI	April 2010	17.83 lakhs	3 Years
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Ongoing Project

Sl. No.	Project Title	PI / Co-PI / Collaborator, if any	Funding Agency	Date of Sanctioned	Sanctioned Amount	Duration of the project
1.	Land & Water Audit in Jharkhand State using Geoinformatics	Dr. M.S. Nathawat Dr. A. C. Pandey	SAP UGC	Feb 2007	36 Lakhs	5 Years
2.	FIST Project	Dr. M.S. Nathawat	DST, GoI	May 2006	38 Lakhs	5 Years
3.	Development of Forest Fire Forecasting System using statistical models and GIS	Dr. Manish Trivedi and Dr. A. C. Pandey	DST, GoI, New Delhi	Sep 2007	22.00 Lakhs	3 Years
4.	ALOS-RA: Evaluation of Polarimetric, Interferometric and Differential Interferometric Techniques for vegetation and land subsidence study	Dr. M. S. Nathawat Dr. V. S. Rathore Dr. L. K. Sharma	Space Applications Centre, (ISRO), Dept. of Space, Govt. of India, Ahmedabad	Jan 2009	3.90 Lakhs	2 year
5.	ALOS-RA: Evaluation of Polarimetric, Interferometric and Differential Interferometric Techniques for subsurface features of parts of Desertic Rajasthan	B. K. Singh	Space Applications Centre, (ISRO), Dept. of Space, Govt. of India, Ahmedabad	Dec 2009	7.00 Lakhs	2 year

Project Completed

Sl. No.	Project Title	PI / Co-PI / Collaborator, if any	Funding Agency	Date of Sanctioned	Sanctioned Amount	Duration of the project
1.	Glacial Retreat and Mass Balance studies in Zaskar Valley, J&K Himalayas.	Dr. M.S. Nathawat, Dr. A. C. Pandey	SAC Ahmedabad	July 2008	₹ 33.80 Lakhs	2 Years

2.	Wasteland Mapping in Bihar State using three season satellite data	Dr. M S Nathawat, Dr. V. S Rathore Dr. A. C. Pandey	NRSC, DoS	Nov 2006	₹ 6.75 Lakhs	2 Years
3.	NUIS Thematic Mapping of five districts of Bihar	Dr. M. S. Nathawat, Dr. V. S. Rathore	NRSC, DoS	July 2008	₹ 26.90 Lakhs	2 Years

Seminar / Conferences / Short –term Courses Conducted by Department

Sl. No	Title of Seminar /Conferences / Short –term Courses	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1.	EDUSAT - Certificate course in RS & GIS	Dr. M. S. Nathawat	NNRMS, DoS, Gol	Aug 2009 to Nov 2009

Publications

International Journals

1. A.C. Pandey, Suraj Kumar Singh, M.S. Nathawat. Waterlogging and flood hazards vulnerability and risk assessment in Indo-Gangetic plain, Natural Hazards, DOI 10.1007/s11069-010-9525-6, (2010).
2. Avishek K., Pathak G., Nathawat M.S., Jha U. and Kumari N. "Water Quality Assessment of Majhiaon block of Garwa district in Jharkhand with special focus on fluoride analysis" Springer, online published. 2009 DOI 10.1007/s10661-009-1077-4, pp 617-623 www.springerlink.com/index/h021j16u55425885.pdf
3. Nathawat, M.S, Rathore, V.S. and Sarkar Amrita Innovative approach towards creation of thematic maps for Urban Information System a study of Patna City India. ABACUS, vol.4 (2), pp. 53-59 2009
4. M. Kumar, A. Kumar, N.C. Mahanti, C. Mallik, R. K. Shukla. Surface flux modeling using ARIMA technique in humid subtropical monsoon region in India. J. of Atmospheric and Solar Terrestrial Physics, Vol-71(2009), pp.-1293-1298.
5. R. K. Shukla and S. Chakraborty. On an ethical use of neural network: A case study of north Indian Raga. Annals Computer Science Series, Vol-VII (2009), fasc.-2-2009.
6. R. K. Shukla, M. Trivedi, M. Kumar. On the proficient use of GEV distribution: A case study of subtropical monsoon region in India. Annals Computer Science Series. Vol- VIII(2010), fasc.- I-2010.
7. R. K. Shukla, M. Trivedi, M. Kumar. Stochastic modeling for rainfall in humid subtropical monsoon region in India. InterStat. Vol- August (2009).
8. S. Chakraborty, R. K. Shukla, K. Krishnapriya, Loveleen, S. Chauhan, M. Kumari, S. S. Solanki. Statistical Analysis of raga based songs. Georgian Electronic J. of Musicology and Cultural Science, Vol-2(4), 2009.

National Journals

1. P.K. Rai, M.S. Nathawat, A.C. Pandey, K.N. Prudhvi Raju. Morphometric characteristics of Glacier of glaciers in Doda valley, Zaskar basin, J&K. Trans. Inst. Indian Geographers, vol. 31, No. 2 (2009).
2. S. Chakraborty and R. K. Shukla. Raga Malkauns revisited with special emphasis on modeling. J. of Sangeet Research Academy, Vol-23 (2009), pp-13-21.

3. Sharma, L.K., Nathawat, M.S. and Mishra, M. Assessment of tree volume and growing stock in Kharagpur forest range of Bhimbandh Wildlife Sanctuary in Bihar—An integrated geospatial approach. *Journal of Nature, Environment and Pollution Technology*. Vol. 8 (03):, 2009, pp- 619-626.
4. Rai P.K., Nathawat M.S. and A. Nikhil (2008). "Temporal behavior of waterlogged area using multi temporal satellite data". *The Deccan Geographer*, Vol.46 (2):67-74

Proceedings:

International

1. Mohanata, D.K., Singh, M., Jha, R.C., Nathawat, M.S. and Rathore, V.S. 2010. Electrical Consumer Indexing Incorporating Geographical Information System (GIS). *International Conference on Recent Trends in Information, Telecommunication and Computing*, Kochi, Kerala, India DOI 10.1109/itc.2010.99 pp 257-261
2. S. Chakraborty, R. K. Shukla, M. Kumari, K. Krishnapriya, S. Chauhan, Loveleen, S. S. Solanki, K. Mahto. A statistical analysis of raga BAGESHREE. *Proceeding of international symposium on "Frontiers of research on speech and music-FRSM_2009"*. December, 15-16, 2009, Venue- ABV Indian Institute of Information Technology & Management, Gwalior.
3. Mili Ghosh Lala, S.K Ghosh, "Normative Analysis for Educational Infrastructure Planning in Rural area", *Proceedings of International Conference on Infrastructure Finance (ICIF-2010)*, IIT, Kharagpur. June 3-5, 2010.
4. Krishna, A. P. "International Experts Workshop on Emerging Issues in Climate Change: State of Tropospheric Temperature, Pollution, Snow, Melting Glaciers and Potential Impact on Monsoon and High Altitude Vegetation in the Himalayas-Tibetan Plateau (UNEP sponsored)" and made presentation entitled 'Monitoring of snow and glacier cover for possible inferences on climate change impacts', December 28-29, 2009 at TERI University, New Delhi.
5. Pandey, A. C. "Conflicting signals of glacier response to climate warming in Great Himalayan Range (GHR), Jammu & Kashmir, INDIA" in *International Expert Workshop*, December 28-29, 2009, TERI University, New Delhi.

National

1. Nathawat, M.S. (2010). Geospatial approach to identify the linkages between landuse changes, land Degradation and Biodiversity. In national seminar on Biodiversity conservation with special reference to Indian desert organized by Indian human ecological council, Jaipur (IHEC), in association with Department of Geography, University of Rajasthan, Jaipur on 5-6th June, 2010.
2. Kumar, P., Sharma, L.K. and Nathawat, M.S. (2010). Assessment of carbon pool in Sariska National Park of Rajasthan (INDIA) using Geospatial approach. In national seminar on Biodiversity conservation with special reference to Indian desert organized by Indian human ecological council, Jaipur (IHEC), in association with Department of Geography, University of Rajasthan, Jaipur on 5-6th June, 2010.
3. Sharma, L.K. and Nathawat, M.S. (2010). Geospatial approach for conservation and management of biological diversity with special reference to Indian desert. In national seminar on Biodiversity conservation with special reference to Indian desert organized by Indian human ecological council, Jaipur (IHEC), in association with Department of Geography, University of Rajasthan, Jaipur on 5-6th June, 2010.

4. Sinha, S., Sharma, L.K. and Nathawat, M.S. (2009). Geospatial technology for allocation of suitable sites for relocation of tigers in Sariska National Park (INDIA). In national seminar on Biodiversity conservation with special reference to Indian desert organized by Indian human ecological council, Jaipur (IHEC), in association with Department of Geography, University of Rajasthan, Jaipur on 5-6th June, 2010.

Attended

1. Ghosh, Milli. (2010) International Conference on Infrastructure Finance(ICIF-2010),organized by Vinod Gupta School of Management & RCG School of Infrastructure Design and Management ,IIT Kharagpur (03-05 June,2010).
2. Singh, B. K. "RISAT-UP Radar Remote Sensing and Applications" conducted by Space Applications Centre, (ISRO), Dept. of Space, Govt. of India, Ahmedabad from 15th – 26th February, 2010.
3. Singh, B. K., "Evaluation of L- band polarimetric SAR data covering parts of Nagaur district, Rajasthan; Advanced Techniques Development Division (ATDD), Geo-Informatics and Techniques Development Group (GTDD), Space Applications Centre, ISRO, Ahmedabad-380015, * B. I.T. Extension Centre, Jaipur-302017 – Conference GEOMATICS 2010 held at SAC, Ahmedabad.

Award / Recognition Bestowed on Faculties (State / National / International)

Sl. No	Name of the Faculty	Title of Award/ Honours	Organisation	Year/ Duration
1.	Dr. M. S. Nathawat	Baden-Wuerttemberg Fellowship-2009 (Under Indo-German Cultural Exchange Programme)	UGC Delhi	Nov 2009 – Feb 2010
2.	Dr. A. P. Krishna	Adjudication Committee Member, 'Partnership Development Seed Grant (PDSG)' of SICI-CIDA/University of Calgary, Canada for Indo-Canadian Bi-lateral Academic/Research Projects	University of Calgary, Canada	2009-2011
3.	Dr. A. P. Krishna	Editorial Advisory Board Member, The Open Hydrology Journal (ISSN: 1874-3781),	Bentham Open Publishers, UK	

Member on Board of Studies:

1. Dr. M. S. Nathawat
Professor
Head & Chairman
2. Dr. N. Patel
Professor
Member
3. Dr. A. C. Pandey
Reader
Member
4. Dr. V. S. Rathore
Assistant Professor
Member
5. Prof. Gopal Pathak
Professor, Civil Engineering
Member
6. Prof. N. C. Mohanty
Professor, Applied Mathematics
Member

Four External Experts (Because it is a multidisciplinary course)

1. **Dr. George Joseph**
Director, CSSTEAP
IIRS Campus, 4, Kalidas Road,
Dehradun 248001, INDIA
2. **Dr. J.K. Garg**
Professor & Dean
School of Environment Management
Guru Gobind Singh Indraprastha University,
Kashmere Gate, Delhi – 110 403
3. **Dr. J. R. Sharma**
Head, Regional Remote Sensing Service Center
Department of Space, Govt.
CAZRI Campus, Jodhpur 342003,
4. **Prof. S. Sengupta**
Advisor,
Department of Science and Technology,
Govt. of West Bengal, 4th Floor, Bikash Bhawan,
Salt Lake, Kolkata – 700 091

Department of Space Engineering & Rocketry

The Department introduced two- year Post Graduate Degree Programme in 1968, leading to M. E. in Space Engg. and Rocketry with two specializations, namely Aerodynamics and Rocket Propulsion. In the year 2002, another Post Graduate Programme was introduced, leading to M. Tech. in Fuels and Combustion.

The Department has its own administrative building, having Class Rooms and Seminar Halls, besides various Laboratories, which are housed in separate buildings around the main Administrative Building.

The various Divisions under the Department are:

- Aerodynamics Division
- Rocket Propulsion Division
- Propellant Technology Division
- Combustion Division



Aerodynamic Laboratory

The Department has endeavored to develop a state- of- art infrastructure to train post graduate students and to support R & D work for Doctoral and Post- Doctoral levels, as also to carry out Grant- in- Aid Projects, sponsored by various Agencies.

The Department has taken up sponsored R & D Projects from premier Agencies, like UGC, AICTE, DST, Ministry of HRD, ISRO, DRDO, AR & DB (Min of Defence), etc. It has successfully completed as many as 35 Projects and another 6 are currently under progress. The Department has also been recognized under Special Assistance Programme of UGC and has been working on development of a Cryogenic and Cryo- Hybrid Rocket Propulsion System. The Department has also got support from DST under FIST to augment Propellant Technology and Combustion Facility.

The notable current research activities of the Department include:

1. Development of Reaction Control System using Gelled UDMH & RFNA
2. Development of Cryogenic Propulsion System
3. Combustion Studies on Eco-friendly Composite Solid Propellants
4. Droplet Combustion Studies on Selected Fuels
5. Development of Flight Hybrid Propulsion Systems
6. Investigation of Flow Field around Protrusions and Fins at Supersonic Speeds.
7. Investigation of Flow Field around Slender Bodies at High angles of Attack.
8. CFD Studies of Subsonic/Supersonic Flow Field around Protrusions, Slender Bodies and Intakes.
9. Software Development for 2- D Incompressible Flow Studies.
10. Development of Cro- Hybrid Rocket Propulsion System.

Sponsored Project**Project Sanctioned**

S.N.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount (in lakhs)	Duration of the Project
1.	Augmentation of Supersonic Tunnel	Dr. J. K. Prasad Prof. Sudip Das Prof. Priyank Kumar	AR&DB Ministry of Defence	4. 6. 2009	19.38	3 years
2.	Axial Force Measurement Cone with Spike at Supersonic Speed	Dr. J. K. Prasad	DRDL Ministry of Defence	8. 12. 2009	10.80	1 years
3.	Investigation of Flow Field around Double Delta Wing at Subsonic Speed	Dr. J. K. Prasad Prof. Priyank Kumar Prof. Sudip Das	CSIR, New Delhi	10.11.2009	7.51	3 years

Ongoing Projects

S.N.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount (in lakhs)	Duration of the Project
1.	Propellant Technology and Combustion Facility	Dr. A. K. Chatterjee Dr. Mohan Varma	DST (FIST)	2005	25.00	5 years
2.	Development of Cryo - Hybrid Rocket Propulsion	Dr. A. K. Chatterjee Dr. P. C. Joshi	UGC (SAP - II)	2007	49.00	5 years
3.	Measurement of Unsteady Pressures in the Region of Body-Fence Junction at Supersonic Speed	Dr. J. K. Prasad	Min. of Defence DRDL	2007	7.18	2 years

Projects Completed

S.N.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount (in lakhs)	Date of completion of the Project
1.	Investigation of Flow Field Interaction around Protrusions at Supersonic speeds	Dr. J. K. Prasad Shri Sudip Das	ISRO (RESPOND)	2004	9.30	Nov 2009

Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

Sl. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Month Date, Year
1.	Dr. A. K. Chatterjee	23 rd National Convention of Aerospace Engineers & National Seminar on "Infrastructure Development for Growth of Civil Aviation and Aerospace Technology in India"	IEI	IEI, Karnataka State Centre	Bangalore	Nov 26-2, 2009
2.	Dr. J. K. Prasad	36 th National Conference on Fluid Mechanics and Fluid Power	FMFP Society	College of Engineering Pune	Pune	Dec 17-19, 2009

Publications:**International Journal**

1. S. Das, J. K. Prasad, Starting Characteristics of a Rectangular Supersonic Air- Intake with Cowl Deflection, The Aeronautical Journal, 114 (2010) 177-189.
2. Mohan Varma and Roland Pein, "Optimization of Processing condition for Gel Propellant Production", International Journal of Energetic Materials and Chemical Propulsion", Vol. 8, (6) 2009, pp. 501-513.

National Journal

1. S. Das, J. K. Prasad, Unstart Suppression and Performance Analysis of Supersonic Air- Intake Adopting Bleed and Cowl Bending, Journal of Institution of Engineers (India), 91 (2010) 27-35.

Proceedings:**International**

1. S. R. Nagaraja, S. G. Rakesh, G. Jagadeesh, P. K. Barhai, J. K. Prasad, Studies on formation of metal foils for bio medical application of shock waves, 27th International Symposium on Shock Waves, Russia, July 2009.
2. Lovely Mallick, Mohan Varma, Laser Induced Ignition of Virgin, Metalized and Catalyzed HTPB-AP Composite Solid Propellants, 7th International High Energy Materials Conference and Exhibits, Pune, Dec. 08 – 10, 2009.
3. J. Sreenivasulu, S. K. Epuri, P. Kumar, S. Das, J. K. Prasad, Experimental and Computational Studies over a Blunt Double Delta wing, Symposium on Applied Aerodynamics and Design of Aerospace Vehicle (SAROD 2009), Bangalore, December 10 – 12, 2009.
4. S. Das, J. K. Prasad, Unsteadiness in Supersonic Air- Intake at Supercritical Condition, Symposium on Applied Aerodynamics and Design of Aerospace Vehicle (SAROD 2009), Bangalore, December 10 – 12, 2009.
5. M. Ramakrishna, P. Kumar, S. Das, J. K. Prasad, Symposium on Applied Aerodynamics and Design of Aerospace Vehicle (SAROD 2009), Bangalore, December 10 – 12, 2009.

National

1. J. Sreenivasulu, S. Das, P. Kumar, J. K. Prasad, Investigation of Flow Field Over a Blunt Double Delta Wing, 36th National Conference on Fluid Mechanics and Fluid Power, College of Engineering, Pune Dec 17–19, 2009.

2. M. Ramakrishna, P. Kumar, S. Das, J. K. Prasad, Computational and Experimental Studies on Slender Body at Large Angles of Attack, 36th National Conference on Fluid Mechanics and Fluid Power, College of Engineering, Pune Dec 17–19, 2009.
3. S. Das, J. K. Prasad, Studies on Soft Unstart of Supersonic Air- Intake, 36th National Conference on Fluid Mechanics and Fluid Power, College of Engineering, Pune Dec 17–19, 2009.

Award / Recognition Bestowed on Faculties (State / National / International):

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1.	Dr. A. K. Chatterjee	Chairman, Bihar & Jharkhand Section,	ISTE, New Delhi	2009-10
2.	Dr. A. K. Chatterjee	Chairman, Aerospace Engineering Division Board	The Institution of Engineers (India)	2009-10
3.	Dr. Mohan Varma	Member, National Executive Council	High Energy Materials Society of India,	2009-10
4.	Dr. Mohan Varma	Expert Member on DRDO Project Assessment Committee	HEMRL, Pune	2009-10
5.	Dr. J. K. Prasad	Member, Executive Committee,	National Society of Fluid Mechanics Fluid Power	2009-10
6.	Dr. J. K. Prasad	Member of Executive Committee	National Wind Tunnel Society of India	2009-10

Members on Board of Studies (PG)

Internal Members

- Dr. A. K. Chatterjee : Chairman
- Dr. P. C. Joshi : Member
- Dr. Mohan Varma : Member
- Dr. J. K. Prasad : Member
- Dr. Ashok Misra : Member
- Dr. B. K. Singh : Member
- Prof. Sudip Das : Member
- Prof. Priyank Kumar : Member

External Members

- Dr. A. K. Ghosh, IIT, Kharagpur
- Dr. B. Mazumdar, Jadavpur University, Kolkata
- Shri A. K. Chakraborti, DRDL, Hyderabad
- Shri M. C. Dattan, SDSC, Shriharikota, Nellore

Department of Physical Education & Sports



Multi Gymnasium

Department of physical education and sports is well equipped with good facilities for track and field's events, gymnasium, weight training hall, yoga hall, table tennis board in all hostels, badminton (Indoor courts), basketball, football, hockey, kabadi, kho – kho, tennis, handball, cricket ovel etc. of national/ international level. Physical Training and Games is a part of curriculum from 1st to 4th semester. The Department is actively involved in developing/grooming the sportsmanship of the students. The Department is regularly organizing training camp/ course work for various sports / games. Following incentives are given to the students who are proficient in sports:

1. Students representing Institute/University team for any sports activity is provided extra grades in PT & Games.
2. When students represent our Institute/University in other Institutes their total expense, travel, food, uniforms, tracksuits etc. are borne by the Institute.
3. During inter hostel tournaments the participants are provided with nutritious diet as prescribed by sports medical practitioner.
4. Every year the Department organizes events of Association of Indian University. (Inter University Inter zonal) Tournament.
5. Every year the Department organizes East Zone Inter technical Chetan devraj memorial Cricket tournament.

Conferences/Seminars/Workshops/Staff Development Programmes attended

- (a) Mahendra Kumar presented paper in International conference on topic "Application of expert system in Physical Education" from 07.05.2010 to 09.05.2010 organized by Osmania University hydrabad. (AP)
- (b) Sri Mahendra Kumar attended Refresher course in Physical Education from 06.03.2010 to 26.03.2010 conducted by UGC, ASC LNUPE Gwalior. (MP)
- (c) Sri Mahendra Kumar presented paper in national seminar conducted by UGC ASC LNUPE Gwalior from 23.03.2010 to 24.03.2010, on topic "Role of physical education & sports in Socio-political aspect of Indian Society"

Award/Recognition Bestowed on Faculties (State / National / International)

- (a) Dr. Rama Shankar Singh nominated as Vice President of Jharkhand Volleyball Association for the year 2010-11.
- (b) Dr. Rama Shankar Singh was also nominated as Chairman of Youth Hostel Association of India, Ranchi Chapter.

Departmental Students' Activities

- (a) The Department regularly organizes Inter Hostel Tournaments for various games and sports activities.
- (b) Another activity is Annual sports, which the Department organizes, in the last week of January every year.
- (c) Best Physique/Body building competition for Mr. BIT Title which is organized in the month of September.
- (d) Our University/Institute team participates in Inter Technical/ University Tournaments in various games & sports.



Athletic Meet '2010

Biomedical Instrumentation Group



Biopac Instrument in Physiology Laboratory

Application of contemporary technology is quite extensive in Medical electronics, particularly in investigative, diagnostic, surgical and all life saving processes and equipment. Thus, a definite need of the trained workforce is felt in this area by the clinicians and technologists. Anticipating this gap, BIT Mesra started a five semester postgraduate program in Biomedical Instrumentation aiming to impart in-depth knowledge to students with live exposure to the use of sophisticated medical equipment during early 90s. The major objective of the program was to train the personnel to make them apt in Biomedical Instrumentation with all possible applications of

Biomedical Instruments, its technology, its use and intelligent operation to assist physicians and surgeons. This program is conducted in this institute in collaboration with B. M. Birla Heart Research Centre, Kolkata, where one semester course is taught to provide on-hand training. Further, in the fifth semester, students have to take exclusive training in a reputed hospital, medical college or industries engaged in development and manufacturing of the medical equipment to reinforce their practical knowledge. Faculty members of this Department have also started some collaborative research work with Intelligent Systems Research Center, University of Ulster, UK. Faculties of the Department of Biomedical Instrumentation are also involved to continue the ongoing research in the area of Biomedical Signal Processing, Brain-Computer Interface, Biomedical Instrumentation and Medical Modeling. Three research projects funded by AICTE and UGC are currently running in the Department. The Departmental facilities have been further enhanced including the EEG acquisition system, Stereotaxic apparatus, BOD incubator, and complete physiological laboratory system.

Ongoing Projects

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount (Lacs)	Duration of the Project
1	Effects of low energy non- thermal microwave radiations on brain electrophysiology	Dr. B. N. Das Dr. R. K. Sinha	AICTE	April, 2008	7.10	2 years
2	Voluntary event related brain signal classification	Dr. R. K. Sinha Dr. B. N. Das Mr. Y. ggarwal	UGC	May, 2009	11.47	3 years
3	Soft computing and phonocardiogram based automated detection system for diagnosis of heart valve diseases	Dr. R. K. Sinha Mr. Y. Aggarwal	AICTE	May, 2009	6.90	2 years

Publications

International Journals

1. P.K. Upadhyay, R.K. Sinha, B.M. Karan, Identification of stressful events using wavelet transform and multilayer feed-forward network, Caledonian Journal of Engineering. (Accepted).

2. A.K. Keshri, B.N. Das, D.K. Mallick, R.K. Sinha, Parallel algorithm to analyze the brain signals: application on epileptic spikes, *Journal of Medical Systems*. (DOI 10.1007/s10916-009-9345-y).
3. Y. Aggarwal, B.M. Karan, B.N. Das, R.K. Sinha, Mechanistic electronic model to simulate and predict the effect of heat stress on the functional genomics of HO-1 system: Vasodilation, *Computers in Biology and Medicine*. 40(2010) 533-542.
4. P.K. Upadhyay, R.K. Sinha, B.M. Karan, Predicting Heat-Stressed EEG Spectra by Self-Organising Feature Map and Learning Vector Quantizers, *Journal of Biomedical Science and Engineering*. 3(2010) 529-537.
5. P.K. Upadhyay, R.K. Sinha, B.M. Karan, Detection and analysis of the effects of heat stress on EEG using wavelet transform, *Journal of Biomedical Science and Engineering*. 3(2010) 405-414.
6. R.K. Sinha, Analysis of age dependent effects of heat stress on EEG frequency components of rat, *Biomedical and Environmental Science Journal*. 22(2009)141-150.
7. R.K. Sinha, Y. Aggarwal, Neural Network Detects the Effects of p-CPA Pre-treatment on Brain Electrophysiology in a Rat Model of Focal Brain Injury, *Journal of Clinical Monitoring and Computing*. 23(2009) 105-113.
8. A.K. Keshri, R.K. Sinha, R. Hatwal, B.N. Das, Epileptic Spike recognition in Electroencephalogram using Deterministic Finite Automata, *Journal of Medical Systems*. 33(2009) 173-179.

Proceedings

International

1. A. Joshi, T.M. McGinnity, G. Prasad, R.K. Sinha, Computational modelling of depression, UK Neuroinformatics Node Conference, Edinburgh, UK. 1-3 February 2010.
2. S. Shahid, R.K. Sinha, G. Prasad, Mu and beta rhythm modulations in motor imagery related post-stroke EEG: A Study under BCI framework, Nineteenth Annual Computational Neuroscience Meeting CNS*2010, San Antonio, Texas, USA. 24-30 July 2010.
3. S. Shahid, R.K. Sinha, G. Prasad, A bispectrum approach to feature extraction for a motor imagery based brain-computer interfacing system, BCI Meeting 2010, Albany, New York, USA. 30-31 May 2010.
4. S. Shahid, R.K. Sinha, G. Prasad, A Bispectrum based feature extraction technique for devising a practical Brain-Computer Interfacing system, European Signal Processing Conference (EUSIPCO)-2010, Alborg, Denmark. 23-27 August 2010.

Award / Recognition Bestowed on Faculties (State / National / International)

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1	Dr. R. K. Sinha	Leverhulme Trust Visiting Fellowships	Leverhulme Trust, Royal Society, UK	2009-2010 / 1 year

Environmental Science & Engineering Group



Duckweeds

The Environmental Science & Engineering Group (ESEG) was established in the year 2002. It offers a full time 2 years programme in **M-Tech Environmental science & Engineering**. It has good faculty strength with faculties with Ph.D, M-Tech/M.E (Environmental Science & Engineering, Remote Sensing, and Mining Engg.), B.E and M.Sc backgrounds. Few faculties are UGC- NET, ICAR NET and GATE qualified. They have also been involved in formulating syllabuses for diploma in Environmental engineering and M.Sc in Environmental Sciences for other universities. The laboratory assignments are conducted in association with

Department of Applied Chemistry, Department of Remote Sensing, and Department of Polymer Engineering and in CAAD laboratory.

The thrust areas of research are air & water quality, modeling, GIS and ecology. Faculties are also involved in sending research proposals on water treatment, modeling and waste management. The ESEG has submitted various projects to DST (New Delhi), MoEF(New Delhi), DST (Patna and Jharkhand) and UGC(New Delhi) on waste water treatment, Solid waste management and noise pollution.

The students of ESEG are placed off campus in the organizations where they pursue their research thesis. Faculties are involved in identifying suitable organizations for the students on the basis of their interests and choices. Some of our students are employed in organization of national repute like National Physical Laboratory (New Delhi), National Chemical Laboratory (Pune), IIT (Delhi), IIT (Powai), SESA Goa (SESA Groups), Metallurgical Engineering Consultants (MECON, Ranchi) and Tata Consultancy Services (TCS, Hyderabad).

During the next five years, ESEG plans to expand and get established as a Department with its own laboratories. The ESEG is also planning to start an M-Tech Programme on Sustainable Development Engineering.

Publication

International Journals:

1. Kirti Avishek, Gopal Pathak, M.S.Nathawat, Usha Jha, Neeta Kumari. 2010. Water Quality Assessment of Majhiaon Block of Garwa district in Jharkhand with special focus on fluoride analysis. Environmental Monitoring & Assessment. Springer pub. Volume 167, Issue 1 (2010), Page 617. Impact Factor: 1.3
2. Gorai, A. K., and Pal, A. K, Methodology of the Community Noise Environmental Quality Assessment: A Case Study of Indian Iron Ore Mining Complex, Journal of Geology and Mining Research, Vol. 1(10) pp. 214-223, December, 2009.
3. Gorai, A. K. Application of Fuzzy Expert System to Determine the Degree of Sustainable Development of Mineral Resources, Asian Journal of Water, Environment and Pollution, Vol. 7, No. 2, pp 15-21, April 2010.

Books

Reference to a book

- **Gorai, A. K.**, A Guide for Mining Engineers. Lovely Prakashans, Dhanbad.
- **Gorai, A. K.**, Introduction to Noise Pollution and its Impact Assessment (Manuscript under Preparation)

Award/Recognition Bestowed on Faculties (State/National/International)

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year/ Duration
1	Dr. Gopal Pathak	Visiting Professor	International Institute of Water and environmental engineering, Burkina Faso, Western Africa	26 th – 30 th Oct, 2009
2	Dr. Gopal Pathak	Member of Scientific Advisory Board	25th Annual International Conference on Contaminated Soils, Sediments and water held at University of Massachusetts, AMHERST, USA during Oct. 2009.	Oct, 2009
3	Dr. Gopal Pathak	Member of Scientific Advisory Board	26th Annual International Conference on Contaminated Soils, Sediments and water held at University of Massachusetts, AMHERST, USA during Oct. 2010.	Oct. 2010.

Members on Board of Studies (UG/PG)

1. Dr. Gopal Pathak - Professor & Coordinator, ESEG and Chairman BOS.
2. Dr. Gurdeep Singh - External Member, Prof. & Head, CESE, ISM, Dhanbad
3. Dr. S.K.Gupta - External Member, Prof. & Head, CESE, I.I.T, Mumbai.
4. Dr. (Mrs.) R.S.Patil - External Member, Professor, CESE, I.I.T, Mumbai.
5. Dr. Mukesh Khare - External Member, Professor, CESE, I.I.T, Delhi.
6. Dr. Usha Jha - Prof. & Head, Deptt. of Applied Chemistry, B.I.T, Mesra.
7. Dr. Mandira Mukherjee - Prof. & Head Deptt. of Polymer Engineering, B.I.T, Mesra.
8. Dr. M.S.Nathawat - Prof. & Head, Deptt. of Remote Sensing, B.I.T, Mesra.
9. Mrs. Bindu Lal - Reader, Deptt. of Civil Engineering, B.I.T, Mesra.

National Cadet Core



3 Jharkhand Comp Tech Coy NCC, Mesra, Ranchi

NCC – National Cadet Core, of BIT Mesra is one of the important component of institute which imparts Technical training and Physical as well as other programmes of NCC for 4 semesters. We have 200 cadets strength enrollment for EME, Engr and Signals. In this session 2009-10 we imparted training for Drill, Firing and other lecture classes for all enrolled cadets of NCC. This year the cadets took part in Republic Day parade, Independence Day parades. The army band gave a supportive music during the celebration parades. Dignitaries and guest from the campus attended tea party organized at NCC Unit after the celebration parade and appreciated parade performed by cadets.

All cadets took keen interest in firing of .22 Rifle held in month of 12-13 Mar 2010 in our firing range in the campus was utilized for the same. Some cadets gave outstanding performance and proved to be good firer.

Cadets also took part in organizing and conduction of

1. BIT clean and green drive to make campus residents awareness for the misuse of polythene bags and products.
2. The cadets also took drive for tree plantation and gardening in the campus and NCC premises.
3. 2 cadets - cadet Amrit Raj and cadet Anupam Dey received Sahara Scholarship of Rs. 30,000/- each.

This unit is officiated by Col. A. K. Mishra and ANO, Major Subir Samanta, caretaker Prof Kishore Kumar Senapati & other staff of army and civil staff.

National Service Scheme

Calendar of NSS Activities

- 15th of August, 2009 - Prabhat Pheri on Independence Day
- 23rd of August, 2009 – Blood Donation Camp
- 12th to 19th of January-Youth week celebration
- 16th of January, 2010 – Volunteering for Langar
- 20th of January, 2010 – Volunteering for Saraswati Puja
- 26th of January, 2010 – Prabhat Pheri on Republic Day
- 7th of February, 2010 – NSS Sports Day
- 23rd of March , 2010 – Volunteering for Convocation



Prabhat Pheri on Independence Day

Weekly projects of 1st year and 2nd year NSS students

- Computer-Literacy Programme : It teaches the people from nearby villages and the staffs of BIT the basics of computer and basic use of internet to meet day-to-day needs.
- Teaching in nearby schools : This takes care of basic education of children enrolled in schools like BIT High, BIT Middle near Outer-cooperative, Rajkiya Buniyadi Vidyalaya on NH 33, Gondli Pokhar High School in Turup and Premchand Vidyalaya. This is done with a sheer motive of instilling interest in the students and also it's a need of the schools owing to insufficient staffs.
- Making various learning and teaching aids : Aids like posters, charts, models etc are made to make learning easier and interesting for the children.
- Plantation and Watering of plants: This is done inside the BIT campus to spread greenery.
- Environmental Awareness in BIT : Posters displaying slogans like "Clean BIT and Green BIT" are stuck on various object, in every corner of BIT to spread awareness and also dust-bins are put, in a planned manner, at various locations to keep the campus clean.



Community Teaching

Nss Special Winter Camp

National Service Scheme (NSS) special winter camp was held from 2nd of December 2009 to 8th of December 2009. Around 50 students participated in it. The camp scheduled as follows:

6:30 am – 8:00 am	--	YOGA
9:00 am – 10:30 am	--	LECTURE
1:30 pm – 4:30 pm	--	SOCIAL ACTIVITY

The camp is organized with a motive to instill health awareness and responsibility towards society in the youth of today.

**EXTENSION CENTRES
OF
BIRLA INSTITUTE OF TECHNOLOGY
MESRA, RANCHI
IN
INDIA**

Naini, Allahabad



Main Building

The Extension Centre at Allahabad is located at the Raymond crossing on Allahabad-Mirzapur Road. This Centre was established in the session 1997-98 with a view to start B. Tech. Degree programme in Civil, Mechanical and Electrical & Electronics Engineering for the Working Engineers diploma holders on part time basis. The first batch of students of B. Tech programme was admitted in January 1998 and so far six batches of students have passed out.

In view of demand of trained computer and management personnel at National level and as also to provide job-oriented professional education and training to youth of the area, the Institute introduced (3-years) full-time courses like Bachelor of Computer Applications (BCA), Bachelor of Business Administration (BBA) and Master of Computer Applications (MCA) in subsequent years.

The computer laboratory of this centre has over 100 computers connected through LAN network and Internet connectivity is available through out the day. The centre is Wi – Fi enabled. The Institute Library has a reasonably good number of text books and Technical Journals are being regularly subscribed by it. The library currently provides access to e-journals like ScienceDirect and other resources to the faculty, students, staff under internet environment. The centre has its own website where relevant information regarding the centre are available throughout the year.

Some of the engineering laboratories developed by the centre are Electrical Machines laboratory, Basic Electrical & Electronics laboratory, Microprocessor laboratory, Digital Electronics laboratory, Control Engg. laboratory, Power Electronics laboratory, Digital Signal Processing laboratory, IC Engines laboratory, Manufacturing Processes laboratory, Non-conventional Energy laboratory, Hydraulics Laboratory, Surveying and Geotechnical Engg. Laboratory.

The centre has a moderate play ground, Volleyball Court and Badminton Court. The centre encourages students to organize co-curricular and extra curricular activities such as Games and Sports Meet, Cultural Meet, Quiz, Debates & Essay competition, Painting & Photographic competition etc at periodic intervals.

Keeping in view the requirements of the region, the following full time programmes are being planned to be added in near future at Allahabad Centre.

- I. 4-years (Full Time) BE in Electronics and Communication Engineering
- II. 4-years (Full Time) BE in Computer Science & Engineering
- III. 2-years (Full Time) Master of Business Administration (MBA)
- IV. 2-years (Full Time) M.Sc. Information Technology

Infrastructure added:

1. The Electronics Laboratory has been housed in a renovated and dust free hall measuring 1400 sq. ft.
2. New general store has been constructed in 900 sq. ft.

Courses Offered**(A) Full time Programme**

- i. Master of Computer Applications (MCA)
- ii. Bachelor of Computer Applications (BCA)
- iii. Bachelor of Business Administration (BBA)

(B) Part Time Programme

- i. B.Tech in Civil Engineering
- ii. B.Tech in Electrical & Electronics Engineering
- iii. B.Tech in Mechanical Engineering.

Students Enrolled in Semesters/Courses

Course	II Sem.	IV Sem.	V Sem.	VI Sem.	VII em.	VIII em.	Add. Sem.	Total
MCA (FT)	92	27	-	26	-	-	-	145
BCA (FT)	55	81	-	102	-	-	01	239
BBA (FT)	44	73	-	61	-	-	02	180
B.Tech. (PT)	07	12	01	22	03	12	02	59
Total	198	193	01	211	03	12	05	623

Seminar/Conferences/Short Term Courses attended by the faculty

- Dr. S. K.Pandey, Department of Management, has attended a Faculty Development Programme on "Management Information System" held from 22 June, 2009 to 04 July, 2009 at MNNIT, Allahabad.
- Shri Shambhu Sharan Kumar, Department of Engineering, has attended QIP Short-Term Course on "Learnings on Sustainability of Engineering Education" held from 09 July, 2009 to 15 July, 2009 at Indian Institute of Technology, New Delhi.
- Shri Shambhu Sharan Kumar, Department of Engineering, has attended QIP Short-Term Course on "Micro & Nano Composite Materials" held from 28 December, 2009 to 01 January, 2010 at National Institute of Technology, Hamirpur.
- Mrs. Nidhi Tiwari, Department of Management, has attended a conference on "Economic Crisis Management-Survival and Growth" held from 12 March, 2010 to 13 March, 2010 at SMS, MNNIT, Allahabad.
- Sri A.M. Dubey, Department of Management, has attended a conference on "Economic Crisis Management-Survival and Growth" held from 12 March, 2010 to 13 March, 2010 at SMS, MNNIT, Allahabad.
- Shri Shambhu Sharan Kumar, Department of Engineering, has attended QIP Short-Term Course on "Orientation Programme for Technical Teachers" held from 28 June, 2010 to 02 July, 2010 held at National Institute of Technology, Hamirpur, sponsored by AICTE/MHRD.

Publications

International Journals

1. S.C. Pandey "Learning and Regularization for Fuzzy Monotone Multifunction", International Journal of Computational Intelligence, France.

International Proceedings

1. S.Kanungo "A Co-clustering Technique for Gene Expression Data using Bi-partit Graph Approach", 4th International Conference on Bioinformatics and Biomedical Engineering, Chengdu, China, 18th to 20th June, 2010.
2. R.S.Pandey "A Meta-Model Based Proposal for QOS of WSCDL Choreography", proceeding of "International Multi Conference of Engineers and Computer Scientists 2010", Hong Kong, held during 17th to 19th March 2010.
3. S.C. Pandey "Memory Convergence Analysis for Different Iterative Procedures in RNN", proceeding of "International Multiconference for Engineers and Computer Scientists 2010", Hong Kong, held during 17th to 19th March 2010.

National Journals

1. A.K. Mahanty, Dr. S.K. Pandey "Foreign Direct Investment in India: A note" The Journal of Business & Economic Studies, August 2009, Vol III, Issue 1.

National Proceedings

1. Ashish Mohan Dubey, "Strategies adopted by Aviation Industry to overcome the Economic Crisis", Conference on Economic Crisis Management: Survival and Growth, organized by MNNIT Allahabad, addition if any held during March 12th & 13th, 2010

Students Activities

- a) BITEC Souvenir – 2010 has been published for better interaction among outgoing students.
- b) **Cultural Activities** : The student's cultural committee organized various competitions such as debate, solo song, group song to promote spirit of healthy competition among the students on 15th August & 26th January. Students also organized Cultural Fest -2010 during 11th to 13th February -2010.
- c) **Games & Sports Activities** : The Annual Sports & Athletic Meet-2010 was held at the centre during first week of Feb. 2010.
- d) **Technical Activities** : The students of technical committee organized Techno-Management fest -2009 at the centre from 5th to 7th November 2009.
- e) **Placement Activities** :
 - i. The outgoing students of MCA & BCA have been selected in different companies like Infosys, TCS, IBM, HP, Birlasoft, iGate & Wipro etc.
 - ii. The Placement Cell has been running Personality Development Program for MCA students. From this year we have started it for the students of BBA and BCA also.
 - iii. The Placement Cell arranges test series, GD and Interview Sessions at periodic intervals for all outgoing students of full time programmes.

Deoghar



Main Building

Having felt the ardent need to setup a pioneer institution for diversified and advanced technical education and research, the Government of Jharkhand has setup an Institute of repute in collaboration with BIT Mesra. Thus was the exorsus of BIT, Deoghar Campus in the year 2007 under the support of the Government of Jharkhand, which subsequently allotted 25 acres of land for the establishment of the Deoghar Campus. The Government also sanctioned a grant of Rs. 40 crores only for capital expenditure.

The Institute is located barely a kilometer from Jasidih Railway station between the ambient picturesque villages of Ratanpur and Ramchandrapur, very near to the Internationally famous religious place Deoghar.

As per the provision of MOU with the Government of Jharkhand, the intake from the academic year 2008-09 at BIT Deoghar campus has been 270 seats and the admission is made through AIEEE 2008, and Central Counselling conducted by the Central Counselling Board. There are 60 students each in CSE, ECE, EEE, ME and 30 in production engineering.

The following disciplines of BE Programme is currently being run at the Deoghar Campus:

1. Computer Science Engineering
2. Electronics & Communication Engineering
3. Electrical & Electronics Engineering
4. Mechanical Engineering
5. Production Engineering

Introduction of Metallurgical and Civil Engineering programmes are in the offing.

Classes are held in its own campus of the centre between Ratanpur and Ramchandrapur, where various buildings of the Institute are already constructed. Comfortable hostel accommodation for students is also available at this site. The infrastructure includes well-equipped, modern laboratories, playgrounds, gymnasium, a library with over 14000 books, periodicals, national & International journals and other research materials. Spacious lecture halls provide the most conducive atmosphere for learning.

The first phase of the plans, for the Institute, has almost been completed with the infrastructure of adequate academic space, hostel accommodation for 800 students, sports complex, dispensary and residential facility for faculty members and the supporting staff.

Academic Infrastructure of The Institute:

Department of Electronics & Communication Engineering

The quality instruction has always been among the highest priorities in the Department. The main laboratories include

- Electronics Lab., Instrumentation Lab, Analog and Digital Communication lab. Digital Electronics lab., Microprocessor Lab.,
- Packages -Multisim, Commsim, Ultiboard, Cadence and MATLAB

Department of Mechanical Engineering

Main laboratories of the Department include:

- Engineering Mechanics , Engineering graphics, Auto CAD.

Department of Computer Science

The Department has two spacious and well designed laboratories equipped with over two hundred networked high – end personal computers with high speed internet connectivity. All computers are dual boot system with windows and Linux installed on them.

To give technological exposure to the students, experts, academic institutions and industries are invited time to time to deliver lectures in the Department

Department of Electrical & Electronics Engineering

The Department has well equipped BASIC ELECTRICAL LAB., CONTROL SYSTEM LAB, POWER ELECTRONICS LAB AND THE MACHINE LAB is likely to be completed soon.

Main equipments and machinery in the lab are:

- Induction motors – 3 phase and single phase, D.C. machine ,Synchronous generator 3phase and synchronous motors, 3 phase and 1 phase transformer, Universal motor, Microprocessor Device controller, D.C. Speed control, Linear system Simulator, P.I.D. Controller, Potentiometer error Detector, Relay Control System, MOSFET Kit, Relaxation Oscillator, 3 phase fully control bridge rectifier

Department of Production Engineering

The goal of the Department is to impart knowledge in latest manufacturing technology and develop managerial skills. The Department has well equipped CNC and FMS labs. In the year 2010 an independent building with a well-equipped workshop has been constructed for the Department.

Major Equipment and machinery in the Department:

- Center Lathe, Capstan Lathe, Tool and cutter Grinder, Wood-working Lathe, Circular Saw Band, Was Band saw, Welding Transformer, Spot Welding Machine, Vertical and Horizontal Milling Machine, Bench Grinder, Drilling Machine

Further during the year a CNC trainer, central lathes, one high speed lathe, one tool and cutter grinder, three pillar drill machines, one bench drill, bench grinder and a pillar grinder have added to the fleet of machinery in the workshop.

Department of Applied Physics

The faculty members carry out research in the following disciplines

- Nonlinear optics, Material Science, Plasma Physics

The Department has well equipped physics Lab. and Material Sc. Lab.

Department of Applied Chemistry

It offers Engineering chemistry and Environmental Science papers. At present the Department has water quality and fuel testing facilities. It also plans to start research and development in the following areas:

- Non-linear Dynamics, Biofuels, Rain water Harvesting, Solid waste Management, Mapping of water quality parameters in Deoghar District

Department of Applied Mathematics

The Department has set up a modern computer centre with latest scientific software of MATLAB and MATHCAD. The faculty members are actively engaged in research and working on several projects.

Students Activities – Extra Curricular and Co-Curricular

- Representation and participation of students at IIT Kharagpur, ISM Dhanbad, IIT Kanpur, BIT Mesra, BIT Patna and other colleges
- Seminar/Symposium/short term courses organized by different Departments time to time
- Robotics Workshop
- Yearly celebration of 'DEEPOTSAV' on the occasion of Dipawali
- Celebration of traditional festivals – Saraswati Puja & Vishwakarma Puja
- Annual function 'UTTHAN -2010' organized
- Exhibition of Creative Arts
- NSS Wing formed and social service to be co-ordinated

Achievements

- Sreyashi and Mayank – First Prize for Paper Presentation at KSHITIJ , IIT Kharagpur
- Mayank – Second Prize for Paper Presentation at KSHITIJ, IIT Kharagpur
- Peeyush – First Prize for Paper Presentation in TechKriti at IIT Kanpur
- Insia Zehra and Eliza Rungta – First and Second Prize in Elocution at Srijan 2009 ISM Dhanbad
- Ritesh pathak Askand Piyush – Third in MATLAB at Srijan 2009 ISM Dhanbad
- Neha , Sweta , Stuti – Third in Garuda at Srijan 2009 ISM Dhanbad
- Dean Jose, Nikhil Jois, Kabir Hora, Praveen Kumar – Third and Fourth in Aquajet and Moot Covert at UNNAYAN – 2009 BIT Meshra
- First and Second Prizes for Robotics and other technical events in Mechathlon'09 at ISM Dhanbad

Sports And Games

The goal is to keep the students mentally, physically and psychologically fit. To impart latest skills in games and sports the Centre has

- Two Volleyball grounds

- A multipurpose sports complex which includes Track and Field, Football ground, Cricket Ground and Basketball Court
- Indoor games include Table Tennis Board, Carrom Board, Badminton , Chess etc.

Activities

- Participation of students in 'Chetan Deoraj Inter Technical Cricket Tournament ' at BIT Mesra
- Intramural Sports Tournament are held time to time
- Birla Cup Cricket Tournament conducted in the campus
- Birla Cup Football Tournament among Hostel Students
- Open chess Tournament held

Common Facilities Of The Institute

- Wi-Fi Facility, Video Conferencing Facility , Canteen, Stationary Shop, Dispensary and health centre, Water Coolers in the Institute and Hostels, Television in the Hostels, Copy Printers, Xerox Machines and fax machine

Clubs And Societies Of The Institute:

- News and Publication Society (NAPS), Photographic Society, Debate Club, Music and Cultural Society, Creative Arts Club

Placement Cell

- Training students in Soft Skill
- T&P Cell coordinates for Industrial Training

BIT Jaipur Centre was established in 1995. The focus of the institute is to provide quality education in Engineering, Applied Sciences and Management with technology and professional exposure through innovative programmes & practices. Driven by the mission that the technology and innovative management practices will be the gateway to the future growth, it is today one of the leading institutes of Rajasthan in the field of Engineering, Applied Sciences and Management.

Academic Programmes

Undergraduate:

B.E. in following branches of Engineering:

- i) Computer Science (CS)
- ii) Electronics and Communication Engineering (ECE)
- iii) Electrical & Electronics Engineering (EEE)

BBA, BCA & B.Sc. (Animation & Multimedia)



Main Building

Postgraduate:

- MBA, MCA , Masters in Animation Design
- M.Tech. in Fusion science & Plasma Technology
- M.Sc. in Geo-informatics

New Programmes introduced from session 2009-2010

- i) B.E. in Electrical & Electronics Engineering (EEE)
- ii) M.Tech. in Fusion science & Plasma Technology

New Infrastructure Added

- i) New Labs:
 - For BE (ECE) students - Wireless and Networking Lab
 - For MCA students - Computer Networks Lab
- ii) New Software
 - For Engineering Application: System View, SUSE (V10), Ethernet Network Analyzer, OPNET IT Guru, Network Simulator , Rational Rose, Cyber Roam, AutoCAD 2008
 - For Management Analytical Research: SYSTAT (V12)

Sponsored Project**Project Sanctioned**

S.No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1	Feasibility study of setting-up of Food Processing Zone (FPZ) near by the irrigated Region of Sri Ganganagar District of Rajasthan and its Socio Economic Implications Discipline : Management Studies	Dr Roopali Sharma Dr Ritu Arora	Ministry of Food Processing Industry, Govt of India	4.06. 10	Rs. 3.0 lacs	1 year
2.	Development of two short animation film for social awareness ; 1. The Animated Spot Film on Patient Councilor 2. The Animated Spot Film on Health care waste Management Discipline : Animation & Multimedia	Dr. Vibhuti Pandya Vivek Sharma and Bidyut Jyoti Baruah	Rajasthan Health Systems Development Project, Govt of Rajasthan Health Ministry of Rajasthan-Jaipur	July 8, 2010	Rs. 3,70,608/-	6 Months

Ongoing Projects

S. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount (Rs. In lakh)	Duration of the Project
1	Development of a microcontroller based technology of a pressure sensitive bed for immovable patients to reduce the risk of bed sore Discipline : Engineering (Electronics)	Mr. S.P. Sarkar Mr. J.B. Sharma Mr. P.S. Rathore Mrs Aparajita Pandey Mr Avinash Pankaj	Indian Council of Medical Research, Govt. of India	23.3.09	8.30888	2 years
2.	Soft modeling of group dynamics : A cognitive psychology perspective Discipline : Engineering (Computer Science)	Dr. Madhavi Sinha Mr. Somya Banerjee Dr G.S. Malhotra	Department of Science & Technology, Ministry of Science & Technology, Government of India.	12-11-08	11.2944	2 Years

3	Oil Exploration in the District Of Barmer Of Rajasthan: Employment Generation And Sectoral Mobilization Of Working Force - Some Projections Discipline : Management	Dr Roopali Sharma Dr Ritu Arora Mr. P.N. Gupta Mrs. P. Sharma	Ministry of Labour & Employment, Government of India.	6-11-08	4.97145	2 years
4	Development of Penning Discharge Source For Establishment of a Novel Calibration Technique for VUV Spectrometer-Detector System Based on this Source and ADAS code. Discipline : Applied Physics	Dr Ram Prakash Mrs. Ranjana Manchanda (IPR, Ahmedabad)	Board of Research in Fusion Science & Technology (BRFST), Govt. of India	23-11-09	102.32	3 years
5	Promotion of Environment friendly Plasma Nitriding Process for Surface Hardening of Industrial Component Discipline : Applied Physics	Dr Ram Prakash, Prof. P. K. Barhai, Dr. S. Mukherjee & Mrs. Alphonsa Joeshep (IPR, Ahmedabad)	DST Govt. of India and NEI, Jaipur	17-01-07	68, 63, 242	3 years

Projects Completed

S. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanction-ed Amount (Rs. In Lakh)	Date of completion of the Project
1.	Computational quantitative spectroscopy for tokamak plasmas	Dr. Ram Prakash Dr. P. Vasu and Dr. Vinay Kumar (IPR, Ahmedabad)	Board of Research in Fusion Science & Technology (BRFST), Govt. of India	1-8-07	22, 82, 520	23-08-09
2.	Development of spot animation film for promoting health care	1. Dr Vibhuti Pandya 2. Mr Vivek Sharma	Rajasthan Health System Development Project , Government of Rajasthan	29-3- 08	2.075	11-08-2009

Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S.No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Month Date, Year
1	I.K. Dadheech	Basics and Applications of Computational Fluid Dynamics	AICTE	Department of Mechanical Engineering Thapar University	Thapar University, Patiala,	July 10-23, 2009
2	Dr. Anuj Kumar Jhankal	Soft Skills	-	Birla Institute of Technology, Mesra, Ranchi	Birla Institute of Technology, Mesra, Ranchi	September 17-19, 2009
3	Subhash Chand Gupta	Soft Skills	-	Birla Institute of Technology, Mesra, Ranchi	Birla Institute of Technology, Mesra, Ranchi	September 17-19, 2009
4	Dr. Vibhuti Pandya,	Workshop on "For the Animator- By the Animator"	-	The Animation Society of India	IIT Powai, Mumbai	September 18- 20, 2009
5	Mr. Ravindra Kumar	8th Kudowa Summer School "Towards Fusion Energy"	Institute of Plasma Physics and Laser Microfusion (IPPLM) & Czech and Hungary EURATOM Associations	Institute of Plasma Physics and Laser Microfusion (IPPLM)	Kudowa, Poland	September 21 -25, 2009
6	Dr. Roopali Sharma	National Seminar on Domestic Conflicts in South Asia: Dimension & Direction (Attended as a Paper Presenter)	-	Department of South Asia Studies Centre, University of Rajasthan., Jaipur	University of Rajasthan, Jaipur	October 26-27, 2009
7	Mr. Ravindra Kumar	"Joint ICTP/IAEA Workshop on Effects of Mechanical Properties and Mechanisms Governing the Irradiation induced Embrittlement of Pressure Vessel Steels"	International Atomic Energy Agency (IAEA)	International Centre for Theoretical Physics (ICTP)&IAEA	International Centre for Theoretical Physics (ICTP), Trieste, Italy	November 23 - 27 2009

8	Dr. Anuj Kumar Jhankal	National Seminar on Computational Mathematics & operation Research .	-	B. K. Birla Institute of Engineering & Technology, Pilani.	B. K. Birla Institute of Engineering & Technology, Pilani	November 28- 29, 2009
9	Dr. Gurminder Singh	National Seminar on Computational Mathematics & operation Research	-	B. K. Birla Institute of Engineering & Technology, Pilani.	B. K. Birla Institute of Engineering & Technology, Pilani	November 28- 29, 2009
10	Ritu Pareek	International Conference on Speak Volumes: Promoting Communication in the English Language Classroom	ELTAI Rajasthan	English Language Teachers' Association of India, Rajasthan: Jaipur Chapter	M.G.D. Girls' School, Jaipur	November 20- 21, 2009
11	Ritu Pareek	Training Program on "Interfacing Social Sciences with Engineering and Technology Education".	Centre for Management of Innovation and Technology	Centre for Management of Innovation and Technology and International Management Institute (IMI) New Delhi	MNIT, Jaipur	December 7-9, 2009
12	Dr K.S. Suraj	24th National Symposium on Plasma Science and Technology, held at	-	NIT Hamirpur	NIT Hamirpur	Dec 8-11, 2009
13	Mr. Ravindra Kumar	24 th National Symposium on Plasma Science and Technology, held at	-	NIT Hamirpur	NIT Hamirpur	Dec 8-11, 2009
14	Dr. Anuj Kumar Jhankal	Aspects of Dynamical Systems	AICTE/ MHRD	Indian Institute of Technology, Delhi	Indian Institute of Technology, Delhi	December 22-24, 2009
15	Dr. Ram Prakash	International symposium on "Waves, Coherent Structures and Turbulence in Plasmas"	DAE, GOI	Plasma Science Society of India (PSSI)	Institute for Plasma Research, Bhat, Gandhinagar	12-15 January ,2010

16	Dr. Ram Prakash	National Symposium on "Emerging Trends and Opportunities in Basic and Applied Sciences"	-	Poddar International College, Jaipur	Poddar International College, Jaipur	30th January, 2010
17	Ritu Pareek	National Seminar on 'New Directions in Literary Studies'	UGC	International College for Girls, Jaipur	International College for Girls, Jaipur	January 29-30, 2010
18	Dr. Ranjana Agrawal	National Seminar – Role of Toxicity in Environmental Pollution "Causes effect and Control"	UGC	Vedic Kanya PG College, Jaipur	Vedic Kanya PG College, Jaipur	February 3-4th, 2010
19	Rajani Agrawal	National Seminar – Role of Toxicity in Environmental Pollution "Causes effect and Control"	UGC	Vedic Kanya PG College, Jaipur	Vedic Kanya PG College, Jaipur	February 3-4, 2010
20	Archana Bhatnagar	2nd International Conference on Opportunities and Challenges in Global Business	-	International Institute of Foreign Trade and Research, Indore	IIFTR, Indore	February 13 – 14, 2010
21	Alok Pandey ,	workshop on "Telecommunication Networks with State of the art Hands on Experiments"	MHRD / AICTE	I.I.T.- Kharagpur	I.I.T.- Kharagpur	February 17- 27, 2010
22	I.K. Dadheech	21st National conference of Rajasthan Ganita Parishad on Recent Trends in Mathematics & Actuarial Sciences	Rajasthan Ganita Parishad	Central University of Rajasthan	Malviya National Institute of Technology, Jaipur	February 20-21, 2010
23	Ritu Pareek	Workshop on Plagiarism and Academic Writings	ELTAI Rajasthan	ELTAI Rajasthan in association with Government P.G. College Dausa.	Government P.G. College Dausa.	February 23 , 2010
24	Dr. Ranjana Agrawal	National Symposium – New Frontiers in Chemical Science	UGC	Centre of Advance Studies, University of Rajasthan, Jaipur	Deptt. Of Chemistry University of Rajasthan	February 25, 2010

25	Santosh Kumar Agarwal	Recent Trends in information Technology opportunities and Challenges.	UGC	S.S. Jain Subodh P.G. Collage MCA Institute Jaipur	S.S. Jain Subodh P.G. Collage MCA Institute Jaipur	February, 26-27, 2010
26	Archana Bhatnagar	National Conference on Recent Trends in Information Technology: Oppurtunities & Challenges	UGC New Delhi sponsored	SS Jain Subodh PG College, Jaipur	SS Jain Subodh PG College	February, 26-27, 2010
27	Aparajita Singh	National conference on 'Recent trends in IT:Opportunities and Challenges'	UGC	Subodh College, Jaipur	Subodh College, Jaipur .	February, 26-27, 2010
28	Alok Pandey	National conference on 'Recent trends in IT:Opportunities and Challenges'	UGC	Subodh College, Jaipur	Subodh College, Jaipur .	February, 26-27, 2010
29	Ankur Agarwal	National conference on computer vision Pattern recognition and image processing held at	-	LNMIIT, Jaipur	LNMIIT, Jaipur	February, 2010
30	Dr. Ram Prakash	5th National Topical Conference on "Interaction of EM Radiation with Atoms, Molecules and Clusters" (TC-2010)	DAE, GOI	Indian Society of Atomic and Molecular Physics (ISAMP)	Raja Ramanna Centre for Advanced Technology, Indore	March 03-06 2010
31	Archana Bhatnagar	National Conference on ICT: Theory, applications and practices	-	Department of Computer Science and Engineering, Sir Padampat Singhania University, Udaipur	Sir Padampat Singhania University, Udaipur	March 5 - 6 , 2010
32	Dr. Roopali Sharma	National Seminar on India in South Asia: Opportunities and Challenges in a Globalization World (Attended as a Paper Presenter)	-	Department of South Asia Studies Centre, University of Rajasthan., Jaipur	University of Rajasthan, Jaipur	March 5-6, 2010
33	Bimalendu Pathak	National Conference on Information Management and Knowledge Economy	I.E.T.E.	Indraprastha University, New Delhi	Indraprastha University, New Delhi	March 20, 2010

34	Dr. Gurminder Singh	National Conference on Mathematical Modelling and Simulation		Guru Jambheshwar University of Science and Technology, Hisar.	Guru Jambheshwar University of Science and Technology, Hisar.	March 20 - 21, 2010
35	I.K. Dadheech	National Conference on Mathematical Modelling and Simulation		Guru Jambheshwar University of Science and Technology, Hisar.	Guru Jambheshwar University of Science and Technology, Hisar.	March 20 -21, 2010
36	Dr. Vibhuti Pandya	Seminar on Graphics and Effects in Video Production	Doordarshan Kendra, Prasar Bharti Jaipur	Broadcast Engineering Society (India)	Hotel Maharani Palace, Jaipur	March 20, 2010
37	Archana Bhatnagar	7th International Conference on E-governance [ICEG 2010]	-	SJRI (St Johns Research Institute), Bangalore, IAMI, IIT Delhi, IIM Bangalore and University of Bergen, Norway	IIM- Bangalore	April , 22 – 24, 2010
38	Sneha Shastri	National Seminar on Modern Trends and Techniques in Computing ,	-	Jaipur National University	Jaipur National University	March 30- 2010
39	Rishika Sharma	Seminar on Adobe CS 5	-	Adobe, Noida	Sheraton, Rajputana Palace, Palace Road, Jaipur	June 29, 2010
40	Manish Kumar	Seminar on Adobe CS 5	-	Adobe, Noida	Sheraton, Rajputana Palace, Palace Road, Jaipur	June 29, 2010

Publications

International/ National Journal

1. M. Sinha, S.V. Chande, Query Optimization Using Genetic Algorithms, Research Journal of Information Technology 2 (2010), 139-144, DOI: 10.3923/rjit.2010.139.144
2. Swati V. Chande, Madhavi Sinha, Towards Evolutionary Approach for Data Base Query Optimization, An International Journal of Advanced Engineering & Applications, Jun -1(2010), 140-146

3. Rishi, O.P., "Service Oriented Architecture for Business Dynamics: An Agent Based Business Modeling Approach", International Journal for Information Technology, Vol 1 No 2, ISSN 0973-5658; July- Dec. 2009
4. Rishi O.P., R. Khichar, & S.S. Upadhyay, "An Approach to Build Intelligent Agents: To Facilitate Communication Between Different Internet Data Centres", International Journal of Academic Research, Vol. 1. No. 2, ISSN 2075-4124, November 2009
5. Ram Prakash, Jalaj Jain, Vinay Kumar, R Manchanda, Bishu Agarwal, M. B. Chowdhari, Santanu Banerjee, P Vasu "Calibration of a VUV Spectrograph by Collisional-Radiative Modeling of a Discharge Plasma" J. Phys. B: At. Mol. Opt. Phys. 43 (2010) 144012-16.
6. Bishu Agarwal, Ram Prakash, Jalaj Jain, Vinay Kumar, P. Vasu "Boron Spectral Line Ratio Helpful to Characterize Wall Conditioned Tokamak Plasmas" Phys. Scr., 80 (2009), 055505-09.
7. P.R. Sharma and Gurminder Singh "Effects of Variable Thermal Conductivity, Viscous Dissipation on Steady MHD Natural Convection Flow of Low Prandtl Fluid on an Inclined Porous Plate with Ohmic Heating". Meccanica (Springer). Vol.45(2), pp. 237-247, 2010.
8. Gurminder Singh, P.R. Sharma and A.J. Chamkha "Effect of thermally stratified ambient fluid on MHD convective flow along a moving non-isothermal vertical plate". International Journal of Physical Sciences, Vol. 5(3), pp. 208-215, 2010.
9. Rajani Agarwal, and S.K. Sharma, Seasonal Variation in the aquatic environment of Industrial effluents of Sitapura industrial Area (Pre-monsoon and monsoon session 2007), Current World Environment , Vol. 4 No. 2 , Page 385-388, Dec. 2009
10. Ranjana Agrawal, Study of Physico-Chemical Paramters of Ground Water Quality of DUDU town in Rajasthan, Rasayan Journal of Chemistry, Vol2 No.4 (2009) 969-971

Proceedings

National/International

1. Dr. Roopali Sharma, "Regional Economic Cooperation- An Effective Way to Condense Conflicts in South Asia", Proceedings of National Conference on Domestic Conflicts in South Asia: Dimension & Direction, University of Rajasthan, Jaipur, October 26-27, 2009
2. Ritu Pareek, "Effective Non Verbal Communication: Sensitivity towards Cultural Differences" Proceedings of International Conference on Speak Volumes: Promoting Communication in the English Language Classroom, organized by English Language Teachers' Association of India, at M.G.D. Girls' School, Jaipur, 20th and 21st November, 2009
3. Gurminder Singh "Numerical Solution of Unsteady Boundary Layer Flow And Heat Transfer on a non-Isothermal Stretching Sheet", Proceedings of National Seminar on Computational Mathematics & operation Research, held at B.K.B.I.E.T, Pilani, November 28- 29, 2009
4. Ravindra Kumar, Ram Prakash, J. Alphonsa, A Pareek, P. A. Rayjada, P.M. Raole, S.K. Suraj, S. Mukherjee, "Performance of Plasma Nitrided Hot-Forging Dies and Punches in Service Conditions" Proceedings of 24th National Plasma Conference (Plasma-2009) held at NIT, Hamirpur (H.P.), during 8-11 December 2009.
5. U. N. Pal, Niraj Kumar, M. Kumar, M.S. Tyagi, B.L. Meena, P. Gulati, H. Khatun, A.K. Sharma, Ram Prakash, "Frequency Range Analysis of Stable Dielectric Barrier Discharge in Argon Atmosphere" Proceedings of 24th National Plasma Conference (Plasma-2009) held at NIT, Hamirpur (H.P.), during 8-11 December 2009.

6. U. N. Pal, Niraj Kumar, M. Kumar, M.S. Tyagi, B.L. Meena, P. Gulati, H. Khatun, A.K. Sharma, Ram Prakash, "Discharge Parameter Analysis of Argon Filled Co-axial DBD Cell Based on Electrical Modeling" Proceedings of 24th National Plasma Conference (Plasma-2009) held at NIT, Hamirpur (H.P.), during 8-11 December 2009.
7. U. N. Pal, Niraj Kumar, M. Kumar, M.S. Tyagi, B.L. Meena, P. Gulati, H. Khatun, A.K. Sharma, Ram Prakash, "Implementation of Micro-controller 8051 Based System for Electrical Modeling of DBD Cell" Proceedings of 24th National Plasma Conference (Plasma-2009) held at NIT, Hamirpur (H.P.), during 8-11 December 2009.
8. K.S. Suraj,, Shashank Sharma, Harmeet Singh, H. K. Dwivedi "Bi-polar Sustain Waveform for Efficient Driving of Plasma Displays", Proceedings of 24th National Symposium on Plasma Science and Technology, held at NIT Hamirpur, during Dec 8-11, 2009.
9. K.S.Suraj , P.Bharathi, V.Prahlad and S.Mukherjee, "Thermometer For Measuring Gas Temperature Of Plasma Discharges" Proceedings of National Symposium on Plasma Science and Technology, held at NIT Hamirpur, during Dec 8-11, 2009.
10. Suraj K.S., G. Singh, Ram Prakash, S. Mukherjee "Signature of Potential Structure of Anodic Double Layers In Glow Discharges" Proceedings of International symposium on "Waves, Coherent Structures and Turbulence in Plasmas" held at Institute for Plasma Research, Gandhinagar during 12-15 January, 2010.
11. Rajani Agarwal , 'Study of Significant Correlation Among Parameters of Industrial Effluents Samples during Pre-Monsoon Season of Sitapura Industrial Area, Jaipur (India)', Proceedings of the National Seminar on Role of Toxicants in Environmental Pollution: Causes, Effects and Control, held at Jaipur Vedic Kanya PG College, Jaipur, Feb., 3-4, 2010.
12. Ranjana Agrawal, Anirudh Sahni, Rashmi Nayar, Rupali Argal, "An innovative technique AOP", Proceeding of National Seminar – Role of Toxicity in Environmental Pollution "Causes effect and Control", organized by Vedic Kanya PG College, Jaipur , February 3-4, 2010
13. Ranjana Agrawal, "Photo Catalysis as a Remedial Technique" Proceedings of National Symposium on New Frontiers in Chemical Science, organized by Deptt. Of Chemistry, University of Rajasthan, Jaipur February 25th, 2010
14. Vivek Bhola, Mahesh Kumar Grover, Madhavi Sinha "Role of Natural Language Processing in Community Structure Detection", Proceedings of the 4th National Conference; INDIACom-2010 "Computing For Nation Development", February 25 -26, 2010, organized by Bharati Vidyapeeth's Institute of Computer Applications and Management, New Delhi, ISSN: 0973-7529, 75-80.
15. Gurminder Singh, Vivek Bhola, Mahesh Kumar Grover "Communities in Social Network: Bibliometric Approach and Some Empirical Results", Proceedings of the National Conference on Recent Trends in Information Technology: Opportunities and Challenges, February 26-27, 2010, organized by S.S Jain Subodh P.G. College, Jaipur.
16. Aparajita Singh and Alok Pandey , 'COMPUTER FORENSICS AND PRIVACY' Proceedings of the National conference on 'Recent trends in IT: Opportunities and Challenges' held at Subodh College, Jaipur on the 26th and 27th February 2010.
17. Ankur Agarwal and K.K.Sharma, "Signal reconstruction using Nonuniform Sampling in Fractional Fourier domain", Proceedings of National conference on computer vision Pattern recognition and image processing held at LNMIIT, Jaipur , Feb 2010, pp 186-191

18. Ram Prakash, Jalaj Jain, Ravindra Kumar, Suraj K. S., Anand Srivastava, R. Manchanda "Carbon line ratios useful for electron temperature and density estimations in tokamak and laboratory plasmas" Proceedings of 5th National Topical Conference on "Interaction of EM Radiation with Atoms, Molecules and Clusters" (TC-2010) held at Raja Ramanna Centre for Advanced Technology, Indore during 03-06 March, 2010.
19. Dr. Roopali Sharma, "Emerging Markers of Economic Stability: A case of India Successfully Balancing Internal, Regional & Global Challenges", Proceedings of National Conference on India in South Asia: Opportunities and Challenges in a Globalization World, held at University of Rajasthan, Jaipur, March 5-6, 2010.
20. Bimalendu Pathak, "Storage virtualization - A review", Proceedings of the National Conference on Information Management and Knowledge Economy, organized by I.E.T.E. at G.G.S. Indraprastha University New Delhi, March 20, 2010
21. Gurminder Singh, Vivek Bhola and Mahesh Grover "Detecting Communities of Practice in Organisational Network: A Bibliometric Approach" Proceedings of National Conference on Mathematical Modelling and Simulation held at Guru Jambheshwar University of Science and Technology, Hisar, March 20 -21, 2010.
22. Gurminder Singh "Variable Viscosity Effect on MHD Mixed Convection Flow Along a Continuously Moving Vertical Plate With Variable Surface Temperature" Proceedings of National Conference on Mathematical Modelling and Simulation held at Guru Jambheshwar University of Science and Technology, Hisar, March 20 -21, 2010.
23. P. R. Sharma, Gurminder singh, I. K. Dadheech, Effects of Heat Generation / Absorption and Chemical Reaction on Flow of water at 40 C Along a Continuously Moving porous Vertical Plate, Proceedings of National Conference on Mathematical Modelling and Simulation held at Guru Jambheshwar University of Science and Technology, Hisar, March 20 -21, 2010.
24. Sneha Shastri, "An Introduction to Artificial Life", Proceedings of National Seminar on Modern Trends and Techniques in Computing , Jaipur National University, March 30, 2010

Books/ Monograph

Book

- P.N. Gupta, 'Operations and Production Management', Ajmera Book Company, Jaipur, March, 2010

Monograph

- Dr. Roopali Sharma, Dr. Ritu Arora, 'Indian Banking Sector- Reforms Owing to Globalization & Its Implications', first ed., Birla Institute of Technology, Mesra Monograph no. Mgmt.0030101, Ranchi, 2009

Patents (Applied)

S. No.	Name of the Inventor	Title of the Invention	Application / Patent No. (As applicable)	Year
1.	S. K. Sinha and Ram Prakash	"Plasma Display Apparatus with enhanced brightness and reduced power consumption	Indian Patent, Application No. 808/DEL/2010 Dated 01/04/2010. (APPLIED)	2010

Departmental Students' Activities

S. No.	Name of Activity	Student Coordinators	Date/ Duration
1	Vibrations (A Cultural & Art Fest) An expression of vibrating enthusiasm and artistic talent of students. The event well represent our mission to attain Complete Persona that is a nonstop quest in the present competitive scenario. The initiatives taken in this direction has yielded good results so far in excellent overall performance of BIT Jaipur students in academics, placements and other markers of professional and personal excellence.	Mohit Garg, Nidhi Kaushal, Anu Mangal, Moksha, Harshit, Gaurangi, Abhishek, Chandni Babbar, Dhruvad, Arjun, Lipee, Samreen, akansha, aman, Kriti, Vipul	October 30-31 2009 2 Days
2	Tech Vibes (A Technical Fest) The rich technical legacy of BIT gets new expressions in TechVibes, an event that stimulate minds to innovate and practically realize their knowledge and ideas.	Anubhav Vij, Anukriti Phophalia, Neha Garg, Ayushi Garg, Mayank K Dadheech, Rahul Bansal, Vivek Mishra, Shivangi Mishra, Ashsish Mishra, Naimisha Gupta, Rahul Kumar, Adit Bhargava	February 3-6, 2010 3 Days
3	Cavorts (A Sport Fest) An event to club physical and mental strengths. Sports play key role in personality development. Specially, good health, team spirit and competitiveness rate high in professional career now days.	Shakti Singh Nathawat, Rahul Bansal, Garvit Bothra, Sudershan Sodhani, Rahul Kumar, Ruchika Lahoti, Nishant Kalia, Reema , Gaurav Saxena, Mohit Garg, Faraz Zameel, Pratyush Kr. Singh, Pratyush Parashar, Shailja Sharma, Lakshya Rupani, Anubhav Saransh, Saumitra Daundiyal, Chaitali Nagpal, Shweta Kumari, Akansha Manchanda, Jeevitesh Shekhar, aniruddh Agarwal, Viccky Agarwal, Prashant Kumar, rahul Bansal, Sandeep Jha	February 3-6, 2010 3 Days
4	Entrepreneurship Day (An event to develop and exhibit entrepreneur skills) A way to enterprise new ideas meaningfully. An event to focus on creating confidence for taking professional initiatives and out of box thinking.	Mohit Garg, Isha Gautam, Mayank Kr. Dadheech, Anu Mangal, Moksha Meghnane, Arjun, Lipee	February 11, 2010 1 Days

Members on Board of Studies (UG/PG)

- Dr Madhavi Sinha, Member of BOS of Vardhman Kota Open University, Kota, Rajasthan for M.Sc. (Computer Science) and BCA Courses.

Other Important Information

Industrial Interaction

1. Dr. Abhinav Dinesh attended the corporate meeting of BOSCH Ltd. (A Leading German Company) as a special invitee and resource person on meeting theme –“Enabling Leadership through knowledge management” held at Jaipur on June 8, 2010 and delivered talk on – “Intellect Management: A relevant Perspective for knowledge Based Industrial Growth” . Interaction between BIT and BOSCH was also discussed in the meeting for collaborative programmes.
2. The Management Department of BIT , Jaipur Campus was invited to arrange a special academic session in the `HR Conclave 2010’ organized by Confederation of Indian Industry (CII) at Jaipur on 12-13 February, 2010 on the theme of – “Aligning HR to Corporate Strategy” . The theme of special session by BIT was “Human Resource Management : A shift towards broader domain of Intellect Management in contemporary knowledge based growth environment”. CEOs and HR heads of leading corporate attended the Conclave.
3. Industrial tours were organized for MBA and BE students at leading Public Sector Industry- Instrumentation Ltd. (IL), Kota. An innovative visit was organized for BE students at Power station of Rajasthan Electricity Board to see state of art Electricity distribution and control systems and managerial process.

Visit of Eminent Personalities

1. Delegation of Mannheim University, Germany comprising Prof. Markus Gumbel, Prof. Georg Winterstein and Prof. Steffen Rasenat, Visited Jaipur center for collaborative academic and research programmes.
2. Professor Adrian Fiech of Memorial University, Canada Visited Jaipur center for collaborative academic and research programmes. He also delivered lecture on Emerging Technology in Computer Science
3. Prof. R.E.H. Clark, Former Atomic and Molecular Data Unit Head, International Atomic Energy Agency (IAEA), Vienna, Austria (1999-2009) and currently an Adjunct Professor in Department of Physics and Astronomy at University of Texas at San Antonio (UTSA) USA. visited the Jaipur Centre to initiate a bilateral scientific collaboration.
4. Mr. R.K. Gupta, Deputy Director and Head TNBD Cell, CEERI , Pilani Visited Jaipur Centre for discussing association between BIT & CEERI for academic and research programmes . He also delivered seminar presentation on CEERI research programmes and scope for faculty and students to participate.

Short Term Courses Organised

An Innovative programme on Industrial Application

Based on his earlier experience in TCS, Mr. Santosh Kumar Sharma , Lecturer CSE Department innovatively organized a training program for MCA, BE & BCA students on “Software Quality & Testing Process” at BIT Jaipur campus. This training program basically concerned with how to test and improve quality of Software. After the training, some students appeared for Internationally renowned ISTQB Certification (International Software Testing Qualification Board) Exam . Following six students have earned the merit and glory for the institution with successfully clearing the ISTQB Certification.

1	Prashant Sharma	MCA 5th semester
2	Swati Gangwani	MCA 5th semester
3	Sonali Gupta	MCA 5th semester
4.	Rahul Shirivastava	MCA 5th semester
5.	Nidhi Tanwari	BE (CS) , VIth Semester
6.	Paridhi Ranjana	BCA Vth Semester

Kolkata



Institute's Building

The Kolkata Extension Centre was established in 1995. This Centre offers academic programmes in Computer applications and Business Management. The Centre has most modern computer laboratories, a well-equipped library and other academic infrastructure. The Centre, located in the southern part of the city, is well connected with the rest of Kolkata. The extensive 31, 000 sq feet premises of the Centre includes a spacious computer laboratory with a server room, several lecture rooms, a seminar hall, and a well-equipped library with books, e-books, journals and an e-library. Students have free access to online journals through ACM, IEEE and H.W

Wilson, Science Direct-online. The whole Centre is networked both LAN and Wi Fi System and Internet facilities are provided through a 2 mbps leased line.

The Centre is running the following courses

1. MCA, 2. BCA, 3. BBA, 4. M.Sc in Bioinformatics, 5. MBA Full Time, 6. MBA Part Time, 7. M.Tech (Computer Science) Part Time

Out of these the M.Sc programmes have been introduced in the year 2005 and MBA Full Time and Part Time and M.Tech (CS) Part Time have been introduced in the year 2010

The computer laboratory has 210 modern HP and Dell PC's, and another 21 new configuration PC for the staff. The Laboratory has latest software ranging from C, Turbo C++, Java, VisualStudio.net, etc, to Oracle 9i, Photoshop 9, Adobe Writer, Flash 8, Dreamweaver 8 and Rational Rose. Platforms include Windows 2000, Windows 2003 Server, Windows Workstation version, Red Hat Linux 4, etc.

Students of MCA secured campus placements in reputed organizations such as Aricent, HP, Sapient, Tech Mahindra, I-Gate, Oracle, Electro Design Automation, Birla Soft, IBM, Accenture, Mahindra British Telecom, Wipro, etc. These students had done their final semester projects in CTS, Wipro, ISI Calcutta, Jadavpur University, Electra Design Automation, IBM Global, Sunrise Software, Accenture, Birla Soft, and Metalogic Systems. They had done projects on different areas like R&D, Networking, Image Processing, VLSI design, Database Software. All students are also encouraged to do in house projects in their fifth/sixth semester under the guidance of the faculty members.

The faculty at the Centre has a range of teaching, research experience in Digital Image Processing, Mobile Computing, Distributed and Parallel Computing, Agile Programming, Data Warehousing and Mining, Industrial Marketing, Corporate Finance, HR and Organizational Behaviour, Entrepreneurship, and Industrial Relations. Many of them are also actively involved in training and development programmes. Eminent faculties also deliver Guest lectures regularly from IIT Kharagpur, Jadavpur University, Calcutta University, Burdwan University, B. E. College (Shibpur), Bengal Institute of Technology, Engineering and Management Institution under WBUT, Industry, Colleges under University of Calcutta etc.

Sponsored Project**On going Project**

Sl. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1	Development of a PC-based Geo-referencing Software	Ambar Dutta (PI) / R. T. Goswami (Co-PI)	DST	3.3.2008	8.14 lakhs	2 years

Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Duration
1	A. Soumendra Bhattacharjee B.Dr. Sandip Kumar Sengupta	The Power of Creativity	I.C.F.A.I, Kolkata	I.C.F.A.I, Kolkata	Hotel Lindsay, Kolkata	10th October, 2009
2	A.Soumendra Bhattacharjee B.Sraboni Dutta	Talent Management & Employee Engagement in Today's Scenario	Kolkata Chapter of Indian Society for Training and Development (ISTD)	Kolkata Chapter of Indian Society for Training and Development (ISTD)	Hotel Peerless Inn, Kolkata	20th November, 2009
3	Soumendra Bhattacharjee	Research Methods in Management	AICTE	Indian Institute of Technology, Kharagpur	IIT Kharagpur At ITS Kolkata Campus	7th December 2009 to 12th December 2009
4	Soumendra Bhattacharjee	HR : Yesterday, Today & Tomorrow	Kolkata Chapter of Indian Society for Training and Development (ISTD)	Kolkata Chapter of Indian Society for Training and Development (ISTD)	Seminar Hall of M.P. Birla Planatorium, Kolkata	22 nd January, 2010
5	Ajanta De Sarkar	Wireless ad-hoc and Sensor Networks	UGC Sponsored Refresher Course	Jadavpur university	Jadavpur university	4 th January to 23 rd January, 2010.
6	Sraboni Dutta	HR challenges for Tomorrow's Managers	Centre for Social Sciences, University of Calcutta	Centre for Social Sciences, University of Calcutta	University of Calcutta	March 13 2010

Publications**International Journals:**

1. Ajanta De Sarkar, Sarbani Roy, Dibyajyoti Ghosh, Rupam Mukhopadhyay, and Nandini Mukherjee, "An Adaptive Execution Scheme for Achieving Guaranteed Performance in Computational Grids", in Journal of Grid Computing: Volume 8, Number 1, March 2010 Issue, pp: 109-131. Published online May 28, 2009.

2. S Sur-Kolay, S Mukhopadhyaya et al "The Double Digest Problem : Finding all Solution", International Journal of Bioinformatics Research & Application (JBRA): Volume 5, Issue 5 pg: 517- 592. Published 2009.
3. Debasis Mitra, Susmita Sur-Kolay, Bhargab B. Bhattacharya, Sandi Kundu, Ashish Nigam, Sandeep. K. Dey "Test Pattern Generation for Droop Faults", in press IET-Computers & Digital Techniques. Sarmishtha Ghoshal, Debasis Mitra, Sudip Roy, Dwijesh Dutta Majumder, "Biosensors and Biochips for Nanomedical Applications: a Review", Sensors and Transducers Journal Volume 113, Issue 2, pp. 1-17, February 2010.
4. S. Banerjee and Sraboni Dutta Evaluating Ethical Behaviour in Small Firms: A Stakeholder Perspective has been accepted for publication in the International Business & Economics Research Journal.
5. Sraboni Dutta and S. Banerjee, Ownership Patterns and Ethical Practices of Small Enterprises in Kolkata, Journal of Entrepreneurship, Vol 18(2), 2009, Sage Publications.

Proceedings

International Proceedings:

1. "A New Corner Matching Algorithm using Fuzzy Relational Approach", IASTED International Conference on Visualization, Imaging and Image Processing (VIIP 2009), Cambridge, United Kingdom, July 13 – 15, 2009
2. "New Corner Matching Algorithm using Fuzzy Similarity Measure", International Conference on Machine Vision, Image Processing, and Pattern Analysis (MVIIPA2009), Bangkok, Thailand, December 25-27, 2009
3. Sraboni Dutta and S. Banerjee, Evaluating Behaviour in Small Firms: A Stakeholder Perspective, European Applied Business Research Conference (EABR) held at Prague, Czech Republic on 8-11th June 2009.

National Proceedings:

- Dibyajyoti Ghosh, Rupam Mukhopadhyay, Ajanta De Sarkar, and Nandini Mukherjee, "Study of the Execution Performance of Parallel Loops in OpenMP Programs using Different Scheduling Strategies" in the Proceedings of National Conference on Trends in Computing Technologies (NCTCT '09), pp: 75-85, Chennai, India, February 12, 2009.

Award / Recognition Bestowed on Faculties (State / National / International)

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1	Radha Tamal Goswami	Nomination Committee member	Computer Society of India Kolkata Chapter	2009

Departmental Students' Activities

S. No.	Name of the Activity	Students' co ordinator, if any	Date/Duration
1	Intra College Cricket Tournament		January 2010
2	Food Festival	Disha a Social Awareness Group	September 2009
3	Blood Donation Camp	Disha a Social Awareness Group	August 2009
4	Intra College GD	Communique group	October 2009
5	Saraswati Puja	MCA IV semester and Disha, a Social Awareness Group	February 2010
6	BIT Kolkata website	Technocrat Group	October 2009

Lalpur, Ranchi



Main Building

BITEC started as a Centre for Continuing Education initially with part-time postgraduate M.E. courses for the benefit of officers working in various Ranchi based Public Sector Undertakings and private industries, who wished to upgrade their qualifications. Part-time evening courses were offered first for M.E. then subsequently the MBA, MCA and DCA courses were started. The laboratory classes were conducted on Sundays and holidays at the Mesra campus. This Centre is now named as Lalpur Extension Centre.

In 1997, the Institute started the full time courses, B.Sc. Computer Science and B.Sc. Electronics for girls, and in 1998 the BCA course, again for girls only. These were successfully conducted in 1999 and subsequently the BCA course for boys was also started. The M.Sc. Information Technology and M.Sc. Electronics and Telecommunication courses for girls and BBA course for girls and boys were introduced in 1999.

Quality is of paramount importance at the Lalpur Extension Centre. The faculty members at the Lalpur Extension Centre have considerable academic and corporate experience, as do the distinguished visiting academicians and the professionals from different industries.

The students, research scholars and faculty members have access to our library books, journals and periodicals. The Centre has well equipped computer laboratories with 167 PCs connected to LAN, broadband connectivity, latest software and online journals. The fully computerized branch of UCO Bank is within the campus and serves the students, staff and others in the campus. To fulfill the immediate medical requirements of staff and students, the Centre has Dispensary-Cum-Health Centre in the campus. The centre also has a canteen to cater to the needs of the staff and students.

Currently the Lalpur Extension Centre has over 1949 students on its rolls, of which almost 613 are postgraduate students of the Lalpur Centre organize their own cultural and extra-curricular events, and also take active part in sports and cultural events organized at Mesra.

Campus placements

The training & placement division of an institute acts as an interface between the academia and corporate sector and here at our institute this work is handled in a stupendous way by a team of training & placement student coordinators under the supervision of the Faculty-In charge.

Our institute being a premier centre for imparting technical education has been able to continue our tradition of placing our computer science and Management students consistently in different reputed organizations likes Infosys, HCL, TCS, Cognizant, Accenture, Wipro, Goldman Sachs, HCL Infosystems, HCL Commnet, Trident, ICICI, UTI, Goodyear, Pantaloon, IDBI, Reliance, ISPAT Industries, BLUE STAR & many more.

In addition to the placement, the division arranges industrial visit for the students regularly. The institute also helps the students in getting industrial training, projects at different organizations and arranging guest lectures.

Courses offered:**UG Course:****Full Time**

- Bachelor of Computer Application
- Bachelor of Business Administration

PG Course:**Full time**

- Master of Computer Application
- Master of Business Administration
- M.Sc. (Information Technology)

Part Time

- Master of Business Administration
- M.Tech. (Computer Science)

PhD:

- Management
- Computer Science

Sponsored Project (Ongoing)

Sl. No	Project Title	PI	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the project
1	Development Of Metric Suite for Object Oriented Software Design	Dr (Mrs) Vandana Bhattacharjee	UGC	26 th March, 2008	Rs. 3,38,800	2008-11
2.	Exploring the career journey of 'High Flyer' Managerial and Professional Women : Tribal and Non Tribal Women of Jharkhand	Ms. Anupma Sahai	Indian Council of Social Science Research (Ministry of HRD), Govt of India	1 st Feb, 2010	Rs. 5,42,875	2010-2012

Conferences / Seminars / Workshops / Staff Development Programmes attended**(Department of Management)**

Sl. No	Name of the Faculty	Name of Conference/ Workshop	Funding Agency	Organisers	Venue	Month Date, Year
1.	Dr. Pranab Kumar	Research Methodology in Social Science	ICSSR, N. Delhi	University Political Science Dept., Ranchi University, Ranchi	U.G.C Academic Staff College, Ranchi University, Ranchi	May 22 nd to 31 st , 2010

2.	Mr. Abhaya Ranjan Srivastava	QIP Programme - Creating Value Through Innovation	AICTE	FMS,BHU	Faculty of Management Studies, BHU, Varanasi	January 25-30, 2010
3.	Ms Anupma Sahai	Competency Mapping & Feedback: for Personal Effectiveness & Business Development	AICTE	IIT Kharagpur	IIT Kharagpur, Bhubaneswar Extension Centre	Dec.14 th –Dec. 20 th , 2009
4	Ms Anupma Sahai	Management Programme for Women Entrepreneurs – 2010	BIT Mesra (from project account)	NSRCEL cell IIM Bangalore	IIM Bangalore	April 4 th –May 26 th , 2010
5.	Mr. Somnath Mukherjee	National Seminar on Core sector management for global competitiveness	AICTE	Indian School of Mines ,Dhanbad	ISM Dhanbad	Feb.20 & 21,2009
		QIP on Value Chain Analysis	AICTE	FMS,BHU	BHU, Varanasi	Feb. 08-10, 2010
6.	Mr. S. N. Sahdeo	National Seminar on Core sector management for global competitiveness	AICTE	Indian School of Mines ,Dhanbad	ISM Dhanbad	Feb.20 & 21,2009
7.	Mr. Ashutosh Mishra	Faculty Workshop on Soft Skills'	-	T & P Department, BIT Mesra	BIT Mesra	Sept. 7 th -19 th , 2009
8	Ms. Mili Dutta	Role of Agro-Entrepreneurs in the growth of Food Processing Industry at International Conference on Agripreneurship and Rural Development	-	Faculty of Management Science-BHU	BHU Varanasi	Dec.05 th & 06 th 2009
9	Ms. Mili Dutta	Short Term course on Human Resource Development	A.I .C.T.E	Dept. of Humanities, IIT , Kharagpur	IIT, Kharagpur	March 21-26, 2010

10.	Mr. Soumitro Chakravarty	Value creation through Innovation	AICTE	FMS, BHU Varanasi	BHU Varanasi	Jan 25 th – 30 th 2010
11.	Mr. Satrajeet Choudhury	Faculty Workshop on 'Soft Skills'	-	T & P Department, BIT Mesra	BIT Mesra	Sept. 7 th -19 th , 2009
		QIP on Value Chain Analysis	AICTE	FMS, BHU	BHU, Varanasi	Feb. 08-10, 2010
12.	Ms. Sayontani Choudhury	Attended Faculty Development Programme on "Learning to do research for publishing in academic journals and for doctoral dissertations".	AICTE	IIM Kozhikode	IIM Kozhikode	Nov. 16 th to 21 st 2009

(Department of Computer Science)

Sl. No.	Name of the Faculty	Name of Conference/ Workshop	Funding Agency	Organisers	Venue	Month Date, Year
1.	Ms. Onima Tigga	Statistical Modeling for Data Analysis	MHRD/ AICTE	VGSOM, Kharagpur	IIT-Kharagpur	Nov-30 th - Dec 11 th 2009
2.	Ms. Jaya Pal	Fuzzy Logic Rule Based System for prediction of fine in Accidents			Management Development Institute(MDI), Gurgaon	July 13 th - July 15 th , 2009
		Statistical Modeling for Data Analysis	MHRD/ AICTE	VGSOM, Kharagpur	IIT-Kharagpur	Nov-30 th - Dec 11 th 2009
		A Fuzzy Logic System for Software Quality Estimation		Orissa Information Technology Society and the Temple City Institute of Technology and Engineering (TITE), Bhubaneswar	Bhubaneswar	Dec 21 st - Dec 24 th 2009

3.	Mr. Kuntal Mukherjee	International Conference on Advances in Computing Control & Tele-communication Technology, ACT-2009	---	ACEEE	Trivandrum, Kerala, India	Dec. 28-29 2009
		International Conference on Recent Trends in Information Technology & Computing ICT-2010		ACEEE	Kochi, Kerala, India	March 12-13, 2010
		National Conference on Computing & Systems (NACCS-2010)		Department of Computer science, University of Burdwan, India	Burdwan	January 29, 2010
4.	Mr. P. S. Bishnu	National Conference on Computing and Systems (NACCS 2010), 29 th January 2010	Burdwan University	Burdwan University		29 th Jan. 2010
		HPCA 2010	BHU, Varanasi.	BHU, Varanasi.		8 th to 10 th February 2010
		International Conference on Data Management- 2010,	IMT, Ghaziabad	IMT, Ghaziabad		11 th to 12 th March 2010

Publications

1. A.N.Jha, P. Nathani, Model of Expatriate Adjustment and Framework for Organisational Support, The Alternative, Vol VIII, No 1, 34-41.
2. A.N.Jha, P. Nathani, An empirical study of work and family life sphere and emergence of worklife balance under uncertain economic scenario, Growth Foundation Day Special Issue, June- Sep09, 69-73.
3. A.N.Jha, K. Bhattacharya, Trainer's Dilemma- A case study on corporate training, BMA Journal of Retail and Marketing , Vol 1 No1 2010 , 88-103
4. N. Bhatia, P. Kumar, Human Resource Audit-A Concrete Scaffold, Growth, Vol. 37 (2010) 33-37.
5. N. Bhatia, P. Kumar, Human Resource Audit- A tool for an Admirable Corporate Culture, International Conference, University of Mauritius, Mauritius, Feb. 13-19, 2010.
6. A.K. Sinha, Forex Risk Management by Banks Through Proper Quotes Management, Growth, 37(Oct-Dec, 2009), 39-41.

7. V. Bhattacharjee, P. K. Mahanti, S. Kumar, Complexity Metric for Analogy Based Effort Estimation, International Journal of Theoretical and Applied Information Technology (JATIT), Asian Research Publication Network, Islamabad, Pakistan, Vol. 6, No. 1, July 2009, pp. 001 - 008
8. M. S. Neogi, V. Bhattacharjee, Evaluating the Effectiveness of VOSDM: A Vision Oriented Approach, ACM SIGSOFT Software Engineering Notes, Vol. 35, Issue 2, March 2010
9. V. Bhattacharjee, P. S. Bishnu, CTVN: Clustering Technique Using Voronoi Diagram, International Journal of Recent Trends in Engineering, Vol. 2, No. 1-6, pp. 13-15, 2009
10. V. Bhattacharjee, P. S. Bishnu, Gravitational Based Hierarchical Clustering Algorithm, International Journal of Recent Trends in Engineering, Vol. 3, No. 2, pp. 18-20, 2009
11. A. Priyam, B. M. Karan, G. Sahoo, A Probabilistic Model For Sequence Analysis, International Journal of Computer Science and Information Security vol7 No.1, (2010) 244-247
12. A. Priyam, B. M. Karan, G. Sahoo, Design Of A Novel Algorithm For DNA Sequence Analysis, International Journal of Multidisciplinary Research and Advances in Engineering vol.2 No.1, (2010) 157-165
13. K. Mukherjee, G. Sahoo, A Framework for achieving better Load Balancing and Job Scheduling in Grid Environment, International journal of Information Technology & Knowledge Management, volume-2, No1 (2009), 199-202.
14. K. Mukherjee, G. Sahoo, Performance Analysis of Cloud Computing using Multistage Ant System, International Journal on Futuristic computer Applications, Volume 20 (2010), 75-80
15. P. S. Bishnu, V. Bhattacharjee, Gravitational Based Hierarchical Clustering Algorithm, IJRTE, Vol 3, No.- 2, (2010) pp. 18-20

Proceedings

1. Soumitro Chakravarty, Dr. A. N. Jha, "A Study Of The Effectiveness Of Merger & Acquisitions Under Changing Economic Scenario" Proceedings Of International Conference On "Innovative Strategies For Value Creation And Management", Rvim Bangalore, Dec 2009
2. Soumitro Chakravarty, Umesh Prasad, "A Study Of Energy Auditing & Management Through Demand Side" Proceedings Of International Conference On "Innovative Strategies For Value Creation And Management", Rvim Bangalore, Dec 2009.
3. Soumitro Chakravarty, Umesh Prasad, "An Empirical Study Of The Role Of Information Technology For Power Conservation & Management" Proceedings Of National Conference On "Future Perspectives Of Renewable Energy", KiiT University, Bhubaneswar, December, 2009
4. Soumitro Chakravarty, "Organizational Creativity, Idea Generation & Innovation", proceedings of Seminar on "Value creation through Innovation", BHU Varanasi, Jan 2010.
5. J. Pal, V. Bhattacharjee, A Fuzzy Logic System for Software Quality Estimation, Proceedings of International Conference on Information Technology, ICIT 2009, Bhubaneswar, Dec. 21 – 24, 2009
6. V. Bhattacharjee, N. Viraj, Software Development Time Estimation Using Fuzzy Logic, Presented at TECHTATVA 2009, Manipal Institute, September 2009.
7. V. Bhattacharjee, P. S. Bishnu, R. Sharma, Unsupervised learning approach to fault prediction in Software Module, In Proceedings of National Conference on Computing and Systems 2010, Burdwan, India, January 2010, pp. 101-108
8. V. Bhattacharjee, P. S. Bishnu, A New Shape Based Clustering for Arbitrary Shaped Cluster, In Proceedings of HPCA 2010, BHU, Varanasi
9. V. Bhattacharjee, P. S. Bishnu, A New Density Based Clustering With Different Local Densities, In Proceedings of ICDM 2010, February 9-10, 2010
10. M. S. Neogi, V. Bhattacharjee, R. Mahanti VOSDM: Agile View for Budding IT professional, in Proceedings ICBIRD 2010, IMT Ghaziabad, February 25-26, 2010

11. V. Bhattacharjee, N. Viraj, A Fuzzy Logic based Model for Software Development Time Estimation, in Proceedings CECT 2010, Rayat bahara Institute of Engg and Technology, Mohali Punjab, April 9-10, 2010
12. V.Bhattacharjee and J.Pal, Fuzzy Logic Rule Based System for prediction of fine in Accidents, proceedings of 7TH Annual International Conference on information Science, Technology and Management, CISTM 2009, MDI Gurgaon, India, July 13-15, 2009.
13. J. Pal and V.Bhattacharjee, A Fuzzy Logic System for Software Quality Estimation, proceedings of 12th International Conference on Information Technology ICIT 2009, Bhubaneswar, December 21-24, 2009
14. K.Mukherjee, G.Sahoo, Mathematical model of cloud computing framework using fuzzy bee colony optimization technique, International Conference on Advances in Computing Control Telecommunication Technology ACT- 2009, published in IEEE Xplore, Kerala, Trivandrum, December 28-29, 2009
15. K.Mukherjee, G.Sahoo, A Secure Cloud Computing, International Conference on Recent Trends in Information Technology & Computing ICT- 2010, published in IEEE Explorer, Kerala, Kochi, March 12-13, 2010
16. K.Mukherjee, G.Sahoo, National Conference on Computing & Systems (NACCS), A Framework of Cloud Computing based e-Governance, West Bengal, Burdwan, January 29, 2010
17. P S Bishnu, V Bhattacharjee, Unsupervised Learning Approach to Fault prediction in Software Module, National Conference on Computing and Systems (NACCS 2010), Burdwan University, 29th January 2010.
18. P S Bishnu, V Bhattacharjee, R Sharma, A new Shape Based Clustering, February 2010, HPCA-2010, BHU, Varanasi, 8th to 10th Feb. 2010.
19. P S Bishnu, V Bhattacharjee, New Density Based Clustering with Different Local Density, International Conference on Data Management- 2010, 11-13 March 2010, IMT, Ghaziabad, 11th to 12th March 2010.
20. Umesh Prasad, Mr. Soumitro Chakravarty "An Empirical Study Of The Role Of Information Technology For Power Conservation & Management" "Proceedings Of National Conference On "Future Perspectives Of Renewable Energy, KiiT University, Bhubaneswar, December, 2009
21. Umesh Prasad, Mr. Soumitro Chakravarty, "A Study Of Energy Auditing & Management Through Demand Side" "Proceedings Of International Conference On "Innovative Strategies For Value Creation And Management", Rvim Bangalore, Dec 2009.

Student's Activities

Society Name	Mission	Activities
INTERACT SOCIETY (Breaking the ice)	To provide students with facilities for enhancing the approach towards various problem faced in the life and giving a platform to the students to enhance their interactive skills & unproven their attitude towards career & life.	FORZA
DEBATING SOCIETY (Break out of your shell)	To provide a platform to the students where they can interact with each other & enhance their public speaking skills.	POLEMICO 09, CATALYST
NEWS AND PUBLISHING SOCIETY (We promote talent)	To provide a platform to enhance the communication & writing skills, which help them to come up with an outstanding performance in today's competitive world.	BITICON 09, REFLECTION
FINE ART SOCIETY (Zoom your creativity)	To bring out the hidden creativity & giving the students a platform to exhibit it.	SPLASH
BIZWIT (Know-I-edge)	To develop business acumen amongst future managers	BUZINESS QUIZ
IT Society	Flaming the hidden genius in our budding IT professionals	TEXPLOSION 09

NOIDA

Having felt the urgent need of a centre for diversified and advanced educational research, consultancy and training of human resources in IT and Management technology in the Northern Zone, BIT Mesra in the year 1998, established one of its extension centres at NOIDA. This is in advantageous position compared to other extension centres of BIT in terms of its location- near capital region and gateways to many IT companies at Greater NOIDA, Gurgaon and Delhi besides NOIDA. The curricula of all the credit based flexible programmes are carefully reviewed, updated, upgraded, diversified and are in pace with the needs of the industrial scenario of this country, with the help of BIT main campus. Starting with its humble beginning with a few students in BCA course, the centre is now imparting quality education to more than 1000 students through various academic programmes, both graduate and post-graduate, in Management, Computer Science and Animation & Multimedia. The campus registers scholars for Ph.D. programmes in Management & Computer Science. While the centre has a strong core faculty in all the related subjects, it has the location advantage to engage guest faculty from the Industry and other academic institutions for specialized lectures. Its placement cell is very active in getting the students placed with the Industry.

Infrastructure Added:

1. A modern computer laboratory has been added for the students of Masters in Animation & Design with high-end computers. This will provide access to the licensed software's purchased by the centre.

Programmes Offered:

1. Bachelor of Business Administration (BBA) – 3 years (6 semesters)
2. Bachelor of Computer Application (BCA) – 3 years (6 semesters)
3. Bachelor of Science - Animation & Multimedia (BAM) – 3 years (6 semesters)
4. Masters in Computer Application (MCA) – 3 years (6 semesters)
5. Masters in Business Administration (MBA) – 2 years (4 semesters)



Main Building

Additional Programme Started:

BIT Extension Centre NOIDA has started the following courses in the academic year 2009-2010:

Programme	Description
BBA (Business Economics)	Graduate level, Full Time
Masters in Animation & Multimedia	PG Level, Full Time
M.Tech (Computer Science)	PG Level, Part Time
Masters in Business Administration	PG Level, Part Time
Ph.D. (Management & Computer Science)	Full Time & Part Time

Seminar / Conferences / Short – term Courses Conducted by the Department

S.No.	Title of Seminar / Conferences / Short – term Courses	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1.	BIT National Management Conclave 2010	Dr. S.L. Gupta	--	12 th – 13 th Feb. 2010

Patna

The Birla Institute of Technology Mesra, a name synonymous with quality technical education, on the initiative of Govt. of Bihar, established its centre at Patna in year 2006. A Memorandum of Understanding was signed between the Institute and the Govt. of Bihar in December 2005. Subsequently, the Govt. of Bihar allotted 25 acres of land beside the Jai Prakash Narayan International Airport at Patna and released the requisite fund for establishing the centre. The Foundation Stone of the Centre was laid on 24 December 2005 and construction started in April 2006.

The academic activities at the Patna Centre commenced in September 2006 with admission to the B.E. programmes in Computer Science Engineering, Electronics & Communication Engineering and Electrical & Electronics Engineering, with an intake of 40 students in each of these disciplines.

From the academic session 2007-08, the intake at the Patna Centre was increased to 300 as per the provisions of the above MoU, and admissions in 2007 and 2008 have been made through AIEEE-2007, AIEEE-2008 and AIEEE-2009 respectively, and online Central Counseling conducted by the Central Counseling Board.

The Patna Campus currently offers the B.E. programmes in the disciplines of:

1. Civil Engineering
2. Computer Science & Engineering
3. Electronics & Communications Engineering
4. Electrical & Electronics Engineering
5. Information Technology
6. Mechanical Engineering
7. Production Engineering



Main Building

In addition, BIT Patna campus also offers Doctor of Philosophy Programmes in Applied Sciences and Engineering & Technology.

BIT, Patna, by far, is one of the best equipped, technically sound professional colleges in the state of Bihar. It has a Wi-Fi enabled campus. The infrastructure includes 5.25 lacs sq. feet of academic space, well equipped modern laboratories, workshops, auditorium with sitting capacity of 1200, a library with at present over 18,000 books (all bar-coded), periodicals, national & international journals & other research materials. The facility for video conferencing is established and e- library is being developed.

The heart of the institute is the large Computer Centre with 200 P4 Computers with a DELL Server connected to LAN to support multi user softwares. There is a provision for a second centralized Computer Lab with another 200 Computers. At present, the students are using System Software's like C++, MSDN, ORACLE, Rational Rose & Application Softwares like Auto CAD 2009, Auto CAD Raster Design, Auto CAD Electrical, Auto CAD Inventor, MATLAB, Multisim, Comsim, Xiling, Active HDL etc.

The Patna Centre is entirely residential and has adequate hostel accommodation for 1200 students and residential facilities for staff, dispensary, playground, gymnasium, and guest house.

Facilities for extra-curricular activities are being developed at Patna Centre, to provide platforms for students to nurture their hobbies and creative talents for relaxation and all-round personality development. Keeping in line with

the expansion of its academic programmes, the institute has been continuing its efforts of consolidating academic and support infrastructure in the form of equipments for various laboratories and learning resources. Although the centre is still in its infancy, during the three and a half years of its existence the Institute has organized several academic interaction programmes in the form of seminar/ workshop and a number of faculty members have attended seminars/ short term courses organized by reputed institutions including IIT's & NIT's etc.

Summer Internship and Campus Placements :

The summer internship/ training is a integral part curriculum of 3rd year students. Last year students have done their summer internship/ training in reputed PSU's/ organizations like NTPC, BHEL, ONGC, IOCL, HPCL, BCCL, BSNL, SAIL, BSEB, PTPS, HEC, TCS, Mindtree, Hero Honda, IREL, TATA group, Jindal, L&T, Reliance, etc. In May '09, we arranged a live summer projects of Tata Consultancy Services & Mindtree for BE- 6th semester computer science students through our video conferencing facility.

The placement of 1st batch of students comprising of Computer Science Engineering, Electronics & Communication Engineering and Electrical & Electronics Engineering has already begun. So far 80% students in Computer Science, 80% students in Electronics & Communication and 60% students in Electrical & Electronics Engineering have already been placed in reputed PSU's and top private companies.

The branch wise campus placement details of Batch 2006-2010 till February 2010 are:

Name Of Company	Branches			
	Computer Science	Electrical And Electronics	Electronics And Communication	Grand Total
Adani Power	-	1	-	1
Aricent	5	-	1	6
Atos Origin	1	1	-	2
Birlasoft	2	-	3	5
Cybage	-	-	1	1
Hindalco	-	1	-	1
IBM	2	-	5	7
IFB	-	-	1	1
Igate	4	-	1	5
Infosys	4	1	2	7
IOCL	-	2	-	2
Jusco	-	2	-	2
L&T	-	3	-	3
Mahindra N Mahindra	-	1	-	1
Mc Nally Bharat	-	1	-	1
NTPC	-	2	-	2

Tata Motors	-	1	-	1
TCS	10	2	13	25
Vedanta	-	3	-	3
Grand Total	28	21	27	76

A significant step towards collaboration between Govt. of Bihar & BIT Patna with regard to improving the infrastructure of Technical Education & Training in the state was the signing of MOUs between the Dept. Of Labour Resources, Govt. of Bihar & Birla Institute of Technology under the public Private Partnership (PPP) industry interface, reduction in industry – academic reality gap by imparting the required quality training to the technicians of ITI Digha and Women's ITI Digha, Patna. This will make the skilled technicians passing out of these ITIs proficient enough to meet the present demand of industry & also to start their own micro level industries.

Amongst the Games & Sports activities , the institute organized its first Annual Sports Meet in March, 2008 which was inaugurated by then Hon'ble Minister of Sports & Youth Welfare Shri J.S. Sigrwal; the second Annual Sports Meet in February , 2009 was inaugurated by Hon'ble Minister of Science, Technology & Minority Welfare, Shri Shahid Ali Khan & the prize were distributed by Hon'ble Justice S.N. Jha, Former Justice of Supreme Court of India & at Present, Chairman Bihar Human Rights Commission & the third Annual Sports Meet in February, 2010 was inaugurated by the Vice Chancellor of Central University of Bihar & prizes were distributed by Sri R. K. Singh, Principal Secretary, Planning & Development, Govt. of Bihar. Our Cricket Team has been participating in the Chetan Devraj Memorial Cricket Tournament organized annually at BIT Mesra. Facilities for extra-curricular activities are being developed to provide platforms for our students to nurture their hobbies and creative talents for an all –round personality development.

TECHNIKA 2009, the annual tech festival of BIT, Patna campus attracted students from all the reputed institution across India. It highlights the technical and literary acumen of the greatest minds from premier technical institutes spread across the length and breadth of the nation. It provides students an opportunity to showcase their technical skills and explore the practical dimensions of their education. TECHNIKA 2010 was held during 26-28 March 2010.

Ongoing Projects:

Dr. S. K. Sinha (Applied Physics) – “Preparation and characterization of Lithium Titanate for blanket breeder material application , sponsored by Board of Fusion Research (Project cost – Rs 13 lakh, duration – Oct 2007 –Oct 2010).

Publication

International Journal:

1. Badhai Ritesh Kumar (ECE) “Reduced size monopole Antenna for land Mine detection”, International Journal of Microwave and Optical Technology, Vol. No. 04, Nov. – 2009, P.P. 338 – 348.
2. Badhai Ritesh Kumar (ECE) “Reduced size Bowtie slot Monopole Antenna for land mine detection” Microwave and Optical Technology Letter, Vol. 52, Jan. 2010, P.P. 122 – 125.
3. Kanhaiya Lal & N.C. Mahanti, (CSE) “A Novel Data Mining Algorithm for Semantic Web Based Data Cloud”, International Journal of Computer Science and Security (IJCSS), Volume (4): Issue.(2) pp. 160-

175, May'2010.

4. Kanhaiya Lal & N.C. Mahanti (CSE) "Mining Association Rules in Large Database by Implementing Pipelining Technique in Partition Algorithm", International Journal of Computer Applications, Vol. 2 – No.4, pp. 33-39, June'2010.
5. Atul Kumar Pandey (ECE) "An energy-efficient Multi layer MAC Protocol (ML – MAC) for wireless sensor networks, AEUE International Journal of Electronics & Communication, AEUE50628, 26th May'2010.
6. Manoj Ranjan and K. Sharma et. al. "Comparative study of meta and para- tolyl substituted tetrazoline-5-thione Pd(II) complexes in acidic and basic medium" J. Chemtrack. 11(2), 561-564, 2009.
7. Dr. K. P. Tiwary "Thermally assisted ECR etching for CdTe in CCl_2F_2 / Ar discharge under different gas flow ratio". Materials science in semiconductor Processing. (Elsevier) Vol.13 Issue 2, (2010) page 102-104.

National Journal:

1. Rajnish Kumar "Some Nondifferentiable Multiobjective Programming Problem under Generalized d-V-type-I Univexity, Journal of Computational and applied Mathematics, 229 (2009) 175-182.
2. K. P. Tiwary "Assessment of Water and air contamination in the surrounding of UCIL, Jaduguda Mine, Jharkhand. Journal of Environmental research and development Vo.3No.2(2009) 472-478.

Proceedings

International:

1. Badhai R. K. "Reduced size Bo-tie coupled slot antenna for land mine detection", IEEE International conference on innovative Technology (ICIT-09) PDM College of Engineering Badur Gard, Hariyana, India, P-770, June – 2009, pp.484-489.
2. Mayank Singh "Electrical consumer Indexing Incorporating Geographical Information Systme," itc, PP.257-261, 2010 International Conference on Recent friends in information, Telecommunication and computing, 2010 Publisher – IEEE Computer Society Washington, DC, USA."
3. P. Kour "Microstructure thermodynamically properties of ptt thin fulm" International conference on Electroceramics-2009, Dec-2009, Delhi University.
4. P. Kour, S. K. Pradhan "Electron-hole plasma by nonlinear optics" International conference on waves, coherent structures & turbulence in plasmas, 12-15 Jan'2010, IPR Gandhinagar.
5. S. K. Pradhan " Intelligent material for noise reduction" International conference on Electroceramics-2009, Dec.2009, Delhi University.

National :

1. Kanhaiya Lal "Mining Association Rules in Large Database by Implementing Pipelining Technique in Partition Algorithm on Uni-processor", National conference & Workshop on High Performance computing & Applications, B.H.U. Varanasi, Feb.'2010.
2. Kanhaiya Lal "Role of Soft computing in Data Mining", National conference on recent trends in Engg., IMPSCET, W.B. Technical University, Malada, April'2010.
3. Kanhaiya Lal "A Novel Data Mining Algorithm for Semantic Web Based Data Cloud using sector sphere & association rule", National conference & Workshop on High Performance computing & Application,

B.H.U. Varanasi, Feb.'2010.

4. Dr. S. K. Sinha, Sanjeev Kumar, P. Kour, A.Dev & Dr. A. S. Vidyarthi "Application of Atmospheric cold plasma in the field of Biotechnology" presented at "National Seminar on Application of Biotechnology & Development of Bihar" – (March 22-24, 2010). Organized by Birla Institute of Technology, Central University of Bihar & Bihar Council of Science & Technology, Govt. of Bihar.
5. Sanjeev Kumar, S. K. Sinha & P.M. Raole "Synthesis & characterization of nanosized Li_2TiO_3 for blanket application in fusion reactor, 24th National Symposium on Plasma Science & Technology, NIT Hamirpur.
6. Sanjeev Kumar, S. K. Sinha "Preparation and characterization of Lithium Titanate (Li_2TiO_3) ceramics for the Blanket Application, 3rd Bihar Vigyan Congress 2nd - 4th April'2010.
7. P. Kour "Studies of microstructure & dielectric properties of Ptt ceramics prepared by alkoxide based sol gel technique" National conference 3rd Bihar Vigyan Congress, 2-4th April'2010.
8. S. K. Pradhan "Biodiesel impact on exhaust emission" National conference on Recent trends in automobile, Oct.'2009, NIT Rourkela.
9. S.K. Pradhan "Production of Alternative fuels from waste materials" National conference 3rd Bihar Vigyan Congress, 2-4th April'2010.
10. S.K. Pradhan "Industrial sustainability to Biotechnology" National Seminar on Application of Biotechnology & Development of Bihar" – (March 22-24, 2010), BIT Patna.
11. S. K. Pradhan "Biodiesel an alternative fuel" National conference on Energy efficiency, Oct.'2009, BIT Patna.
12. K.P. Tiwary "ECR Plasma And Its Application On Etching Semiconductor Materials", 24th National symposium on Plasma Science & Technology (Plasma- 2009) NIT Hamirpur. H.P. Dec. 8-11, 2009.

Workshop/Seminar/Conference/Training Programme Attended

1. Sanjay Kumar- I Seminar on Power sector reform & Restructuring – conducted by BIT, Patna – March-2010.
2. Anubha Singh "National Seminar on Application of Biotechnology & Development of Bihar – (March 22-24, 2010). Organized by Birla Institute of Technology, Central University of Bihar & Bihar Council of Science & Technology, Govt. of Bihar. **Poster / Presentation:-** "Emerging Role of Biotechnology in the Field of Waste water Treatment."
3. Anubha Singh Workshop on "Clean water for a Healthy World" organized by The Institution of Engineers (India), Dhanbad Local Centre, (April 24, 2010). **Paper Presentation:** "Water Resources of Dhanbad District & Rain Water Harvesting for Rural Areas."
4. Dr. Binay Bhushan "National Seminar on Application of Biotechnology & Development of Bihar" – (March 22-24, 2010). Organized by Birla Institute of Technology, Central University of Bihar & Bihar Council of Science & Technology, Govt. of Bihar.

Staff Development Programme/Workshops/Industrial Training

1. Nirmala Soren, (EEE) - International Workshop on "Challenges in Smart Grid & Renewable Resources" organized by IEEE Bangalore at Infosys Campus, Mysore (14th – 15th May 2010).
5. Nirmala Soren, (EEE) - Workshop on "Power Sector Reforms and Restructuring" at BIT, Patna, organized by T&P Cell, BIT, Patna (9th – 10th Jan 2010).

**INTERNATIONAL CENTRES
OF
BIRLA INSTITUTE OF TECHNOLOGY
MESRA, RANCHI**

Muscat



Main Building

The Waljat Colleges of Applied Sciences founded by H.E. Dr. Omar bin Abdul Muniem Al Zawawi in 2001 in academic partnership with Birla Institute of Technology as its International Centre, occupies a pride of place among the technical colleges in the Sultanate of Oman. Located in the "Knowledge Oasis" at Rusayl, Muscat, it attracts students from all over Oman and neighbouring countries.

The infrastructure of the College includes 40 classrooms, a modern library with over 29,000 books, computer laboratories with over 200 computers, Laboratories for Physics &

Chemistry, Mechanical Engineering, Electronics Engineering, Engineering Drawing, Biotechnology, Language lab and Workshop. Facilities for disabled students, medical room, conference room, spacious canteen cum common room, seminar hall cum auditorium also exist. Apart from this, an additional three-storied building is under construction.

The College offers the following academic programmes of the Institute:

1. Bachelor of Engineering in
 - a) Biotechnology
 - b) Computer Science
 - c) Electronics & Communication Engineering
2. Bachelor of Computer Applications (Hons.)
3. Bachelor Business Administration (Hons.)
4. Bachelor of Computer Applications
5. Bachelor of Business Administration*
6. Masters in Business Administration
7. Executive MBA

* Also offered as a part-time programme for working candidates.

Research Activities:

The Centre has taken initial steps to encourage and nurture research interest in the Under-graduate and Post-graduate students. It is envisaged that curriculum projects assigned to the students have practical and real time component in them in order to make them interesting and relevant to social and professional needs. The research activities being carried out at various Departments are summarized below:

a) *Biotechnology*

The Department of Bio-technology is actively engaged in bio-related renewable energy research project. The research encompasses production of biofuel from marine algae available near the coasts of Oman. An attempt towards production of Xanthan gum from byproducts of agricultural industries in Oman is also taken up. The other areas of research include Smart Nanomaterial Technology; Development of Biosensors that includes

studies on caffeine biosensor and urease biosensors. In the area of Medical Biotechnology, implementation of molecular Diagnostic Techniques and Frequency of 32 bp deletion in Chemokine co-receptor 5 (CCR5) of diabetic subject is also being studied.

b) Computer Science and Engineering

The Department is currently involved in the research in the field of Digital Image Processing, Data Mining, Information Retrieval, and Software Engineering. The faculty members are actively engaged in developing algorithms and tools in various areas of their chosen fields such as Moving Boundary Problems, Stefan Problem using LSM, Object Oriented Software Metrics, Question Answering Systems, and Recommender Systems etc.

c) Electronics & Communication Engineering

The Department of Electronics and Communication Engineering provides a platform for students and researchers to do projects based on hardware and software. The faculties and students are working in the areas of Signal/ Image Processing, Power Electronics, VLSI Design, Pattern Recognition and Robotics etc. The work on development of a model for UWB channel estimation in MIMO environment and application of Artificial Neural Network in load flow analysis (economic load dispatch) is in progress. Students are provided indepth training in software like MATLAB, XILINIX, ns2, Multisim.

d) Management

Faculty members of the Department of Management are actively engaged in conducting research in the areas of E-Marketing, Value Chain, Data Envelopment Analysis, Performance Management, Work Life Balance, Barriers to Career Advancement for Women in the Sultanate of Oman, Customer Satisfaction in Online Banking, E-Commerce in Middle East, Tourism Service Quality, Women's Labour Force Participation, Word of Mouth & Trust in Online Media and Online Social Networking.

e) Mechanical Engineering

The research programmes on desalination using Direct Contact Membrane with solar energy as low cost energy source and Low Pressure Flash Evaporation techniques are under progress. Efforts are also being made to design and develop an automatic solar tracking system for optimum utilization of solar radiations for different applications.

Sponsored Project

Ongoing Projects

The following projects are being carried out with the support of the Institute:

- 1) Direct Contact Membrane Desalination project.
- 2) Low Pressure Evaporation Desalination project.

Projects Completed

- 1) Training on Photoshop & Macromedia Flash for Ministry of Education staff conducted during October & November 2009.
- 2) Training programme of Employees of Zawawi Trading Co. Agent & Distributors of Mercedes Vehicles was held from 15th Nov. 2009 to 29th March 2010.

Seminars / Conferences / Short term courses conducted by the Departments

Sl. No.	Title of Seminar / Conferences / Short – term Courses	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1	Case Method of Teaching	IBS Ahmedabad	Waljat Colleges	4-5 th Nov. 2009
2	Research Proposal & Thesis writing Workshop	Dr. Abdul Latif Murad Al Balushi	Waljat Colleges	16-17 th Dec.2009
3	Winning Interview Techniques	Management Department	Waljat Colleges	21 st Mar 2010
4	Emotional Intelligence: Management of Anger	Dr. Amsa Parambil of Central Bank of Oman	Waljat Colleges	7 th April 2010
5	Marketing in Practice	Mr. Lateef Shahdad (National Business Development Manager, Schindler Elevators & Escalators)	Waljat Colleges	5 th June 2010

Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by faculty members

Sl. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date, Month Year
1	Mr. Jyoti Chandel	WTO Mission's Workshop	N.A.	Sultan Qaboos University	Sultan Qaboos University campus	5 th &6 th Jan 2010
2	Mr. Mohd Mohatram	Scientific Symposium, Technological Development: Challenges & Perspectives	Ministry of Higher Education	College of Applied Sciences, Sohar, Oman	Sohar	12-13 th April 2010
3	Mr. Jyoti Chandel	7th International Conference on Data Envelopment Analysis	WCAS	International Data Envelopment Analysis Society	Temple University Philadelphia, U.S.A.	10-11 th July 2009
4	Mr. Santosh Kumar Ray	5 th Workshop on Semantic Web Application and Perspective (SWAP2008), Rome	WCAS	Sementic Technology Laboratory, Rome, Italy	Rome	15-17 th Dec 2009
5	Mr. Jyoti Chandel	WTO Mission's Workshop	N.A.	Sultan Qaboos University	Sultan Qaboos University campus	5 th &6 th Jan 2010

6	Mr. Mohd Iftekhhar	WTO Mission's Workshop	N.A.	Sultan Qaboos University	Sultan Qaboos University campus	5 th &6 th Jan 2010
7	Dr. G.P. Mishra	WTO Mission's Workshop	N.A.	Sultan Qaboos University	Sultan Qaboos University campus	5 th &6 th Jan 2010
8	Mrs. Neelufer Kulkarni	WTO Mission's Workshop	N.A.	Sultan Qaboos University	Sultan Qaboos University campus	5 th &6 th Jan 2010
9	Dr. Sheeba Khan	Higher Education & Quality Assurance- Global Trends and Challenges in Higher Education & Quality Assurance	N.A.	Mazoon College, Sultanate of Oman	Grand Hyatt Hotel, Muscat	12-13 th June 2010
10	Dr. S.D. Khan	International Conference on Academic Libraries (ICAL 2009)	N.A.	University of Delhi	Delhi University Library system	5- 8 th Oct.2009
11.	Ms. Seema Varshney	3 rd International Colloquium on Tourism & Leisure	N.A.	ICTL, Bangkok	Bangkok, Thailand	6-9 July 2009
12	Ms. Seema Varshney	International Symposium on " Managing in the New World Order; Strategies for sustainable Business Development	N.A.	Sur College of Applied Sciences, Oman	Sur	21-22 Feb 2010

Publications

1. Santosh Kumar Ray, Shailendra Singh, Bhagwati P. Joshi, "Automatic Answer Processing System for Web Based Question Answering", Accepted to be published in International Journal of Web Applications(IJWA), 2010, <http://www.dirf.org/ijwa> (Accepted) .
2. Santosh Kumar Ray, Shailendra. Singh, Bhagwati .P.Joshi, "Question Classification & Answer Validation- A Semantic Approach using WordNet and Wikipedia", Pattern Recognition Letters-Elsevier, 2010. <http://ees.elsevier.com/patrec> (Accepted).
3. Santosh Kumar Ray, Shailendra Singh, "Rough Set based Social Networking Framework to Retrieve User-Centric Information", In proceedings of the Twelfth International Conference on Rough Sets, Fuzzy Sets, Data Mining & Granular Computing(RSFDGrC'09), pp. 184-191, LNCS/LNAI, Volume 5908,(Eds.): H.Sakai, M.K.Chakraborty, A.E.Hassanien, D. Slezak, W.Zhu. Conference Venue: IIT Delhi, India, December 16-18, 2009, <http://www.springerlink.com/content/r61mg2043356m406/>.
4. Santosh Kumar Ray, Shailendra Singh, Bhagwati P. Joshi, "Question Classification - A Semantic Approach using WordNet and Wikipedia", In proceedings of the Second Indian International Conference on Artificial Intelligence (IICAI'09). Conference Venue: Tumkur, India, December 16-18, 2009, <http://www.iiconference.org/>.

5. Santosh Kumar Ray, Shailendra Singh, Bhagwati P. Joshi, "Rough Set Based Concept Extraction Paradigm for Document Ranking", In Advances in Intelligent and Soft Computing (Eds: Snášel, V.; Szczepaniak, P.S.; Abraham, A.; Kacprzyk, J.), proceedings of 6th Atlantic Web Intelligence Conference (AWIC 09), Vol 67, Springer, Berlin/Heidelberg Conference Venue: Charles University, Prague, Republic of Czech, September 9-11, 2009 <http://www.springer.com/engineering/book/978-3-642-10686-6?detailsPage=toc>.
6. Santosh Kumar Ray, Shailendra Singh, Bhagwati P. Joshi, "Web Based Relevance Feedback for Automatic Answer Validation", In proceedings of Second International Conference on the Applications of Digital Information and Web Technologies, (ICADIWT 2009), pp 169-174, IEEE Explore, UK, Conference Venue: London Metropolitan Business School, London, UK, August 4-6, 2009, <http://ieeexplore.ieee.org/xpl>.
7. Naithani, P, Jha A.N. Challenges Faced by Expatriate Workers in Gulf Cooperation Council Countries, International Journal of Business and Management, 5 (1), 98-104. 2010.
8. Naithani P, Jha, A.N. Empirical Study of Dynamic Changes in Work and Family Life, Spheres and Emergence of Work-Life Balance Initiatives, 2009
9. Naithani, P. & Jha., A.N. Model of expatriate adjustment and framework for organisational support. The Alternative: Journal of Management Studies and Research, 8(1) 2009, pp 34-41
10. Naithani, P. & Jha., A.N. (2009). Empirical study of dynamic changes in work and family life spheres and emergence of work-life balance initiatives. Growth, MTI, SAIL, 37(1) 69-73.
11. Mohd. Mohatram, Exponential Cost Function in Economic Load Dispatch of Thermal Power Plants – A Neural Network Approach. Proceedings of Scientific Symposium, Technological Development: Challenges and Perspectives pp. 139-148.
12. Blossom Christina : Challenges and Opportunities of Women Entrepreneurs in Coimbatore District BSMED, Bharathiar University Publication., Coimbatore Volume XV No:8 December 2009
13. Mishra G.P.: "A study of Organizational Commitment and Organizational Effectiveness" – The Management Page. (Accepted)
14. Mishra G.P. " Problems and Prospects of Education in India under WTO regime. International Journal of Educational Administration (IJEa) (Accepted).
15. Srileha Goveas Influences of Work Life balance and ethics in Employees on Service Quality' was accepted for presentation in absentia for Seventh AIMS International Conference on Management at Indian Institute of Management Bangalore held during December 20-23, 2009
16. Jyoti K Chandel : Co-authored Paper (Authors: Daniel Becker, Said Gattoufi, Jyoti Kumar Chandel) presented on "Data envelopment analysis literature: a new bibliographic database (1951-2007)" in 7th International Conference on Data Envelopment Analysis (July 10-12, 2009) at Fox School of Business, Temple University, Philadelphia
17. Shashi Dua: Customer satisfaction through quality management, a route to success of an organization. - International Symposium at Sur College of Applied Sciences, Oman, February 21-22 2010

Book

"Emerging Trends in Banking, Finance and Insurance Industry" by Dr. A.M. Agrawal & Dr. Krishn A Goyal. Atlantic Publishers, New Delhi.

Students' Activities:

S. No.	Name of the Activity	Month & Year
1.	Various activities conducted during the Holy month of Ramadan	Sept.2009
2.	Football Tournament participation organized by Muscat College	Oct.2009
3.	Participated in Badminton Tournament	Oct. 2009
4.	National Day Programme	Nov.2009
5.	Election of Students Council	Nov.2009
6.	Tree Plantation at College Campus	Nov.2009
7.	Participated in Cricket Tournament organized by Oman Cricket Club	Dec.2009
8.	Poetry Competition	Dec .2009
9.	Convocation Programme	Dec. 2009
10.	Clean Environment Campaign	Dec. 2009
11.	Mother's Day Celebration	Mar.2010
12.	Blood Donation Campaign	Mar.2010
13.	Participated in Volley Ball tournament	Mar.2010
14.	Career Fair	March 2010
15.	Participated in Tennis Ball Tournament at Royal Hospital	April 2010
16.	Visits to various college Open Day celebration	April – May 2010

Other Important Information:

- A. The 3rd Degree Award Ceremony was held on 26th December 2009 with H.E. Dr. Ali Bin Saud Al Bimani, Vice Chancellor, Sultan Qaboos University, Muscat, Sultanate of Oman as Chief Guest. H.E. Dr. Oman Al Zawawi, Founder and Special Advisor to His Majesty the Sultan of Oman also graced the ceremony.
- B. The First Career Fair was held on 24th & 25th March 2010 in the College campus. More than 15 companies took part in the fair.

Ras Al Khaimah, UAE



Main Building

BIT International Center at Ras Al Khaimah started its operation from September 2005, where we are imparting BIT's undergraduate programs in Electronics & Communication, Electrical & Electronics, Computer Engineering, Architecture, Management and a six - year integrated program in Engineering after ten years of schooling. Apart from this, two years of MBA and EMBA programs are also conducted by BIT IC. MBA is a regular day-time program, while EMBA is a week-end program. Two new undergraduate programs on Mechanical Engineering and Civil Engineering have been started from the year 2009-10.

As per law of the country the center is not allowed to own any property on permanent basis. Thus it is operating based on the agreement & License of "Royal College of Applied Science and Technology" in Free Trade Zone. It has started operating in a new Campus in Al Dhait, Ras Al Khaimah, since 15th March 2009. During the academic year 2009-10 about 1000 books of various disciplines are added to our library making the total books available to about 9,500. Also, the number of journals in the Library, both national and international, has been increased during this year to a total figure of 32. Some computers have been added in this year with higher configuration to have a total of 190 computers in the computer lab. New A0 size Colour plotter along with A3 size scanner-cum-printer has been added for printing computer-drafted drawings, (especially for Architecture and Engineering students), for the students to present their Project reports. On the electronics, electrical and mechanical laboratory, new and advanced equipments have been added during this academic year. The budget allocation for the infrastructure up gradation would be more in the coming academic year, i.e. 2010-2011

Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference / Seminar	Funding Agency	Organizer	Venue	Month Date, Year
1.	Dr. K. Durga Prasad	Corporate Social Responsibility	Dubai Chamber of Commerce	Dubai Chamber of Commerce	Dubai	10 th Feb, 2010
2.	Mr. V. Rajesh	- do -	- do -	- do -	- do -	- do -
3.	Mrs. Thaseem Fathima	Training on PLC	Mechatronics Dubai	Mechatronics Dubai	Dubai	5 th May 2010
4.	Mr. Renjith Mathew	- do -	- do -	- do -	- do -	- do -

Publications

National

1. P.K.Upadhyay, R. K.Sinha, B.M. Karan, Predicting Heat-Stressed EEG Spectra by Self-Organising Feature Map and Learning Vector Quantizers, Journal of Biomedical Sciences and Engineering, 3 (2010) 530-538.
2. P.K.Upadhyay, R. K.Sinha, B.M. Karan, Detection and Analysis of the Effects of Heat Stress on EEG using Wavelet Transform, Journal of Biomedical Sciences and Engineering, 3 (2010) 405-414.

3. P.K.Upadhyay, R. K.Sinha, B.M. Karan, Identification of Stressful Events using Wavelet Transform and Multilayer Feed-Forward Network, Caledonian Journal of Engineering, Vol. 05, No.2, 2009.

Proceedings

1. Abhilash Prasad, "Laser based rocket propulsion Engineering". Proceeding of International conference IMMM 2010, Govt Engineering college, Cochin. January 17-21, 2010

Books

Reference to a book:

1. Dr. K. Durga Prasad, Financial Accounting-I, SDLCE, Kakatiya University, Warrangal, AP, 2009

Departmental Students' Activities

S. No.	Name of the Activity	Department	Students' co-ordinator	Date/Duration
1.	Education Field Trip to "Jordan"	Architecture	Mr. S. Mitra	01-07.02.2010
2.	Participation in Software Trade Show at UOWD, Dubai	Computer Science & Engineering	Mr. K.N. Murugavel	29.04.2010
3.	Industrial Tour to RAK Steel, RAK	ECE & EEE	Mr. Ranjit Ranjan	17.05.2010

Any Other Information

- Quality Improvement Initiatives: Special lectures were arranged for faculties and students of CSE to make them aware about modern trends of Computational Technology.
- Guest Lectures were arranged for the students of BE, B Arch and MBA by experts in these fields.
- Technical Article published in college magazine 2010: "HERE COMES THE NEW ERA OF SEMANTIC WEB", by Mr. K.N. Murugavel (Sr. Lecturer) and Aditi Gurunath Rajan, Reshma Raju Joshi (Students) of CSE Department, BITIC, RAK.

Bahrain

Computer Science & Engineering Department

The Department has well-equipped laboratories with latest versions of different software along with Internet facilities.

Electronics & Communication Department

The department has good laboratory facilities in the areas of Basic electronics, Microprocessors, Digital Systems Design, Instrumentation and process control, Communications, Circuit Simulation, etc.

Production Engineering Department

The Centre has established the state of art workshop facilities to offer higher education programme in Production Engineering. The facilities include most modern machine shop, fabrication shop, sheet metal shop and a host of other facilities. To cope up with the latest trends in machining, CNC train masters and Electric Discharge machining, facilities have also been installed

Management Department

The department has fairly good facilities to offer BBA, MBA and B.Com. programmes. All these departments are currently engaged in conducting the educational programmes of the Institute.

A new group of 187 students reported for studies in different programs during the year 2008. It is heartening to note that our programmes are attracting sizeable number of students from the neighbouring eastern province of the Kingdom of Saudi Arabia from where about 100 students commute to the university on daily basis. The induction programme organised for freshers at the beginning of every academic session is helping the students to align themselves with the university system very quickly. This was evident from the recently concluded quality review. We have plans to make these programs more comprehensive to make students comfortable in the system. BIT, Bahrain, is witnessing accelerated growth and is emerging as one of the most sought after university in the Island.

Courses offered:

The courses offered at Birla Institute of Technology International Centre, Bahrain, are as follows:

1. 4 year Bachelor of Engineering degree programme (B.E.) in Computer Science
2. 3 year Bachelor of Science degree programme (B.Sc.) in Information Technology
3. 2 year Master of Business Administration degree programme (MBA)
4. 3 year Bachelor of Business Administration degree programme (BBA)
5. 3 year Bachelor of Commerce degree programme B.Com. is being offered from academic session 2005-06



University Polytechnic



Diploma Award Ceremony '2010

University Polytechnic was set up in the year 2001 as a joint venture of BIT Mesra and the Welfare Department, Government of Jharkhand, with an objective to impart Diploma level technical education to the youth of Jharkhand. The main focus of the institute has been on providing its students, the best theoretical and practical input as per the industrial requirements. Devoted faculty members, well-equipped laboratories and well-stocked library help students get the most up-to-date knowledge in their respective trades. From time to time students are being sent for industrial visits

to have exposure of Industrial working. Summer training, is an integral part of the curriculum to further help the students orient themselves to the industrial environment.

Besides maintaining its standard in education and other institute activities at a high pitch the institute this year has further ventured into different areas of academic and developmental pursuits by introducing several branches and submitted projects and proposals for its automisation in certain areas.

The cut off marks for admissions in DIT (2009-2012) were as high as 94% for General and OBC candidates (aggregate of Mathematics and Science only), and 74% (approx.) for SC & ST candidates and 50.2% for PT (aggregate of all subjects).

Infrastructure Added

- Around 300 books worth Rupees One Lac have been added to the University Polytechnic Library.
- 15 Microprocessor kits along with the following modules have been included in the Microprocessor Lab during the year: ADC interface card, DAC interface card, Stepper motor controller interface card, Traffic light controller interface card, DC motor controller interface card, Logic controller interface card, Elevator simulator interface card, 8279 programmable keyboard and display I/O interface card, 8257 programmable DMA controller card, 8255 programmable peripheral interface card, 8253 programmable timer/counter study card, 8279 programmable interrupt controller interface card

Programs Offered (From 2010)

Full-time

Programs	Duration	Intake
Diploma in Technology (Automobile)	3-years (6-semesters)	30
Diploma in Technology (Electronics)	3-years (6-semesters)	30
Diploma in Technology (Computer)	3-years (6-semesters)	30
Diploma in Technology (Manufacturing)	3-years (6-semesters)	30
Diploma in Technology (Electronics & Electrical)	3-years (6-semesters)	30
Diploma in Technology (Mechanical)	3-years (6-semesters)	30
B.Sc. (Medical Lab Technology)	3-years (6-semesters)	50

Part-time

Programs	Duration	Intake
Diploma in Technology (Electrical & Electronics)	4½-years (9-semesters)	10
Diploma in Technology (Computer)	4½-years (9-semesters)	10
Diploma in Technology (Mechanical)	4½-years (9-semesters)	10

Introduction of New Part-time Programs

The institute, with the approval of its executive committee has started four and a half years (9 semesters) Part-time Diploma Course in three Engineering disciplines- Electrical & Electronics, Computer and Mechanical. This time the course has been started with 30 internal candidates- 10 in each discipline. From the coming academic session we propose to start the regular courses in these disciplines for external candidates as well.

Diploma Awarding Ceremony

On 4th of May 2010, University Polytechnic organized its VI Diploma Awarding Ceremony. Hon'ble Shri L. Khiyangte, Secretary, Department of Welfare, Government of Jharkhand was the Chief Guest of the function. 88 students were awarded Diploma in Technology. Besides this 27 BMLT students have been awarded their Degrees during XX Convocation of BIT Mesra on 23rd March 2010.

AICTE Approval for Additional Courses

The All India Council for Technical Education has approved the following new courses:

- Diploma in Electronics & Electrical Engineering (intake- 30)
- Diploma in Mechanical Engineering (intake- 30)

Admissions**Full-time**

Course	Level	Branch	Sanctioned Intake	Actual Admissions	Cut off marks
Diploma	UG	Automobile	30	27	General - 94%(% of Marks in Maths & Science) OBC – 94.5%, SC – 73.8%, ST – 75.4%, PT – 50.2%
		Computer	30	25	
		Electronics	30	28	
		Manufacturing	30	26	
B.Sc	UG	B.Sc (Medical Lab Technology)	50	37	ST PCM 55 %, PCB 56.3 % SC PCM 45.7 %, PCB 54.3 %

Part-time

Course	Level	Branch	Sanctioned Intake	Actual Admissions
Diploma	UG	Computer	10	08
		Electrical & Electronics	10	10
		Mechanical	10	10

Registration

Full-time

MO 2009					
Semester	DIPLOMA				B.Sc
	Automobile	Computer	Eletcronics	Manufacturing	Medical Lab Technology
I	113				37
III	28	21	28	23	37
V	29	28	28	23	32
VI ADD	03	-	01	02	-
V (OLD)	01	-	-	-	-
SP 2010					
Semester	Automobile	Computer	Eletcronics	Manufacturing	B.Sc(MLT)
II	109				36
IV	28	22	27	24	37
VI	27	27	28	21	33
VI ADD	01	-	-	06	-
VI with V	-	-	01	-	-

Part-time

SP 2010			
Semester	Computer	Electrical & Electronics	Mechanical
I	08	10	10

Workshop Organized

For the third consecutive year, the Automobile Branch of University Polytechnic and Training and Placement Cell of BIT Mesra organized a practical workshop on "Know your Car Inside-out" for the 5th Semester BE students (Mechanical and Production Engineering) of BIT Mesra.

Projects

S.N.	Funding Agency	Project Title	Project Amount	Amount Sanctioned
1	Deptt. of Welfare, Govt. of Jharkhand	To introduce a course on Diploma in Electrical Engineering	Rs. 2.32 Crores	Rs. 50 Lacs (Adhoc release)
2	Deptt. of Welfare, Govt. of Jharkhand	To develop an in-house automobile training-cum-vehicle maintenance center	Rs. 1.10 Crore	Rs. 35 Lacs (Adhoc release)

Vocational Training Programs

University Polytechnic along with the Department of Electrical and Electronics Engineering, BIT Mesra, has been conducting vocational training programs entitled "Troubleshooting and Maintenance of Electrical Systems" and "Repair and Maintenance of Electrical Devices" under the sopnsorship of the Department of Welfare, Government of Jharkhand for the benefit of the unemployed youth of Jharkhand. By the end of this academic year Nine batches (about 750 students) have been trained under these programs.

Proceedings

1. Singh. M, "Mathematical modeling of active devices", National Conference on Innovative Developments in Electronic Arena, Arya Institute of Engineering and Technology, Kukas, Jaipur, p 49-55 , Dec 12, 2009.
2. Singh, M., Nirupam, "India's hopes through Alternative Energy Resources", 2nd National Conference on Energy, Modi Institute of Technology and Science, Jaipur. Oct 30-31, 2009.
3. Singh. M, "Mathematical modeling of active devices and circuits", Silver Jubilee Conference on Communication Technologies and VLSI Design, VIT University, Vellore, Oct 8-10, 2009.
4. Singh, M. and Parashar, T. K., "Modeling of an InAs/InAsSb-based hetrojunction infrared photo detector for CH₄ gas detection", at AMCDA '10, RIET, Jaipur. 16-17 Feb 2010.

Staff Development Program

S. No.	Name of the Faculty	Title	No. of Participants	Organizers	Venue	Duration
1.	Shri Rajendra Mahto Shri Rishikesh Mahto	Training on Windows and MS-Office for Lab and Office staff.	20	Department of Computer Science	Computer Lab (University Polytechnic)	One Week

Training and Placement

- 56 students (2007 batch) of Automobile and Manufacturing Technology received two months hands-on training at Tata Motors and H. V. Transmissions, Jamshedpur, during January -March ,2010.
- In April 2010, DIT VI semester- Electronics and Manufacturing Technology students visited Hydal Power Project, Sikidiri (JSEB) as one day industrial visit.
- In April 2010, Schenk Process and Controls, Tupudana, Ranchi, conducted campus interview for outgoing batch of Manufacturing Technology.
- Heavy Engineering Corporation (HEC) Ltd., Dhurwa, Ranchi, visited our campus in May 2010 and conducted an interview for absorption in Government approved Trade Apprentice program at different projects under HEC Ltd.
- Hindalco, Muri, Ranchi conducted a campus interview in June 2010 for our Automobile, Electronics and Manufacturing branch students.
- SNL Bearings Ltd. Has provided 45-days on-job training to our IV semester Manufacturing Technology branch students, at their factory located at Ratu, Ranchi.
- Many of our students have taken vocational training at different companies of repute like BSNL Ranchi, Bokaro and Dhanbad, Hindustan Copper Ltd. Ghatsila, Usha Martin Industries Ltd., Tatisilway, Ranchi, DVC Chandrapura, Bokaro Steel Ltd. Bokaro, Hindalco, Muri and so many different company-approved automobile workshops of Maruti Udyog Ltd. and Bajaj Automobile, Hyundai etc.

Games and Sports

A football tournament was organized in which eight teams of our DIT and BMLT students participated. The winner of this tournament was DIT 1st semester and runner was DIT 5th semester .

The 3rd Annual Athletic Meet of University Polytechnic was held on 16th and 17th Feb 2010 in the Institutes' sports ground in which 172 participants from five branches participated in 24 athletic events. 101 prizes were given away- 69 in individual events, 24 in combined events, 02 for individual championship among men and women, and 06 in staff events. The Championship Trophy went to BMLT. Umesh Kumar Ram (BMLT) and Subhanjali Oraon (BMLT) won the individual championship titles for men and women respectively.

Any Other Information

Mr. Satish Kumar was appointed as reviewer for the International Journal "Desalination" published by Science Direct (Elsevier B. V.).

Dr. G. G. Sarkar was invited as guest speaker at the 8th Biennial Workshop on "Application of Lasers in Mechanical Industries" and seminar on "Application of Laser in Material Processing" during January 7-9, 2010 at School of Laser Science and Engineering, Jadavpur University, Kolkata.

Shri Ramkesh and Shri Manish Oraon attended the 4th SERC School held in Jadavpur University, Kolkata, on "Micro fabrication & Micromachining Processes" during April 05 -10 ,I 2010.

Shri Niraj Kumar has developed software for computerization of Admission and Registration processes of the Institute.

Central Library

The Central Library strives to evolve into a model and leading technical university library. The library contributes and supports BIT in building an internationally top ranked academic & research driven institution by establishing a knowledge hub.

Library automation has been completed through LibSys software. The collection comprises of print and electronic documents in the field of basic science, engineering, pharmacy, management and hotel management. Online journals like IEEE, Science Direct, Springer, IOP, ASME, ASCE and others subscribed through INDEST-AICTE & UGC-INFONET consortium. e-Library section consisting of a number of networked terminals to access e-journals, e-books and other e-reference resources to the library users under Intranet and Internet environment. 10 MBPS leased line connectivity has been installed exclusively for e-library through BSNL India under UGC-INFONET scheme.

Print Books

Total Volumes	:	1, 32,457
Total Titles	:	41,954

Electronics Books

Total Titles	:	2,800
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Print Journals/Magazine : 125

Indian	:	85
Foreign	:	22
Magazine	:	18

Electronic Journals : 8,126

CD/ DVD : 3,150

Bound Volumes : 18,512

Library home page : <http://bitmesra.ac.in/library/default.asp>

Library Services : Reference, News clippings, New arrivals, Reprographic, Inter Library Loan, Bibliographic services, Document Lending Services, E Document Delivery Services, Referral, CD/DVD database search, Language Laboratory, Off Campus Service

Library Membership

The library serves over 7333 members including students, research scholars, faculty, project engineers, and staff.



Description	No. of Books	Period of Loan
Teaching Faculty	08	One Month
Non Teaching Staff	04	One Month
All Under Graduate and Post Graduate students	05	15 Days
All Under Graduate and Post Graduate SC/ST students	10	One Semester

All Under Graduate and Post Graduate OBC student	5	One Semester
Research Scholars	02	One Month
Books from Textbook Section for All Category	1	1 Day

Library Consortium

Central library enrolled its membership for AICTE-INDEST and UGC-INFONET consortium to subscribe online journals

Institutional Membership

- American Library Kolkata
- DELNET, New Delhi

Department wise Books

Central Library: Overview As on March 2010

Course	No. of Titles Available	No. of Volumes Available
Applied Chemistry	1950	8016
Applied Mathematics	1935	8523
Applied Mechanics	2873	5615
Applied Physics	2482	6649
Architecture	1567	2205
Biotechnology	1782	3050
Civil Engineering	2445	6996
ECE	2724	12003
CSE	5740	21352
IT & MIS	3180	7930
EEE & BMI	2375	9103
Environmental Science. & Engineering	756	1253
HMCT	505	2650
Management	2164	11150
Mechanical Engineering	2318	10250
Pharmacy	2663	5910
Polymer Engineering	455	3100
Production & Engineering	2387	3087
Remote Sensing	578	1060
Space Engineering & Rocketry	625	1050
Other	450	1505
Total	41954	132457

Department-wise Journals

Sl. No	Name	Department	IND / INT	Jr/ Mag
1.	Indian Journal of Chemical Technology	Applied Chemistry	IND	Jr.
2.	Indian Journal of Chemistry- Section A	Applied Chemistry	IND	Jr.
3.	Indian Journal of Chemistry- Section B	Applied Chemistry	IND	Jr.
4.	Journal of Chemical Sciences	Applied Chemistry	IND	Jr.
5.	Bulletin of Calcutta Mathematical Society	Applied Mathematics	IND	Jr.
6.	International Journal of Computational and Applied Mathematics	Applied Mathematics	INT	Jr.
7.	International Journal of Computational Intelligence Research	Applied Mathematics	INT	Jr.
8.	International Journal of Mathematical Modelling	Applied Mathematics	INT	Jr.
9.	Proceedings Mathematical Sciences	Applied Mathematics	IND	Jr.
10.	Pure and Applied Mathematika Sciences	Applied Mathematics	IND	Jr.
11.	Indian Journal of Engineering and Material Sciences	Applied Mechanics	IND	Jr.
12.	International Journal of Dynamics and Fluids	Applied Mechanics	INT	Jr.
13.	SAE Transaction Vol 117 (Complete Set)	Applied Mechanics	INT	Jr.
14.	Indian Journal of Pure and Applied Physics	Applied Physics	IND	Jr.
15.	Indian Journal of Radio and Space Physics	Applied Physics	IND	Jr.
16.	International Journal of Nanotechnology and Applications	Applied Physics	INT	Jr.
17.	Journal of Astrophysics and astronomy	Applied Physics	IND	Jr.
18.	Optics Letters	Applied Physics	INT	Jr.
19.	Physics Education	Applied Physics	IND	Jr.
20.	Pramana- Journal of Physics	Applied Physics	IND	Jr.
21.	Resonance- Journal of Science Education	Applied Physics	IND	Jr.
22.	Solid State Communication	Applied Physics	INT	Jr.
23.	Architectural Record	Architecture	INT	Jr.
24.	Architectural Review	Architecture	INT	Jr.
25.	Journal of Landscape	Architecture	IND	Jr.
26.	Indian Journal of Biochemistry & Biophysics	Biotechnology	IND	Jr.
27.	Indian Journal of Biotechnology	Biotechnology	IND	Jr.
28.	International Journal of Biotechnology & Biochemistry	Biotechnology	INT	Jr.
29.	Journal of Computational Intelligence in Bioinformatics	Biotechnology	IND	Jr.

30.	Journal of Genetics	Biotechnology	IND	Jr.
31.	Indian Journal of Nuclear Research	BMI	IND	Jr.
32.	Indian Journal of Sleep Medicine	BMI	IND	Jr.
33.	Medical Equipment and Automation	BMI	IND	Jr.
34.	Geological Society of India	Civil Engineering	IND	Jr.
35.	Geotechnique	Civil Engineering	IND	Jr.
36.	Indian Journal of Power & River Valley	Civil Engineering	IND	Jr.
37.	Journal of Rock Mechanics and Tunneling Technology	Civil Engineering	IND	Jr.
38.	Steel & Metallurgy	Civil Engineering	IND	Jr.
39.	Data Quest	Computer Science	IND	Mag
40.	Advances in Computational Sciences and Technology	Computer Science	IND	Jr.
41.	Advances in Fuzzy Mathematics	Computer Science	IND	Jr.
42.	Computational Intelligence for Modeling Complex System	Computer Science	IND	Jr.
43.	Internation Journal of Simulation and Applications	Computer Science	INT	Jr.
44.	International Journal of Systems, Cybernetics and Information	Computer Science	INT	Jr.
45.	Journal of Wavelet Theory and Application	Computer Science	IND	Jr.
46.	LINUX for You	Computer Science	IND	Mag
47.	PC Quest	Computer Science	IND	Mag
48.	Electronic For You	ECE	IND	Mag
49.	Advances in Wireless and Mobile Communication	ECE	IND	Jr.
50.	Sadhana (Engineering Sciences)	ECE	IND	Jr.
51.	IETE Journal of Education	EEE	IND	Jr.
52.	IETE Journal of Research	EEE	IND	Jr.
53.	IETE Journal of Review	EEE	IND	Jr.
54.	Telecommunication Journal	EEE	IND	Jr.
55.	Industrial Researcher	EEE	IND	Jr.
56.	International Journal of Applied Environmental Science	EVSE	INT	Jr.
57.	Journal of Earth System Sciences	EVSE	IND	Jr.
58.	Journal of Environmental Management	EVSE	IND	Jr.
59.	Competition Affairs	General	IND	Mag
60.	CSIR News	General	IND	Mag
61.	Down to Earth	General	IND	Mag
62.	Everyman's Science	General	IND	Mag

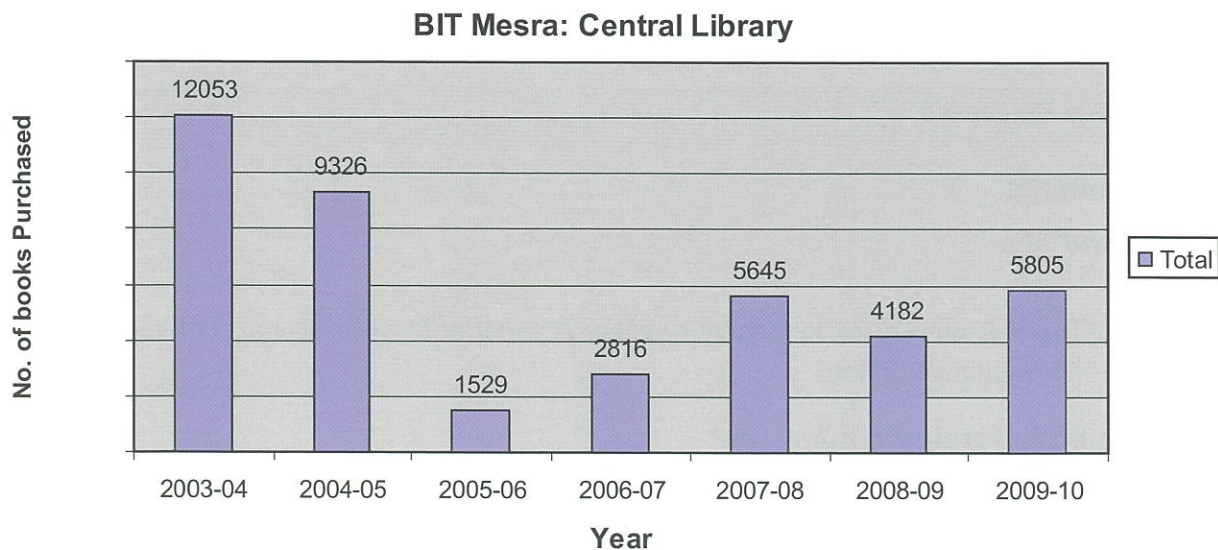
63.	Current Sciences	General	IND	Jr.
64.	Indian Journal of Intellectual Property Rights	General	IND	Jr.
65.	Indian Science abstract	General	IND	Jr.
66.	Inside Outside	General	IND	Jr.
67.	Journal of Cooperation among University, Research and Industrial Enterprise	General	IND	Jr.
68.	Journal of Scientific and Industrial Research	General	IND	Jr.
69.	Journal of the Indian Institute of Science	General	IND	Jr.
70.	Science and Culture	General	IND	Mag
71.	Clean & Hygiene Review	HMCT	IND	Mag
72.	Express Hospitality	HMCT	IND	Mag
73.	Express Travel World	HMCT	IND	Mag
74.	Food and Beverage	HMCT	IND	Mag
75.	Hotel and Food Service Review	HMCT	IND	Jr.
76.	Outlook Traveller	HMCT	IND	Mag
77.	Tourism and Wildlife	HMCT	IND	Mag
78.	Travel & Leisure	HMCT	IND	Mag
79.	Annals of Library & Information Studies	Library	IND	Jr.
80.	IASLIC Bulletin	Library	IND	Jr.
81.	SRELS Journal of Information Management	Library	IND	Jr.
82.	Business India	Management	IND	Mag
83.	Harvard Business Review	Management	INT	Jr.
84.	Indian Journal of Marketing	Management	IND	Jr.
85.	Journal of Entrepreneurship Development	Management	IND	Jr.
86.	Journal of Marketing and Communications	Management	IND	Jr.
87.	Knowledge Management	Management	IND	Jr.
88.	Prabandhan: Indian Journal of Management	Management	IND	Jr.
89.	Pranjana: The Journal of Management Awareness	Management	IND	Jr.
90.	Vikalpa	Management	IND	Jr.
91.	Combustion & Flame	Mechanical Engineering	INT	Jr.
92.	Propellants, Explosives Pyrotechniques	Mechanical Engineering	INT	Jr.
93.	Journal of Propulsion & Power	Mechanical Engineering	INT	Jr.
94.	Journal of Vacuum Sciences & Technology: A & B	Mechanical Engineering	INT	Jr.

95.	Natural Product Radiance	Mechanical Engineering	IND	Jr.
96.	COLLNET Journal of Scientometrics and Information Management	MIS	INT	Jr.
97.	DESIDOC Journal of Library & Information Technology	MIS	IND	Jr.
98.	Information Studies	MIS	IND	Jr.
99.	Journal of Digital Information Management	MIS	IND	Jr.
100.	Journal of Information and Optimization Science	MIS	IND	Jr.
101.	Journal of Applied Animal Research	Pharmacy	IND	Jr.
102.	Asian Journal of Pharmaceuticals	Pharmacy	IND	Jr.
103.	Indian Journal of Animal Research	Pharmacy	IND	Jr.
104.	Indian Journal of Experimental Biology	Pharmacy	IND	Jr.
105.	Indian Journal of Medical Research	Pharmacy	IND	Jr.
106.	Indian Journal of Pharmaceutical Science	Pharmacy	IND	Jr.
107.	Indian Journal of Pharmacology	Pharmacy	IND	Jr.
108.	Indian Journal of Virology	Pharmacy	IND	Jr.
109.	International Journal of Green Pharmacy	Pharmacy	INT	Jr.
110.	Journal of Biosciences	Pharmacy	IND	Jr.
111.	Journal of Ecophysiology & Occupational Health	Pharmacy	IND	Jr.
112.	Journal of Immunology and Immunopathology	Pharmacy	IND	Jr.
113.	Journal of Pharmacy & Pharmacology	Pharmacy	IND	Jr.
114.	Medicinal Plant	Pharmacy	IND	Jr.
115.	The Pharma Review	Pharmacy	IND	Mag
116.	Bulletin of Material Sciences	Polymer	IND	Jr.
117.	Journal of Material Processing Technology	Polymer	IND	Jr.
118.	Journal of Polymer Materials	Polymer	IND	Jr.
119.	Polymer Engineering & Science	Polymer	IND	Jr.
120.	Journal of Indian Society of Remote Sensing	Remote Sensing	IND	Jr.
121.	Journal of the Indian Society of Toxicology	Remote Sensing	IND	Jr.
122.	PE & RS, Photogrammetric Engineering & Remote Sensing	Remote Sensing	INT	Jr.
123.	Defense Science Journal	Space & Rocketry	IND	Jr.
124.	Journal of Aircraft	Space & Rocketry	IND	Jr.
125.	Journal of Spacecraft & Rockets	Space & Rocketry	IND	Jr.

Full Text Online Journals

American Institute of Physics	:	http://www.aip.org
American Chemical Society	:	http://pubs.acs.org/ American Physical Society http://www.aps.org
Annual Reviews	:	http://arjournals.annualreviews.org
Blackwell Publishing	:	http://www3.interscience.wiley.com
Cambridge University Press	:	http://journals.cambridge.org
Economic & Political Weekly	:	http://epw.in
Institute of Physics	:	http://iopscience.iop.org/journals
ISID	:	http://isid.org.in
JCCC	:	http://www.jccc-ugcinfonet.in
Oxford University Press	:	http://www.oxfordjournals.org
Project Muse	:	http://muse.jhu.edu/journals
Royal Society of Chemistry	:	http://www.rsc.org
Springer Link	:	http://www.springerlink.com
Taylor & Francis	:	http://www.informaworld.com
Science Direct	:	http://www.sciencedirect.com
ASCE	:	http://www.asce.org
ASME(Including AMR)	:	http://www.asme.org
IEL/IEEE	:	http://ieeexplore.ieee.org
EBSCOhost	:	http://web.ebscohost.com

Year wise Books Procurement (including Book Bank)



Library Team

Name	Designation	Ext. No.
Dr. Vijayakumar M	Library I/C	452
	Library Administration	
Mr. Samir Kumar Jalal (In-charge, Acquisition)	Asst. Librarian	505
Ms. Tanushree Bhatnagar, (In-Charge, Circulation)	Junior Information Officer	506
Ms. Shamida Lakra (In-Charge, Journal)	Assistant Librarian	
Mr. Debojyoti Nath (In-Charge E-Library)	Information Scientist	507
Mr. Amitab Kumar Mangalam (In-Charge Technical processing)	Library & Information Assistant	

Library Statistics of 2009-10

Total Books Procured

Title	:	1379
Volume	:	5805

Total Journals Procured

Print	:	125
Online	:	8126

Total Number of Membership enrolled	:	1,237
Total Number of Books Issued	:	52,323
Total Number of Books Returned	:	50,574

New Implementation

Electronic Security Systems Installed

New LibSys Server Purchased

Staff Achievements

Dr. Vijayakumar M

Awards

- "DST-MST Travel Grants-2009" to present a research paper at 5th international conference on "WIS" at China 13 – 16 September 2009.

Paper presented in foreign conference

- Webometric Analysis of Council of Scientific and Industrial Research Laboratory Websites of India. Paper presented in 5th International Conference on Webometrics, Informetrics & Scientormetrics conducted by

WISELAB, Dalian University of Technology, Dalian-China 13 – 16 September 2009

- Access to Library Services through ICT tools: A Survey. Paper presented in NACLIS-09. conducted by Srilanka Library Association, on June 25th 2009, Colombo, Srilanka

Publications

- Use of Library Services in Technological Changing Environment: A Survey. SALIS Journal of Library and Information Science: an International Journal Vol. 1. No.1 Jan- Mar 2009, 19
- Content Analysis of Indian Institutes of Technology Libraries Web Portals: A Study. DESIDOC Journal of Library and Information Technology. Vol. 29, (1); 2009

Mr. Samir Kumar Jalal

- Registered for his PhD degree at University of Burdwan, West Bengal.
- Published 1 Research Article in Journals and 3 in conferences.

Ms. Tanushree Bhatnagar

- Registered for her PhD degree at BIT-Mesra.
- Published 1 Research Article in Journals and 2 in conferences.

Mr. Debojyoti Nath

- Attended AICTE-INDEST sponsored workshop on e-resources at IIT Kharagpur, 2010

Mr. Amitabh Kumar Manglam

Publications

- Metadata Standards for Digital Preservation: a Comparative Study. Paper contributed in the National Seminar conducted by NASCON 2010 on "Knowledge Conservation and Preservation" at Aligarh Muslim University, Aligarh during 13th & 14th March 2010
- Library 2.0: A Buzz word for Library and Information Service. Paper presented in the national conference on "Content management in Digital era: Opportunities and Challenges" at Kuvempu University during 12-13th March 2010.
- Issues and challenges for KM practice in libraries paper contributed in National Conference on "Relevance of Ranganathan in the Present Day Knowledge Society" to be held by Babasaheb Bhimrao Ambedkar University, Lucknow during 5-6 March 2010.

Workshop

- Participated in the workshop "IT Application for Information Management in Medical Libraries held at New Delhi, 9-13th November 2009
- Participated in the workshop "Capacity Building in Knowledge Environment" jointly organized by TISS library(India), IFLA (Netherlands), ILS & BOSLA on 18-19 December 2009, Mumbai

Ms. Rameshwari Pandey

- Attended AICTE-INDEST sponsored workshop on e-resources at IIT Kharagpur, 2010

Central Instrumental Facility (CIF)



ICPOE Spectrometer.

Central Instrumentation Facility (CIF) at Birla Institute of Technology, Mesra, Ranchi, established in the year 2006 under Technical Education Quality Improvement Programme (TEQIP), funded by World Bank and Government of Jharkhand, has an objective to provide sophisticated instrumentation facilities for advanced research to the faculty and students of Birla Institute of Technology, as well as other Institutions in the region. CIF is equipped with state of the art sophisticated instruments to carry out spectral measurements, structure determination, surface behavior,

molecular analysis, electrical morphological studies, chemical and electrochemical analysis, and electronic circuit preparation, structural analysis, mechanical strength analysis, aerodynamic modeling etc. Instruments available at CIF are use by BIT personals and the outsiders at nominal charges.

CIF facilities include:

1. Inductively coupled plasma optical emission spectroscope, Perkin Elmer, USA.
2. Microwave Digestion System-Multiwave 3000, Anton Paar, Austria.
3. Ultraviolet-Visible Spectroscope-Lambda25, Perkin Elmer, USA.
4. Electrochemical analyzer, CH Instruments, USA.
5. Gel Permeation Chromatograph, Waters, USA.
6. Differential Scanning Calorimeter, TA Instruments, USA.
7. Particle size, Molecular weight and Zeta potential analyzer, Malvern, UK.
8. Thermo Gravimetric Analyzer, Shimadzu, Japan.
9. FTIR Spectrophotometer, Shimadzu, Japan.
10. Chemiluminescence Spectrophotometer, Shimadzu, Japan.
11. Color measurement system, Hunter Lab, USA.
12. Element analyzer, CHNSO, Elementar, Germany.
13. Pulse analyzer, Oros, France.
14. Porosity meter, Thermoelectron, Italy
15. Atomic Force Microscope, NT-MDT, Russia.
16. Surface Tensiometer, Dataphysics, Germany.
17. Servo hydraulic dynamic tensile testing machine, Instron, UK.
18. Impedance (Dielectric) Analyser, Novocontrol, Germany.
19. Optical Contact Angle, Dataphysics, Germany.
20. Printed Circuit Board(PCB), LPKF, Germany.
21. Robotic Kit, Technosolutions Pvt. Ltd., India.
22. Scanning Electron Microscope, JEOL, Japan.



Scanning Electron Microscope

The facility was utilized for laboratory classes by the following Departments:

1. Undergraduate (UG): Applied Chemistry, Mechanical Engineering, Production Engineering, Polymer Engineering.
2. Postgraduate (PG): M Sc/ ME/ M Tech/ M Pharm: Applied Chemistry, Production Engineering, Applied Mechanics, Applied Physics, Polymer Engineering, Electronics and Communication Engineering, Space Engineering and Rocketry, Pharmaceutical Science and Environmental Science.

Research activities:

Presently, around 32 Doctoral Research Scholars from the Applied Chemistry, Applied Mechanics, Applied Physics, Biotechnology, Production Engineering, Polymer Engineering and Pharmaceutical Sciences are working regularly in the lab.

The CIF has carried out sample testing works for Academic, Research and private Institutions like ISMU Dhanbad, Ranchi University, Jadavpur University, NIT Rourkela, Indian Institute of Natural Resins and Gums, Jaypur College of Pharmacy Orissa, Central Institute of Mining and Fuel Research, Ranchi, RVS College of Engineering, Jamshedpur, KMCH College of Pharmacy, Tamil Nadu, JKK Natraj College of Pharmacy, Tamil Nadu, Sri Ram Nath Singh Mahavidyalaya, MP, Gupta College of Technological Sciences, Asansol, Guru Ghasidas University, Chhattisgarh, Magadh Mahila College, Patna and M/s Park Nano, Ranchi. The total revenue that has been generated by the CIF through the various testing is Rs 5,97,944.88/- (Rs Five Lakh Ninety Seven Thousand Nine Hundred forty four and eighty paise only)

CIF facility used for training programs:

1. Quality Improvement Program on "Drug Discovery Approaches" (May 4 – 16, 2009), organized by the Dept of Pharmaceutical Sciences.
2. Quality Improvement Program on "Emerging Trends in Herbal Drug Technology" (May 18 – 30, 2009), organized by the Dept of Pharmaceutical Sciences.
3. Quality Improvement Program on "Advances in Targeted Drug Delivery System" (June 1 – 13, 2009), organized by the Dept of Pharmaceutical Sciences.
4. NCERT programme of National Talent Search (NTS) Awardees, organized by the Department of Applied Physics, BIT Mesra, March 22 – March 27.

Conference /Seminars/Workshops/Staff Development Programmes attended:

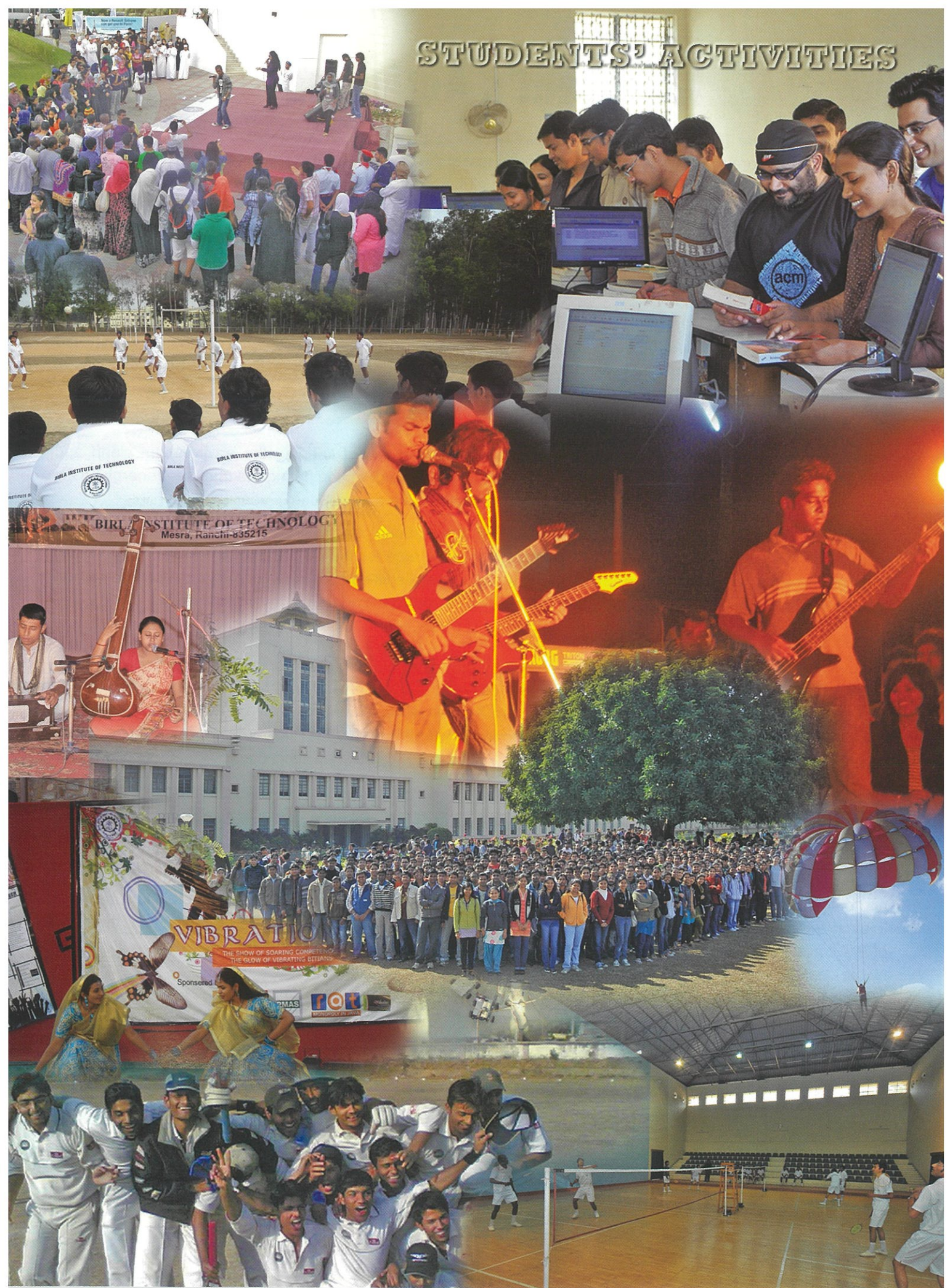
Sl. No.	Name of the Staff	Title of the Conference/Seminar/ Workshop	Organizers	Venue	Month Date, Year
1.	Sanjaya Kumar Swain	One-day training program me on Zitasizer Nano Series	Malvern Amil Instruments Private Limited Kolkata	Amil Ltd., Kolkata	Aug. 19 th 2009
2.	Ashwini Kumar Singh	Short Course on Spectroscopic Ellipsometry	Jointly Organised by JA Woollam Inc USA & NPL Delhi	NPL, New Delhi	Sept. 22 nd to 25 th 2009
3.	Ashwini Kumar Singh	"Effect of Aluminium concentrations on the morphology of Titanium Aluminum nitride thin films"	PSSI & NIT, Hamirpur	NIT, Hamirpur	Dec. 8 th 11 th , 2009

Sr.	Company (alphabetic order)	Total Offer	Sector
1	ACC	3	Infrastructure
2	Adani Power	3	Power
3	Afpro	2	NGO
4	Airtel	6	Electronics
5	Airvana	1	IT Products & Services
6	Alkem	7	Pharmaceutical
7	Amdocs	12	IT Products & Services
8	Aricent	91	IT Products & Services
9	AT International	6	Hopitality
10	Atos Origin	8	IT Products & Services
11	Avaya Global Connect	7	Electronics
12	Axis Bank	11	Banking & Finance
13	Bank of India	7	Banking & Finance
14	Basix India	11	Banking & Finance
15	Bhushan Steel	15	Metals & Minerals
16	Birla Tyres	3	Engineering
17	Birlasoft	22	IT Products & Services
18	BPCL	6	Public Sector Oil
19	CAPARO	5	Engineering
20	Caper Travel, Delhi	1	Hopitality
21	CGI	2	IT Products & Services
22	CIPLA	27	Pharmaceutical
23	CSC	5	IT Products & Services
24	Cybage	9	IT Products & Services
25	Deloitte	18	Consulting
26	Dominos	9	Hopitality
27	Dr. Reddys	4	Pharmaceutical
28	Gammon	6	Infrastructure
29	GMMCO (Engg)	3	Engineering

30	Goldman Sachs	6	Consulting
31	Haldia Petro	1	Public Sector Oil
32	HCL Infosystem	3	IT Products & Services
33	Hindalco	8	Metals & Minerals
34	Hotel Dream Cochin	1	Hopitality
35	Hotel Minerva Grand	5	Hopitality
36	HP	22	IT Products & Services
37	IBM	60	IT Products & Services
38	IDBI	6	Banking & Finance
39	Idea	4	Electronics
40	IFB	16	Electronics
41	iGate	35	IT Products & Services
42	Infosys	47	IT Products & Services
43	IOCL	11	Public Sector Oil
44	ISPAT	15	Metals & Minerals
45	John Deere	3	Automobile
46	JUSCO	4	Infrastructure
47	L&T	5	Engineering
48	L&T ECC	6	Infrastructure
49	Mahindra & Mahindra	5	Automobile
50	Mahindra Finance	1	Banking & Finance
51	Maruti	8	Automobile
52	McNally Bharat	12	Engineering
53	Microsoft	3	IT Products & Services
54	Nokia Siemens Networks	7	Electronics
55	Nomura	3	Consulting
56	NTPC	14	Public Sector Power
57	ORACLE Server Technology	11	IT Products & Services
58	Philips	2	Electronics
59	Ranbaxy	3	Pharmaceutical

60	Royal Infraconstru	3	Infrastructure
61	Samsung India - Software Engineering Lab	11	IT Products & Services
62	Sankalp Semiconductor	2	Electronics
63	Sapient	19	IT Products & Services
64	Siegwerk India Pvt Ltd	2	Engineering
65	Tata Motors	8	Automobile
66	Tata Power	6	Power
67	Tata Steel	13	Metals & Minerals
68	Tata Steel Systems	3	IT Products & Services
69	TCE	6	Consulting
70	TCS	201	IT Products & Services
71	Tech Mahindra	17	IT Products & Services
72	Tejas Networks	2	IT Products & Services
73	Telcon	2	Automobile
74	TRF	4	Engineering
75	Usha Martin	5	Engineering
76	Vedanta	6	Metals & Minerals
77	Visa Steel	5	Metals & Minerals
78	Vodafone	3	Electronics
79	Wipro Tech	19	IT Products & Services
80	Wipro VLSI	6	Electronics
81	ZS Associates	3	Consulting

STUDENTS' ACTIVITIES



Student's Activities

Presently, there are thirty active clubs/societies (including both cultural and technical) in the Institute. To streamline the cultural activities in the campus, new rules for the membership have been framed. New guidelines have been issued regarding the executive body of a club/society. In order to enhance the participation of girl students in the extracurricular activities of the Institute it has been made mandatory that out of three top posts of the executive body of a club/society at least one post should be given to a girl student.

Some important activities of different clubs/societies are as follows:

Dance club

Dance club, an energetic, fun-filled, creative and skillfully innovative club has always been defining its attributes through various events round the year. As one of the more enjoyable and famous club among the youth, had successfully organized Mega-events like Razzmatazz, Dance Night, Fugiya (Open Dancing event) and various informal events throughout the academic year.

The Ecological and Environmental Society

The Ecological and Environmental Society has the twin objectives of keeping the environment clean and spreading awareness about environment related issues. In the spirit of combating the imminent energy crisis, the club conducted myriad campaigns, workshops and events this past academic year.

The events calendar was kicked off by campaigning "International Car free Day" during which all the staff members were requested to not use motor vehicles. A cycle race for the children of staff members was also held. A workshop on how to make bricks using waste materials like paper was conducted. A poster making competition and a nature quiz as part of Bitotsav '10 was also organized.

Music Club

A popular solo-singing competition was organized by the music club in Sept-Oct of 2009. A rock music band consisting of 5 members represented BIT Mesra at Oorja – 2009, the annual cultural rock festival of ISM Dhanbad in October 2009. Eastern and western music songs were performed by the Music Club at Fugiya 2009. Eastern and western music songs were performed by the Music Club at Fugiya 2009. Guitar classes were organized by the club on a tri-weekly basis.

News and Publication Society

News and Publication Society is the most active media club of BIT Mesra. NAPS as it is also known as, works as the central coordinating unit for the BITOTSAV'10, the official cultural fest of the institute.

The grand fest of BIT, Mesra "BITOTSAV '10" was a huge success getting the participation of the active, excited and enthusiastic students of the college. The members worked day and night to keep everything in shape and to avoid inconvenience to the participants. It was a 4 days 4 night grand fest of the college because all the clubs of BIT come together during this fest. To spread the awareness about Swine Flu a lecture was also organized by the society.

LEO Club

LEO club (affiliated to the Lions Clubs International) organized 'Dipotsav'09' during the festival of deepawali in November. This is the only source of entertainment for the students and faculty of BIT who stay back in the institute during this festival of light.

IEEE Student Chapter, BIT Mesra

IEEE Student Chapter, BIT Mesra organised various technical events during this period.

ANNEXURES

ANNEXURE I

MEMBERS OF THE GENERAL COUNCIL

Founder Members

Shri C. K. Birla 9/1, R. N. Mukherjee Road Kolkata - 700 001	Shri G. D. Kothari. 8, India Exchange Place Kolkata	Shri S. L. Bhatler C/O Hindustan Motors Ltd. 10 th Floor, Birla Building 9/1 R. N. Mukherjee Rd., Kolkata-700 001
Shri Russi Modi 5 / 1 B, Belvedere Road Kolkata - 700 027	Dr. A. K. Chatterjee 9/11, Moore Avenue Kolkata	Shri D. N. Patodia 45, Akash Neem Marg, Dlf City Phase II Gurgaon 122 001, (Haryana)
Shri Sarosh Ghandy 45, Museum Road Bangalore - 560 025	Dr. Karan Singh 3, Nyaya Marg Chanakyapuri, New Delhi	H. E. Dr. A. R. Kidwai Governor Of Haryana Raj Bhavan, Chandigarh

Life Members

Dr. H. C. Pande 1/97, Vijay Khand - I Gomti Nagar Lucknow – 226 010	Shri Mohammed Yousif Jalal Mohammed Jalal & Sons Wll, P. O. Box : 113, Manama, Kingdom of Bahrain	H. E. Dr. Omar bin Abdul Muniem Al-Zawawi Omar Zawawi Establishment (OMZEST) P. O. Box 879, P. C. 113, MUSCAT Sultanate of Oman
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Corporate Members:

Name of the Company / Organisation	Represented by
M/s National Engineering Industries Ltd.	Shri H. P. Singhi 9/1 R N Mukherjee Road, Kolkata -700 001
M/s Hyderabad Asbestos & Industries Ltd.	
M/s Orient Paper & Industries Ltd.	Dr. Praveen Dhyani BIT, Mesra
M/s Indian Press Exchange Ltd.	Dr. P. Ghosh M/s B. M. Birla Science & Technology Centre Statue Circle, Jaipur - 302 005
M/s Hindustan Motors Ltd.	
M/s Orient General Industries Ltd.	
M/s General Mktg. & Mfg. Co. Ltd.	Shri P. C. Agarwal 9/1 R N Mukherjee Road, Kolkata - 700 001

Members by Representation

Representative of the Ministry of Human Resource Development, Government of India	Shri R. D. Sahay Dy. Secretary, MHRD, Government of India, New Delhi - 110 001
Representative of the University Grants Commission	Prof. R.P. Kaushik G-19/19, DLF, Phase-I, Gurgaon – 124 022
Representative of the Department of Science & Technology Government of India	Shri H. K. Mittal Adviser & Head (NEB) Department of Science & Technology Government of India, New Delhi-110 016
Representative of the All India Council for Technical Education	Prof. (Dr.) Suresh Chandra Saxena Director, IIT, Roorkee, ROORKEE-247 667 (Ex-Officio)
Representative of the Department of Science & Technology Government of Jharkhand	
Representative of BISR	Shri S. S. Jajodia 78, Syed Amir Ali Avenue, Kolkata (Ex-Officio)
Vice Chancellor of the Institute	

Alumni Members

- 1) Dr. H. S. Sagar
Director, Sant Baba Bhag Singh Institute of Engineering & Technology
Padhiana (Near Adampur Doaba)
Jalandhar - 144 033
- 2) Shri D. Sahay
27, Kali Babu Street
Ranchi – 834 001

ANNEXURE II

MEMBERS OF THE BOARD OF GOVERNORS

- | | |
|--|--|
| 1. Sri C. K. Birla
Chairman, Board of Governors,
Birla Tower (9th Floor), 25, Barakhamba Road
New Delhi – 110 001 | Chairman |
| 2. Sri R. D. Sahay
Dy. Secretary, Government of India,
Ministry of Human Resource Development,
Dept. of Secondary & Higher Education,
Shastri Bhawan, New Delhi -110 001 | Nominee of MHRD, Govt. of India |
| 3. Dr. (Mrs.) Renu Batra
Joint Secretary, University Grants Commission
Bahadur Shah Zafar Marg, New Delhi – 110 002 | Nominee of UGC |
| 4. Dr. Suresh Chandra Saxena
Director, Indian Institute of Technology
Roorkee, - 247 667 | Nominee of AICTE |
| 5. (Ex-Officio) | Secretary
Dept. of Science & Technology
Govt. of Jharkhand
(Ex-Officio) |
| 6. (Ex-Officio) | Secretary
Dept. of HRD, Govt. of Jharkhand
(Ex-Officio) |
| 7. (Ex-Officio) | Commissioner
South Chhotanagpur Division, Jharkhand
(Ex-Officio) |
| 8. Sri Sudhir Tripathi, I.A.S.
Principal Secretary to the Governor
Governors Secretariat
Raj Bhawan, Ranchi | Nominee of the Chancellor |
| 9. Dr. H. C. Pande
1/97, Vijay Khand - I, Gomti Nagar,
Lucknow – 226 010 | Nominee of HCT |
| 10. Sri M. L. Pachisia
9/1, R. N. Mukherjee Road
Kolkata – 700 001 | Nominee of HCT |
| 11. Sri Rohit Saboo
M/s Engineering Industries Ltd., Jaipur | Nominee of HCT |

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|--|---------------------------------------|
| 12. Dr. Ajay Chakrabarty
Vice Chancellor,
BIT Mesra, Ranchi | Vice Chancellor,
BIT Mesra, Ranchi |
| 13. Dr. Mohan Varma
B I T, Mesra, Ranchi | Institute Faculty |
| 14. Sri V. K. Jha
B I T, Mesra, Ranchi | Institute Faculty |
| 15. Sri D. N. Patodia
45, Akash Neem Marg, D L F City,
Phase II, Gurgaon-122001 | Nominee of General Council |
| 16. Sri G. P. Lal
VEDSHREE, Dujra
Patna - 800 001 | Nominee of General Council |
| 17. Dr. P. Ghosh
M/s B. M. Birla Science & Technology Centre
Statue Circle, Jaipur | Nominee of General Council |

ANNEXURE –III

MEMBERS OF THE FINANCE COMMITTEE

Shri C. K. Birla 9/1 R. N. Mukherjee Road, Kolkata	Chairman
Dr. Ajay Chakrabarty Vice Chancellor BIT, Mesra, Ranchi	Vice Chancellor BIT, Mesra, Ranchi
Prof. Jose Varghese Profssor of Eminence, Christ University (Deemed University) Hosur Road, Bangalore	Nominee of University Grants Commission
Shri Sudhir Tripathi, IAS Principal Secretary to the Governor, Governor Secretariat Raj Bhawan, Ranchi	Nominee of Chancellor
Dr. H. C. Pande 1/97, Vijay Khand - I, Gomti Nagar, Lucknow	Nominee of General Council
Shri Rohit Saboo M/s Engineering Industries Ltd., Jaipur	Nominee of Board of Governor
Shri S. S. Jajodia	Honorary Treasurer

ANNEXURE – IV

BUILDING & WORKS COMMITTEE

Chairman

Vice- Chancellor, B.I.T., Mesra	-	Dr. Ajay Chakrabarty
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Members

Advisor, Planning & Campus Development	-	Prof. P.P. Singh
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Treasurer, B.I.T. Mesra	-	Shri S.S. Jajodia
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Representative of the Institute Architects	-	M/s Kothari & Associates, Kolkata
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Representative of the State PWD	-	Nomination awaited
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Head, Department of Civil Engineering	-	Dr. K.V. Krishnamurthy
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Member-Secretary

Registrar	-	Col. R. K. Verma (Retd.)
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ANNEXURE V

TECHNICAL COUNCIL

Chairman

Vice-Chancellor B. I. T Mesra

:

Dr. Ajay Chakrabarty

Chancellor's Nominees

1. Engineering

Shri Siddh Nath Singh
B-203, Siddhi Vinayak Apartment
Behind Hotel Yuvraj Palace
Doranda, Ranchi – 834 002

2. Science

Dr. Madhukar S Bhat
A-3 New A.G. Cooperative Colony
Kadru, Ranchi – 834 012

3. Humanities

Dr. Krishna Kumar
"Ashray"
30, Kali Babu Street
Behind Civil Court
Ranchi – 834 001

Members

- | | | |
|-------------------------------|----------------------------|---------------------------------|
| 1. Dr. P. K. Barhai | 2. Dr. Ashok Mishra | 3. Dr. A. K Chatterjee |
| 4. Dr. J. K. Prasad | 5. Dr. N. C. Mahanti | 6. Dr. D. Jairath |
| 7. Prof. R. K. Narayan | 8. Dr. G. Sahoo | 9. Dr. P. C. Joshi |
| 10. Dr. (Mrs.) M. Mukherjee | 11. Dr. D. Sasmal | 12. Dr. Gopal Pathak |
| 13. Dr. R. Sukesh Kumar | 14. Dr. A. K. Ray | 15. Dr. M. S. Nathawat |
| 16. Dr. (Mrs.) Usha Jha | 17. Prof. C. M. Prasad | 18. Dr. K.V. Krishnamurthy |
| 19. Dr. (Mrs.) M. Chakraborty | 20. Prof. D. Bhagat | 21. Dr. P.R.P. Verma |
| 22. Prof. R.P. Singh | 23. Dr. S.K. Bose | 24. Dr. (Mrs.) Nisha Gupta |
| 25. Dr. A. S. Vidyarthi | 26. Dr. S. K. Ghorai | 27. Dr. Swapan Kumar Konar |
| 28. Dr. Nilanchal Patel | 29. Dr. K.G. Pandey | 30. Dr. Balram Singh |
| 31. Dr. B.N. Sinha | 32. Dr. A.K. Sinha | 33. Prof. Sitiesh P. Srivastava |
| 34. Dr. Arbind Kumar – I | 35. Dr. Kunal Mukhopadhyay | 36. Dr. Utpal Baul |
| 37. Dr. A.N. Jha | 38. Dr. S. Samanta | 39. Dr. S. Jha |
| 40. Dr. S. Medhekar | 41. Dr. D.K. Mohanta | 42. Dr. Manju Bhagat |
| 43. Dr. Shradha Shivani | 44. Dr. R. N. Bhagat | 45. Dr. R.C. Jha |
| 46. Dr. T. Ghose | 47. Dr. B.K. Singh | 48. Dr. R.K. Sihna |
| 49. Dr. P. Dhyani | 50. Dr. A.P. Krishna | 51. Sri D.K. Jain |
| 52. Col. R. K. Verma (Retd.) | 53. Sri B.B. Pant | |

ANNEXURE – VI

DEPARTMENT'S HEAD/ INCHARGE AND EXECUTIVES

Vice Chancellor	:	Dr. Ajay Chakrabarty
Treasurer	:	Shri S. S. Jajodia
Registrar	:	Col. R. K. Verma (Retd.)

Deans

Admission	:	Dr. D. Jairath
Post – Graduate Studies	:	Dr. A. K. Chatterjee
Under – Graduate Studies	:	Prof. C. M. Prasad
Sponsored & Collaborative Research	:	Dr. P. K. Barhai
Academic Coordination	:	Dr. D. Sasmal
Extension Centres	:	Dr. A. K. Chatterjee
Faculty Development	:	Dr. K.V. Krishnamurthy
Finance	:	Dr. P. C. Joshi
Academic Infrastructure	:	Dr. (Mrs.) Usha Jha
Doctoral Research	:	Dr. Ashok Misra
Development Programme	:	Dr. (Mrs.) M. Mulherjee
Students' Welfare	:	Dr. A.K. Sinha

Associate Deans

Women Affairs	:	Mrs. S. G. Panpalia
Boys Affairs	:	Dr. R.C. Jha

Department's Head / In Charge

Architecture	:	Dr. (Mrs.) M. Chakraborty
Applied Chemistry	:	Dr. (Mrs) Usha Jha
Applied Mathematics	:	Dr. N. C. Mahanthi
Applied Mechanics	:	Prof. A. K. Ray
Applied Physics	:	Dr. P. K. Barhai
Bio-Medical Instrumentation	:	Dr. Rakesh Kumar Sinha
Bio-Technology	:	Dr. A. S. Vidyarthi
Civil Engineering	:	Dr. K. V. Krishnamurthy
Computer Science & Engineering	:	Dr. R. Sukesh Kumar
Electronics & Communication Engineering	:	Dr. Nisha Gupta
Electrical & Electronics Engineering	:	Dr. T. Ghosh
Environmental Engineering & Science	:	Dr. Gopal Pathak
Hotel Management & Catering Technology	:	Mr. Sitesh Srivastava
Information Technology	:	Dr. G. Sahoo

Management	:	Dr. S. K. Bose
Mechanical Engineering	:	Dr. Ashok Mishra
Polymer Sciences Engineering	:	Dr. (Mrs) M. Mukherjee
Production Engineering	:	Dr. B.K. Singh
Pharmaceutical Sciences	:	Dr. D. Sasmal
Physical Education & Sports	:	Prof. Atul Anand
Remote Sensing	:	Dr. M. S. Nathawat
Space Engineering & Rocketry	:	Dr. A. K. Chatterjee
Co-ordinator Semester Programme	:	Dr. B.K. Singh
Additional Registrar(Fin.)	:	Shri O. P. Bhagaria
Additional Registrar (Career Planning & Development Programme)	:	Shri B. B. Pant
Controller of Examination	:	Dr. S. K. Jain
Chief Accountant	:	Shri G. S. Sharma
Library	:	Dr. M. Vijay Kumar
Chief Medical Officer	:	Dr. Arjun Prasad Singh
Cultural Coordinator	:	Dr. Ram Pal Singh

ANNEXURE – VII

IMPORTANT TELEPHONE NUMBER

Sl. No.	Name	Department	Phone No.	Fax
1.	Dr. Ajay Chakrabarty	Vice Chancellor	2275402	2275401
2.	Col. R. K. Verma (Retd.)	Registrar	2276052	
3.	Dr. Ashok Mishra	Dean Doctoral Res.	2275924	
4.	Dr. Nisha Gupta	Electronics & Comm.	2276185	
5.	Dr. B.K. Singh	Production Engg.	2275044	
6.	Dr. A. K. Chatterjee	Space Engg. & Rocketry	2275983, 2276224	
7.	Dr. P. C. Joshi	Dean (Finance)	2276290	
8.	Dr. P. K. Barhai	Applied Physics	2275522	
9.	Mr. B. B. Pant	Training Placement	2275566	
10.	Prof K. V. Krishnamuthy	Civil Engineering	2276502	
11.	Prof. A. K. Ray	Applied Mechanics	2276182	
12.	Dr. N. C. Mahanti	Applied Mathematics	2276183	
13.	Dr.(Mrs). M. Mukherjee	Polymer Engineering	2276053	
14.	Dr. M. S. Nathawat	Remote Sensing	2276003	
15.	Dr. D. Sasmal	Pharmaceutical Sciences Dean Academic Coordination	2276247 2275872	
16.	Dr. S. K. Jain	Controller of Examination	2275138	
17.	Prof. C. M. Prasad	Dean(Under-Graduate)	2275872	
18.	Dr. A. K. Chatterjee	Dean(Faculty Development)	2275983	
19.	Mr. D. K. Jain	University Polytechnic	2276008	
20.	Dr. K.V. Krishnamurthy	Dean (Faculty Development)	2276502	
21.	Mr. G. S. Sharma	Chief Accountant	2275927	
22.	Dr. Arjun Prasad	Chief Medical Officer	2276009	
23.	Dr. A. S. Vidyarthi	Biotechnology	2276223, 2276590	
24.	Dr. (Mrs.) M. Chakraborty	Architecture	2275093	
25.	Dr. G. Sahoo	Information Technology	2276185	
26.	Dr. D. Jairath	Dean(Admission)	2275868, 2276007	
27.	Dr.(Mrs.) Usha Jha	Applied Chemistry	2275636	
28.	B. I. T. Exchange		2275444,2275896,2276267 (INPCO)2276492/93/94/95/98/99	
29.	VIP Guest House		2275213	
30.	Chairman Bungalow		2275214	

31.	Hostels		H1-2276074,H2-2276073,H3-2276072,H4-2276071,H5-3298371,H5A-3298372H5A-2276069,H63298373,H7-3298374,H82276075,H8(New)-2807639,H8A-3207973,H9-2276076,H9A-3207974,
32.	I. G. H		2276210
Extension Centres:			
33.	Ranchi (Lalpur)		(0651)2531679,2531817
34.	Kolkata		(033)55256728,24414542
35.	Jaipur		(0141)2751178,2751567
36.	Allahabad		(0532)2687099
37.	Noida		(0120)2553661-2
38.	Patna		(0612)2223538,2223545,3200853
39.	Deoghar		+91 94311 37755
40.	Bahrain		(00973)17690025,17691506
41.	Muscut		(00968)24449196
42.	U. A. E		(+971)504862900,(+971)72272203

ANNEXURE –VIII

ADDRESS OF THE EXTENSION CENTRES

Sl. No.		Sl. No	
1.	BIT Extension Centre Lalpur Lalpur, Ranchi-834001 Ph No-(0651)2531679,2531817 Fax No.(0651)2531658,2531676 www.biteclalpur.ac.in	2.	BIT Extension Centre,Jaipur B. S. I. R Campus 27, Malviya Nagar Industrial Area, JAIPUR-302017 Phone- (0141)-2751567/2751178 Fax: No. – (0141)-2751601, 2751565
3.	BIT Extension Centre Kolkata Southend Conclave 1582 Rajdanga Main Road 4 th Floor, KOLKATA-700107 Ph. No. (033)55256728,24414542 Fax No.(033)25762398,24414547	4.	BIT Extension Centre, Noida A- 7, Sector -1 NOIDA-201301,(UP) Phone(0120)2553661/2 Fax: No. (0120) 2554146
5.	BIT Extension Centre, Allahabad B-7, Industrial area , P.O.-TSL Naini Allahabad – 211010 Phone: 0532-2687363,2687099 Fax: 0532-2687554 City Office- 14 Tagore Town, Allahabad – 211002 Phone:0532-2465518	6.	BIT Extension Centre,Patna Near Patna Airport, P. O. Bihar Veterinary College, Patna 800014 Phone:0612-2223538/2223545/3200853 Fax:0612-2223545 Patna City Office:62 D, Rajesh Kumar Path, S. K. Puri, Patna-800001 Phone: 0612-2540105, Fax:0612-2540105
7.	BIT Extension Centre, Deoghar Jasidih, Deoghar-814132 Ph: 9304422078 (WLL)	8.	BIT International Centre Muscat Waljat College of Applied Science P. O Box No. 197, Rusayal, Postal Code 124 MUSCUT, Sultanate of OMAN Fax: No. – (00968) 24449196 Phone: 00968-24449193
9.	BIT International Centre, Bahrain P.O. Box 31320,Bdaiya, Kingdom of BAHRAIN(AG) Fax No. (00973) 17692879 Phone: (00973) 17690025(PBX), 17691506(Direct) Email:bitic@batelco.com.bh, www.bitic.edu.bh	10.	BIT International Centre, UAE C/o Royal College of Applied Science & Technology Knowledge, Centre, RAK Free Zone Ras Al Khaimah, U.A.E Phone: +971504862900(M), +9717 2272203

XX-CONVOCATION

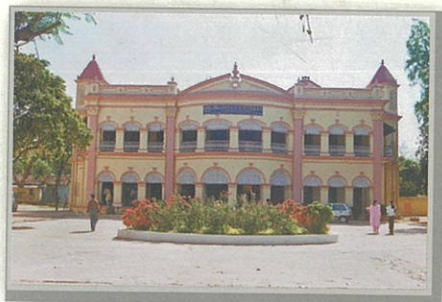
March 23, 2010



L to R - Dr. Salman Khurshid, Hon'ble Union Minister of State (Independent Charge), Corporate & Minority Affairs, H.E. Shri M.O.H. Farook, Hon'ble Governor of Jharkhand and Chancellor, Dr. P. K. Barhai, Vice Chancellor



H.E. Shri M.O.H. Farook, Hon'ble Governor of Jharkhand and Chancellor awarding Degree & Gold Medal



LALPUR CENTRE



ALLAHABAD CENTRE



RAS-AL-KHAIMA CENTRE



KOLKATA CENTRE



NOIDA CENTRE



DEOGHAR CENTRE



JAIPUR CENTRE



MUSCAT CENTRE



PATNA CENTRE

