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Director's Report

Honorable Chairman, Board of Governors of the Indian Institute of Technology Kanpur, Professor M. Anandakrishnan, Distinguished Chief Guest, Mr. Jeet S. Bindra, Members of the Board of Governors, Members of the Academic Senate, all graduating students and their family members, all members of faculty, staff and students, invited dignitaries, guests, and members of the media: I heartily welcome you all on this occasion of the forty-first convocation of the Indian Institute of Technology Kanpur.

We are particularly happy to welcome our distinguished alumnus, Mr. Jeet S. Bindra, President, Chevron Global Manufacturing, USA, amongst us for our Convocation today.

The academic year closing in May 2009 has been momentous and I consider it a privilege to review our activities during this period.

Academic Activities

The academic year 2008-09 has had a successful run. The number of graduating students both at the undergraduate (B Tech - 299, M Sc (5 year Integrated) - 39, B Tech - M Tech Dual Degree (5 year) - 52, M Sc (2 year) - 68, Total = 458) and the postgraduate (M Tech - 322, M Des - 12, MBA - 45, PhD - 96, Total = 475) levels show a satisfactory trend. The enrollment in the Doctoral program as well as the publication record of the faculty and students for the academic year has considerably increased. Faculty members and students published a large number of research papers in journals and conference proceedings. Books published by the faculty are listed in the appendix of this report.

Awards and Honors

IIT Kanpur has played a significant role in expanding the frontiers of knowledge. Its faculty, students and staff have created a niche for the Institute in the world of science and technology. This has been duly recognized in the form of various awards and honors to the faculty including fellowships of professional societies, editorship of international journals, and best paper awards to the students. A representative list of awards and honors to our faculty members is included as an addendum to the report.

Our postgraduate students Satyaki Bhattacharjee, Abhishek Kumar Gupta and Anurag Sujania have been conferred the GE Foundation Scholarship. Pulkit Agrawal, Mohit Mittal, Alok Kumar Rai and Nitish Srivastava received the Goldman Sachs Global Leaders Award. Varun Jain, Pravesh Kothari, Aditya Sood, Shantanu Saraswat received the O. P. Jindal Engineering & Management Scholarship. Shitikanth and Ish Dhand have been conferred the prestigious Aditya Birla Scholarship.

Mr. Sagnik Day (Ph.D. student in CE) has received the INSA Young Scientist Award for 2008. Mr. Sajid A. Loan (Ph.D. student in EE) has been awarded the Merit Student Paper Award at the 2008 IEEE International Conference on Semiconductor Electronics. Paper titled *Towards generating diverse topologies of path tracing compliant mechanisms using a local search based multi-objective genetic algorithm procedure*, authored by Mr.

Deepak Sharma, a Ph.D. student of the Department of Mechanical Engineering, Professors Kalyanmoy Deb and N. N. Kishore in the Department of Mechanical Engineering, has been adjudged the Best Student Paper by the Evolutionary Programming Society at the 2008 IEEE Congress on Evolutionary Computation (CEC) conference in Hong Kong.

IIT Kanpur is proud of Professor J. N. Moorthy (Chemistry) who was conferred the prestigious Shanti Swarup Bhatnagar Award 2008 in Chemical Sciences. Dr. J. K. Bera (Chemistry) received the Swarnajayanti Fellowship. Professors V. K. Singh and R. N. Mukherjee (Chemistry) received Sir J C Bose Fellowship by DST. Prof. T. K. Chandrashekar (Chemistry) has been awarded the fellowship of the Third World Academy of Sciences, Trieste, Italy. Professors P. K. Bharadwaj (Chemistry) and R. C. Budhani (Physics) have been elected Fellows of the Indian National Science Academy, New Delhi. Prof. Manindra Agrawal (CSE) was awarded the first Infosys Prize in Mathematics. Dr. Ashu Jain (CE) received the Endeavour Executive Award 2009. *Dr. Bharat Lohani (CE) won the silver medal for developing Limulator2 at XXI ISPRS Congress, Beijing.* Prof. Ashutosh Sharma (CHE) has been awarded the TWAS Prize in Engineering Sciences (2008). He is the first Indian to receive this award in Engineering Sciences. Dr. Jayant K. Singh (CHE) has been selected for the BOYSCAST Fellowship for 2008-2009. Dr. Yogesh M. Joshi (CHE) received the Young Engineer Award 2008 of the Indian National Academy of Engineering and also the Young Scientist Platinum Jubilee Award in Physical Sciences for 2008 of the National Academy of Sciences, Allahabad.

Prof. A. K. Chaturvedi (EE) received the Tan Chin Tuan Fellowship of Nanyang Technological University, Singapore. Drs. R. Sankararamakrishnan and S. Ganesh (BSBE) have been awarded the National Bioscience Award for Career Development for 2008 by DBT. Dr. S. Ganesh also received the Scopus Young Scientist Award by DBT in Biological Sciences. Dr. Munmun Jha (HSS) received the Charles Wallace Fellowship in Social Anthropology given by the Charles Wallace Trust, UK. Dr. S. R. Patel (Mathematics) was chosen for the Commonwealth Academic Staff Fellowship administered by the Commonwealth Scholarship and Fellowship Commission in the United Kingdom. Dr. K. Biswas (MME) received the Young Metallurgist of the Year for 2008 given by the Ministry of Steel, GOI. Dr. A. Garg (MME) has been awarded the INSA Young Scientist Award (2008). Professor N. K. Sharma (IME) has received the IAAP-PPA BEST PSYCHOLOGIST AWARD 2008 instituted by the Governing Council of the Pondicherry Psychology Association. Professors C V R Murthy (Civil Engineering) and S. K. Gupta (Mathematics and Statistics) have been honored with the Distinguished Teacher award on the occasion of the Teacher's Day on 5th September 2008.

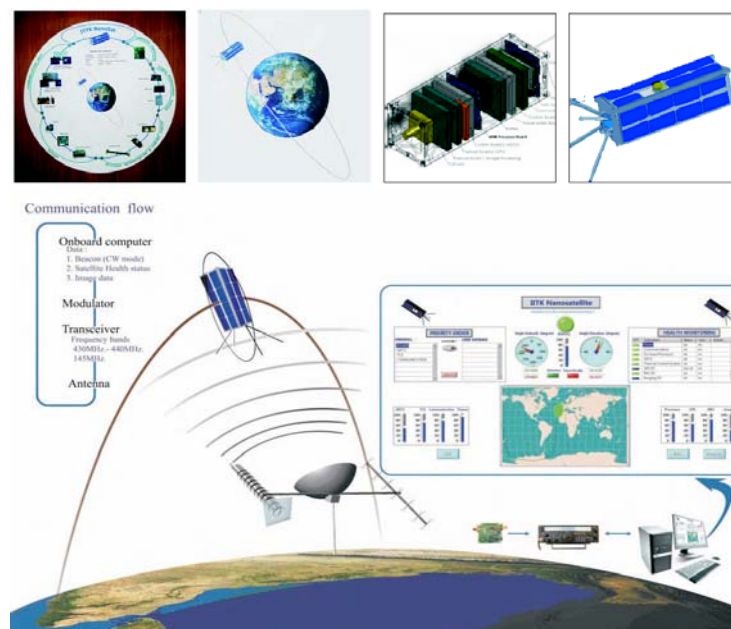
Research & Development

The Institute works tirelessly to provide *state-of-the-art* equipment to its faculty that would facilitate cutting-edge research in frontiers of science and technology. The research and teaching profile of the Institute is continually growing every year. As a result, the Institute is well-recognized as one of the centers of academic excellence. During 2008-2009, about 140 sponsored projects and 122 consultancy projects were

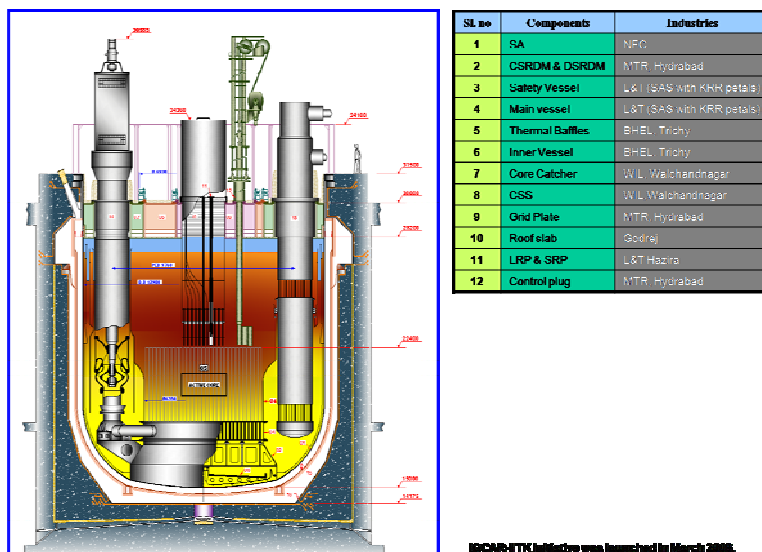
undertaken by the faculty and research engineers/scientists of the Institute with a sanctioned amount of Rs. 6608 lakh and 933 lakh, respectively.

Faculty filed 17 patents in India and overseas. The Institute has signed several Memoranda of Understanding with Indian as well as international academic/research institutions and industries to strengthen its collaborative research efforts. Some of the organizations include: Bhabha Atomic Research Center, Chevron, Indian Space Research Organisation, Indira Gandhi Centre for Atomic Research, European Aeronautic Defence and Space Company, Institute for Plasma Research, Gas Authority of India Limited, and United Nations Development Program.

The Institute has signed a Memorandum of Understanding with Indian Space Research Organization (ISRO) to support the design, development and launch of an indigenous nano satellite called Jugnu. The satellite is planned to be built around a standard cuboid configuration as designed and is expected to weigh less than 5 kg. In this joint program, the satellite will be launched in the polar orbit by the ISRO. The satellite shall carry payloads for earth observation, for establishing communication links, for studying atmospheric phenomena, for testing scientific instruments and for novel applications. The mission life shall be for a minimum period of 6 months.



The Institute has signed a Memorandum of Understanding with Indira Gandhi Centre for Atomic Research (IGCAR) to carry out research in the science and technology related to design and development of *Fast Breeder Reactors*. An IGCAR-IITK R & D cell will be set up in the premises of IITK to conduct R&D in the areas of mechanics and materials, thermal hydraulics, multiscale modeling, instrumentation, mechanisms, and machine vision.



The Institute has signed a Memorandum of Understanding with Indian Space Research Organization (ISRO) for development, validation and testing of kinematic control algorithm for rover motion on an uneven terrain. The landing module will carry a rover that will egress out of the lander onto the lunar surface. The rover shall move on the lunar surface and perform scientific experiments.

Another Memorandum of Understanding has been signed with Vikram Sarabhai Space Centre (VSSC) for development, and testing algorithms for computer vision based autonomous navigation system for the lunar rover mission.

Board of Research in Nuclear Sciences, Mumbai has recently approved the creation of a National Fire Facility for fire propagation and associated thermal hydraulic aspects in multiple compartments at IIT Kanpur with a total cost of Rs 5 crore. The objective of the project is to understand the fire thermal hydraulics in multiple compartments configuration with ceiling opening and large vertical opening as found in various compartments within the containment of a nuclear power plant.

The DST Unit of Nanosciences has been established as a joint venture with *Indo-US Science and Technology Forum* with Prof. Ashutosh Sharma (CHE) as the coordinator. The unit costing Rs. 15 crore has several fabrication and characterization facilities such as e-beam patterning, spin coating, nano-imprint, lithography, maskless lithography, laser ablation, small and wide angle X-ray.

The Institute has undertaken a major initiative in particle acceleration with the inauguration of the Tandetron Ion Beam facility under the supervision of Prof. V. N. Kulkarni (Physics). The accelerator operates energies at 1.7 MeV and will facilitate research in the areas of microfabrication, micromachining (MEMS/NEMS), ion beam synthesis of nano phases and surface engineering, surface and interface studies by RBS/ERDA/PIXE/ channeling, defect and damage studies in materials, bio-materials, 3D mapping and process optimization and system automation.

IIT Kanpur has been awarded a highly competitive and major international collaborative research project jointly funded by Research Council UK (RCUK) and the

Department of Science and Technology, (DST) India under the auspices of a newly launched UK-India Science Bridge Program entitled *BioPharm 2020: Entrepreneurial Opportunities for Indian and UK scientists in the Pharmaceutical and Biotechnology Industries*. The grant provides funding for research and training to the tune of 1 million pounds (UK) towards extensive bilateral research and training in biomedical engineering and bio-pharma between IITK and Nottingham University, besides collaboration with IIM Bangalore in the area of supply chain management.

Indian Railways has recently placed a commercial order for buying 10,000 tons of the rail steel from SAIL. This rail steel composition considered unique was developed at IIT Kanpur as one of the projects under TMRS (PI: R Balasubramaniam). The total cost of this order is just over Rs. 50 crore. Therefore, the TMRS rail corrosion prevention project not only has an industrial partner, but tangible deliverables have resulted from it. This work also has been recognized by way of scholarly peer-reviewed publications.

Under *BSNL IITK Telecom Center of Excellence (BITCOE)*, the Institute has received a grant of 14.5 crore. BITCOE is expected to provide a platform for research, development in India specific applications, and manpower generation in the field of telecommunications. It will have a significant impact on telecom related research at IITK.

As part of the second phase of the collaboration, the INDO-US Science and Technology Forum has sanctioned a grant of Rs. 5 crore for starting the INDO-US Center for Research Excellence in Fabronics. The Center is a consortium of Indian researchers from IITK, IITKgp, BESU and CMRI collaborating with UIUC, UCI and Northwestern in the science, technology and selected applications of advanced fabrication. Some examples include materials and fabrication for energy storage devices, biomedical devices, micro/nano fabrication and microfluidics. The collaborative research in the Center is driven by a two-way exchange of Ph.D. students and faculty, as well as Annual Research Workshops.

Center for Development of Metal-Ceramic Composites through microwave processing has been established under the Indo-US Public-Private Networked Joint Center Program funded by the Indo-US Science and Technology Forum (IUSSTF). One of the major research thrusts at the center involves gaining a fundamental understanding of the microwave-metal interaction and consolidation of a range of ferrous and non-ferrous particulate materials using microwaves.

Biomaterials as well as their applications in artificial organs are widely recognized as an emerging area. Recent developments in the field testify to a significant progress in our attempts to develop new biomaterials. In this regard, we have received a grant for establishment of Indo-US joint center on Biomaterials for health care. The overall objective of the proposed center is to combine the cutting edge technologies of fabrication and testing of materials science with the knowledge of biological sciences and evolve strategies to develop shaped implant materials in some of the emerging material systems for the improvement of public health. Thus, it will be a true demonstration of synergistic flow and utilization of scientific concepts, and technological expertise in an international team of recognized scientists.

The project on spark plasma sintering of ceramic nanocomposites proposes to develop Hydroxyapatite (HAp or HA) based bioceramic composites using Spark Plasma Sintering (SPS) route. The basic aim of the proposed project is to improve the mechanical properties (hardness, fracture toughness) of hydroxyapatite without considerably affecting the biocompatibility and the density. For this purpose, varying amount of ceramic (mullite) particulates or whiskers, (upto 30 wt. %) will be incorporated in the HAp matrix. As an alternative to the conventional sintering route, this project will investigate the capability of the SPS route.

The Institute has received a grant of Rs. 4 crore from TCS for establishing a Foundation for Research in Algorithms on campus. The aim of the Foundation is to support both pure and applied research in algorithms. Towards this end, the Foundation will organize several workshops in different areas of algorithms and also support research visits to IITK as well as other institutions.

The Institute had proved its capability for successfully implementing CAD technology for Saddle Industry. As a result, it is getting repeated requests from the Ministry of Commerce GOI for actively participating in Modernization of Saddle Industry. During the 10th Five year plan, the Institute was awarded grants to deliver the following long term objectives:

- Establishment of Institute of International standards for saddlery.
- Development of technology for different type of saddle trees and their accessories.
- Development of various kinds of machinery used in saddlery manufacture.
- Development of database of horse anatomies and saddletree geometries.

The Institute has established two new business incubators, Technology Business Incubator (TBI) & Technology Incubation and Development of Entrepreneurs (Tide) Center. TBI is a program supported by National Science & Technology Entrepreneurship Board (NSTEDB), DST, Govt. of India, for incubation of start-ups in the areas of Science & Technology. TIDE Centre is a program supported by the Ministry of Communication & Information Technology, Govt. of India, for incubation in the areas of IT & Electronics.

The TBI and TIDE centers are currently functioning under the umbrella of SIDBI Innovation & Incubation Centre (SIIC), which is the nodal centre for Entrepreneurship Development, Business Incubation and IPR. The technologies incubated at SIIC are high-end in multidisciplinary areas such as Ultra High Frequency RFID, Voice Recognition, Embedded Systems, High-end data acquisition sensors, Nano Materials & Geospatial technologies.

New RA hostel construction

Extension of new RA hostel is underway. Construction of additional 100 units is to be taken up on a priority basis to meet the immediate shortfall in accommodation of research staff. The IRDC recommended that plans be drawn to provide an additional 200 rooms over the next three years to cater to single-seater accommodation for newly graduated project associates, studio-style accommodation for married project

associates, and accommodation suitable for a small family in case of senior scientists and post-doctoral fellows working on projects.

Photograph showing proposed extension of RA hostel is given below.



Highlights from Departments

Major facilities created in the Department of Aerospace Engineering include autonomous flight vehicles, 3D PIV and 3-Component PDPA. The Flight lab has been strengthened by acquiring 2 Sinus motor gliders.

Department of Biological Sciences and Bioengineering has received a research grant from the UK India Education and Research Initiative (UKIERI) for providing efficient treatment approach for osteoarthritis using tissue engineering.

Department of Civil engineering has indigenously developed a 10LPM all aluminum body air sampler (PM1.0 inertial impactor) which is the first of its kind in India. The Department received a grant of Rs. 89 lakh for study of toxicity of secondary particles emitted from diesel vehicles.

Department of Electrical engineering has developed technologies for review of electrical clearance in air for 25 kV, 50 Hz ac overhead electric traction system of Indian Railways; a multi modal data acquisition test bed for simultaneous recording of 4 channel video and 8 channel audio data; fully automated trackside bogie monitoring system for measuring i) angle-of-attack using laser range finder based system, and ii) lateral and vertical rail forces. It is a fully operational system installed at Ajgain Railway Station on the Kanpur – Lucknow main track. Silhouette and structured light based low cost 3D scanner laser based pointing device for large screens has been developed. The Department has also developed software for digital mandi for the Indian farmers, Web interface for accessing current mandi prices online developed as part of BSNL IITK Telecom Center of Excellence and software for calculating inductance of large non-linear shunt reactors.

Apart from carrying out internationally competitive research in the frontier areas and running excellent teaching programmes for students, the Department of Physics has

recently undertaken as part of its outreach activity, efforts to improve physics education in schools and colleges. For a better appreciation of principles of science, over 250 experiments at levels starting from primary school to college have been developed with commonly available materials. During 2008-09, eight workshops were arranged in different locations in India and 328 teachers from 13 states participated enthusiastically in this mission of using classroom experiments to motivate science learning.

Some of the major sponsored projects undertaken by the Institute include those funded by CSIR, DST, DRDO, ARDB, DBT, MCIT, and BSNL. Other projects include:

- i. Potential of RNAI in insect pest management (NAIP);
- ii. Mobile IED pre- initiator system (AIP);
- iii. Airfoil models, instrumentations and wind tunnel testing of low Reynolds number airfoil at NWTF (ADA);
- iv. Development of metal-ceramic composites through microwave processing and biomaterials for health care (INDO-US networked center);
- iv. Plasmonic properties of checkboard metallic structures and films (IFCPAR);
- v. Design and development of an autonomous vehicle (Boeing);
- vi. An experimental study of supersonic flow over two and three dimensional slender bodies with moving surface protuberances; design and evaluation different control strategies (ARMREB);
- vii. Aerodynamic characteristics of butterfly flight through measurement of three dimensional unsteady velocity field using TR-PIV system (AOARD).

A few major consultancy projects received last year include:

- i. Design of river training works: river Ganga [three locations between Allahabad to Varanasi] (IWAI);
- ii. EHV/UHV transmission system planning for UPTTCL-study cell (UPPTCL);
- iii. One- stop educational portal (CHIPS);
- iv. GIS based land record management (GNIDA);
- v. Studies on catalyst composition (Chevron);
- vi. Dynamics stability analysis of aerostat 2000 cum size (ADRDE).

Research Infrastructure Development

The Institute is adding several major infrastructural facilities for carrying out multidisciplinary R&D activities. For development of a Micro-fabrication laboratory, partial funding has been obtained under the CARE scheme. Oxidation furnace, Dicing saw, Wire bonder, Spin coaters, Fume hood, PECVD (Plasma enhanced chemical vapor deposition), Sputtering system, Mask aligner, Chiller, and Optical table have been procured.

A fiber coupled Raman microscope with multichannel detection system was acquired in 2008 under the CARE scheme. This instrument allows non-destructive characterization of materials using inelastic light scattering methods. Microprobe allows data collection

from very small sample sizes (as small as ~ 100 microns). The spectrum provides a method to obtain information about the local structure at the nanoscale by recording the lattice vibrational spectrum. Comparison with known standards allows quantification of information obtained such as ratio of crystalline to amorphous phases and determination of the diameter of single walled carbon nanotubes. The instrument is currently installed in the laboratory for Materials at Extreme Conditions located in ACMS.

Under the CARE scheme, the Department of Chemistry has procured *microanalytical facility* which can analyze liquid and solid samples for their C, H, N, S and O content. This facility is already functional and is available to all the Institute researchers.

XP-100 Surface Profilometer System with 3D Metrology Option has been purchased. For microelectronics and larger area electronics, surface profiler can be used to extract – surface roughness, precision step height, surface form, thin film stress, thin film structure, and high resolution surface imaging. At SCDT, an interdisciplinary team of research scholars and faculty are using this equipment for fabricating organic solar cells, thin film transistor for RFID, as well as organic light emitting diodes for the Prototype Development Unit (PDU).

Laser Doppler Velocimetry (LDV) for the unsteady velocity measurements in a water tunnel test facility for flow control has been procured under the CARE scheme this year. LDV is an instrument which measures all the three components of fluid flow velocity along with the turbulence quantities. Unlike most turbulence measuring equipment, LDV allows non-intrusive high frequency measurements, thus providing highly accurate data.

A dedicated *dynamic laser light scattering setup* has been purchased through the CARE scheme. It is one of the best configuration systems available in the field. This set up can measure particle size distribution as well as molecular weight distribution of the polymeric samples. It is an ideal system suited for studying relaxation dynamics in soft transparent materials.

The Department of Science and Technology (DST) has a *Fund for improvement of Science & Technology (FIST)* scheme to build infrastructure facilities in universities and higher educational institutions. The grant under this scheme is provided for strengthening infrastructure of the identified department in teaching and research and is to be spent exclusively for the said purpose. During 2008-2009, the Institute has received FIST grants to add special infrastructure facilities for research purposes. While the Department of Chemical engineering has received the FIST II grant of Rs. 6.07 crore, the Department of Chemistry has been given a total amount of Rs. 8 crore for the purchase of the following equipment: Time-resolved fluorescence, high performance computational facility, Thermal analysis equipment, Atomic Force Microscopy, Resonance Raman and Mass spectroscopic facilities. It is expected that the Department will receive additional grants this year for the purchase of a new high field Nuclear Magnetic Resonance spectrometer and a single-crystal X-ray diffractometer.

The Department of Mechanical Engineering has procured an *Ultra High Speed Camera* through the FIST. This is the fastest camera in the world and also the first of its kind to

be available in our country. The system is currently housed in the High Speed Experimental Mechanics Laboratory (HSEML). The camera can capture 16 monochrome images at rates as high as 200 million images per second, i.e., time difference between any two images can be as low as 5 nanoseconds. Exposure time as small as 5 nanoseconds allows capturing images of ultra fast dynamic events, without smearing, seemingly *freezing* the events in time. The digital images have 12 bit depth and an active resolution of 1360 x 1024 pixels even at the highest framing rate.

The Institute has procured 2 *motor gilders* which can fly up to an altitude of 10000 feet without any oxygen cylinder and further up to a maximum altitude of 29000 feet with external oxygen cylinders and can maintain a speed of 122 knots/hr. It has two fuel tanks with a capacity of 50 liters each and can remain in the air for about six hours at a stretch.

International Collaborations

The Institute has entered into MoUs with the University of Ulster in relation with UKIERI, UK, Ghent University, Belgium and VLIR, Belgium, ETH Zurich, Switzerland, Chevron Energy Technology, USA, AdvanIDE Pte. Singapore, University of Kansas USA, the University of Applied Sciences Darmstadt, Germany, the Groupe Des Ecoles Des Mines (GEM), the Ecole Centrale Paris, the University of Castilla-La Mancha (UCLM) Spain, and University of Molise, Italy. The objectives of these MoUs are promoting, strengthening, maintaining scientific and academic co-operation, exchange of faculty, students, staff, technology transfer, sharing of intellectual property for the purposes of engineering research, and educational programs, sharing scientific instruments of common interest.

The Institute has signed a Memorandum of Understanding with National University of Singapore, Singapore for promotion of joint research and development activities of mutual interest. The understanding shall go a long way in the creation of vibrant academic research platforms.

Financial Resource Mobilization

The Institute has had a satisfactory financial year during 2008-09. The total Grant-in-aid received during the financial year from MHRD, Govt. of India, under non-plan was Rs 113.48 crore, under plan Rs 68.17 crore and another Rs. 72.56 crore under plan (OSC).

The financial year 2008-09 was successful for fund raising at IIT Kanpur. As economy slowed down globally, fewer individuals and organizations were willing to donate to the institute. The Institute received a total of Rs 5.13 crore from 923 donors (496 Indian donors and 427 overseas donors).

A total of 487 donors contributed Rs 38.75 lakh in the Annual Gift Programme (AGP). Donations received under AGP have been utilized for providing travel support to the students and faculty for attending international conferences, cash award to students for publication of their research papers in reputed journals, travel support to international visiting faculty, filing of patents and other similar activities supporting and encouraging excellence in the Institute.

The Ministry of Water Resources, Government of India, established an endowed Chair and a Faculty Research Fellowship in the institute to support research on the impact of water quality in the Ganges basin. Some of their research staff members will also join the postgraduate programs at IIT Kanpur. An endowment of Rs 100 lakh is available to support these activities.

Several new students' scholarships, awards and research fellowships for young faculty members in the Institute have been instituted during the year. An IITK alumnus, who prefers not to disclose his identity, has donated the *Dr. P.K. Kelkar Chair* at IIT Kanpur.

The IITK Alumni Association and the Class of 1974 have established the Sidh Agrawal Memorial Fund in honor of the revered memory of Mr. Sidh Agrawal (BT/EE/1974). This fund will be used for providing UG scholarships, an award for entrepreneurship, and to organize programs for promoting entrepreneurship at IITK.

Partial travel support to 114 students to attend international conferences was provided with generous support from Mr. Sudhir Mittal (BT/CHE/70) and Mr. N R Narayana Murthy (MT/EE/69). The support ranged from Rs. 20,000 to Rs. 40,000 per student.

Cash awards were given to 155 students for publishing papers in reputed journals. This scheme was introduced through the donations received under the Annual Gift Programme and from NR Narayana Murthy Fund.

The donations from alumni and friends of IITK have also enabled us to start a scheme to provide partial travel support to new faculty members during the first three years of their tenure at IITK. During 2008-09, eleven faculty members availed of this support for participation in conferences overseas. Travel support is also being provided to visiting faculty members for visits of duration exceeding one month. During the year, support was provided to two visiting faculty members of the Department of Materials and Metallurgical Engineering and the Department of Physics.

The Institute will be celebrating its Golden Jubilee from August 2009 to December 2010. A number of events in project mode have been planned for the Golden Jubilee year.

Students' Activities

IIT Kanpur continually strives to encourage an equitable balance between academics and extra-curricular activities among its students. Our vision is to create future leaders in their chosen fields and not just technically accomplished individuals. The Institute strongly believes that an abiding social and humane engagement is the hallmark of its student body. To translate such a belief into reality, the Institute nurtures social, cultural and sporting activities pursued by the students' gymkhana and other student groups.

Promotion of Work-Experience and Research (POWER)

POWER is the first initiative of its kind in India to promote coordinated Research and Work-Experience through student-industry interaction. It gives students the freedom and opportunities to work in diverse areas of business, science and technology that

have a bearing on the existing industrial and national problems. It also provides students an opportunity to work upon their own ideas.

POWER focuses on building research and technical aptitude among students, while allowing for due participation of faculty, research scholars, industries and external agencies.

It offers a database of experts, accessibility to institute resources, funds, and basic skill-building projects (including lecture series, workshops, visiting trips). Thus, it provides a platform for converting dreams and ideas into reality by throwing up opportunities to participate in solving real-life challenges through industrial research and projects.

Notes on Engineering Research and Development (NERD)

NERD is an exciting, *student-led* publication in magazine format. The magazine *focuses on original research being carried out by students at IIT Kanpur*. It includes experiences based on summer projects, internships, conferences; biographical profile of a woman scientist to encourage female students to take up research; new pedagogical techniques adopted; policy and perspective articles for some initiatives in their embryonic stages; and various general interest articles.

The magazine helps to publicize student research and opportunities available as well as to disseminate information in the area of research and development.

Under the *Boeing-IIT Kanpur Campus engagement plan*, a student project and a scholarship program have been initiated. Proposals to design and build an autonomous vehicle were invited from the student community. The review committee selected 8 students to work on a focused project. Financial support is available for realizing the prototype autonomous vehicle. The team will get an opportunity to gain guidance from and interact with experts from the Boeing. The prototype developed by the team will also get extensive visibility at both national and international levels.



Dr. Veena Sahasrabuddhe, a leading Indian vocalist and composer of [Hindustani classical music](#) visited the Institute as the first *Artist in Residence* in the month of March 09. Her singing style has its roots in [Gwalior gharana](#), but it also borrows from [Jaipur](#)

and [Kirana](#) gharanas. The campus residents were electrified by her inspiring presence and literally perfect compositions.



A variety of activities are pursued by various clubs coming under the broad ambit of the councils of the Gymkhana. They range from clubs like Prayas, where students teach children coming from socially disadvantaged and economically deprived backgrounds to the Dramatics club which stages thematically inspired and socially relevant plays. Other technically oriented student groups are engaged throughout the year in pursuing special interests like robotics, electronic aids, animation, aero-modeling and astronomy to name but a few.

The overriding objective of the large-scale events of the Institute such as Antaragni, Techkriti, Udghosh and Megabucks is to infuse a sense of richness and purpose in the lives of students. Antaragni is the cultural festival. Techkriti is the science and technology festival. Udghosh is the sports festival. Megabuck is a festival to promote the spirit of innovation and incubation. All these social, cultural and sporting activities play a crucial role in the transformation of a student into a complete person. These festivals have seen vastly improved participation levels, both from within the Institute and also from students from other national and international institutions. The revenues generated for conducting these festivals saw an impressive growth last year, which is a tribute to the managerial and logistic skills of our students.

IIT Kanpur came up with a creditable show in the inter IIT sports meet held at IIT Madras. While the girls stood third in overall championship, the boys stood fifth and both had a number of podium performances as a team and in individual events.

The Institute witnessed stiff inter- hall competition in the form of Galaxy and Varchasva, inter- hall cultural and sports championships respectively. The sole guiding principle to organize these championships is to provide the students of this campus, a much needed platform to compete and showcase their cultural and sport talents and to give them a reason and a motivation, strong enough, to come out of their rooms and participate in group activities.

Introduction of the Entrepreneurship Cell (E-Cell) of IIT Kanpur which was launched during the opening ceremony of Megabucks'09 lays down the philosophy underlying the need to groom the entrepreneurial skills in the students. The vision is to foster the entrepreneurial spirit in the students of the Institute with an aptitude for innovation. Given its faith that an emerging economy like India needs the drive of young entrepreneurs to initiate and nurture firms and enterprises, the E-Cell aims to guide the

enthusiasts in the right direction and thus equip them for the stress and strife of the marketplace.

The student counseling service is the most active wing of students. The activities include organizing the orientation programme for UG as well as PG students; providing specific attention to students having academic, financial or personal problems; monitoring the progress of students who need special attention. It enjoys wide appreciation from both faculty and students.

Owing to the economic downturn, the placement scenario this year was not as encouraging as the previous years but was certainly good when compared with some of the other IITs and other professional engineering colleges. Out of the 1200 public and private organizations invited for recruitment, 130 companies have finally conducted their interviews and the overall placement figure for the year stands at 74%. Despite the market crash, an extended effort that included a slew of new initiatives in terms of association with alumni and spreading career awareness led to 41 new companies reporting for placement this year. The relationships formed with the alumni and other prominent people in the industry, besides the different channels explored this year for recruitment, will definitely help the placement scenario of the campus in the years to come.

The Institute has put in place the entire infrastructure necessary to meet the requirements of the enhanced student strength. As of now, there are ten halls of residence, eight for boys and two for girls. The total capacity in these halls is close to four thousand. Two new blocks with a capacity of twenty four units for SBRA has been constructed. The entire rejuvenation programme has been initiated with a generous donation from Mr. N. R. Narayana Murthy, a distinguished alumnus of the Institute.

Organisation

Indian Institute of Technology Kanpur is an autonomous organization incorporated under an Act of Parliament in the year 1961, and is wholly financed by the Government of India, under the administrative control of the Ministry of Human Resource Development. The authorities constituted under the Act and Statutes, which govern and guide the functioning of the Institute in the areas of administration and academic programmes are; the Council of IITs, the Board of Governors assisted by two statutory bodies namely the Finance Committee in the financial matters and the Building and Works Committee in the matters related to construction and repairing of buildings and other major works. The Senate is assisted by its various standing committees. The compositions of these constituent bodies are as follows:

THE COUNCIL OF IITs

Chairman

Shri Arjun Singh
Minister of Human Resource Development
New Delhi – 110 001

Chairmen of the Seven Institutes (Ex-Officio)

Shri Achyut Kumar Saikia
Chairman, Board of Governors
IIT Guwahati

Shri Sanjeev Goenka
Chairman, Board of Governors
IIT Kharagpur

Dr. Anil Kakodkar
Chairman, Board of Governors
IIT Bombay

Prof. A.E. Muthunayagam
Chairman, Board of Governors
IIT Madras

Prof. M Anandakrishnan
Chairman, Board of Governors
IIT Kanpur

Prof. V S Ramamurthy
Chairman, Board of Governors
IIT Delhi

Shri Ashok Bhatnagar
Chairman, Board of Governors
IIT Roorkee

Directors of Institute (Ex-Officio)

Prof. Damodar Acharaya	IIT Kharagpur
Prof. M S Ananth	IIT Madras
Prof. Devang V. Khakhar	IIT Bombay
Prof. S G Dhande	IIT Kanpur
Prof. Surendra Prasad	IIT Delhi
Prof. Gautam Barua	IIT Guwahati
Prof. S C Saxena	IIT Roorkee

Other Members (Ex-Officio)

Prof. Sukhdeo Thorat
Chairman
University Grants Commission
New Delhi

Dr. R A Mashelkar
Director General
Council of Scientific & Industrial Research
Anusandhan Bhawan, Rafi Marg
New Delhi

Dr. K Kasturirangan
Chairman
Council of IISc. Bangalore
National Institute of Advanced Studies
Indian Institute of Science Campus
Bangalore

Prof. P Balram
Director
Indian Institute of Science Bangalore
Bangalore

Three Nominees of the Central Government

Shri Sudeep Banerjee
Secretary
Ministry of Human Resource Development
Dept. of Secondary & Higher Education
New Delhi

Shri D Swarup
Secretary
Ministry of Finance
Department of Expenditure
North Block
New Delhi

Shri Brajesh Kumar
Secretary
Ministry of Information Technology
Electronic Niketan
6, CGO Complex, New Delhi

Prof. R.A. Yadav
Acting Chairman, AICTE
IP Estate
IG Sports Complex
New Delhi

Nominees of the Visitor

Prof. C.N.R. Rao
Eminent Scientist
& Chairman, Scientific Advisory Council to the Prime Minister
Linus Pauling Research Professor & Honorary President
CSIR Centre of Excellence in Chemistry,
Chemistry & Physics of Materials Unit
Jawaharlal Nehru Centre for Advanced Scientific Research
PO – Jakkur, Bangalore

Prof. C S Seshadri
Director
Chennai Mathematical Institute, Chennai
Plot H1, SIPCOT IT Park
Padur PO, Siruseri
Prof. Sabyasachi Bhattacharya
Director
Tata Institute of Fundamental Research
Homi Bhabha Road,
New Delhi

Dr. Kota Harinarayan
Chairman
Research Council of Central Scientific
Instrument Organization
Raja Ramanna Fellow
National Aero Space Laboratories
PO Box 1779,
Bangalore

Shri Tarun Das
Chief Mentor
Confederation of Indian Industry

Plot No. 249-F, Sector 18,
Udyog Vihar Phase IV
Gurgaon (Haryana)

Three Members of Parliament (Two from Lok Sabha and one from Rajya Sabha)

Shri Milind Deora
Member of Parliament (Lok Sabha)
65, Lodhi Estate
New Delhi

Shri Ananta Nayak
Member of Parliament (Lok Sabha)
180, South Avenue
New Delhi

Shri B J Panda
Member of Parliament (Rajya Sabha)
2, Mahadev Road,
New Delhi

Secretary to the Council

Shri N K Sinha
Joint Secretary (DL)
Government of India
Department of Secondary Education & Higher Education
Ministry of Human Resource Development
Shastri Bhawan
New Delhi - 110 001

THE BOARD OF GOVERNORS

Chairman

Prof. M Anandakrishnan
Chairman, Indian Institute of Technology Kanpur
'Madan Apartment'
8/15, 5th Main Road
Kasturibai Nagar
Adyar, Chennai-600080

[From 12.06.2006]

Members

Four Nominees of the Council of IITs

Prof. Rajendra Govind Harshe
Vice Chancellor
Allahabad University
Allahabad

(from 13.04.2007)

Prof. D V Singh

Former Vice Chancellor, Roorkee University &
Former Director, CRRI,
Sunbreeze Apartments, 1002
Tower-'B', Vaishali
Ghaziabad - 201 010 (from 13.04.2007)

Shri Inder Kumar Khosla
Hony. Secy. & Treasurer
Kamala Nehru Memorial Hospital Society
122, Malcha Marg
Chanakyapuri
New Delhi - 110 021 (from 13.04.2007)
(upto 22.08.2008)

Shri Ravi Mathur (upto May 2008)
Joint Secretary (Technical)
Government of India
Department of Secondary Education & Higher Education
Ministry of Human Resource Development
Shastri Bhawan
New Delhi - 110 001

Shri Ashok Thakur (from May 2008)
Additional Secretary
Government of India
Department of Secondary Education & Higher Education
Ministry of Human Resource Development
Shastri Bhawan
New Delhi - 110 001

Shri Sewa Ram [From 05.10.2006]
Principal Secretary (Upto 30.08.2007)
Government of Madhya Pradesh
Dept. of Technical Education and Science & Technology
Mantralay, Vallabh Bhawan
Bhopal - 462 004

Smt. Snehlata Srivastava
Principal Secretary
Government of Madhya Pradesh
Dept. of Technical Education and Science & Technology (From 31.08.2007)
Mantralay, Vallabh Bhawan
Bhopal - 462 004

Professor R S Nirjar
Vice Chancellor
Ambedkar University

Gautam Buddha Nagar
Greater Noida

(From 28.11.2007)

Shri Aman Kumar Singh
Joint Secretary, Information Technology
& Chief Executive Officer, CHIPS
Government of Chhattisgarh
Department of Commerce & Industry (Information Technology)
Das Bhawan
Mantralaya, Raipur, Chhattisgarh

(From 17.04.2008)

Director (Ex-Officio)
Professor Sanjay G. Dhande
Director
Indian Institute of Technology Kanpur
Kanpur 208016

Two Nominees of the Senate

Professor Ajai Jain
Dept. of Computer Science & Engineering
Indian Institute of Technology Kanpur
Kanpur - 208 016

(From 01.01.2008)

Professor Manoj K Harbola
Department of Physics
Indian Institute of Technology Kanur
Kanpur - 208 016

Secretary
Shri Sanjeev S. Kashalkar
Registrar
Indian Insitute of Technology Kanpur
Kanpur - 208 016

THE FINANCE COMMITTEE

Chairman
Prof. M Anandakrishnan
Chairman, BOG
Indian Institute of Technology Kanpur
'Madan Apartment'
8/15, 5th Main Road
Kasturibai Nagar
Adyar, Chennai-600080

(upto May 2008)

Members
Shri Ravi Mathur

Joint Secretary (Technical)
Government of India
Department of Secondary Education & Higher Education
Ministry of Human Resource Development
Shastri Bhawan, New Delhi - 110 001

Shri Ashok Thakur (Upto May 2008)
Additional Secretary
Government of India
Department of Secondary Education & Higher Education
Ministry of Human Resource Development
Shastri Bhawan
New Delhi - 110 001

Shri D V Singh (from May 2008)
Former Vice Chancellor
Roorkee University &
Former Director, CRRI,
Sunbreeze Apartment, 1002,
Tower 'B', Vaishali,
Ghaziabad-201010

Shri S K Ray
Financial Adviser
Government of India
Department of Education
Ministry of Human Resource Development
Shastri Bhawan
New Delhi - 110 001

Professor Manoj K Harbola
Department of Physics
Indian Institute of Technology Kanpur
Kanpur - 208 016

Director (Ex-Officio)
Professor Sanjay G. Dhande
Director
Indian Institute of Technology Kanpur
Kanpur 208016

Secretary
Shri Sanjeev S. Kashalkar
Registrar
Indian Insitute of Technology Kanpur
Kanpur - 208 016

THE BUILDING & WORKS COMMITTEE
Chairman

Professor Sanjay G. Dhande
Director
Indian Institute of Technology Kanpur
Kanpur 208016

Members

Prof. Kripa Shanker
Dy. Director
Indian Institute of Technology Kanpur
Kanpur 208016

(Upto 02.09.2008)

Prof. Raj K . Thareja
Dy. Director
Indian Institute of Technology Kanpur
Kanpur 208016

(From 08.09.2008)

Professor Jitendra Kumar
Department of Materials Science Programme
Indian Institute of Technology Kanpur
Kanpur - 208 016

(Upto 31.12.2007)

Professor Ajai Kumar Jain
Department of Computer Science & Engineering
Indian Institute of Technology Kanpur
Kanpur - 208016

(From 01.01.2008)

Shri B D Gupta
Chief Engineer (Northern Zone) CPWD
3 rd Floor Kendriya Bhawan
Sector H, Aliganj
Lucknow -226 024

Shri D N Agarwal
Retd. Chief Engineer (Electrical) CPWD
M-21, Greater Kailash-II
New Delhi 110048

Shri M D Seth
Retd. Engineer-in-Chief, UPRNN
Consultant
Lucknow -226 001

Shri S Y Kulkarni
Professor & Head
Department of Planning & Architecture
Indian Institute of Technology, Roorkee
roorkee-247667

Ms. Seema Raj
Director (T)
Government of India
Ministry of Human Resource Development
Shastri Bhawan
New Delhi 110 001

Secretary

Shri Sanjeev S. Kashalkar
Registrar
Indian Institute of Technology Kanpur
Kanpur - 208 016

[From 01.04.2008 to 31.03.2009]

SENATE

Director & Chairman Senate:

Prof. Sanjay Govind Dhande
Director
Indian Institute of Technology Kanpur
Kanpur

Deputy Director:

Prof. Kripa Shankar

Upto 03.09.2008

Prof. RK Thareja

w.e.f. 03.09.2008

Members of the Senate :

AEROSPACE ENGINEERING (AE) :

Prof. Kunal Ghosh
Prof. RK Sullerey
Prof. Dayanand Yadav
Prof. E Rathakrishnan
Prof. C. Venkatesan
Prof. T.K. Sengupta
Prof. Sudhir Kamle
Prof. Kamal Poddar
Prof. Sanjay Mittal
Prof. Ashish Tewari
Prof. A.K.Ghosh

BIOLOGICAL SCIENCES & BIO-ENGINEERING (BSBE) :

Prof. Pradip Sinha
Dr. Dhirendra S Katti, ASP
Dr. Amitabh Bandopadhyay, AP

Upto 30.11.2008
From 01.12.2008

CHEMICAL ENGINEERING (CHE) :

Prof. SK Gupta
Prof. Anil Kumar
Prof. Deepak Kunzru
Prof. JP Gupta
Prof. PK Bhattacharya
Prof. RP Chhabra
Prof. Ashok Khanna
Prof. Ashutosh Sharma
Prof. Goutam Deo
Prof. Nishith Verma
Dr. Jayanta K Singh, AP

Upto 30.11.2008

CHEMISTRY (CHM) :

Prof. N Sathyamurthy
Prof. S Sarkar
Prof. BD Gupta
Prof. YD Vankar
Prof. TK Chandrashekar
Prof. V Chandrasekhar
Prof. RN Mukherjee
Prof. Parimal K Bhardwaj
Prof. N.S. Gajbhiye
Prof. P. Gupta Bhaya
Prof. S. Manogaran
Prof. Veejendra K Yadav
Prof. Vinod K Singh
Prof. Amalendu Chandra

Prof. Faiz Ahmed Khan
Prof. S S Manoharan
Prof. J N Moorthy
Prof. Sandeep Verma

CIVIL ENGINEERING (CE) :

Prof. Ashwini Kumar
Prof. PK Basudhar
Prof. Sudhir K Jain
Prof. Sarvesh Chandra
Prof. Bithin Datta

Prof. Vinod Tare
Prof. Vinay Kumar Gupta
Prof. S.K. Chakrabarti
Prof. CVR Murty
Prof. Mukesh Sharma
Prof. Onkar Dikshit
Prof. Partha Chakroborty
Prof. Rajiv Sinha
Prof. Sudhir Misra
Prof. Rajesh Srivastava
Prof. Purnendu Bose
Dr. Amit Prashant, AP
Dr. Bharat Lohani, AP

Upto 30.11.2008
From 01.12.2008

COMPUTER SCIENCE & ENGINEERING (CSE) :

Prof. RMK Sinha
Prof. Somenath Biswas
Prof. HC Karnick
Prof. Pankaj Jalote
Prof. TV Prabhakar
Prof. Sanjeev Kumar Aggarwal
Prof. Sanjeev Saxena
Prof. Rajat Moona
Prof. Manindra Agrawal
Prof. Amitabha Mukerjee
Prof. Dheeraj Sanghi
Prof. Phalguni Gupta
Prof. Ratan Kumar Ghosh
Prof. Ajai K Jain
Prof. Shashank K Mehta
Prof. Sumit Ganguly
Dr. Mainak Chaudhuri, AP

Upto 30.11.2008

ELECTRICAL ENGINEERING (EE) :

Prof. Avinash Joshi
Prof. M Sachidananda
Prof. SC Srivastava
Prof. Anjan Kumar Ghosh
Prof. Prem Kumar Kalra
Prof. Shafi Qureshi
Prof. Sumana Gupta
Prof. Govind Sharma
Prof. Utpal Das
Prof. AK Dutta
Prof. Joseph John
Prof. Animesh Biswas

Upto 24.08.2008

Prof. Pradip Sircar
Prof. Baquer Mazhari
Prof. A K Chaturvedi
Prof. R.K. Bansal
Prof. S Umesh
Prof. S.N. Singh
Prof. Shyama P Das
Prof. Ravindra Arora
Prof. G C Ray

Emeritus Fellow Upto 31.07.2008
Emeritus Fellow Upto 31.07.2008

HUMANITIES & SOCIAL SCIENCES (HSS)

Prof. Lilavati Krishnan
Prof. Binayak Rath
Prof. AK Sharma
Prof. KK Saxena
Prof. AK Sinha
Prof. BH Boruah
Prof. Binay Kumar Pattnaik
Prof. G Neelakantan
Prof. Surajit Sinha
Prof. Achla Misri Raina
Prof. (Ms) Shikha Dixit
Prof. Amit Ray

Emeritus Fellow Upto 31.05.2009

INDUSTRIAL & MANAGEMENT ENGINEERING (IME) :

Prof. AK Mittal
Prof. Kripa Shanker
Prof. NK Sharma
Prof. Arun P Sinha
Prof. R R K Sharma
Prof. Jayanta Chatterjee
Prof. Rahul Varman
Dr. Runa Sarkar, AP

From 01.12.2008

MATERIALS & METALLURGICAL ENGINEERING (MME) :

Prof. SP Mehrotra
Prof. RC Sharma
Prof. RK Dube
Prof. Brahma Deo
Prof. SC Koria
Prof. Sanjeev Bhargava

Upto 23.01.2009

Prof. Dipak Mazumdar
Prof. Rajiv Shekhar
Prof. Sandeep Sangal
Prof. R. Balalsubramaniam
Prof. Barada K Mishra
Prof. Deepak Gupta
Prof. Monica Katiyar
Prof. Shant P Gupta
Dr. Anish Upadhyay, ASP

Emeritus Fellow Upto 31.07.2008
From 01.12.2008

MATERIALS SCIENCE PROGRAMME (MSP) :

Prof. Jitendra Kumar.

MATHEMATICS AND STATISTICS (MTH & STATS) :

Prof. RKS Rathore
Prof. (Ms) Manjul Gupta
Prof. MK Kadalbajoo
Prof. Prawal Sinha
Prof. GP Kapoor
Prof. Peeyush Chandra
Prof. V Raghavendra
Prof. ID Dhariyal
Prof. (Ms) Shobha Madan
Prof. Debashis Kundu
Prof. Pravir Kumar Dutt
Prof. Neeraj Misra
Prof. B V Rathish Kumar
Prof. Dhirendra Bahuguna
Prof. P Shunmugaraj
Prof. Arbind Kumar Lal
Prof. U B Tewari
Dr. Amit Mitra, ASP

Emeritus Professor Upto 30.06.2009
Upto 30.11.2008

MECHANICAL ENGINEERING (ME) :

Prof. A K Mallik
Prof. B N Banerjee
Prof. MS Kalra
Prof. VK Jain
Prof. NN Kishore
Prof. Himanshu Hatwal
Prof. PM Dixit
Prof. K Muralidhar
Prof. Gautam Biswas

Upto 30.06.2009
Upto 30.06.2009

Prof. Prabhat Munshi
Prof. BP Pundir
Prof. S.K. Chaudhury
Prof. N.S. Vyas
Prof. Vinayak Eswaran
Prof. Kalyanmoy Deb
Prof. P.S. Ghoshdastidar
Prof. Subrata Sarkar
Prof. P K Panigrahi
Prof. Ashok Sengupta
Dr. N V Reddy, ASP

Emeritus Fellow Upto 30.06.2009
From 01.12.2008

PHYSICS (PHY) :

Prof. SD Joglekar
Prof. Keshawa Shahi
Prof. Rajendra Prasad
Prof. Debashish Chowdhury
Prof. RC Budhani
Prof. Y.N. Mohapatra
Prof. Avinash Singh
Prof. V.N. Kulkarni
Prof. Deshdeep Sahdev
Prof. V Ravishankar
Prof. Satyendra Kumar
Prof. Pankaj Jain
Prof. HC Verma
Prof. Manoj K Harbola
Prof. S C Agarwal
Dr. Satyajit Banerjee, AP

Emeritus Fellow Upto 31.08.09
01.12.2008 to 30.11.2009

LIBRARIAN

Dr. V D Shrivastava

w.e.f. 03.02.2009

Secretary, Senate: Shri Sanjeev S Kashalkar
Registrar
Indian Institute of Technology Kanpur
Kanpur

THREE NOMINEES OF THE CHAIRMAN, BOARD OF GOVERNORS (From 01.11.2007 To 31.10.2008):

1. Prof. G K Rai
Department of Ancient History Culture & Archeology,
Allahabad University,
Allahabad

2. Prof. V K Suri
Vice-Chancellor
C S Azad University of Agri.& Tech.
Nawabganj
Kanpur -208002
3. Prof. R P Singh
Department of Oil and Paint
Harcourt Butler Technological Institute (HBTI)
Nawabganj
Kanpur - 208002

THREE NOMINEES OF THE CHAIRMAN, BOARD OF GOVERNORS
(From 01.11.2008 To 31.10.2009):

1. Prof. H K Sehgal, Vice-Chancellor
C S J M Kanpur University
Kanpur – 208024
2. Prof. S K Awasthi
Director, H.B.T.I.
Nawabganj,
Kanpur-208002
3. Prof. Prithvi Yadav, Director
Gur Hari Singhania Institute of Management
Kanpur

SENATE STANDING COMMITTEES :
[From 01.10.2007 To 30.09.2008]

(1) SENATE EDUCATIONAL POLICY COMMITTEE [SEPC]:

(a) MEMBERS (EX-OFFICIO) :

- | | | |
|---------------------|---|----------|
| 1. Chairman, Senate | : | Chairman |
| 2. Chairman, SPGC | | |
| 3. Chairman, SUGC | | |

(b) SENATE NOMINEES :

- | | |
|-----------------------|-----|
| 1. Dr. Dayanand Yadav | AE |
| 2. Dr. Ashok Khanna | CHE |
| 3. Dr. Vinod K Singh | CHM |

(c) STUDENTS' SENATE NOMINEES :

- | | |
|---------------------|---------|
| 1. Cherian V Methew | (Y4129) |
|---------------------|---------|

2. Manu Bansal

(Y3167175)

(2) SENATE ELECTIONS COMMITTEE [SEC]:

SENATE NOMINEES :

- | | |
|-----------------------|-----|
| 1. Dr. B D Gupta | CHM |
| 2. Dr. Dipak Mazumdar | MME |
| 3. Dr. Pankaj Jain | PHY |

(3) SENATE LIBRARY COMMITTEE [SLC]:

(a) LIBRARY :

Librarian : Shri Rajeshwar Mishra

(b) SENATE NOMINEES :

- | | |
|------------------------------|------|
| 1. Dr. Debashish Chowdhury | PHY |
| 2. Dr. K Srihari | CHM |
| 3. Dr. Rajiv Sinha | CE |
| 4. Dr. R Sankararamakrishnan | BSBE |

(c) NOMINEES OF DEPARTMENTS/PROGRAMMES :

- | | |
|-------------------------------------|------------|
| 1. Dr. K Ghosh | AE |
| 2. Dr. K Subramaniam | BSBE |
| 3. Dr. Sanjeev Garg | CHE |
| 4. Dr. Jitendra K Bera | CHM |
| 5. Dr. S K Chakrabarti | CE |
| 6. Dr. Purnendru Bose | EEMP |
| 7. Dr. T V Prabhakar | CSE |
| 8. Dr. P Sircar | EE |
| 9. Dr. Satyaki Roy | HSS |
| 10. Dr. A K Mittal | IME |
| 11. Dr. Y N Singh | LTP |
| 12. Dr. P K Panigrahi | ME |
| 13. Dr. Anish Upadhyaya | MME |
| 14. Dr. Jitendra Kumar | MSP |
| 15. Dr. Shobha Madan | MTH & STAT |
| 16. Dr. P K Panigrahi | NET |
| 17. Dr. Sreerup Raychaudhuri | PHY |
| 18. Ms. Koumudi Prakash Patil (HSS) | M DES |

(d) STUDENTS' SENATE NOMINEES :

- | | |
|----------------------|---------|
| 1. C Saipriyadarshan | (Y5149) |
| 2. Ashish Agarwal | (Y6113) |

(4) SENATE POST-GRADUATE COMMITTEE [SPGC]:

MEMBER (EX-OFFICIO) :

Dr. I D Dhariyal	MTH & STATS :Outgoing Chairman
------------------	--------------------------------

SENATE NOMINEE :

- | | |
|------------------|----|
| 1. Dr. V K Gupta | CE |
|------------------|----|

(c) NOMINEES OF DEPARTMENTS/PROGRAMMES :

- | | |
|---------------------------|------------|
| 1. Dr. C S Upadhyay | AE |
| 2. Dr. Dharendra S Katti | BSBE |
| 3. Dr. Nishith Verma | CHE |
| 4. Dr. M L N Rao | CHM |
| 5. Dr. Pranab K Mohapatra | CE |
| 6. Dr. Avinash Agarwal | EEMP |
| 7. Dr. Shashank K Mehta | CSE |
| 8. Dr. S Umesh | EE |
| 9. Dr. A M Raina | HSS |
| 10. Dr. Anoop Singh | IME |
| 11. Dr. Debabrata Gowami | LTP |
| 12. Dr. V Eswaran | ME |
| 13. Dr. D Mazumdar | MME |
| 14. Dr. Rajeev Gupta | MSP |
| 15. Dr. Manjul Gupta | MTH & STAT |
| 16. Dr. P Munshi | NET |
| 17. Dr. Avinash Singh | PHY |
| 18. Dr. Satyaki Roy | M DES |

(d) STUDENTS' SENATE NOMINEES :

- | | |
|---------------------|------------|
| 1. Ankur Verma | (Y5102063) |
| 2. G Naresh Kumar | (Y6114004) |
| 3. Priyanka Dash | (Y6106008) |
| 4. K Sudheendra Rao | (Y5209864) |

(5) SENATE RULES COMMITTEE [SRC]:

(a) MEMBER (EX-OFFICIO) :

Parliamentarian of the Senate :

Dr. N K Sharma, IME

: Upto 30.09.2007

(b) SENATE NOMINEES :

- | | |
|-----------------------|-------------|
| 1. Dr. M K Kadalbajoo | MTH & STATS |
| 2. Dr. Shafi Qureshi | EE |
| 3. Dr. B K Pattnaik | HSS |

(6) SENATE SCHOLARSHIPS & PRIZES COMMITTEE [SSPC]:

(a) MEMBERS (EX-OFFICIO):

Head Institute Counselling Service	: Dr. Goutam Deo, CHE
Chairman, APEC	: Dr. Purnendu Bose, CE
Dean of Students' Affairs	: Dr. Prawal Sinha, MTH & STAT

(b) SENATE NOMINEES:

- | | |
|-----------------------|-------------|
| 1. Dr. B Deo | MME |
| 2. Dr. Anish Upadhyay | MME |
| 3. Dr. S K Agarwal | CSE |
| 4. Dr. A Mitra | MTH & STATS |

(c) STUDENTS' SENATE NOMINEES :

- | | |
|-------------------|------------|
| 1. Adarsh Behra | (Y6030) |
| 2. Piyush Agrawal | (Y3167218) |
| 3. Chirag Mittal | (Y3167100) |

(7) SENATE STUDENTS' AFFAIRS COMMITTEE [S-SAC]:

(a) MEMBERS (EX-OFFICIO) :

Head Institute Counselling Service	: Dr. Goutam Deo, CHE
Chairman, APEC	: Dr. Purnendu Bose, CE
Representative of COW	: Dr. A K Chaturvedi, EE
Dean of Students' Affairs	: Chairman, Ex-Officio

(b) SENATE NOMINEES:

- | | |
|--------------------------|-----|
| 1. Dr. P S Ghoshdastidar | ME |
| 2. Dr. Asima Pradhan | PHY |
| 3. Dr. Rajat Moona | CSE |

(c) STUDENTS' SENATE NOMINEES :

- | | |
|-------------------|------------|
| 1. Arvind Kothari | (Y4096) |
| 2. Ankur Verma | (Y5102063) |
| 3. Chirag Mittal | (Y3167100) |
| 4. Ramnik Arora | (Y5365) |

(8) SENATE UNDERGRADUATE COMMITTEE [SUGC]:

(a) MEMBER (EX-OFFICIO) :

Dr. Dheeraj Sanghi, CSE : Outgoing Chairman

(b) SENATE NOMINEE :

- | | |
|-----------------------|----|
| 1. Dr. A K Chaturvedi | EE |
|-----------------------|----|

(c) NOMINEES OF DEPARTMENTS/PROGRAMMES :

- | | |
|------------------------------|------------|
| 1. Dr. D Das | AE |
| 2. Dr. Anupam Pal | BSBE |
| 3. Dr. Yogesh M Joshi | CHE |
| 4. Dr. M K Ghorai | CHM |
| 5. Dr. Rajesh Srivastava | CE |
| 6. Dr. Purnendu Bose | EEMP |
| 7. Dr. Dheeraj Sanghi | CSE |
| 8. Dr. Animesh Biswas | EE |
| 9. Dr. Suchitra Mathur | HSS |
| 10. Dr. Runa Sarkar | IME |
| 11. Dr. H Wanare | LTP |
| 12. Dr. P S Ghoshdastidar | ME |
| 13. Dr. B Deo | MME |
| 14. Dr. Kamal K Kar | MSP |
| 15. Dr. A K Lal | MTH & STAT |
| 16. Dr. P Munshi | NET |
| 17. Dr. Anjan Kumar Gupta | PHY |
| 18. Dr. Bishakh Bhattacharya | M DES |

(d) STUDENTS' SENATE NOMINEES :

- | | |
|----------------------|------------|
| 1. Ashish Agarwal | (Y6113) |
| 2. Chirag Mittal | (Y3167100) |
| 3. B Shubham Gupta | (Y4424) |
| 4. C Saipriyadarshan | (Y5149) |

SENATE STANDING COMMITTEES :

[From 01.10.2008 To 30.09.2009]

(1) SENATE EDUCATIONAL POLICY COMMITTEE :

(a) MEMBERS (EX-OFFICIO) :

- | | |
|-----------------------|----------|
| 1. Chairman, Senate : | Chairman |
| 2. Chairman, SPGC | |
| 3. Chairman, SUGC | |

(b) SENATE NOMINEES :

- | | |
|------------------------|-----|
| 1. Dr. Vinayak Eswaran | ME |
| 2. Dr. M K Harbola | PHY |
| 3. Dr. Deepak Gupta | MME |

(c) STUDENTS' SENATE NOMINEES :

- | | | | |
|----------------------|------------|--------------------|------------|
| 1. Ankur Verma | (Y5102063) | ankurv@iitk.ac.in | E1-209,H-4 |
| 2. C Saipriyadarshan | (Y5149) | darshan@iitk.ac.in | D-302, H-9 |

(2) SENATE ELECTIONS COMMITTEE [SEC]:

SENATE NOMINEES :

- | | |
|----------------------|------|
| 1. Dr. Achla M Raina | HSS |
| 2. Dr. Ashish Dutta | ME |
| 3. Dr. Pradip Sinha | BSBE |

(3) SENATE LIBRARY COMMITTEE [SLC]:

(a) LIBRARY :

Librarian :

(b) SENATE NOMINEES :

- | | |
|-------------------------|-------------|
| 1. Dr. Arbind Kumar Lal | MTH & STATS |
| 2. Dr. Ashok Kumar | BSBE |
| 3. Dr. Surajit Sinha | HSS |
| 4. Dr. Siddharta Panda | CHE |

(c) NOMINEES OF DEPARTMENTS/PROGRAMMES :

- | | |
|--------------------------|------|
| 1. Dr. C S Upadhyay | AE |
| 2. Dr. Dharendra S Katti | BSBE |
| 3. Dr. S Garg | CHE |

4. Dr. J K Bera	CHM
5. Dr. Soumyen Guha	CE
6. Dr. Soumyen Guha	EEMP
7. Dr. Harish Karnick	CSE
8. Dr. Pradip Sircar	EE
9. Dr. Anindita Chakrabarti	HSS
10. Dr. A K Mittal	IME
11. Dr. H Wanare	LTP
12. Dr. P K Panigrahi	ME
13. Dr. A Upadhyay	MME
14. Dr. Jitendra Kumar	MSP
15. Dr. Pravir Dutt	MTH & STAT
16. Dr. M S Kalra	NET
17. Dr. Tapobrata Sarkar	PHY
18. Dr. Munmun Jha	M DES

(d) STUDENTS' SENATE NOMINEES :

1. Abhishek Sharma (Y5025) abhishar@iitk.ac.in B-112, H-1
2. Keshav Goel (Y7196) keshavg@iitk.ac.in 314, H-2

(4) SENATE POST-GRADUATE COMMITTEE [SPGC]:

(a) MEMBER (EX-OFFICIO) :

Dr. Vinay K Gupta CE : Outgoing Chairman

(b) SENATE NOMINEE :

Dr. Govind Sharma EE

(c) NOMINEES OF DEPARTMENTS/PROGRAMMES :

1. Dr. D Yadav	AE
2. Dr. Amitabha Bandyopadhyay	BSBE
3. Dr. Animangsu Ghatak	CHE
4. Dr. M L N Rao	CHM
5. Dr. Ashu Jain	CE
6. Dr. Tarun Gupta	EEMP
7. Dr. T V Prabhakar	CSE
8. Dr. S Umesh	EE
9. Dr. Mini Chandran	HSS
10. Dr. Rahul Varman	IME
11. Dr. Debabrata Gowami	LTP
12. Dr. P M Dixit	ME
13. Dr. R K Dube	MME
14. Dr. K Shahi	MSP
15. Dr. Rama Rawat	MTH & STAT

16. Dr. M S Kalra	NET
17. Dr. Avinash Singh	PHY
18. Dr. Satyaki Roy	M DES

(d) STUDENTS' SENATE NOMINEES :

1. Mohd. Ashraf Bhat (Y4200063)ashraf@iitk.ac.in E-213, H-8
2. K Sudheendra Rao (Y5209864)ksrao@iitk.ac.in F-212, H-8
3. Abhishek Kumar Agrawal (Y7104003)abhia@iitk.ac.in E-209, H-9
4. Satendra Kumar Yadav (Y7111036) satendra@iitk.ac.in 2068, ACES

(5) SENATE RULES COMMITTEE [SRC]:

(a) MEMBER (EX-OFFICIO) :

Parliamentarian of the Senate :

Dr. R K Dube MME : Upto 30.09.2008

(b) SENATE NOMINEES :

1. Dr. Kunal Ghosh AE
2. Dr. Ajai K Jain CSE
3. Dr. Keshawa Shahi PHY

(6) SENATE SCHOLARSHIPS & PRIZES COMMITTEE [SSPC]:

(a) MEMBERS (EX-OFFICIO):

Head, Institute Counselling Service: Dr. A K Ghosh, AE
 Member, APEC : Dr. Purnendu Bose, CE
 Dean of Students' Affairs : Dr. Partha Chakroborty, CE

(b) SENATE NOMINEES:

1. Dr. Sandeep Verma CHM
2. Dr. Suchitra Mathur HSS
3. Dr. Rajesh Srivastava CE
4. Dr. Nandini Nilakantan MTH & STATS

(c) STUDENTS' SENATE NOMINEES :

1. Indranuj Dey (Y5209863) indranuj@iitk.ac.in C-202, H-8
2. Mohit Kumar Jolly(Y6265) mkjolly@iitk.ac.in 317, H-2
3. Keshav Goel (Y7196) keshavg@iitk.ac.in 314, H-2

(7) SENATE STUDENTS' AFFAIRS COMMITTEE [S-SAC]:

(a) MEMBERS (EX-OFFICIO) :

Head Institute Counselling Service	: Dr. A K Ghosh, AE
Member, APEC	: Dr. Purnendu Bose, CE
Representative of COW	: Dr. Sudhir Misra, CE
Dean of Students' Affairs	: Chairman, Ex-Officio

(b) SENATE NOMINEES:

1. Dr. Ashu Jain	CE
2. Dr. Anish Upadhyaya	MME
3. Dr. Shikha Dixit	HSS

(c) STUDENTS' SENATE NOMINEES :

1. Arvind Kothari (Y4096)	arvikot@iitk.ac.in	B-204, H-1
2. Ankur Verma (Y5102063)	ankurv@iitk.ac.in	E1-209, H-4
3. K Sudheendra Rao(Y5209864)	ksrao@iitk.ac.in	F-212, H-8
4. Ramnik Arora (Y5365)	ramnik@iitk.ac.in	D-202, H-1

(8) SENATE UNDERGRADUATE COMMITTEE [SUGC]:

(a) MEMBER (EX-OFFICIO) :

Dr. P S Ghoshdastidar, ME	: Outgoing Chairman
---------------------------	---------------------

(b) SENATE NOMINEE :

1. Dr. H C Verma	PHY
------------------	-----

(c) NOMINEES OF DEPARTMENTS/PROGRAMMES :

1. Dr. A Kushari	AE
2. Dr. Ashok Kumar	BSBE
3. Dr. Siddhartha Panda	CHE
4. Dr. M K Ghorai	CHM
5. Dr. Sudhir Misra	CE
6. Dr. S N Tripathi	EEMP
7. Dr. Amitabha Mukherjee	CSE
8. Dr. Y N Singh	EE
9. Dr. T Ravichandran	HSS
10. Dr. A P Sinha	IME
11. Dr. D P Mishra	LTP/AE
12. Dr. N N Kishore	ME

13. Dr. B Basu	MME
14. Dr. Rajeev Gupta	MSP
15. Dr. Mahua Banerjee	MTH & STAT
16. Dr. M S Kalra	NET
17. Dr. Anjan K Gupta	PHY
18. Dr. Bishakh Bhattacharya	M DES

(d) STUDENTS' SENATE NOMINEES :

1. Manu Kapoor	(Y4177218)	manuk@iitk.ac.in	D-210, H-8
2. Anurag Sujania	(Y5107)	sujania@iitk.ac.in	C-215, H-1
3. Pulkit Agarwal	(Y7322)	pulkit@iitk.ac.in	F-301, H -5
4. Abhishek Khetan	(Y6019)	askhetan@iitk.ac.in	247, H-2

The Faculty

There are thirteen departments and five interdisciplinary programmes offering degrees at various levels in the Institute.

The faculty strength of the Institute as on March 31, 2009 was 326. Out of these 22 are shared by two departments on a half time basis. There were also 36 Academic staff comprising of Research Engineers/Scientific Officers/Design Engineers and Library staff, who are treated at par with faculty, on March 31, 2009. 07 faculty members and 04 academic staff retired/voluntary retired/resigned and one faculty member passed away during the period. The Institute also had a number of Visiting Faculty members : 09 Visiting Faculty and 02 Distinguished Honorary Professor joined during the year. The Visiting/Distinguished/Adjunct Faculty contribute significantly and they also get an opportunity to know the Institute.

AEROSPACE ENGINEERING DEPARTMENT SANTIONED STRENGTH : 20 EXISTING STRENGTH : 16+1

PROFESSOR (Rs.18400-500-22400)

1. 3159 K Ghosh
2. 1798 R K Sullerey
3. 4041 Dayanand Yadav
4. 4458 E Rathakrishnan
5. 4694 C Venkatesan
6. 4581 T K Sengupta
7. 4285 Sudhir Kamle
8. 4664 Kamal Poddar
9. 4696 Sanjay Mittal
10. 4660 Ashish Tewari
11. 4709 A K Ghosh

ASSOCIATE PROFESSOR (Rs.16400-450-20000)

1. 4785 C S Upadhyay
2. 4733 D P Mishra

ASSISTANT PROFESSOR (Rs.12000-420-18300)

1. 4958 Abhijit Kushari
2. 4993 Debopam Das
3. 5129* Sivasambu Mahesh
4. 5280 Brijesh Eshpuniyani

BIOLOGICAL SCIENCE & BIO-ENGINEERING**SANTIONED STRENGTH : 15****EXISTING STRENGTH : 10**

PROFESSOR (Rs.18400-500-22400)

1. 4959 Pradip Sinha

ASSOCIATE PROFESSOR (Rs.16400-450-20000)

1. 5119 Ashok Kumar
2. 5005 R Sankararamakrishnan
3. 5009 K Subramaniam
4. 5020 Subramaniam Ganesh
5. 5023 Balaji Prakash
6. 5103 Dharendra S Katti

ASSISTANT PROFESSOR (Rs.12000-420-18300)

1. 5194 Anupam Pal
2. 5206 Amitabha Bandyopadhyay
3. 5207 (Ms) Jonaki Sen

CHEMICAL ENGINEERING DEPARTMENT**SANTIONED STRENGTH : 32****EXISTING STRENGTH : 20**

PROFESSOR (Rs.18400-500-22400)

1. 3113 S K Gupta
2. 2432 Anil Kumar
3. 3314 Deepak Kunzru
4. 3064 J P Gupta
5. 3754 P K Bhattacharya
6. 4244 R P Chhabra
7. 4045 Ashok Khanna
8. 4562 Ashutosh Sharma
9. 4750 Goutam Deo
10. 4794 Nishith Verma

ASSOCIATE PROFESSOR (Rs.16400-450-20000)

1. 5011 V Shankar
2. 5016 Nitin Kaistha
3. 5196 Siddharta Panda

ASSISTANT PROFESSOR (Rs.12000-420-18300)

1. 5021 Sanjeev Garg
2. 5106 Animangsu Ghatak
3. 5114 Yogesh Moreshwar Joshi
4. 5175 Jayant K Singh
5. 5208 Pankaj A Apte
6. 5298 Raj Ganesh S Pala
7. 5303 Sri Sivakumar

CHEMISTRY DEPARTMENT

SANTIONED STRENGTH : 30
EXISTING STRENGTH : 29

PROFESSOR (Rs.18400-500-22400)

1. 3827 N Sathyamurthy
2. 3791 S Sarkar
3. 3990 B D Gupta
4. 4008 Y D Vankar
5. 4325 T K Chandrashekar
6. 4394 V Chandrasekhar
7. 4448 R N Mukherjee
8. 4462 P K Bharadwaj
9. 4047 N S Gajbhiye
10. 3112 P Gupta Bhaya
11. 4460 S Manogaran
12. 4583 Veejendra K Yadav
13. 4596 Vinod K Singh
14. 4676 Amalendu Chandra
15. 4746 Faiz Ahmed Khan
16. 4759 S S Manoharan
17. 4789 Sandeep Verma
18. 4816 J N Moorthy

ASSOCIATE PROFESSOR (Rs.16400-450-20000)

1. 4760 K Srihari
2. 5071 Debabrata Goswami
3. 4876 R Gurunath
4. 5024 Manas Kumar Ghorai
5. 5038 Jitendra K Bera
6. 5056 M L N Rao

ASSISTANT PROFESSOR (Rs.12000-420-18300)

1. 5127 Sankar Prasad Rath
2. 5091 Anantharaman Ganapathi
3. 5236 Madhav V Ranganathan
4. 5304 Nishanth N Nair

5. 5305 Pratik Sen

CIVIL ENGINEERING DEPARTMENT

SANTIONED STRENGTH : 33

EXISTING STRENGTH : 29

PROFESSOR (Rs.18400-500-22400)

1. 3462 Ashwini Kumar
2. 4068 P K Basudhar
3. 4209 Sudhir K Jain
4. 4399 Sarvesh Chandra
5. 4546 Bithin Datta
6. 4295 Vinod Tare
7. 4586 V K Gupta
8. 4464 S K Chakrabarti
9. 4799 Mukesh Sharma
10. 4657 C V R Murty
11. 4662 Onkar Dikshit
12. 4663 Partha Chakroborty
13. 4695 Rajiv Sinha
14. 4690 Sudhir Misra
15. 4798 Rajesh Srivastava
16. 4775 Purnendu Bose

ASSOCIATE PROFESSOR (Rs.16400-450-20000)

1. 4784 Soumyen Guha
2. 4793 Ashu Jain
3. 4995 Durgesh C Rai
4. 4871 Animesh Das
5. 4978 Javed N Malik
6. 5026 Bharat Lohani
7. 5057 Sachidanand Tripathi
8. 5079 Pranab Kumar Mohapatra

ASSISTANT PROFESSOR (Rs.12000-420-18300)

1. 5152 Amit Prashant
2. 5037 Nihar Ranjan Patra
3. 5192 Tarun Gupta
4. 5230 Priyanka Ghosh
5. 5307 Debajyoti Paul

COMPUTER SCIENCE & ENGINEERING

SANTIONED STRENGTH : 18

EXISTING STRENGTH : 19 + 2 HT

PROFESSOR (Rs.18400-500-22400)

1. *3858 S G Dhande
2. *3541 R M K Sinha
3. 3972 Somenath Biswas
4. 4297 H C Karnick
5. 4370 T V Prabhakar
6. 4563 S K Aggarwal
7. 4490 Sanjeev Saxena
8. 4628 Rajat Moona
9. 4754 Manindra Agrawal
10. 4627 Amitabha Mukerjee
11. 4300 Ratan Kumar Ghosh
12. 4385 Phalguni Gupta
13. 4645 Ajai K Jain
14. 4668 Dheeraj Sanghi
15. 4762 Sumit Ganguly
16. 5010 Shashank K Mehta

ASSOCIATE PROFESSOR (Rs.16400-450-20000)

1. 4934 Anil Seth

ASSISTANT PROFESSOR (Rs.12000-420-18300)

1. 5112 Mainak Chaudhuri
2. 5197 Surender Baswana
3. 5222 Peeyush P Kurur
4. 5268 Arnab Bhattacharya

ELECTRICAL ENGINEERING

SANTIONED STRENGTH : 53
EXISTING STRENGTH : 34 + 2 HT

PROFESSOR (Rs.18400-500-22400)

1. *3541 R M K Sinha
2. 3927 Avinash Joshi
3. 4326 M Sachidananda
4. 4495 S C Srivastava
5. 4667 Anjan Kumar Ghosh
6. 4486 Prem Kumar Kalra
7. 4691 Shafi Qureshi
8. 3873 (Ms) Sumana Gupta
9. 4372 Govind Sharma
10. *4687 Utpal Das
11. 4566 A K Dutta
12. 3999 Joseph John
13. 4652 Animesh Biswas

14. 4478 Pradip Sircar
15. 4670 Baquer Mazhari
16. 4827 A K Chaturvedi
17. 4489 R K Bansal
18. 4745 S Umesh
19. 5003 S N Singh
20. 4776 Shyama P Das

ASSOCIATE PROFESSOR (Rs.16400-450-20000)

1. 4771 Yatindra N Singh
2. 4988 Laxmidhar Behera
3. 4833 K S Venkatesh
4. 4938 K Vasudevan
5. 5013 A R Harish
6. 5113 S Sunder Kumar Iyer

ASSISTANT PROFESSOR (Rs.12000-420-18300)

1. 5012 Parthasarathi Sensarma
2. 5015 (Ms) Nandini Gupta
3. 5111 Adrish Banerjee
4. 5162 Ramprasad Potluri
5. 5293 Santanu K Mishra
6. 5295 Rajesh M Hegde
7. 5309 Kumar Vaibhav Srivastava
8. 5321 Naren Naik
9. 5326 Md Jaleel Akhtar
10. 5327 Nishchal Kumar Verma

HUMANITIES & SOCIAL SCIENCES

**SANTIONED STRENGTH : 31
EXISTING STRENGTH : 25+2**

PROFESSOR (Rs.18400-500-22400)

1. 3838 (Ms) Lilavati Krishnan
2. 3989 Binayak Rath
3. 3983 A K Sharma
4. 4373 K K Saxena
5. 4016 A K Sinha
6. 4375 B H Boruah
7. 4791 B K Pattnaik
8. 4729 G Neelakanthan
9. 4488 Surajit Sinha
10. 4700 (Ms) Achla M Raina
11. 4702 (Ms) Shikha Dixit

ASSOCIATE PROFESSOR (Rs.16400-450-20000)

1. 4773 Munmun Jha
2. 4957 (Ms) Suchitra Mathur
3. 5076 T Ravichandran
4. 5310 Praveen Kulshrestha

ASSISTANT PROFESSOR (Rs.12000-420-18300)

1. 4927 (Ms) Mini Chandran
2. 5075 P M Prasad
3. 5078 Sanjay Kumar Singh
4. 5077 Amman Madan
5. 5181 Braj Bhusan
6. *4976 Satyaki Roy
7. 5231 Kumar Ravi Priya
8. 5270 Sarani Saha
9. 5296 Somesh Kumar Mathur

LECTURER (Rs.10000-325-15200)

1. *5183 (Ms) Koumudi Prakash Patil
2. 5237 A V Ravi Shankar Sarma
3. 5287 Anindita Chakrabarti

**INDUSTRIAL & MANAGEMENT ENGINEERING SANTIIONED STRENGTH : 18
EXISTING STRENGTH : 13**

PROFESSOR (Rs.18400-500-22400)

1. 3432 A K Mittal
2. 3977 N K Sharma
3. 3792 Kripa Shanker
4. 4042 Arun P Sinha
5. 4525 R R K Sharma
6. 4961 Jayanta Chatterjee
7. 4701 Rahul Varman

ASSOCIATE PROFESSOR (Rs.16400-450-20000)

1. 4865 (Ms) Veena Bansal

ASSISTANT PROFESSOR (Rs.12000-420-18300)

1. 4968 Anoop Singh
2. 5073 Raghu Nandan Sengupta
3. 5142 Peeyush Mehta
4. 5147 B V Phani
5. 5182 (Ms) Runa Sarkar

MATERIALS & METALLURGICAL ENGINEERING

SANTIONED STRENGTH : 32

EXISTING STRENGTH : 20

PROFESSOR (Rs.18400-500-22400)

1. 1932 S P Mehrotra
2. 3845 R C Sharma
3. 3763 R K Dube
4. 4182 Brahma Deo
5. 4245 S C Koria
6. 4382 Dipak Mazumdar
7. 4565 Rajiv Shekhar
8. 4597 Sandeep Sangal
9. 4571 R Balasubramaniam
10. 4665 Barada K Mishra
11. 4790 Deepak Gupta
12. 4796 (Ms) Monica Katiyar

ASSOCIATE PROFESSOR (Rs.16400-450-20000)

1. 4919 Anish Upadhyaya
2. 4977 Bikaramjit Basu

ASSISTANT PROFESSOR (Rs.12000-420-18300)

1. 5034 Ashish Garg
2. 5072 Gauthama
3. 5269 Kallol Mondal.
4. 5273 Krishanu Biswas
5. 5289 Anandh Subramaniam
6. 5297 Kantesh Balani

MATHEMATICS & STATISTICS DEPARTMENT

SANTIONED STRENGTH : 36

EXISTING STRENGTH : 33

PROFESSOR (Rs.18400-500-22400)

1. 3407 R K S Rathore
2. 3772 (Ms) Manjul Gupta

3. 3739 M K Kadalbajoo
4. 3773 Prawal Sinha
5. 3776 G P Kapoor
6. 4058 Peeyush Chandra
7. 4074 V Raghavendra
8. 3824 I D Dhariyal
9. 4290 (Ms) Shobha Madan
10. 4584 Debasis Kundu
11. 4449 Pravir Kumar Dutt
12. 4726 Neeraj Misra
13. 4707 B V Rathish Kumar
14. 4782 D Bahuguna
15. 4656 P Shunmugaraj
16. 4734 Arbind Kumar Lal

ASSOCIATE PROFESSOR (Rs.16400-450-20000)

1. 4803 Alok Kumar Maloo
2. 4781 (Ms) Mohua Banerjee
3. 4822 G Santhanam
4. 4832 (Mrs) Rama Rawat
5. 4870 S Ghorai
6. 5029 Joydeep Dutta
7. 5153 Amit Mitra

ASSISTANT PROFESSOR (Rs.12000-420-18300)

1. 4537 (Ms) Aparna Dar
2. 4930 Swagato Kumar Ray
3. 5036 Shalabh
4. 5121 (Ms) Nandini Nilakantan
5. 5189 Parasar Mohanty
6. 5229 Sharmistha Mitra
7. 5235 Sudipta Dutta
8. 5291 Malay Banerjee
9. 5314 Sameer Laxman Chavan

LECTURER (Rs.10000-325-15200)

1. 5128 Shital Rajeshbhai Patel

MECHANICAL ENGINEERING

SANTIONED STRENGTH : 42
EXISTING STRENGTH : 35 + 3 HT

PROFESSOR (Rs.18400-500-22400)

1. 2265 A K Mallik
2. *3858 S G Dhande

3. 3759 B N Banerjee
4. 3862 M S Kalra
5. 4093 V K Jain
6. 4224 N N Kishore
7. 4286 Himanshu Hatwal
8. 4210 P M Dixit
9. 4398 K Muralishar
10. 4560 Gautam Biswas
11. 4061 Prabhat Munshi
12. 4810 B P Pundir
13. 4452 S K Choudhury
14. 4459 N S Vyas
15. 4482 Vinayak Eswaran
16. 4650 Kalyanmoy Deb
17. 4288 P S Ghoshdastidar
18. 4788 Subrata Sarkar
19. 4801 P K Panigrahi

ASSOCIATE PROFESSOR (Rs.16400-450-20000)

1. 4779 Bhaskar Dasgupta
2. 4823 V Venkata Reddy
3. 4890 Bishakh Bhattacharya
4. 4931 Avinash Kumar Agarwal
5. 5014 Sumit Basu
6. *4928 Kamal K Kar
7. 5022 Ashish Datta
8. 5054 P Venkitanarayanan

ASSISTANT PROFESSOR (Rs.12000-420-18300)

1. 4956 Anupam Saxena
2. 5074 J Ramkumar
3. 5120 Sameer Khandekar
4. 5122 Arun Kumar Saha
5. *5129 Sivasambu Mahesh
6. 5199 Ishan Sharma
7. 5234 Shantanu Bhattacharya
8. 5267 Basant Lal Sharma
9. 5294 Malay Kumar Das
10. 5299 Pankaj Wahi
11. 5300 Anurag Gupta

PHYSICS

PROFESSOR (Rs.18400-500-22400)

SANTIONED STRENGTH : 38

EXISTING STRENGTH : 31 + 4 HT

1. 3980 R K Thareja
2. 4019 S D Joglekar
3. *4064 Keshawa Shahi
4. 4254 Rajendra Prasad
5. 4642 Debashish Chowdhury
6. 4688 R C Budhani
7. * 4559 Y N Mohapatra
8. 4651 Avinash Singh
9. 4315 V N Kulkarni
10. 4527 Deshdeep Sahdev
11. 4504 V Ravishankar
12. 4552 Satyendra Kumar
13. 4708 Pankaj Jain
14. 4723 H C Verma
15. 4881 M K Harbola

ASSOCIATE PROFESSOR (Rs.16400-450-20000)

1. 4653 K P Rajeev
2. 4692 Mahendra K Verma
3. *4679 (Ms) Asima Pradhan
4. 4831 Sreerup Raychoudhuri
5. 4755 V Subrahmanyam
6. 4797 Gautam Sengupta
7. 5040 S Anantha Ramakrishna
8. 5041 Amit Dutta
9. 5117 Satyajit Banerjee

ASSISTANT PROFESSOR (Rs.12000-420-18300)

1. 4893 Harshwardhan Wanare
2. 5028 (Ms) Sutapa Mukherjee
3. 5046 Anjan Kumar Gupta
4. 5102 Zakir Hossain
5. 5115 Tapobrata Sarkar
6. 5123 Sudeep Bhattacharjee
7. *5167 Rajeev Gupta
8. 5284 Tarun Kanti Ghosh
9. 5290 Kaushik Bhattacharya
10. 5306 Dipankar Chakrabarti

LECTURER (Rs.10000-325-15200)

1. 5275 S Dhamodaran

MATERIALS SCIENCE PROGRAMME

SANTIONED STRENGTH : 06

EXISTING STRENGTH : 01 + 4 HT

PROFESSOR (Rs.18400-500-22400)

1. 3762 Jitendra Kumar
2. *4064 Keshawa Shahi
3. *4559 Y N Mohapatra

ASSOCIATE PROFESSOR (Rs.16400-450-20000)

1. *4928 Kamal K Kar

ASSISTANT PROFESSOR (Rs.12000-420-18300)

1. *5167 Rajeev Gupta

LASER TECHNOLOGY PROGRAMME **SANTIONED STRENGTH :**
EXISTING STRENGTH : + 02 HT

PROFESSOR (Rs.18400-500-22400)

1. *4687 Utpal Das

ASSOCIATE PROFESSOR (Rs.16400-450-20000)

1. *4679 (Ms) Asima Pradhan

NUCLEAR ENGG & TECHNOLOGY PROGRAMME

SANTIONED STRENGTH :
EXISTING STRENGTH : --

PROFESSOR (Rs.18400-500-22400)

-- --

DESIGN PROGRAMME

SANTIONED STRENGTH
EXISTING STRENGTH : +2 HT

ASSISTANT PROFESSOR (Rs.12000-420-18300)

1. *4976 Satyaki Roy

LECTURER (Rs.10000-325-15200)

1. *5183 (Ms) Koumudi Prakash Patil

While Nuclear Engineering & Technology and Environmental Engineering Management interdisciplinary programmes offer separate postgraduate degrees for administrative purpose these are under the administrative control of Mechanical Engineering and Civil Engineering Departments respectively.

*** Half Time**

List of Academic Staff as on March 31, 2009

Sl No.	Name & Designation (Ms/Shri/Dr)	Department/ Programme
1.	4983 Alok Gupta, Research Engineer Gr-I	A E
2.	4616 Sushmit Sen, Senior Research Engineer	Robotics
3.	4824 Anjali V Kulkarni, Senior Research Engineer	Mechatronics
4.	5118 Ajay Misra, Senior Research Engineer	A E
5.	4078 Chaturi Singh, Senior Research Engineer	NWTF
6.	5278 Neeru Chhabra, Senior Research Engineer	E E
7.	4318 Amitabha Roy, Principal Research Engineer	E E
8.	3238 Vishal Saxena, Principal Research Engineer	E E
9.	4807 Brajesh Chandra, Principal Research Engineer	A E (NWTF)
10.	4056 V Raghuram, Principal Research Engineer	M E
11.	4777 Rajeev Gupta, Principal Research Engineer	A E (NWTF)
12.	4955 Raghuvir Singh Anand, Principal Research Engineer	E E
13.	4921 Aurobinda Chatterjee, Principal Research Engineer	M E
14.	4015 A L Bhavsar, Scientific Officer Gr.I	CHEM
15.	4815 K K Bajpai, Senior Scientific Officer	C E
16.	3780 Sanjay Gupta, Chief Scientific Officer	ACMS
17.	4090 Prem Chand, Chief Scientific Officer	EPR/PHY
18.	2028 H P S Parihar, Computer Engineer Gr.II	C C
19.	5285 Saikat Kira, Computer Engineer Gr II	C C
20.	4578 Md Aftab Alam, Senior Computer Engineer	C C
21.	4821 Brajesh Pande, Senior Computer Engineer	C C
22.	4820 Gopesh Tewari, Senior Computer Engineer	C C
23.	5019 Soma Sengupta, Senior Computer Engineer	C C
24.	4721 Md K Ahmad, Senior Computer Engineer	C C
25.	4920 Anju Tewari, Senior Computer Engineer	C C
26.	2035 N P Roberts, Principal Computer Engineer	C C
27.	3868 K S Singh, Principal Computer Engineer	C C
28.	2037 Y D S Arya, Principal Computer Engineer	C C
29.	4817 Navpreet Singh, Principal Computer Engineer	C C
30.	4541 B M Shukla, Principal Computer Engineer	C C
31.	5030 Vipul Mathur, Aircraft Maintenance Engineer	A E
32.	5312 V D Shrivastava, Librarian	Kelkar Lib
33.	3969 Umed Singh, Assistant Librarian	Kelkar Lib
34.	3974 (Ms) Neelam Prasad, Assistant Librarian	Kelkar Lib
35.	5148 S K Vijaianand, Assistant Librarian	Kelkar Lib
36.	5157 (Ms) Maitrayee Mondal Ghosh, Assistant Librarian	Kelkar Lib

Academic Programme

EDUCATIONAL GOALS

Education in the Engineering stream should produce trained manpower for maintaining and advancing technological growth. The scope of engineering education should evolve based on the evaluation of technological growth for their usefulness and relevance to the prosperity of the country. The educational strategy in this context should help to develop a knowledge industry and the systems involved in this endeavor should strive for furtherance of knowledge.

The academic goals of the Indian Institute of Technology Kanpur from the viewpoint of its teaching programme are as the following:

To prepare the students for the highest level of excellence in science, and technology and produce competent, creative and imaginative scientists and engineers.

To promote a spirit of free and objective inquiry in different fields amongst the students and motivate them for higher studies and research.

To foster inter-disciplinary approach. To promote the concept of virtual research departments by bringing together faculty and students into activities of mutual interest.

TEACHING PROGRAMMES

The Institute offers instruction in various disciplines of science and engineering, both at undergraduate (UG) and postgraduate (PG) levels. These programmes are planned and implemented by the Academic Senate of the Institute. Micro-management and these programmes is carried out by the Senate Undergraduate Committee (SUGC) and the Senate Post-graduate Committee (SPGC), respectively.

Undergraduate Programme

The four-year undergraduate programme consists of two parts having duration of four semesters each. The first part is the Core programme common to all students, and is carefully planned to give the students a strong base of basic education in mathematics, physics, chemistry, engineering sciences, technical arts, humanities and social sciences. The second part of the undergraduate programme consists of the Professional courses and a project in the chosen branch of specialization. At the Bachelor's level, we have B.Tech. programs in Aerospace, Biological Sciences & Bio Engg., Chemical, Civil, Computer Science, Electrical, Metallurgy and Mechanical Engineering. We also have integrated M.Sc. programs in Physics, Chemistry, Mathematics and Statistics. From July 2005, we have started an integrated M.Sc. program in Economics. The students for these programs are selected through JEE and usually they are of very high quality.

Two-Year M.Sc. Programme

There are programs for M. Sc. (2 years) in Physics, Chemistry, Mathematics and Statistics, where the students with B.Sc. (Hons.) background are chosen through an all-India entrance examination known as JAM. These programmes have been largely responsible for the scientific manpower in Indian research institutes and universities.

Postgraduate Programme

The postgraduate programme is intended to prepare students to enter their professions with a perspective and breadth of knowledge related to the principal divisions of their respective fields of specialization through courses and specialized research experience. A postgraduate student is typically enrolled for three or four courses each semester until the student advances to a point where the principal requirements of the programme left to be fulfilled are research and thesis.

M.Tech. Programme

We have **M.Tech. Programmes** in all the Engineering Branches, mentioned above. In addition, there are M. Tech. Programs in the interdisciplinary areas, such as, Nuclear Engineering, Biological Sciences and Bioengineering, Laser Technology, Environmental Engineering, Materials Science, and Industrial and Management Engineering. The M. Tech. students are chosen through an all-India examination known as GATE.

B.Tech.-M.Tech.

We have also adopted a dual degree (B.Tech.-M. Tech.) program. In this program, the students admitted through JEE, are expected to complete the M. Tech. Program in five years. At the end of five years, the student is awarded both B.Tech. and M.Tech. Degrees.

MBA and MDES Programme

We have introduced two interdisciplinary programs, namely, MBA and Master of Design. For these courses as well, the students are selected through the all-India examinations known as JMET and CEED respectively.

Doctor of Philosophy (Ph.D.)

The academic programmes leading to the Degree of Doctor of Philosophy (Ph.D.) exists in all the engineering departments and two interdisciplinary programmes, namely, Materials Science and Nuclear Engineering & Technology. The Ph.D. programmes also exist in Chemistry, Mathematics, Physics, Statistics, Economics, English, Philosophy, Psychology and Sociology.

Ph.D. (Dual Degree)

The Ph.D. programme culminates in research on a selected topic leading to a thesis submitted in partial fulfillment of the requirements for the degree.

The Department of Physics offers a M.Sc.-Ph.D. dual degree program, the admission is through JAM, it also allows their M.Sc. students to continue for a Ph.D. degree.

The M. Tech. and Ph.D. students receive research/ teaching assistantships.

D.I.I.T. Programme

The Institute started a D.IIT programme in Video Communications Systems with effect from first semester 1992-93. The duration of the Course is one year. The DIIT Programme is based on existing PG Course for M.Tech. Programme. This programme is monitored by the Department of Electrical Engineering.

Research Environment in IIT Kanpur

IIT Kanpur has demonstrated its excellence in research in many areas. To cite a few areas: Finite Element Methods Using Domain Decomposition, Flow Induced Vibrations, Wind Tunnel Testing of Large Scale Prototypes, Computational Chemistry, Nano-materials and Nano-technology, Geometric Optimization of Large Organic Systems, Genomics and Bio-Informatics, Electronic Structure Calculations, Aggregation and Etching, Molecular Dynamics, Thin Film Dynamics, Optical / EM Field Calculations, Computational Fluid Dynamics and Heat Transfer,

Computer Aided Design and Rapid Prototyping, Tomography, Robotics, Multi-Body Dynamics, Geo-seismic Prospecting, Stress Analysis and Composite Materials, Vibration and Control, Semiconductor Physics, Photonics, Neural Networks and Genetic Algorithms, Earthquake Engineering, Impurities in Anti-Ferro Magnet, Raman Scattering, Particle Physics, Spin Fluctuation in Quantum Magnets, Quantum Computation and so on.

The most recent initiative of IIT Kanpur has been the Formation of a Strong Research Group in the areas of Nanoscience and Nanotechnology.

Curriculum Development and Monitoring Committee (CDMC)

The Curriculum Development and Monitoring Committee (CDMC) has been formed in order to monitor the curriculum continually. The Committee will solicit a report annually from all Core Course Subcommittees regarding their respective core courses. These reports include all relevant information pertaining to the teaching of the courses, tutorials, laboratories and other aspects. The Committee will work over the period with effect from 01 / 04 / 2007 for a tenure of 2 years

The following is the composition of the CDMC:

Prof. R K Dube	(MME)	Chairman
Prof. S Roychoudhuri	(Physics)	Co Chairman
Prof. Sumit Ganguli	(CSE)	Member
Prof. A K Mallik	(ME)	"
Prof. L Krishnan	(HSS)	"
Prof. Santosh Kr. Gupta	(ChE)	"
Prof. Aloke Datta	(EE)	"
Prof. Sanjay Mittal	(AE)	"
Prof. D Kundu	(Maths & Stat.)	"

New Initiatives

(a) M.Sc. in Economics

IIT Kanpur has introduced a M Sc (5 year integrated) program in Economics from July 2005. This program is providing a strong ground in basic sciences, engineering as well as in various emerging areas of Economics.

The knowledge of Economics and use of Technology for creation of wealth are necessary preconditions for breaking the chain of poverty and low standard of living in the developing countries. Economics and Technology have always migrated together from one country to another, from Europe to United States, from United States to Japan and from Japan to Asian Tigers. Today India is in the midst of this tremendous migration of global know-how. American and European companies are increasingly carrying out their design and manufacturing work in India.

India has a great tradition in Economics Education and Research. Prof. Amartya Sen, Prof. Jagdish N. Bhagwati are among the finest and best known Economists in the World, and their Hon'ble Prime Minister is himself an eminent economist.

Today's India needs trained mind that perfect blend Technology and Economics. The Integrated MSc program in Economics is a step in that direction. Twenty-five students will be admitted through the Joint Entrance Examination and there will be no prerequisite of

Economics as a subject at the higher secondary level. The four streams of Economics are focused. They are Econometrics and quantitative techniques; Industrial economics and business policy; Development infrastructure and public policy and Environment and resource economics. The credit requirement for the graduation is 199 Credit Points. First four semesters would be common with the other branches of BTech and MSc Integrated programmes.

(b) Environmental Science and Environmental Engineering

The Scope of Environmental Science and Environmental Engineering is inherently interdisciplinary and expanding rapidly. Recognizing the challenges for environmentally sustainable development, IIT Kanpur initiated an interdisciplinary M.Tech. Programme in Environmental Engineering and Management in 1997. This experience has convinced the Institute that there is a pressing need to integrate environmental engineering and science across various disciplines to solve problems that have important societal impact.

A National Advisory Committee (NAC) was constituted by IIT Kanpur to identify the strategies related to the education in Environmental Sciences and Environmental Engineering. The NAC further recommended that in order to ensure full and unrestricted growth of environmental science and engineering disciplines, a separate initiative be started.

The sustainability of any academic programme and its viability would depend on better and comprehensive integration of the interdisciplinary aspects of such a programme. It is also essential that research should focus on new emerging areas, which can respond to the varying societal environmental concerns. Faculty members drawn from the current EEM program, and Departments such as Chemistry, Chemical Engineering, Civil Engineering, Physics, Biological Sciences and Bio-Engineering, Mechanical Engineering etc. can provide the best combination to initiate a world class teaching and research academic program in Environmental Science and Environmental Engineering, once proper facilities are created.

It is proposed to initiate a new multidisciplinary facility for Environmental Science and Environmental Engineering at IIT Kanpur, with a focus on the following areas:

Green Technologies

Assessment, monitoring and modeling of environmental quality

Pollution control and remediation

Health risk assessments due to modern technologies and products

Ecological modeling,

Atmospheric Sciences – monsoon dynamics, global warming, ozone depletion)

Land reclamation

Water Resources – groundwater as well as surface water

Environmental Geosciences – Earth systems

Environmental Chemistry

To attain these objectives, a comprehensive infrastructure facility including state-of-the-art laboratory will be required. The equipment proposed to be purchased will also be utilized for the on-going research activities in other Departments of the Institute.

National Programme on Earthquake Engineering Education

IIT Kanpur earnestly believes that every Institute of National Importance has an obligation to render necessary service to the country in a crisis. Our country is prone to strong earthquakes, and we need to contain the risks this involves. A trained manpower development programme for earthquake risk mitigation, known as NPEEE (National Programme on Earthquake

Engineering Education), has been instituted by the Government of India. IIT Kanpur is the nodal agency for the entire gamut of NPEEE activities. The enthusiastic faculty members of the Institute have made enormous contribution in the Earthquake Engineering Education in the country. Their work in the Andaman Islands during the Tsunami calamity deserves deep appreciation.

Outreach and National Program on Technology Enhanced Learning

Meaningful growth of an Institution depends on the kind of commitment it has made to the society at large. Benefits of academic excellence cannot remain restricted to the boundaries of the academic wall. In an electronic age that has seen walls razed cross states and countries, an institute like IIT Kanpur has a supreme role in providing leadership that addresses societal concerns. As part of our social responsibility, we want to share our expertise with fellow academic institutions across the country and abroad. Towards this goal, we have initiated an Outreach Education Program. Under this scheme, using the VSAT transmission technology, we are providing lecture courses in the area of engineering and biological sciences to the college and university students in the State of Chhattisgarh. IIT Kanpur is promise bound to transmit some advanced courses to the students of newly founded Pandit Dwarka Prasad Mishra Indian Institute of Information Technology, Design and Management (PDPMIITDM), Jabalpur. IIT Kanpur is also participating in a new project, known as Indo-French Cyber University. This will foster international collaboration in the areas of emerging technologies. The program will include transmission of courses between IIT-Kanpur and the Université Pierre et Marie Curie (Paris). The courses will be taught in English to the advanced Master's students in both countries by the French and Indian professors.

IIT Kanpur is also participating in the National Program on Technology Enhanced Learning (NPTEL) sponsored by the Ministry of Human Resource Development. Knowledge grows faster when shared. The NPTEL (National Program on Technology Enhanced Learning) is an initiative of the MHRD to promulgate quality education among the Engineering Colleges of the country through the Video and Web-based learning material in some of the popular disciplines. In particular, MHRD wants to monitor the standard of Engineering Education in many colleges where well-trained faculty members are not available in many subjects. The task is double-sided in nature. On one hand, the standards of the colleges are to be uplifted, while on the other hand the courses have to be acceptable to the end users. Seven IITs and IISc Bangalore are the major players in this endeavor. The courses prepared at IIT Kanpur, are being transmitted through the educational TV Channel, Eklavya on regular basis. These courses have earned appreciation from a wide range of learners.

ADMISSION

Undergraduate

Admissions for all the B.Tech. M.Sc. (5-year integrated) and B.Tech.-M.Tech. (Dual Degree) programmes at IIT Kanpur for the academic session 2008-2009 were made by the Joint Admission Committee for all IITs and IT-BHU.

The Joint Entrance Examination (JEE) -2008 was held on April 12, 2008. The following offers of admission were made from IIT Kanpur:

Department/Disciplines	Total Number of Candidates-Direct Admission							
Programmes	JEE-2008					Preparatory Course-2007		Total
	Gen	SC	ST	OBC	PH	SC	ST	
B.Tech.								
Aerospace Engg.	19	04	-	03	-	-	01	27

BSBE	20	01	-	03	-	01	02	27
Chemical Engg.	31	07	-	04	-	-	02	44
Civil Engg.	41	09	04	05	-	-	04	63
Computer Sc. & Engg.	25	06	03	03	01	-	-	38
Electrical Engg.	50	11	06	06	-	-	-	73
Mechanical Engg.	37	08	04	05	-	-	-	54
Materials & Met. Engg.	47	06	-	06	-	-	05	64
M.Sc. Integrated					-	-	-	
Chemistry	12	-	-	02	-	-	-	14
Mathematics & Scientific Computing	24	-	-	03	-	04	-	31
Economics	17	-	-	03	-	01	-	21
Physics	14	-	-	02	-	01	-	17
Total	337	52	17	45	01	07	14	473
B.Tech.-M.Tech. (Dual Degree)								
Aerospace Engg.	01	05	01	01	-		-	08
Chemical Engg.	01	08	02	-	-		01	12
Civil Engg.	01	12	03	-	-		01	17
Computer Sc. & Engg.	03	20	04	02	-		-	29
Electrical Engg.	02	16	04	02	-		-	24
Mechanical Engg.	02	13	03	01	-		-	19
Total	10	74	17	06			02	109

Two-Year M.Sc. Programme

Admissions to the 2-year M.Sc. and M.Sc.-Ph.D. (Dual Degree) programmes were made on the basis of JAM performance. Admission statistics for the M.Sc. (2 year) and M.Sc.-Ph.D. (Dual Degree) Physics programmes during 2008-2009 are as under:

Sl. No.	Department/Group	Numbers of Admission Offered	Actual Number of Students Joined
M.Sc. (2-year)			
1	Chemistry	31	31
2	Mathematics	27	24
3	Physics	21	20
4	Statistics	23	20
Total		102	95
M.Sc. - Ph. D. (Dual Degree)			
1	Physics	10	08
Total		10	08

Post Graduate

The number of students admitted to the Postgraduate Programme in the First and Second Semesters 2008-2009 is given below:

ENGINEERING

Department / Group	First Semester			Second Semester		
	M.Tech.	Ph.D.	Total	M.Tech.	Ph.D.	Total
Aerospace Engg.	23	02	25	-	01	01
B.S.B.E.	10	07	17	-	01	01

Chemical Engg.	33	07	40	-	-	-
Civil Engg.	34	03	37	01	03	04
Computer Sc. & Engg.	38	02	40	-	01	01
Design (M.Des.)	15	-	15	-	-	-
Electrical Engg.	59	06	65	-	01	01
Mechanical Engg.	65	10	75	-	03	03
Materials & Met. Engg.	11	06	17	-	03	03
I.M.E.	13	03	16	-	-	-
Laser Technology	07	-	07	-	-	-
Material Science	08	-	08	-	-	-
N.E.T.	-	01	01	-	-	-
E.E.M.	12	-	12	-	-	-
M.B.A. (IME)	53	-	53	-	-	-
Total	381	47	428	01	13	14

SCIENCES

Department / Group	First Semester	Second Semester
	Ph.D.	Ph.D.
Chemistry	33	18
Mathematics	12	03
Physics	08	05
M.Sc.-Ph.D. Dual Degree in Physics	-	05
H.S.S.	03	03
Total	56	34
Grand Total	484	48

The total department/programme wise strength of the Post Graduate students during the year 2008-2009 is given below:

ENGINEERING

Department / Group	First Semester			Second Semester		
	M.Tech.	Ph.D.	Total	M.Tech.	Ph.D.	Total
Aerospace Engg.	45	33	78	42	29	71
B.S.B.E.	25	62	87	23	58	81
Chemical Engg.	74	47	121	64	45	109
Civil Engg.	88	34	122	80	36	116
Computer Sc. & Engg.	80	15	95	78	18	96
Design (M.Des.)	31	-	31	30	-	30
Electrical Engg.	145	58	203	138	51	189
Mechanical Engg.	99	70	169	91	64	155
Materials & Met. Engg.	42	30	72	29	33	62
I.M.E.	24	22	46	24	19	43
Laser Technology	09	-	09	09	-	09
Material Science	27	11	38	24	11	35
N.E.T.	19	02	21	14	02	16
E.E.M.	31	-	31	26	-	26
M.B.A. (IME)	98	-	98	97	-	97
Total	837	384	1221	769	366	1135

SCIENCES

Department / Group	First Semester	Second Semester
	Ph.D.	Ph.D.
Chemistry	175	179
Mathematics	68	64
Physics	49	54
M.Sc.-Ph.D. Dual Degree in Physics	34	36
H.S.S.	49	48
Total	375	381
Grand Total	1596	1516

Strength of Undergraduate and Postgraduate Students during 2008 – 2009 – I:

Department /Group	UG (B.Tech M.Sc.-5 Yr.)	B.Tech.- M.Tech (Dual Degree).	M.Sc. 2-Yr.	M.Sc.- Ph.D. Dual Degree	M.Tech.	Ph.D	M.Sc- Ph.D Dual Degree	Total (UG+PG)
Aerospace	99	45	-	-	45	33	-	222
B.S.B.E.	102	-	-	-	25	62	-	189
Chemical	164	56	-	-	74	47	-	341
Chemistry	59	-	54	-		175	-	288
Civil	220	64	-	-	88	34	-	406
C.S.E.	149	139	-	-	80	15	-	383
Economics	75	-	-	-	-	-	-	75
Design (M.Des.)	-	-	-	-	31	-	-	31
E.E.	274	113	-	-	145	58	-	590
H.S.S.	-	-	-	-	-	49	-	49
Math.	137	-	50	-	-	63	-	250
Stat.	-	-	36	-	-	05	-	41
M.E.	205	96	-	-	99	70	-	470
M.M.E.	236	-	-	-	42	30	-	308
Physics	79	-	38	16	-	49	34	216
I.M.E.	-	-	-	-	24	22	-	46
Laser Tech.	-	-	-	-	09	-	-	09
M.S.P.	-	-	-	-	27	11	-	38
N.E.T.	-	-	-	-	19	02	-	21
E.E.M.	-	-	-	-	31	-	-	31
DIIT (EE)	-	-	-	-	-	-	-	-
M.B.A. (I.M.E.)	-	-	-	-	98	-	-	98
Total	1799	513	178	16	837	725	34	4102

GRADUATION

During the year 2008-2009, 933 students completed the requirements for the award of B.Tech., M.Sc., DIIT, MBA, M.Tech., and Ph.D. degrees as detailed below:

B.Tech.

299

M.Sc. (2 yr. & 5 yr.)	68 & 39
B.Tech.-M.Tech. (Dual)	52
MBA	45
M.Tech.	322
M.Des.	12
Ph.D.	96
Total:	933

COURSES OFFERED

The following Table gives a picture of the courses offered during 2008-2009 at the undergraduate as well as postgraduate level:

UNDERGRADUATE LEVEL

Core Curriculum / Department Courses	First Sem.	Second Sem.	Summer	Total
Core Courses run by various departments	22	29	05	56
Aerospace Engineering	16	21	06	43
B. S. B. E.	12	13	-	25
Chemical Engineering	20	20	02	42
Civil Engineering	26	24	01	51
Computer Science & Engineering	18	24	03	45
Economics	07	10	-	17
Design	02	03	-	05
Electrical Engineering	29	30	05	64
Mechanical Engineering	29	34	05	68
Materials & Metallurgical Engineering	13	18	02	33
Chemistry	22	26	-	48
Mathematics	30	28	-	58
Physics	24	31	04	59
Humanities & Social Sciences	21	14	02	37
Industrial & Management Engineering	09	11	-	20
Nuclear Engineering & Technology	-	-	-	-
Materials Science Program	-	-	-	-
Laser Technology Program	01	-	-	01
CPA	02	02	-	04

POST GRADUATE LEVEL

Core Curriculum / Department Courses	First Sem.	Second Sem.	Total
Aerospace Engineering	17	15	32
Chemical Engineering	15	13	28
Civil Engineering	18	21	39
Computer Science & Engineering	11	15	26
Design (M.Des.)	06	05	11
Electrical Engineering	22	20	42
Environmental Engg. & Management	04	03	07

Mechanical Engineering	21	23	44
Materials & Metallurgical Engineering	12	09	21
Chemistry	13	11	24
Mathematics / Statistics	12	18	30
Physics	08	13	21
Humanities & Social Sciences	16	15	31
Industrial & Management Engineering	06	06	12
Materials Science Program	07	05	12
Nuclear Engineering & Technology	04	03	07
Laser Technology Program	03	03	06
Biological Science & Bio Engg.	13	13	26
M.B.A.	20	16	36

UNDERGRADUATE

The following statement shows promotion and detention of B.Tech., M.Sc. (Integrated) and B.Tech.-M.Tech. (Dual Degree), students in the academic year 2008-2009 (upto May, 2009)

Sl. No.	Contents	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	Total
1	Students strength at the beginning of the session	581	505	528	496	202	2312
2	Students strength at the beginning of the 2 nd semester	576	500	526	493	175	2270
3	Students joined in 2 nd semester on migration	-	-	-	-	-	-
4	Number of students withdrawn or on leave on medical ground in 1 st and 2 nd semesters	08	06	02	01	-	17
5	Number of students graduated	-	-	-	299	91	390
6	Number of students dismissed due to poor performance in 1 st and 2 nd semester	02	-	-	-	-	02
		04	01	-	-	-	07

The following statement shows promotion and detention of M.Sc.(2-year) and M.Sc.(Dual Degree) students in the academic year 2008-2009 (upto May, 2009)

S. No.	Contents	1 st Year	2 nd Year	Total
1	Students strength at the beginning of the session	102	92	194
2	Students strength at the beginning of the 2 nd Sem.	97	82	179
3	Number of students dismissed in 1 st semester	-	-	-
	Number of students dismissed in 2 nd semester	-	01	01
4	Number of students graduated in 1 st semester	-	-	-
	Number of students graduated in 2 nd semester	-	68	63

5	Number of students dismissed in due to continued absence from the programme	-	-	-
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Following is the department-wise break-up of students who were awarded the degree at XLI Convocation held on 30-05-2009. Mr. Jeet S Bindra, President Chevron global Manufacturing is the Chief Guest at the Convocation:

Sl No	DEPT	B.Tech.	B.Tech-M.Tech (Dual Degree)	M.Sc. (5Y R)	M.Sc. (2Y R)	TOTAL	MBA	M.Des	M.Tech	Ph.D.	TOTAL	GRAND (UG+PG)
1.	AERO ENGG.	14	07	-	-	21	-	-	16	08	24	45
2.	BSBE	23	-	-	-	23	-	-	17	02	19	42
3.	CHEM. ENGG.	34	10	-	-	44	-	-	25	04	29	73
4.	CHEMISTRY	-	-	11	23	34	-	-	-	26	26	60
5.	CIVIL ENGG.	48	02	-	-	50	-	-	37	05	42	92
6.	COMP.Sc.& ENGG.	33	12	-	-	45	-	-	44	01	45	90
7.	DESIGN PROG.	-	-	-	-	-	-	12	-	-	12	12
8.	ELECT. ENGG.	51	14	-	-	65	-	-	73	08	81	146
9.	ENV.ENGG.& MGMT	-	-	-	-	-	-	-	08	-	08	08
10.	HUMANITIES & SOC. SCs.	-	-	-	-	-	-	-	-	05	05	05
11.	INDUSTRIAL & MGMT. ENGG,	-	-	-	-	-	45	-	11	-	56	56
12.	LASER TECH.	-	-	-	-	-	-	-	04	-	04	04
13.	MATERIALS & MET. ENGG.	47	-	-	-	47	-	-	21	06	27	74
14.	MATERIALS Sc.	-	-	-	-	-	-	-	09	03	12	12
15.	MATHEMATI	-	-	-	23	23	-	-	-	11	11	34

.	CS											
16	MATHS & SC COMPUTING	-	-	19	-	19	-	-	-	-	-	19
17	MECHANICA L ENGG.	49	07	-	-	56	-	-	48	06	54	110
18	NUCLEAR ENGG. & TECHNOLOG Y	-	-	-	-	-	-	-	09	-	09	09
19	PHYSICS	-	-	09	11	20	-	-	-	10	10	30
20	STATISTICS	-	-	-	11	11	-	-	-	01	01	12
	TOTAL	299	52	39	68	458	45	12	322	96	475	933

Research and Development

Research and Development

The Institute works tirelessly to provide state-of-the-art equipment to its faculty that would facilitate cutting-edge research in frontiers of science and technology. The research and teaching profile of the Institute is continually growing every year. As a result, the Institute is well-recognized as one of the centers of academic excellence. During 2008-2009, about 140 sponsored projects and 122 consultancy projects were undertaken by the faculty and research engineers/scientists of the Institute with a sanctioned amount of Rs. 6608 lakhs and 933 lakhs, respectively.

Our faculty members have published around 686 research papers in reputed national and international journals. The Institute has signed several Memoranda of Understanding with Indian as well as international academic/research institutions and industries to strengthen its collaborative research efforts.

Details of some of the major projects sanctioned during the year 2008-09 are as follows:

National Projects:

Some of the major sponsored projects undertaken by the Institute include those funded by CSIR, DST, DRDO, ARDB, DBT, MCIT, and BSNL.

- **Establishment of a Technology Business Incubator (TBI) at Indian Institute of Technology Kanpur**

The Institute has established two new business incubators, Technology Business Incubator (TBI) & Technology Incubation and Development of Entrepreneurs (TIDE) Center. TBI is a program supported by National Science & Technology Entrepreneurship Board (NSTEDB), DST, Govt. of India, for incubation of start-ups in the areas of Science & Technology. TIDE Centre is a program supported by the Ministry of Communication & Information Technology, Govt. of India, for incubation in the areas of IT & Electronics.

The TBI and TIDE centers are currently functioning under the umbrella of SIDBI Innovation & Incubation Centre (SIIC), which is the nodal centre for Entrepreneurship Development, Business Incubation and IPR. The technologies incubated at SIIC are high-end in multidisciplinary areas such as Ultra High Frequency RFID, Voice Recognition, Embedded Systems, High-end data acquisition sensors, Nano Materials & Geospatial technologies.

- **BSNL Telecom Centre Of Excellence:**

Under BSNL IITK Telecom Center of Excellence (BITCOE), the Institute has received a grant of 14.5 crore. BITCOE is expected to provide a platform for research, development in India specific applications, and manpower generation in the field of telecommunications. It will have a significant impact on telecom related research at IITK.

- **Saddlery Development for Leather Sector:**

The Institute had proved its capability for successfully implementing CAD technology for Saddle Industry. As a result, it is getting repeated requests from the Ministry of Commerce

GOI for actively participating in Modernization of Saddle Industry. During the 10th Five year plan, the Institute was awarded grants to deliver the following long term objectives:

- Establishment of Institute of International standards for saddlery.
- Development of technology for different type of saddle trees and their accessories.
- Development of various kinds of machinery used in saddlery manufacture.
- Development of database of horse anatomies and saddletree geometries.

- **TCS Foundation for Research in Algorithms:**

The Institute has received a grant of Rs. 4 crores from TCS for establishing a Foundation for Research in Algorithms on campus. The aim of the Foundation is to support both pure and applied research in algorithms. Towards this end, the Foundation will organize several workshops in different areas of algorithms and also support research visits to IITK as well as other institutions.

- **National Fire Facility:**

Board of Research in Nuclear Sciences, Mumbai has recently approved the creation of this facility for fire propagation and associated thermal hydraulic aspects in multiple compartments at IIT Kanpur with a total cost of Rs 5 crores. The objective of the project is to understand the fire thermal hydraulics in multiple compartments configuration with ceiling opening and large vertical opening as found in various compartments within the containment of a nuclear power plant.

International projects:

- **Spark Plasma Sintering of Ceramic Nanocomposites:**

The project proposes to develop Hydroxyapatite (HAp or HA) based bioceramic composites using Spark Plasma Sintering (SPS) route. The basic aim of the proposed project is to improve the mechanical properties (hardness, fracture toughness) of hydroxyapatite without considerably affecting the biocompatibility and the density. For this purpose, varying amount of ceramic (mullite) particulates or whiskers, (upto 30 wt. %) will be incorporated in the HAp matrix. As an alternative to the conventional sintering route, this project will investigate the capability of the SPS route.

- **INDO-US Centre for Research Excellence on Fabrionics:**

As part of the second phase of the collaboration, the INDO-US Science and Technology Forum has sanctioned a grant of Rs. 5 crores for starting the Center. The Center is a consortium of Indian researchers from IITK, IITKgp, BESU and CMRI collaborating with UIUC, UCI and Northwestern in the science, technology and selected applications of advanced fabrication. Some examples include materials and fabrication for energy storage devices, biomedical devices, micro/nano fabrication and microfluidics. The collaborative research in the Center is driven by a two-way exchange of Ph.D. students and faculty, as well as Annual Research Workshops.

- **Center for Development of Metal-Ceramic Composites:**

The Center for microwave processing has been established under the Indo-US Public-Private Networked Joint Center Program funded by the Indo-US Science and Technology Forum (IUSSTF). One of the major research thrusts at the Center involves gaining a

fundamental understanding of the microwave-metal interaction and consolidation of a range of ferrous and non-ferrous particulate materials using microwaves.

- **INDO-US joint Center on Biomaterials for health care:**

Biomaterials as well as their applications in artificial organs are widely recognized as an emerging area. Recent developments in the field testify to a significant progress in our attempts to develop new biomaterials. In this regard, we have received a grant for establishment of the Center. The overall objective of the proposed center is to combine the cutting edge technologies of fabrication and testing of materials science with the knowledge of biological sciences and evolve strategies to develop shaped implant materials in some of the emerging material systems for the improvement of public health. Thus, it will be a true demonstration of synergistic flow and utilization of scientific concepts, and technological expertise in an international team of recognized scientists.

- **UK-India Science Bridge Program:**

The Institute has been awarded a highly competitive and major international collaborative research project jointly funded by Research Council UK (RCUK) and the Department of Science and Technology, (DST) India under the auspices of a newly launched this Program entitled BioPharm 2020: Entrepreneurial Opportunities for Indian and UK scientists in the Pharmaceutical and Biotechnology Industries. The grant provides funding for research and training to the tune of 1 million pounds (UK) towards extensive bilateral research and training in biomedical engineering and bio-pharma between IITK and Nottingham University, besides collaboration with IIM Bangalore in the area of supply chain management.

Patents filed by the faculty during the financial year 2008-2009:

National

1. A method for preparing auto capped nano particles such as CdS in continuous flow columns.
2. A method for creation of 2 and 3-dimensional micro channels of varied dimensions using replication and molding around a wire.
3. An improved lateral bipolar junction transistor (BJT) on selective buried oxide (selbox) and a method for manufacturing the same.
4. Fabrication of Jute fiber sandwich composites.
5. Controlled growth of carbon nanocones on carbon fiber(s)/fabric and method of synthesis thereof.
6. Spherical Crystalline Nano Hydroxyapatite and method of manufacture from calcium oxide.
7. A composition and mechanism to extend life span of an organism and protection against neurodegenerative diseases.
8. Method of manufacturing of carbon nano tube coated fibers/fabric and its hybrid nanocomposites.
9. Modular Unit Attachment for Performing Dry and Near-dry Electric Discharge Machining (EDM).
10. A blue organic light emitting diode and method of fabrication thereof.
11. Method of polymerization and the polymers formed thereby.
12. A device for magnetic abrasive finishing of a work piece and magnetic abrasive finishing process.
13. Polymer matrix scaffold and process for preparation thereof.

14. A novel rotating packed bed (RPB) device for distillation process.
15. Rotatory abrasive flow finishing process for finishing and texturing of internal and external surfaces of hard and composite materials and an apparatus therefore.
16. A nano polymer coating and a process for coating the same on stent system.
17. Process for synthesis of sonicated hierarchal web of carbon micro-nano-fiber and applications thereof.
18. A novel 2/3-Dimensional Soft-lithography technique to formulate micro-channels and evaluation of various associated mechanical and biological phenomena.
19. A tundish adapted for reduction in residual metal losses and a method thereof.
20. Optical enhancement of two-photon absorption process.
21. Antiseptic polymeric macroporous hydrogel based thin sheets containing iodine as wound dressing materials.
22. Methods and apparatus to synthesize nano-metals impregnated hierarchal web of micro/nano carbon fibers for the adsorptive and catalytic remediation in air and liquid systems.
23. Jute sandwich composites – Small scale industries.
24. Rotatory Abrasive Flow Machining – novel set-up.

International

1. Pathogen Resistant Transgenic Plants, Associated Nucleic Acid Molecules and Techniques involving the same.
2. Electrospinning apparatus for producing nanofibers and process thereof.
3. Process for adsorption-based separation of bioparticles from an aqueous suspension.
4. Enhancing blood flow images using computational fluid dynamics.

Major Multi-disciplinary Facilities Added during the financial year 2008-2009:

1. Facilities under the FIST Scheme of DST:

The Department of Science and Technology (DST) has a Fund for improvement of Science & Technology (FIST) scheme to build infrastructure facilities in universities and higher educational institutions. The grant under this scheme is provided for strengthening infrastructure of the identified department in teaching and research and is to be spent exclusively for the said purpose.

During 2008-2009, the Institute has received FIST grants to add special infrastructure facilities for research purposes. While the Department of Chemical engineering has received the FIST II grant of Rs. 6.07 crores, the Department of Chemistry has been given a total amount of Rs. 8 crores for the purchase of the following equipments: Time-resolved fluorescence, high performance computational facility, Thermal analysis equipment, Atomic Force Microscopy, Resonance Raman and Mass spectroscopic facilities. It is expected that the Department will receive additional grants this year for the purchase of a new high field Nuclear Magnetic Resonance spectrometer and a single-crystal X-ray diffractometer.

The Department of Mechanical Engineering has procured an Ultra High Speed Camera through the FIST. This is the fastest camera in the world and also the first of its kind to be available in our country. The system is currently housed in the High Speed Experimental Mechanics Laboratory (HSEML). The camera can capture 16 monochrome images at rates as high as 200 million images per second, i.e., time difference between any two images can be as low as 5 nanoseconds. Exposure time as small as 5 nanoseconds allows capturing images of ultra fast dynamic events, without smearing, seemingly freezing the events in time. The digital images have 12 bit depth and an active resolution of 1360 x 1024 pixels even at the highest framing rate.

2. Facilities under CARE Scheme of IITK:

The Institute is adding several major infrastructural facilities for carrying out multidisciplinary R&D activities. For development of a Micro-fabrication laboratory, partial funding has been obtained under the CARE scheme. Oxidation furnace, Dicing saw, Wire bonder, Spin coaters, Fume hood, PECVD (Plasma enhanced chemical vapor deposition), Sputtering system, Mask aligner, Chiller, and Optical table have been procured.

A fiber coupled Raman microscope with multichannel detection system was acquired in 2008 under the CARE scheme. This instrument allows non-destructive characterization of materials using inelastic light scattering methods. Microprobe allows data collection from very small sample sizes (as small as ~ 100 microns). The spectrum provides a method to obtain information about the local structure at the nanoscale by recording the lattice vibrational spectrum. Comparison with known standards allows quantification of information obtained such as ratio of crystalline to amorphous phases and determination of the diameter of single walled carbon nanotubes. The instrument is currently installed in the laboratory for Materials at Extreme Conditions located in ACMS.

Under the CARE scheme, the Department of Chemistry has procured microanalytical facility which can analyze liquid and solid samples for their C, H, N, S and O content. This facility is already functional and is available to all the Institute researchers.

XP-100 Surface Profilometer System with 3D Metrology Option has been purchased. For microelectronics and larger area electronics, surface profiler can be used to extract – surface roughness, precision step height, surface form, thin film stress, thin film structure, and high resolution surface imaging. At SCDT, an interdisciplinary team of research scholars and faculty are using this equipment for fabricating organic solar cells, thin film transistor for RFID, as well as organic light emitting diodes for the Prototype Development Unit (PDU).

Laser Doppler Velocimetry (LDV) for the unsteady velocity measurements in a water tunnel test facility for flow control has been procured under the CARE scheme this year. LDV is an instrument which measures all the three components of fluid flow velocity along with the turbulence quantities. Unlike most turbulence measuring equipment, LDV allows non-intrusive high frequency measurements, thus providing highly accurate data.

A dedicated dynamic laser light scattering setup has been purchased through the CARE scheme. It is one of the best configuration systems available in the field. This set up can measure particle size distribution as well as molecular weight distribution of the polymeric samples. It is an ideal system suited for studying relaxation dynamics in soft transparent materials.

3. The Institute has procured 2 *motor gilders* which can fly up to an altitude of 10000 feet without any oxygen cylinder and further up to a maximum altitude of 29000 feet with external oxygen cylinders and can maintain a speed of 122 knots/hr. It has two fuel tanks with a capacity of 50 liters each and can remain in the air for about six hours at a stretch.

4. The Institute has undertaken a major initiative in particle acceleration with the inauguration of the **Tandetron Ion Beam** facility. The accelerator operates energies at 1.7 MeV and will facilitate research in the areas of microfabrication, micromachining (MEMS/NEMS), ion beam synthesis of nano phases and surface engineering, surface and interface studies by RBS/ERDA/PIXE/ channeling, defect and damage studies in materials, bio-materials, 3D mapping and process optimization and system automation.

Memorandum of Understanding

During the year 2008-09, IIT Kanpur strengthened its relations with many national and international institutes and organizations through research collaborations and signed several Memoranda of Understanding. During the year, the following institutes/universities/organizations have joined hands with IIT Kanpur for the purpose of research work in the diverse fields of science and technology. Some of such organizations are:

1. Indian Space Research Organization (ISRO) to support the design, development and launch of an indigenous nano satellite called **Jugnu**. The satellite is planned to be built around a standard cuboid configuration as designed and is expected to weigh less than 5 kg. In this joint program, the satellite will be launched in the polar orbit by the ISRO. The satellite shall carry payloads for earth observation, for establishing communication links, for studying atmospheric phenomena, for testing scientific instruments and for novel applications. The mission life shall be for a minimum period of 6 months.
2. Indira Gandhi Centre for Atomic Research (IGCAR) to carry out research in the science and technology related to design and development of Fast Breeder Reactors. An IGCAR-IITK R & D cell will be set up in the premises of IITK to conduct R&D in the areas of mechanics and materials, thermal hydraulics, multiscale modeling, instrumentation, mechanisms, and machine vision.
3. Indian Space Research Organization (ISRO) for development, validation and testing of kinematic control algorithm for rover motion on an uneven terrain. The landing module will carry a rover that will egress out of the lander onto the lunar surface. The rover shall move on the lunar surface and perform scientific experiments.
4. Vikram Sarabhai Space Centre (VSSC) for development, and testing algorithms for computer vision based autonomous navigation system for the lunar rover mission.
5. National University of Singapore for promotion of joint research and development activities of mutual interest.
6. DBT, New Delhi to work in the area of Vertebra development biology.
7. Central Pollution Control Board, Delhi for estimation of national level emission inventory for entire country and regions mentioned.
8. VSSC, Thiruvananthapuram for development of experimental technology for studying gravitational effects during liquid phase sintering of powder metallurgy products under microgravity conditions aboard recoverable space capsule.
9. AOARD, USA to study of Chalcogenide glasses for application in memory devices.
10. AOARD, USA, for aerodynamics characteristics of butterfly flight through measurement of three dimensional unsteady velocity field using TR-PIV system.
11. The University of Applied Sciences Darmstadt, Germany for exchange of information and know-how as also advanced training and further education through exchange of scientist and student.

12. The University of Ulster in relation with UKIERI, UK to investigate intelligent systems that facilitates development of a low cost assistive robotic device for people with severe movement disability.
13. The University of Kansas, USA to cooperate in terms of development of educational programs, industry based training programs, development of research projects, exchange of academic and scientific information, exchange of faculty, researcher and student, explore the potential of product and business development.
14. DBT, New Delhi to work in the area of developmental Neurobiology.
15. Institute of Plasma research for powder metallurgical processing of tungsten-based alloys for iter-like diverter components.
16. BARC for development of test facility for fire propagation and associated thermal hydraulic aspects studies in multiple compartments.
17. BARC for development of Pulsating heat pipe passive heat exchanges.
18. BARC for Monte Carlo modeling of energy response of silicon diodes detector in a radiotherapy photon beam.
19. Indian Institute of Science Education and Research, Bhopal for automation of campus solution.
20. Asian Office Aerospace Research and Development, USA, for tunable composite metamaterials with imbedded coherently controllable atomic or molecular materials.
21. INDO-SWISS Academic Alliance –ISAA for Extension of term of earlier MoU.

During the year 2008-09, Memoranda of Understanding have also been signed with many companies such as:

1. Integra Micro Systems, Bangalore for improving current platform (iMFAST) of Integra and building/exploring new cost effective and secured solutions in transaction based on smart card technology and biometrics.
2. STJ Electronics Pvt. Ltd., New Delhi to build smart card readers, including features such as biometrics and seek their viability for commercial purposes.
3. PXIL, Mumbai to carry validation of the overall algorithm already worked out and its applicability to Indian markets, validate whether the algorithm enables market price discovery in disjoint markets to include 'n' (multiple) markets including enabling block bidding, check whether any critical elements are missing in the present algorithm, to provide a superior solution (if feasible) which can be further developed by PXIL.
4. ETH Zurich, Switzerland for regulating the rights and duties of the parties regarding administration and commercial exploitation of the technology.
5. Chevron Energy Technology, USA for service Agreement in the field of catalyst and composition.
6. AdvanDe Pte., Singapore to license SCOSTA CL Operating System.

7. Chevron U.S.A. Inc to demonstrate HIGEE in a specific application directed to treating gas streams to remove acid gas components such as hydrogen sulfide and carbon dioxide.
8. European Aeronautic Defence and Space Company for research services in the fields of wireless sensor networks and protocols, mobile and pervasive computing, parallel and distributed systems and performance modeling.
9. European Aeronautic Defence and Space Company for research program on reconfigurable computing - high level specification, modeling and synthesis of run time reconfigurable systems.
10. World Wide Fund India for fluvial geomorphology and hydraulic modeling of the upper Ganga for maintaining sustainable flows.
11. World Wide Fund India for cultural and livelihood objectives for maintaining sustainable flows.
12. Moser Baer India Limited for Moser Baer Photovoltaic Initiative.
13. Intellectual Ventures Asia Pte. Ltd for exclusive license agreement.

A list of major sponsored and consultancy projects sanctioned during the financial year 2008-2009 is provided below.

Sponsored Projects:

A. National Projects:

1. STRUCTURE ELECTRONIC AND MAGNETIC CORRELATIONS IN MANGANITES PROBED USING RAMAN SPECTROSCOPY, funded by CSIR, total cost Rs. 14,26,000.
2. PROMOTIONAL EFFECT OF MOLYBDENUM AND CHROMIUM OXIDE ON SUPPORTED VANADIA CATALYSTS FOR THE PROPANE ODH REACTION, funded by CSIR, total cost Rs. 12,24,000.
3. NEWER ASPECTS OF ORGANOCOBALOXIMES ARYL COBALOXIMES AND SECONDARY/ TERTIARY ALKYL COBALOXIMES SYNTHESIS CHARACTERIZATION AND CO-C BOND REACTIVITY, funded by CSIR, total cost Rs. 14,16,000.
4. ENHANCEMENT OF HEAT TRANSFER USING VERTEX GENERATORS IN COMMON FLOW UP CONFIGURATION, funded by CSIR, total cost Rs. 5,02,000.
5. SYNTHESIS OF MARINE ORGANOHALOGEN NATURAL PRODUCTS CONVOLUTAMINEH AMATHAMIDE C-G AND THEIR ANALOGUES, funded by CSIR, total cost Rs. 16,26,000.
6. BIOCOMPATIBILITY EVALUATION OF HYDROXYAPATITE-MULLITE NANOBIOCERAMIC COMPOSITES, funded by CSIR, total cost Rs. 8,84,000.
7. FIRST PRINCIPLES THEORETICAL STUDIES OF SUPERCRITICAL AQUEOUS SOLUTIONS: CHANGES IN STRUCTURE & DYNAMICS FROM THOSE UNDER AMBIENT CONDITIONS, funded by CSIR, total cost Rs. 20,67,000.
8. COORDINATION POLYMERS BASED ON IMIDAZOLES / BENZIMIDAZOLES, funded by CSIR, total cost Rs. 15,90,000.
9. MOLECULAR IMPRINTING OF ENDOCRINE DISRUPTERS IN SOL-GEL FOR ENVIRONMENTAL SENSOR APPLICATIONS, funded by CSIR, total cost Rs.12,25,000.
10. SSB FELLOWSHIP, funded by CSIR, total cost Rs. 37,80,000.

11. INVESTIGATION ON THE CRYSTALLINE FIBERS OF LINBO₃ GROWN BY LASER HEATED PEDESTAL GROWTH TECHNIQUE, funded by CSIR, total cost Rs.3,30,000.
12. ALUMINIUM SHEAR-LINKS FOR PASSIVE CONTROL OF SEISMIC RESPONSE OF TRUSS MOMENTS FRAMES, funded by CSIR, total cost Rs.20,52,000.
13. BOYSCAST, funded by DST, total cost Rs.7,57,000.
14. NOVEL BIOMIMETIC, funded by DST, total cost Rs. 4,11,000.
15. EVALUATION OF LIQUEFACTION POTENTIAL OF FLY ASH DYKE, funded by DST, total cost Rs. 27,91,500.
16. INVESTIGATION OF DYNAMIC INTERFERENCE EFFECT OF TWO NEARBY SHALLOW FOUNDATIONS, funded by DST, total cost Rs.13,38,000.
17. DIMETAL COMPOUNDS INVOLVING N-HETEROCYCLIC CARBENES: SYNTHESIS CHARACTERIZATION AND CATALYSIS, funded by DST, total cost Rs. 39,90,000.
18. SIMULATION OF THE GROWTH OF THE GROWTH OF HETEROEPTAXIAL SEMICONDUCTOR THIN FILMS USING FINITE ELEMENT METHOD, funded by DST, total cost Rs. 19,61,581.
19. NOVEL METHODS TO PERFORM PERSONAL HEALTH & EXPOSURE MEASUREMENT USING LIMITED RESOURCES, funded by DST, total cost Rs. 16,14,000.
20. ANALYZING NON-STATIONARY, funded by DST, total cost Rs. 9,53,280.
21. LABORATORY BASED STUDIES ON EVALUATION OF COST EFFECTIVE ADSORBENTS FOR ARSENIC FILTER UNIT, funded by DST, total cost Rs. 13,24,560.
22. SPARK PLASMA SINTERING OF CERAMIC NANOCOMPOSITES, funded by DST, total cost Rs. 1,11,22,822.
23. NATIONAL MEET OF RESEARCH SCHOLARS IN MATHS & STATISTICS, funded by DST, total cost Rs. 4,80,000.
24. TUNABLE & HIERARCHICAL SELF-ORGANIZED MESO- STRUCTURING USING ELECTRIC FIELDS, funded by DST, total cost Rs. 7,36,311.
25. PALEOSEISMOLOGICAL INVESTIGATIONS IN ANDMAN ISLANDS, funded by DST, total cost Rs. 7,82,000.
26. DISTRIBUTED SOFTWARE ENGINEERING, funded by DST, total cost Rs. 7,00,000.
27. RECONSTRUCTION OF MONSOONAL RAINFALL FROM LATE QUATERNARY GANGA AND YAMUNA ALLUVIAL PLAIN BY STABLE ISOTOPE TRACES: IMPLICATION TO CLIMATE FORCING ON VEGETATION AND RESPONSE, funded by DST, total cost Rs. 2,00,000.
28. A STATISTICAL MECHANICS APPROACH TO STUDY AND PHASE TRANSITION OF DRIVEN DIFFUSIVE SYSTEMS RELEVANT TO PHYSICS, funded by DST, total cost Rs.13,21,200.
29. TRACK ETCHED POLYMERIC MEMBRANES FOR ENERGY AND BIOLOGICAL APPLICATIONS, funded by DST, total cost Rs. 20,04,000.
30. INVESTIGATION OF LIQUID MIXING IN MULTI-HELICAL MICROCHANNEL SYSTEM , funded by DST, total cost Rs. 37,40,685.
31. JC BOSE FELLOWSHIP, funded by DST, total cost Rs.40,00,000.
32. GENETIC STUDIES ON AZO-DYE DEGRADING IMMOBILIZED BACTERIAL CONSORTIA TJ-1 AND TJ-2, funded by DST, total cost Rs. 31,97,298.
33. CHEMISTRY IN THE COORDINATION SPACE OF METAL ORGANIC FRAMEWORK: HETEROGENEOUS CATALYSIS AND SELECTIVE SORPTION OF GASES, funded by DST, total cost Rs. 20,94,000.
34. CRYSTALLIZATION OF MACROMOLECULES IN MICRO FLUIDIC CHANNELS, funded by DST, total cost Rs.20,00,000.
35. COMPARATIVE CHEMICAL CHARACTERIZATION AND EVALUATION OF TOXIC POTENTIAL OF METALS AND PAHS PRESENT IN BOTH PRIMARY AND SECONDARY PARTICULATES EMITTED FROM COMBUSTION IN DIESEL VS BIODIESEL ENGINES, funded by DST, total cost Rs.89,81,600.

36. NUTRIENT STRESS TOLERANCE IN PLANTS: A ROOT ARCHITECTURE APPROACH IN CICER ARIETINUM L, funded by DST, total cost Rs.19,55,000.
37. DEVELOPMENT OF CATALYST FOR CONVERSION OF GLYCEROL TO ETHYLENE GLYCOL, funded by DST, total cost Rs.44,20,000.
38. A HYBRID SCHEME FOR ENHANCING SEISMIC PERFORMANCE OF A OPEN - GROUND STORY RC BUILDINGS, funded by DST, total cost Rs. 24,95,260.
39. LINKING/ASSEMBLY AND ENCAPSULATION TYPE CHEMISTRY BASED ON KEPLERATES FORMED BY CHEMICAL DRAWINISM, funded by DST, total cost Rs.9,11,400.
40. KISSING- LOOP INTERACTIONS AS STRUTS FOR HIGHER ORDER DNA NANO ARCHITECTURES, funded by DST, total cost Rs. 2,35,200.
41. BULK METALLIC GLASS COATING, funded by DST, total cost Rs.30,41,855.
42. DEVELOPMENT OF A RELIABLE COMPUTATIONAL TOOL FOR MODELING OF LAMINATED COMPOSITE PLATES, funded by DST, total cost Rs.2,22,000.
43. FUNDAMENTAL INVESTIGATIONS ON LASER IGNITION OF COMBUSTIBLE GAS-AIR MIXTURES IN A CONSTANT VOLUME COMBUSTION CHAMBER FOR ENGINE APPLICATIONS, funded by DST, total cost Rs. 32,68,732.
44. STUDY OF LIQUEFACTION POTENTIAL OF ALLUVIAL SOIL ALONG INDO-GANGETIC PLAINS, funded by DST, total cost Rs. 28,37,000.
45. ROTATIONAL- MAGNETO RHEOLOGICAL FLOW FINISHING, funded by DST, total cost Rs.30,00,000.
46. J C BOSE FELLOWSHIP, funded by DST, total cost Rs.40,00,000.
47. SIMMORTEL SEED FUNDS, funded by DST, total cost Rs. 22,93,000.
48. INDIA-JAPAN S&T COOPERATION PROGRAMME, funded by DST, total cost Rs. 3,98,000.
49. MEASUREMENTS AND MODELING OF MELT TEMPERATURE IN STEELMAKING, funded by DST, total cost Rs. 27,74,000.
50. EPITHELIAL MORPHOGENESIS AND WOUND HEALING DURING ANIMAL DEVELOPMENT ROLE OF FAT CADHERIN IN FRUIT FLY, DROSOPHILA, funded by DST, total cost Rs. 29,12,000.
51. BOYSCAST FELLOWSHIP, funded by DST, total cost Rs.10,61,000.
52. ESTABLISHMENT OF A TECHNOLOGY BUSINESS INCUBATOR (TBI) AT INDIAN INSTITUTE OF TECHNOLOGY, KANPUR, funded by DST, total cost Rs. 280,00,000.
53. CRYPTANALYSIS USING MACHINE LEARNING ALGORITHMS, funded by DRDO, total cost Rs. 9,89,000.
54. NEURAL NETWORK BASED VISUAL MOTOR COORDINATION OF A 7 DOF REDUNDANT MANIPULATOR AND FPGA IMPLEMENTATION OF NEURAL CONTROL ALGORITHMS, funded by DRDO, total cost Rs. 48,94,000.
55. EXPERIMENTAL STUDIES OF COKE FORMATION IN LIQUID FUEL SCRAMJET APPLICATION, funded by DRDO, total cost Rs. 9,90,000.
56. SPARK PLASMA SINTERING OF TiB₂ BASED CERAMIC NANO COMPOSITE FOR ARMOR APPLICATIONS, funded by DRDO, total cost Rs. 48,58,000.
57. AERO DYNAMIC SHAPE OPTIMIZATION, funded by DRDO, total cost Rs. 6,25,000.
58. AERODYNAMIC PARAMETERS ESTIMATION OF HANSA-III AIRCRAFT WITH UNSTEADY AERODYNAMIC MODELING USING CONVENTIONAL AND NEURAL METHOD, funded by DRDO, total cost Rs. 6,38,000.
59. EXPERIMENTAL STUDIES OF FLOW AND HEAT TRANSFER IN A ROTATING U-DUCT WITH DETACHED RIBS, funded by DRDO, total cost Rs. 24,47,000.
60. DEVELOPMENT OF COMPUTATIONAL DAMAGE MESO-MODELS FOR UNIDIRECTIONAL FIBROUS COMPOSITE LAMINATES, funded by DRDO, total cost Rs. 7,10,000.
61. FINANCIAL ASSISTANCE TO FIGHT LABORATORY, IIT KANPUR-UP GRADE, funded by DRDO, total cost Rs. 10,00,000.

62. DEVELOPMENT METABOLIC AND ORGANOGENESIS: AN EXPRESSION SCREENING APPROACH, funded by DBT, total cost Rs.79,85,000.
63. INTEGRATED DIELECTROPHORESIS BASED CONCERATION AND REAL TIME PCR BASED IDENTIFICATION OF FOOD PATHOGENS IN A SINGLE MICROCHIP, funded by DBT, total cost Rs. 38,70,400.
64. UNDERSTANDING THE FUNCTIONAL IMPACT OF ALTERNATIVE MRNA SPLICING IN EPILEPSY, funded by DBT, total cost Rs. 25,32,000.
65. IDENTIFICATION AND CHARACTERIZATION OF TOPOGRAPHIC GUIDANCE MOLECULES IN THE VISUAL PATHWAY, funded by DBT, total cost Rs. 86,00,000.
66. BIODEGRADATION OF PETROLEUM SLUDGE, funded by DBT, total cost Rs. 4,84,000.
67. DEVELOPMENT & FIELD APPLICATION OF A MULTIPURPOSE SAMPLER FOR INDOOR AIR POLLUTION MEASUREMENT, funded by CST, total cost Rs. 5,10,000.
68. EVALUTATION OF THE EFFICACY OF POLARIZED FLUORESCENCE SPECTROSCOPY FOR EARLY DIAGNOSIS OF CANCEROUS AND PRECANCEROUS CERVICAL LESIONS, funded by MCIT, total cost Rs. 59,08,000.
69. DESIGN OF A PARALLEL PROCESSOR FOR NLP APPLICATION, funded by MCIT, total cost Rs. 48,78,000.
70. TECHNOLOGY INCUBATION & DEVELOPMENT OF ENTREPRENEURSHIP (TIDE), funded by MCIT, total cost Rs. 30,00,000.
71. TECHNOLOGY INCUBATION & DEVELOPMENT OF ENREPRENEURSHIP (TIDE), funded by MCIT, total cost Rs. 155,00,000.
72. BSNL TELECOM CENTRE OF EXCELLENCE, funded by BSNL, total cost Rs. 1450,00,000.
73. VARIABLE PHASE INPUT POWER PLANT DESIGN FOR TELECOM APPLICATION, funded by BSNL, total cost Rs. 6,00,000.
74. SUITABILITY OF CALIFORNIA BEARING RATIO (CBR) VALUE IN RAILWAY TRACK DESIGN, funded by RDSO, total cost Rs. 2,00,000.
75. REINFORCED EARTH DESIGN OF EMBANKMENT CUTS IN RAILWAYS, funded by RDSO, total cost Rs. 3,00,000.
76. DESIGN BANK, funded by Ministry of Textiles, total cost Rs. 26,95,000.
77. TRAINING THROUGH ESTABLISHED INSTITUTIONS, funded by Ministry of Textiles, total cost Rs. 17,22,000.
78. DEVELOPMENT AND TRAINNING OF TEACHERS FOR EXPERIMENT BASED TEACHING, funded by Vigyan Prasar, total cost Rs. 15,31,200.
79. PULSATING HEAT PIPE BASED HEAT EXCHANGER, funded by BARC, total cost Rs. 80,00,000.
80. CARBON-CARBON COMPOSITES FOR STRUCTURAL APPLICATIONS, funded by VSSC, total cost Rs. 25,00,000.
81. IIT Rajastan, funded by Ministry of Human Resource Development, total cost Rs. 1,00,00,000.
82. NATIONAL MISSION ON EDUCATION THROUGH ICT, funded by Ministry of Human Resource Development, total cost Rs. 25,00,000.
83. IMPROVING OPEARATIONS OF VP FIRE SERVICE, funded by UPFS, total cost Rs. 11,000.
84. PERFORMANCE EVALUATION OF AIRCRAFT PROPELLERS UNDER RTA-70 INITIATIVES, funded by National Aerospace Laboratories, total cost Rs. 1,80,000.
85. SADDLERY DEVELOPMENT FOR LEATHER SECTOR, funded by MOCI, total cost Rs. 1000,00,000.
86. TCS FOUNDATION FOR RESEARCH IN ALGORITHMS, funded by Tata consultancy Services, total cost Rs. 290,00,000.
87. EMPOWERING THE TEACHER, funded by All India Council for Technical Education, total cost Rs. 40,000.
88. NATURAL PRODUCTS BIO PESTICIDES, funded by SPREDA, total cost Rs. 4,80,000.

89. SALINITY AND TRACE ELEMENTS ASSOCIATED WITH WATER REUSE IN IRRIGATED SYSTEM: PROCESSES, SAMPLING PROTOCOLS REMEDIATIONS TECHNOLOGY AND SITE SPECIFIC MANAGEMENT-----INDUSTRIAL AREA OF KANPUR AND UNNAO, funded by Department of Drinking Water Supply, total cost Rs. 13,02,000.
90. DEVELOPMENT OF NODAL PLATFORM FOR QUANTITATIVE METHODS FOR MRI SPECTROSCOPY FOR THE STUDY OF HUMAN BRAIN, funded by Life Sciences Research Board, total cost Rs. 35,00,000.
91. MODELING INTER SPEAKER VARIABILITY IN AUTOMATIC SP. RECOG, funded by BSNL IITK Telecom Centre of Excellence, total cost Rs.19,41,000.
92. PROTECTION DEVICES FOR RURAL AND URBAN EXCHANGES, funded by BSNL IITK Telecom Centre of Excellence, total cost Rs.10,44,000.
93. SPEECH ENABLED VALUE ADDED SERVICES, funded by BSNL IITK Telecom Centre of Excellence, total cost Rs.37,17,000.
94. FEASIBILITY STUDY OF AUTOMATIC SELECTION OF IMSI IN INTER NATIONAL ROAMING, funded by BSNL IITK Telecom Centre of Excellence, total cost Rs. 6,18,750.
95. SERVICE BASED MULTIMEDIA CONTENT SUMMARIZATION AND DELIVERY IN INDIA CONTEXT, funded by BSNL IITK Telecom Centre of Excellence, total cost Rs.25,87,000.
96. SPEECH- ENABLED TRAIN-NAME RECOGNITION SYSTEM, funded by BSNL IITK Telecom Centre of Excellence, total cost Rs. 24,09,000.
97. CELLULAR NETWORK OPTIMIZATION: PHASE-I, funded by BSNL IITK Telecom Centre of Excellence, total cost Rs. 3,21,000.
98. SOME RESEARCH ISSUES IN COGNITIVE RADIO, funded by BSNL IITK Telecom Centre of Excellence, total cost Rs.18,37,500.
99. STUDY OF SPRAY COMBUSTION IN A SWIRL STABILIZED DUMP COMBUSTOR, funded by ISRO, total cost Rs. 19,25,000.
100. IDENTIFICATION AND CONTROL OF COMBUSTION INSTABILITIES IN BLUFF BODY STABILIZED FLAMES, funded by ISRO, total cost Rs. 18,45,000.
101. DEVELOPMENT OF DR BASED 3D CT SYSTEM, funded by ISRO, total cost Rs. 9,72,000.
102. DYNAMICS, SENSORS, CONTROL NEW INITIATIVE- MICRO SATELLITE, funded by ISRO, total cost Rs. 2,00,000.
103. NEW INITIATIVE LUNAR ROVER, funded by ISRO, total cost Rs. 2,00,000.
104. MEASUREMENT OF 3-D UNSTEADY VELOCITY FIELD OF IMPINGING TRANSIENT SUPERSONIC JETS USING TIME RESOLVED PIV TO IDENTIFY NOISE PRODUCING LARGE STRUCTURES AND DEVELOPING A STRATEGY TO CONTROL THOSE USING MICRO-JETS AND WATER INJECTION, funded by ISRO, total cost Rs. 17,04,000.
105. CAR CELL, funded by IGCAR, total cost Rs. 1,65,09,000.
106. WETTING OF LIQUID SODIUM ON METAL AND ALLOY SURFACES, funded by IGCAR, total cost Rs. 15,86,400.
107. DEVELOPMENT OF CONTINUUM DAMAGE MECHANICS MODEL FOR CYCLIC THERMAL STRESSES, funded by IGCAR, total cost Rs. 18,93,600.
108. CHARACTERIZATION OF CONSTRAINT EFFECT IN EVALUATING DYNAMIC FRACTURE TOUGHNESS BASED DBTT USING FEM/NUMERICAL MODELING FOR PLAIN 9CR-1 MO STEEL, funded by IGCAR, total cost Rs. 14,64,000.
109. STUDY OF SHEAR BANDING IN ALLOY D9, funded by IGCAR, total cost Rs. 19,80,000.
110. MODELING CREEP DEFORMATION & DAMAGE IN TWO AUSTENITIC STAINLESS STEELS USING THE HIERARCHICAL MODEL, funded by IGCAR, total cost Rs. 19,20,000.

111. DYNAMICS OF A SINGLE FUEL SUBASSEMBLY- EFFECT OF THE NONLINEARITY INTRODUCED DUE TO CLEARANCE, funded by IGCAR, total cost Rs. 20,88,000.
112. INVESTIGATION OF INSTABILITIES IN NATURAL CONVECTION IN PFBR, funded by IGCAR, total cost Rs.18,60,000.
113. UNDERSTANDING THE PARAMETRIC INSTABILITY IN FLUID FLUID FILLED THIN- WALLED VESSELS, funded by IGCAR, total cost Rs. 18,33,600.
114. SCOPE AND LIMITATIONS OF UTILISATION OF NON EDIBLE, funded by DST, total cost Rs. 50,000.
115. CERTIFICATE COURSE ON MANUFACTURING MANAGEMENT FOR 10FS OFFICERS, funded by NADP, total cost Rs. 15,00,000.
116. PILOTING ZERO DISCHARGE SYSTEM IN HOUSE BOAT DAL, funded by GIMLS, total cost Rs. 6,76,500.
117. RESEARCH AND DEVELOPMENT OF TOOLS IN HANDICRAFT SECTOR, funded by AIP, total cost Rs. 9,90,000.
118. POTENTIAL OF RNAI IN INSECT PEST MANAGEMENT, funded by National Agricultural Innovation Project, total cost Rs. 28,96,300.
119. MOBILE IED PREINITIATOR SYSTEM, funded by ACE, total cost Rs. 6,00,000.
120. AIRFOIL MODELS AND INSTRUMENTATIONS AND WIND TUNNEL TESTING OF LOW REYNOLDS NO. AIRFOIL TESTING AT NWTF, IIT KANPUR, funded by Aeronautical Development Agency, total cost Rs.22,00,000.
121. MEMS DESIGN CENTER, IIT KANPUR, funded by Aeronautical Development Agency, total cost Rs. 38,73,900.

B. International Projects:

1. INDO-US CENTRE FOR RESEARCH EXCELLENCE ON FABRIONICS, funded by INDOUS, total cost Rs. 413,00,200.
2. INDO-US NETWORKED CENTER ON DEVELOPMENT OF METAL-CERAMIC COMPOSITES THROUGH MICROWAVE PROCESSING, funded by INDOUS, total cost Rs. 30,82,400.
3. BIOMATERIALS FOR HEALTH CARE, funded by INDOUS, total cost Rs.75,97,600.
4. FIELD EFFECT TRANSISTOR OF FPREUVIKITE OXIDES FOR SPINTRONICS, funded by INDO French Centre for the Promotion of Advanced Research, total cost Rs. 13,52,800.
5. PLASMONIC PROPERTIES OF CHECK BOARD METALLIC STRUCTURES AND FILMS, funded by INDO French Centre for the Promotion of Advanced Research, total cost Rs. 25,62,800.
6. DESIGN AND DEVELOPMENT OF AN AUTONOMOUS VEHICLE, funded by Boeing, total cost Rs. 20,25,000.
7. AIRFOIL MODELS AND INSTRUMENTATIONS AND WIND TUNNEL TESTING OF LOW REYNOLDS NO. AIRFOIL TESTING AT NWTF, IIT KANPUR, funded by ADE, total cost Rs. 38,40,000.
8. AN EXPERIMENTAL STUDY OF SUPERSONIC FLOW OVER TWO AND THREE DIMENSIONAL SLENDER BODIES WITH MOVING SURFACE PROTURBANCES, funded by ARMAMENT RESEARCH BOARD, total cost Rs. 14,70,800.
9. DESIGN AND EVALUATION DIFFERENT CONTROL STRATEGIES FOR UPGRADING EXISTING AIRCRAFT BOMB TO GUIDED BOMBS, funded by ARMAMENT RESEARCH BOARD, total cost Rs. 18,20,000.
10. NOVEL METAL CLUSTERS IN PROTEIN CLEFTS NOVEL METAL CLUTERS IN PROTEIN CLEFTS, funded by European Commission, total cost Rs. 57,81,841.
11. STUDY OF CHALCOGENIDE GLASSES FOR APPLICATION IN MEMORY DEVICES, funded by Asian Office Of Aerospace Research and Development, total cost Rs. 11,04,000.
12. AERODYNAMIC CHARACTERISTICS OF BUTTERFLY FLIGHT THROUGH MEASUREMENT OF THREE DIMENSIONAL UNSTEADY VELOCITY FIELD USING TR-

- PIV SYSTEM, funded by Asian Office Of Aerospace Research and Development, total cost Rs. 10,39,680.
13. SEED GUM POLYSAXXHARIDES FOR THE DECOLORISATION OF TEXTILE DYE SOLUTION, funded by Third World Academy of Science, total cost Rs. 1,80,000.
 14. MODELING THE SUPPLY CHAINS OF SEZS IN INDIA, funded by Third World Academy of Science, total cost Rs. 25,31,504.
 15. BUILDING A NEW IDENTITY CHAARAS, funded by ANA Singapore, total cost Rs. 1,42,292.
 16. LATE QUATER NARY ENVIRONMENTAL, funded by University of Cambridge, total cost Rs. 2,82,000.
 17. SUM SURFACE STRATIGRAPHY OF THE CHAGGAR PLAINSLINKAGE OF LANDSCAPE EVOLUTION AND CULTURAL HERITAGE, funded by Imperial College, total cost Rs. 4,74,000.
 18. NOVEL BOSYNTHESIS OF CDS NANOPARTICLES BY IMMOBILISED FUNGUS, funded by International Foundation for Science, total cost Rs. 4,77,243.

Consultancy projects:

1. ANALYSIS AND PROCESS MODIFICATION OF EXISTING CETP AT ETL ANKLESHWAR, funded by, ENVIRO, Total cost Rs. 25,00,000.
2. DESIGN OF RIVER TRANING WORKS: RIVER GANGA (THREE LOCATION BETWEEN ALLAHABAD TO VARANASI), funded by IWAI, Total cost Rs. 54,06,000.
3. CONSULTANCY & UPGRADATION OF PDP-II/73 BASED DATA ACQUISITION & CONTROL SYSTEM ON SCHENCK TRACK PANEL FATIGUE TESTING MACHINE, funded by RDSO, Total cost Rs.33,38,350.
4. CHIMNEY AND NDCD DATA ANALYSIS FOR LANCO, funded by LANCO INFRA TECH LTD, Total cost Rs.1,42,758.
5. IN SITU SULFIDING OF NIMO/A12O3 HYDROTREATING CATALYSTS, funded by CHEVRON, Total cost Rs. 32,34,310.
6. TO DEVELOP A STRAIN PATH INDEPENDENT FORMING LIMIT DIAGRAM, funded by Tata Steel, Total cost Rs.23,81,250.
7. MODELLING OF THE ELECTRONIC CELL IN THE PYRO PROCESSING DEMONSTRATION FACILITIES, funded by IGCAR, Total cost Rs.15,00,000.
8. ELECTRO MAGNETIC SIMULATION OF 3-PHASE INDUCTION MOTOR FED FROM A VOLTAGE SOURCE INVERTER, funded by IHICOR, Total cost Rs.29,31,006.
9. CHARGE CALCULATION MODEL FOR LARGER THROUGH PUT OF OPERATION AT HOSPET STEEL WORKS, funded by HOSPET, Total cost Rs. 8,16,000.
10. CONCRETE MIX DESIGN OF GRADE M20 AND M25 WITH CHEMICAL ADMIXTURE, funded by SKY LINE ENGG. CONTRACTS PVT LTD, Total cost Rs. 56,180.
11. PEER REVIEW OF STRUCTURAL DESIGN OF 32 STOREY TOWARDS IN NOIDA, funded by Assotech Ltd, Total cost Rs. 9,26,970.
12. UNDERSTANDING ADHENSION & CONTACT MECHANICS OF MICRO PARTICLES WITH SUBSTRATES, funded by P&G, Total cost Rs. 31,10,358.
13. STUDY OF PAVEMENT DISTRESS ON LUCKNOW-KANPUR SECTION, funded by National Highway Autho of India, Total cost Rs. 1,50,000.
14. HYDROLOGICAL AND HYDRAULIC STUDIES OF BHUTANI BALAN AND KAMLA BALAN RIVER IN THE VICINITY OF THE PROPOSED BRIDGE LOCATION IN RESPECT OF UNPRECEDENTED FLOOD IN THE REGION IN THE SECTION OF MUZAFFARPUR TO PURNEA SECTION ON NH-57, A PART OF EAST-WEST CORRIDOR UNDER NHDP PHASE-II, funded by NHAI, Total cost Rs. 17,30,810.
15. CONSULTANCY REGARDING EXCAVATION AT THE SITE OF, funded by MAYTAS INFRA LTD, Total cost Rs.60,304.

16. CONCRETE MIX DESIGN OF GRADE M25 AND M30, funded by N.E. RAILWAY LUCKNOW, Total cost Rs.33,708.
17. SEISMIC ANALYSIS OF CAIRN BSPL PIPELINE PROJECT, funded by L&T GULF, Total cost Rs.16,85,400.
18. ASSESSMENT OF FEASIBILITY OF HAND PUMP INSTALLATION IN PANKI INDUSTRIAL AREA, funded by UPSIDC, Total cost Rs. 9,438.
19. EHV/UHV TRANSMISSION SYSTEM PLANNING FOR UPTTCL-STUDY CELL AT IITK, funded by UPPTCL, Total cost Rs. 50,00,000.
20. ONE STOP EDUCATIONAL PORTAL, funded by CHIPS, Total cost Rs. 67,41,000.
21. UNDRAINED SHEARMICROZONATION, funded by AT&ES, NEW DELHI, Total cost Rs. 28,188.
22. SMME RESEARCH SURVEY, funded by SAP, Total cost Rs.1,66,200.
23. CONCRETE MIX DESIGN OF GRADE M 20, funded by NORTH CENTRAL RAILWAY, TUNDALA, Total cost Rs.22,472.
24. CONCRETE MIX DESIGN OF GRADE M35, funded by NORTH CENTRAL RAILWAY, TUNDALA, Total cost Rs. 30,900.
25. FAILURE ANALYSIS OF DAMAGED HANGER SUPPORT, Total cost Rs. 20,000.
26. CONSULTANCY ON DESIGN AND DEVELOPMENT OF MOTOR CYCLE ENGINE, funded by TVS MOTOR CO LTD, Total cost Rs. 10,000.
27. CONSULTANCY FOR EVALUATION OF THE EXISTING CONDITIONS OF THE MAIN BUILDING & REVENUE IN ETAH DISTT. COLLECTORATE, funded by EXECUT, Total cost Rs. 95,428.
28. REVIEW OF SOIL REPORT FOR MULTIPLY AT 47/48 VIBHUTI KHAND GOMTI NAGER LKO, funded by SRS DEVELOPERS, Total cost Rs. 21,573.
29. STRUCTURAL DESIGN OF UNIVERSAL MILLING MACHINE, funded by OKFNP, Total cost Rs. 1,34,832.
30. DEVELOPMENT OF MANUAL ON USE OF CEMENTED MATERIAL FOR BITUMINOUS PAYMENT, funded by MOSRTH, Total cost Rs. 2,50,000.
31. STRUCTURAL DESIGN OF MACHINE FONDATION FOR AUTOFRETTAGE PLANT OFC, Total cost Rs. 1,34,832.
32. CONCRETE MIX DESIGN OF GRADE M25 WITH AND WITHOUT CHEMICAL ADMIXTURE, funded by CPWD, Total cost Rs. 42,135.
33. EVALUATION OF MASONRY AT P&G FACILITIES IN BADDI, funded by P&G, Total cost Rs. 5,33,433.
34. IITK-BMTPC EARTHQUAKE TIPS (PHASE 2), funded by BMTPC, Total cost Rs. 13,48,320.
35. STATIC TEST ON PMM PROTOTYPE, funded by HAL, Total cost Rs.30,000.
36. TECHNICAL REPORT OF MDI AND LOW POWER FACTOR OF M/S GAUTAM CEMENT, HAMIRPUR, funded by DVVNL BANDA, Total cost Rs. 28,060.
37. CREATING OF MICRO NANO PARTICLES, funded by Unilever Ltd, Total cost Rs. 15,74,160.
38. CONCRETE MIX DESIGN OF GOODS M25 WITH AND WITHOUT CHEMICAL ADMIXTURE, Total cost Rs.42,135.
39. VIBRATION ANALYSIS & DESIGN OF ISOLATION SYSTEM FOR BUILDING, funded by CEM, ENGINEERS, Total cost Rs. 4,10,000.
40. ROOT CAUSE OF FAILURE ANALYSIS OF BROKEN SHUFFLE BODY, funded by LSL, Total cost Rs. 34,832.
41. STUDY OF DEMAND & ENERGY CHARGES AGAINST IMPORT OF POWER DURING PEAK HOURS WITHOUT DRAWL OF ACTIVE POWER, Total cost Rs. 2,10,675.
42. AUTOMOTIVE SPEED SENSOR & DISTANCE LOGGING, funded by TCS, Total cost Rs.1,92,000.
43. REVIEW OF GEOLOGICAL AND GEOTECHNICAL REPORTS FOR BSPL PIPELINE, funded by L&T-GU, Total cost Rs. 3,37,080.

44. CONCRETE MIX DESIGN OF GRADE M 35 AND M 40, funded by UPRNN LTD., LUCKNOW, Total cost Rs.1,68,540.
45. CONSULTANCY REGARDING EVALUATION OF PARAMETERS AT ARJIM SAHAYAK PARAYOJONA, funded by EX ENG. MDCL, MAHOBA, Total cost Rs.5,54,215.
46. REGIONAL GEOLOGICAL INVESTIGATIONS OF KAMRAI, DAM SITE, Total cost Rs.2,03,371.
47. GROUND PENETRATING RADAR (GPR) SURVEY TO IDENTIFY ARCHAEOLOGICAL REMNANTS AROUND SUNDERWALA MAHAL AND SUNDERWALA BURJ SUNDER NURSERY, NEW DELHI, Total cost Rs.11,63,870.
48. QUALITY ASSURANCE OF PROGRAMS, funded by SIEMEN, Total cost Rs.3,00,000.
49. DESIGN OF CLOSED CONDUIT/DIRECT SLUICE FOR THE EXISTING G.H. CANAL D/S OF GOMTI BARRAGE IN LUCKNOW (PRELIMINARY PHASE), Total cost Rs. 46,349.
50. DEFLECTION & VIBRATION COMPENSATION OF GASPIPE LINE AT RAMGANGA, funded by GAIL, Total cost Rs. 14,045.
51. DESIGN CONSULTANCY FOR ASHDYKE AT BONGAIGAON TPP, ASSAM, funded by NTPC, Total cost Rs.4,94,385.
52. EVALUATION OF MOBILE MAPPING TECHNOLOGY, funded by GICL, Total cost Rs.2,42,698.
53. STANDARDS FOR BIOMETRICS IN E-GOVERNANCE, funded by NIC, Total cost Rs.10,00,000.
54. HYDRAULIC MODEL STUDY OF BRIDGE ON GANGA NEAR FRK, funded by UPSBC, Total cost Rs. 23,84,758.
55. STATUS OF WASTE MANAGEMENT IN UP, funded by UPCL, Total cost Rs. 11,00,000.
56. CBR & MODULUS SUBGRADE REACTION FOR TAXIWAY SURFACING, Total cost Rs.1,61,800.
57. VALIDATION OF POWER EXCHANGE ALGORITHM, funded by PXIL, Total cost Rs.5,39,328.
58. ANALYSIS OF WAGON DESIGNS, funded by BESCD, Total cost Rs.47,452.
59. REPORT ON FUEL EFFICIENCY OF PASSENGER CARS, funded by GPI, Total cost Rs.1,25,000.
60. TESTING OF CONCRETE GIRDER OF FLY OVER @ 8+500 OF LUCKNOW-AYODHYA SECTION OF NH-28, funded by NHAI, Total cost Rs. 44,944.
61. GIS BASED LAND RECORD MANAGEMENT FOR GNIDA, funded by GNIDA, Total cost Rs.49,09,000.
62. CHIMNEY DESIGN AND ANALYSIS FOR LANCO, Total cost Rs.5,40,000.
63. YIELD IMPROVEMENT FROM 4 STRANDBLOOM CASTER TUNDISH, Total cost Rs.9,66,000.
64. DESIGN OF DRAINAGE SYSTEM FOR RAIT RIVER IN 'UPSIDC' SITE NEAR KURST, funded by UPSIDC, Total cost Rs. 73,539.
65. FEASIBILITY STUDY REPORT FOR DEVELOPMENT OF DIGITAL BORE MEASURING INSTRUMENT, funded by NAIK(N), Total cost Rs.1,85,000.
66. SLOP-CUT ELIMINATION IN PIPELINE FUEL TRANSFER, funded by HPCL, Total cost Rs. 7,00,000.
67. CONSULTANCY REPORT ON SPONGE IRON FOR THE METAL, Total cost Rs.10,000.
68. CHANNELIZATION OF GH CANAL LUCKNOW, Total cost Rs.73,539.
69. SITE VISIT IN CONNECTION WITH CONSULTANCY FOR POND AT GONDA, Total cost Rs.26,225.
70. CONSULTANCY FOR STRUCTURAL DESIGN OF CLOSED CONDUIT FOR EXISTING G. H. CANAL IN LUCKNOW, funded by EEL, Total cost Rs.2,69,664.
71. STUDIES ON CATALYST COMPOSITION, funded by CHEVRON, Total cost Rs.91,29,250.
72. SITE VISIT IN CONNECTION WITH CONSULTANCY FOR WALL, funded by AAI, Total cost Rs. 17,665.

73. ACTIVE FAULT SURVEY IN RAJASTHAN GUJRAT REGION: PIPELINE PROJECT, funded by L&T-GU, Total cost Rs.3,93,260.
74. GEOTECHNICAL DESIGN GH CANAL CHANNELIZATION, funded by UPIRRI, Total cost Rs.47,192.
75. REVIEW OF SUBSOIL INVESTIGATION REPORT FOR SHOPPING MALL IN MAYA TALKIES GORAKHPUR, Total cost Rs. 13,483.
76. VETTING DESIGN OF MEDICAL COLLEGE AT FAIZABAD, funded by R&KAL, Total cost Rs. 2,50,000.
77. ELECTRICAL MODELING OF USB 3 .0 MEDIA, funded by MS, Total cost Rs.1,25,000.
78. CONCRETE MIX DESIGN OF GRADE M 30 WITH CHEMICAL ADMIXTURE, Total cost Rs. 39,326.
79. CONCRETE MIX DESIGN OF GRADE M 15, M 20 AND M 40 WITH CHEMICAL ADMIXTURE, Total cost Rs.1,01,124.
80. IMPLEMENTATION OF IPV G AND MULTICAST IN BSNL NIB NETWORK, funded by BITCOE, Total cost Rs.13,22,478.
81. CONCRETE MIX DESIGN OF GRADE M 25 WITH CHEMICAL ADMIXTURE, Total cost Rs.28,090.
82. 3DFE ANALYSIS OF ALH MAIN ROTOR BLADE COLLAR, funded by HAL, Total cost Rs.7,72,475.
83. WIND TUNNEL TESTING OF HIGH REACH PANTOGRAPH AT NWTF IIT KANPUR, Total cost Rs.1,30,000.
84. FEASIBILITY STUDY AND SIMULATION OF ELECTRIC BREAK FOR TEJAS AIRCRAFT, funded by HAL, Total cost Rs.1,68,540.
85. NON- KIDWAINAGAR STAFF QUARTERS-PHASE-I, funded by RBI, Total cost Rs.2,10,000.
86. CONCRETE MIX DESIGN OF GRADE M 35 WITH CHEMICAL ADMIXTURE, Total cost Rs.78,652.
87. DEVELOPMENT OF TRANSMISSION PRICING SCHEMES FOR ORISSA, Total cost Rs.9,83,150.
88. VETTING OF STRUCTURAL AND HYDRAULIC DESIGN OF PROPOSED 200 MLD WATER TREATMENT PLANT BARRAGE SITE, Total cost Rs. 70,112.
89. ACTIVE FAULT SURVEY ALONG ISLAND BELT FAULT AND NAGAR PARLEAR FAULT: BSPL PIPELINE PROJECT, funded by L&T, Total cost Rs. 6,74,160.
90. ENERGY EFFICIENCY IN FURNACES ROLLING, Total cost Rs. 1,57,304.
91. P & G STRUCTURAL STANDARDS RE- EVALUATION, funded by P&G, Total cost Rs. 4,82,200.
92. DISCHARGE MEASUREMENT AT GANGA BARRAGE, funded by GBK, Total cost Rs.52,697.
93. CONCRETE MIX DESIGN OF GRADE M25, funded by SIPJ, Total cost Rs.28,165.
94. SEISMOTECTONIC INVESTIGATIONS, funded by ISR, Total cost Rs.2,02,248.
95. 3D MODELLING AND AVI GENERATION AT MUMBAI, funded by GICL, Total cost Rs.1,48,315.
96. CONCRETE MIX DESIGN OF GRADE M20, funded by BCPL, Total cost Rs.14,045.
97. JOB MIX FORMULA, funded by PWD, Total cost Rs. 61,500.
98. JOB MIX AND DESIGN, funded by PWD, Total cost Rs.78,800.
99. HYDRAULIC MODEL STUDY OF BRIDGE (CHILLAGHAT), funded by PWD, Total cost Rs.17,41,493.
100. MIX DESIGN BC WITH CRMB & PMB, funded by TWBIPL, Total cost Rs. 87,000.
101. REVIEW OF RETROFITTING AT BADDI, funded by P&G, Total cost Rs.8,08,992.
102. CFD EVALUATION OF AERODYNAMICS AND INTERNAL COOLING PERFORMANCE OF A GAS TURBINE BLADE, funded by NTPC, Total cost Rs. 17,52,500.
103. SCOUR DEPTH FOR BRIDGE-BALUA, funded by UPBC, Total cost Rs.9,438.

104. DESIGN OF DUMPABLE CONCRETE MIX OF GRADE M 25, funded by CMR&CH, Total cost Rs. 28,090.
105. DESIGN OF PUMPABLE CONCRETE MIX OF GRADE M 25, funded by ASE&M, Total cost Rs. 28,100.
106. DESIGN OF PUMPABLE CONCRETE MIX OF GRADE M 25, funded by CMR&CH, Total cost Rs. 28,090.
107. CONCRETE MIX DESIGN OF GRADE M 25, funded by MGM&CP, Total cost Rs. 28,090.
108. MONTE CARLO MODELING OF ENERGY RESPONSE OF SILICON DIODE DETECTOR IN RADIOTHERAPY PHOTON BEAM, funded by DAE, Total cost Rs.14,88,770.
109. GPR SURVEY AT AHICHHATRA, funded by ASI, Total cost Rs. 16,58,434.
110. SOUTH- NORTH COOPERATION ON IMPLEMENTATION OF DOMESTIC POLICIES, funded by CSCUK, Total cost Rs.3,16,900.
111. DYNAMICS STABILITY ANALYSIS OF AEROSTAT 2000 CUM SIZE, funded by ADRDE, Total cost Rs.99,27,000.
112. TRAJECTORY AND STABILITY ANALYSIS OF CONVENTIONAL PARACHUTE PAYLOAD COMBINATION FOR FAE, funded by ADRDE, Total cost Rs.9,72,846.
113. SCOSTA-CL IMPLEMENTATION, funded by AdvanlDe, Total cost Rs. 2,48,003.
114. FEASIBILITY STUDY FOR REMOTE DATA ACQUISITION FROM EVCS, funded by GAIL, Total cost Rs.2,60,000.
115. AERODYNAMIC STUDIES AND CHARACTERISATION OF 120MM...BOMB(RAB), funded by ARDE, Total cost Rs.11,86,500.
116. CONCRETE MIX DESIGN OF GRADE M 25, funded by ASE&M, Total cost Rs. 28,090.
117. TESTING OF SOIL SAMPLES, Total cost Rs.18,202.
118. STATUS OF INDUSTRIAL POLLUTION CONTROL (LARGE, MEDIUM, SSI), funded by CPCB, Total cost Rs.5,00,000.
119. STATUS OF BIOMEDICAL WASTE MANAGEMENT, funded by CPCB, Total cost Rs.3,00,000.
120. PREDICTION OF STEERING SYSTEM PERFORMANCE VARIATION DUE TO MANUFACTURING ERRORS, Total cost Rs.9,72,000.
121. WORKSHOP ON SEISMIC ANALYSIS, funded by SIEMENS, Total cost Rs.1,91,077.
122. DESIGN OF DUMPABLE CONCRETE AND PUMPABLE RMC OF GRADE M 30 AND M 35, funded by GEEE, Total cost Rs.1,37,641.

Alumni Association Activities

In February 2008, a Board of Directors (BOD) of IITKAA was elected under the new constitution of the AA, by a global electorate of alumni. The elections for the Board of Directors by electronic voting were conducted using election software developed in-house. The following are the members of the board for the year 2008-2010:

Patron:

Prof. Sanjay G. Dhande (PhD/ME/75)
Director, IIT Kanpur

President:

Abhay Kumar Bhushan (BT/EE/65)

Vice Presidents:

Rahul Mehrotra (BT/EE/96)
Bhanu Kapoor (BT/EE/87)

Secretary:

Kripa Shanker (MT/ME/72)

Treasurer:

Sameer Khandekar (MT/ME/00)

Members:

Manish Thakur (BT/EE/96)
Sanjeev Sinha (MSC5/PHY/95)
Rahul Shukla (MSC2/MTH/98)
Rakesh Sharma (MT/NET/78)

Ex-Officio Members:

Mr Pawan Kumar (BT/CE/69;MT/CHE/72)
Prof V Eswaran (BT/ME/80)
Mr Rakesh Pandey (BT/ME/78)
Prof Sanjeev K Agarwal (MT/NET/81/PHD/CSE/87)
Prof Umesh Mishra (BT/EE/79)

Reunions

IITK alumni from around the globe participated in the reunion events. The attendees included alumnus entrepreneurs, bureaucrats and professionals from all walks of life.

Three Reunions were held in the campus by Alumni Association. They were inaugurated by the Director, Deputy Director, Deans and Faculty in the new Outreach building. The activities included Lunch at the Director's residence, Reunion Group Photograph, Campus tour, Lunch at Students' Hall, Open Session, campus cycle tour, Grand Reunion Dinner and Felicitation of the alumni by Director.

Silver Jubilee Reunion – Class-of-84

The Silver Jubilee Reunion (SJR) of the Class – of – 84 was held on the campus during 26th – 28th December 2008 with 72 alumni attending the event with their families. A craft mela was put up in SAC grounds where craftsmen right from cottage industries to exuberant gem stone industries had put up their stalls to display their craftsmanship, Indian Folkdance was a delight to the audience to see folk group performers from all over the country, Talash band from Lucknow was a good attraction. The whole campus was invited to enjoy many of the SJR events.

20th Year Reunion – Class-of-88

The 20th year reunion was held by the class of 1988 from 2nd – 3rd January 2009 with 38 alumni attending the reunion.

35th Year Reunion Class-of-74

The 35-year Reunion of the Class – of – 1974 was held on the campus during 3rd – 5th January 2009 with 22 alumni from around the globe, participating in the event with their families. A TV crew under the guidance of Shanbagh interviewed many attendees to get information about the history of IITK for creating a commemorative documentary for the 50th anniversary of IITK.

Distinguished Alumnus Awards:

The Distinguished Alumnus Award (DAA) of the Indian Institute of Technology Kanpur (IITK) is the highest award given by the Institute to its alumni in recognition of their achievements of exceptional merit. The DAA Evaluation Committee recommended the following names for the year 2008-2009:

1. Dr. Devendra Shukla, (BT/CE/67), Founder President and CEO, Innovative Technical Solutions, for his outstanding entrepreneurial and managerial skills.
2. Dr Uday P Singh (BT/CE/72), President-Elect of the Environmental and Water Resources Institute (EWRI) of the American Society of Civil Engineers (ASCE) for his outstanding and all round contributions to the field of Environment and Water Resources.
3. Dr D. Subbarao (MSc2/PHY/73), Governor, Reserve Bank of India, for his outstanding managerial contributions.
4. Mr. Manoj Pratap Singh (BT/EE/74), Global Managing Partner, Operations Deloitte Touche Tohmatsu for his outstanding managerial contributions.
5. Prof Arun P Shukla (BT/ME/76) Simon Ostrach Professor and Chairman, Department of Mechanical Engineering & Applied Mechanics, University of Rhode Island for his outstanding contributions and academic achievements.
6. Mr Shantanu Srivastava (BT/ME/77) Managing Director & CEO, Ishan International Pvt. Ltd., Managing Director, Norvis Holdings (Singapore) Pvt. Ltd., Chairman, Ishan Foundation for his outstanding entrepreneurial and managerial skills.
7. Dr Shreesh Jadhav (BT/PhD/CSE/89/95) Sanyasi, Rama Krishna Mission, in recognition of his dedicated service to humanity at large

Satyendra K Dubey Memorial (SKDM) Award

The Satyendra K Dubey Memorial Award Evaluation Committee recommended following names for the year 2008-2009:

1. Late Mr. Lalit Kishore Chaudhary (BT/ME/86/IITK) awarded posthumously for his courage and upright behavior.
2. Mr Vijay Saluja (BT/CE/68/IITD) Ex-Chief Engineer (Civil), New Delhi Municipal Council, New Delhi in recognition of his honesty, integrity and for his efforts in fighting corruption.

Financial Assistance from IITKAA to Mr. A. K. Pandey

An appeal was sent to the entire IIT Kanpur alumni requesting financial support for the treatment of Mr. Anand K. Pandey, a Ph. D. student in the Department of Mathematics. He was critically ill and diagnosed with Acute Myeloid Leukemia (AML, also known as Blood Cancer) in late April 2008. We wish to express our heartfelt gratitude to our alumni to have shown generosity in contributing over Rs.15 lakhs and without which Anand's treatment could have been impossible.

Newsletters

Alumni Newsletter, a bimonthly Newsletter, was published in the months of April, June, August, and October, January and March. These were funded by sponsorships provided by alumni of IITK amounting to Rs 1.40 lakhs.

Alumni Database

Alumni Association has made significant progress in enhancing the coverage of Alumni Database. By the end of the year AA had email addresses of 68.7% alumni and postal addresses 65.4 % alumni out of around 23,700 alumni.

IITK Alumni Chapters

- Northern California Chapter celebrated its *Annual Gala Dinner and Alumni Leadership Awards* on Sunday, May 4th, 2008.
- 40th Reunion of 1968 Batch was held in Atlantic City, USA on May 24-26, 2008.
- Alumni Association IIT Kanpur Outer Delhi Chapter had a National Seminar on Managing Innovation for Competitive Edge in association with Indian Business Academy, Greater Noida on Saturday, February 7, 2009.
- First ever PANIIT get together of South Korea Meet was held on 26th January 2009, on the backdrop of Republic day celebration. The attendees included the Indian Ambassador to South Korea Mr. S. R. Tayal (An IITK Alumnus of '71 batch), IITK alumni and other IITians.
- The Mumbai Chapter of IIT Kanpur Alumni held its annual get together on 28th February 2009, Saturday at MIG Cricket Club, Bandra East, Mumbai. The event had crossed 175 registrations.
- The Pune chapter get-together was held on February 26, 2009 attended by many distinguished guests and a large number of alumni and their family members.

Alumni Awards and Honours:

IITK alumni have been conferred with many prestigious awards and honours during the year. To name a few;

Dr. D. Subbarao (MSc2/PhY/73) became the first ever IIT alumni to become the Governor of the Reserve Bank of India.

Prof. Manindra Agarwal (BT/CSE/86; DAA 2003) was announced as the first ever winner of the newly set up Infosys Mathematics Prize.

Mr. Jeet Bindra [Jagjeet Singh] (BT/CHE/69), President of Chevron Global Manufacturing, was honoured for his career achievements by being named a 2008 recipient of the University of Washington (UW) College of Engineering's prestigious Diamond Award.

Dr. Pradeep Sindhu (BT/EE/74; DAA 2001) has been awarded 2008 Alumni Achievement Award from the Carnegie Mellon University Alumni Association.

Central Facilities

P. K. KELKAR LIBRARY

The P. K. Kelkar Library is a creative partner and essential force in the IITK learning community. Since its inception, it has been rendering essential support to the Institute's teaching, research and development programme. The Library plans, develops and implements programs to provide latest information, learning resources and information competencies to students, faculty, and staff. Using appropriate technology, the Library delivers resources to satisfy information needs, promote lifelong learning and create productive environments for the scholarly community.

P. K. Kelkar Library is housed with all modern amenities, in a magnificent three-storied building covering an area of 5730 square meters. The Library remains open, for 358 days of the year, from 8 a.m. to 12 midnight on all working days; 9 a.m. to 12 midnight on Saturday; 9 a.m. to 5.30 p.m. on Sundays and Gazetted holidays and for 24 hours during the three examinations each semester.

ACQUISITION UNIT

Books:

The Acquisition Unit plays vital role to the development, management and evaluation of library collection in all formats. It successfully accomplished its responsibility to fully utilize the Rs. 1.25 Crore budget for Book purchase. During 2008-09, 3845 books were added to the collection in which 134 were received as Gratis.

e-books:

The library initiated and procured 14040 e-books purchased during 2008-2009 as under:

Springer : 11890 titles

Taylor & Francis : 2150 titles

PERIODICALS

Subscription to periodicals and binding: The periodical budget for 2008-09 was Rs. 6.25 crores. A grant of Rs. 23.91 lacs was made available by NBHM which was fully utilized. The Library subscribed to 1214 current periodicals for the year 2009. Of these 772 are print versions, whereas 404 are print plus online, 22 are online only and 02 are on CD only. The Library added 3517 bound volumes of periodicals and 3751 Books were bound during the year.

The Library continued its focus on the acquisition of backfiles of online journals. Significant new backfiles acquired in 2008-09 through capacity expansion programme budget included:

- EBSCO Business Source Complete
- Foundation & Trends in Theoretical Computer Science

- Oxford English Dictionary
- MIT Cognet

E-resources through INDEST-AICTE:

As a core member to the INDEST-AICTE Consortium, IITK academic community is entitled to access more than 6500 full-text journals and 06 bibliographic databases. The following new services were started during the year 2008-09 through INDEST:

- Journal of Optical Society of America: A& B
- Applied Optics

LIBRARY SERVICES

Current Awareness Service (Weekly List of Additions): The books added to the Library collection were disseminated to academic community through 52 weekly lists of new additions on the first working day of each week. These were also released on Library OPAC. The current issues of the journals are also displayed on alternate days thrice in a week.

CIRCULATION

During the year 2008-2009, 39338 publications were circulated for home study. A large number of books and journals from reference, textbooks (55283), and general collection were also consulted by users within the Library.

DOCUMENT DELIVERY SERVICES & CONSULTATION FACILITY TO EXTERNAL USERS:

The Inter-Library Loan (ILL) services are extended free to sister IITs, IISc, TIFR, BARC, INDEST-AICTE members and other technical institutions & universities. During 2008-09, ILL requests for 540 articles/chapters/books were received and document delivery made to outside Institutions whereas IITK users' requests for 71 articles/ chapters/ books were sent to other libraries.

Consulting facility of the library was extended to 1967 external users including 1478 participants of various courses/programmes organized by the Institute.

LIBRARY AUTOMATION:

Library has already installed and implemented LibSys LSPremia, a web centric integrated library management software package. During the year under report several problem solving sessions were organized in consultation with the Libsys Corporation and the customization on various modules suggested by us were incorporated. Now all housekeeping operations are running through LibSys.

DIGITAL LIBRARY INITIATIVES

The following digital library initiatives continued/added afresh:

1. Online Submission of Theses: 627 theses were added in the repository of Electronic Theses and Dissertations (ETD)

2. Faculty/Academic Staff Publications:

'Faculty/ Academic Staff Publications' consisting of 1447 bibliographic records and 1180 full text papers published in conference/journals, lecture notes, books, delivered lectures/speeches, technical/project reports were added in the repository.

RESEARCH PAPER PUBLISHED:

1. Bhatnagar, Anjana & M. Anand (2008). Integration of Video Conferencing in Distance Education: Pros and Cons : Proceedings of International Conference of Asian Special Libraries (ICoASL 2008) held on Nov. 26-28, 2008 at New Delhi
2. Ghosh, Maitrayee, "E-theses and Indian academia: A case study of nine ETD digital libraries and formulation of policies for a national service" *International Information and Library Review*, vol. 41, no.1 pp 21-33, March 2009
<http://dx.doi.org/10.1016/j.iilr.2008.08.002>
3. Ghosh, Maitrayee, "Information professionals in the open access era: the competencies, challenges and new roles" *Information Development*, vol. 25, no. 1, pp.33-42, 2009. (DOI: 10.1177/0266666908098075).
4. Ghosh, Maitrayee, "Digital infrastructure and attitudes towards access and sharing: a case study of selected engineering libraries in the Maharashtra state of India" *International Information and Library Review*, 2009. (doi:10.1016/j.iilr.2009.04.003)
5. Ghosh, Maitrayee, "National seminar on open access movement- initiatives, promotion and impact @ Kashmir valley: a brief report" *Library Hi tech News*, vol. 25, no. 9, pp. 1-4, 2008.
6. Mishra, R., Rajesh Kumar and Tripathi, D. P., "CD-ROM collection management and development of a web interface by using WINISIS/GENISIS at P K Kelkar Library, IIT Kanpur" *Annals of Library and Information Studies*, v. 55, no. 4, 2008, pp. 265-274.
7. Mishra, Vinod Kumar. "Present Status of Open source software: a case study of Banaras Hindu University" *Shaping the Future of Special Libraries: Beyond Boundaries: International conference of Asian Special Libraries 26-28 November 2008, New Delhi.*
8. Mishra, Vinod Kumar. "Open source software: a cost effective way in providing LIS education and services in developing country" *Library Profession in Search of a New Paradigm: 23rd National seminar of IASLIC 10-13 December 2008 at Kolkata.*
9. Mishra, Vinod Kumar. "Open-Source software: a complete and cost effective solution for knowledge management in libraries" *Role of IT-Enabled Knowledge Management in Growth of India: Sangoshthi 24-26 July 2008 at Tamilnadu.*

CONFERENCES/WORKSHOPS/TRAINING PROGRAMMES ATTENDED:

1. IPR workshop on January 23, 2009 at IIT Kanpur, Participants: Anjana Bhatnagar, V. K. Mishra and Anil Mishra
2. International Conference on Integration of Video Conferencing in Distance Education: Pros and Cons Asian Special Libraries (ICoASL 2008) held on Nov. 26-28, 2008 at New Delhi, Participant: Anjana Bhatnagar.
3. 23rd National Seminar of IASLIC at Kolkata, Participant: V.K.Mishra
4. International conference of Asian Special Libraries on Shaping the Future of Special Libraries: Beyond Boundaries at New Delhi, Participant: V.K.Mishra
5. Building Digital Libraries using Open Source software at IIT Roorkee, Participant: V.K.Mishra.
6. Training on different modules of Libsys Software by Umed Singh, Dr. Neelam Prasad, S. K. Vijaianand, Dr. Anjana Bhatnagar, Ram Chandra, Jai Prakash, Sunil K. Rana, Archana Sachan, Rekha Bharti, Rajesh Kumar, Ruchi Shrivastava, D. P. Tripathi, Ramakant, V.K.Mishra, Brij Mohan Singh, and Rangoli Shukla.
7. Indest Meeting at IIT Bombay, Participant: Mr. Umed Singh and Brij Mohan Singh.
8. Workshop on Open Access to Science Publications: Policy, Perspectives, Opportunities and Challenges on 24th March at New Delhi, Participants: D. P. Tripathi and Sunil K. Rana.
9. National Seminar on Open Source Library Solutions from Jan.16-17, 2009 at B.H.U. Varanasi. Participant: Sunil Kumar Rana

COMPUTER CENTER

Data Missing

CENTER FOR DEVELOPMENT OF TECHNICAL EDUCATION

Since its inception in 1971, Ministry of Human Resource Development, All India Council for Technical Education has always strived for the development of technical education in the country. The main objective of the Centre for Development of Technical Education (CDTE) is dissemination of knowledge resources of IITK. In a way CDTE is a coordinating facility for the various activities connected with development of

curricula, preparation of resource material, administering the continuing education programme and providing in-service training to the teachers of engineering colleges. This is carried out through activities under Curriculum Development Cell (CDC), Quality Improvement Programme (QIP) and Continuing Education Cell (CEC).

Summary of various activities during the year 2008-2009.

1. QIP Students
 - (a) M.Tech Candidates admitted 03
 - (b) Ph.D. Candidates admitted 05
2. Book-Writing Projects
 - (a) Book-writing projects continued – 34
 - (b) Book-writing projects approved – 09
 - (c) Book-writing projects completed -03
3. Short term courses conducted under QIP – 05
4. Short term self-financed courses conducted -27
5. Workshops/Conferences/Seminars conducted - 18

CENTER FOR CREATIVE WRITING AND PUBLICATION

1. Dr. R. Raghavan, Founder President of the International Foundation for Ayurvedic Research, Kerala delivered a talk on “Nature and the Future of Ayurveda” on 2 April 2008.
2. Dr. Paul Craddock, London, delivered a talk on “Perceptions and Reality: The Fall and Rise of the Indian Mining and Metal Industry” on 23 January 2009.
3. Mrs. Hamida Banu Chopra, USA, conducted a reading session of Urdu poetry “Gulistan-e-Nazm’ on 3 March 2009.
4. Artist in Residence Initiative (March-April 2009). Mrs. Veena Sahasrabudde, the noted Hindustani Classical exponent, conducted lecture-cum-demonstrations and gave concert performances.
5. Weekly Book Discussions by Dr. Suchitra Mathur.

STAFF DEVELOPMENT COORDINATION CENTER

The staff training unit has been imparting training programs for the institute’s staff members and for the staff members of other institutes as well. During this financial year, the staff training unit has been instructed to conduct the induction training programs for the new entrants and refresher training programs for the group B, C & D employees of the institute only.

Accordingly, the staff training unit conducted following training programs during the financial year 2008-09;

A-INDUCTION TRAINING;

SN	CADRE	DURATION	PARTICIPANTS
1-	Ministerial-B&C-Group,	07/07 to 10/07/2008	-17-
2-	Technical-B&C-Group,	21/07 to 24/07/2008	-11-
3-	Integrated-B&C-Group,	25/08 to 28/08/2008	-08-

B-REFRESHER TRAINING;

1-	Junior Assistants	11/08 to 14/08/2008	-15-
2-	Senior Assistants	08/09 to 11/09/2008	-21-
3-	Junior Superintendents,	13/10 to 16/10/2008	-17-

Due to non approval of further training programs by the institute's authorities, the staff training unit has been rendered non functional since then.

SC/ST and OBC CELL

The cell consists of Prof. Arvind K Sinha (Deptt. of Humanities & Social Sciences), Liaison Officer (w.e.f. October 20, 2006) and Shri Anil P Gonade, Superintendent & In-charge, Recruitment Section, in addition to their normal duties. Prof. Arvind K Sinha is available in Room No. 221 (Directorate), Faculty Building at the Institute on Phone No. 2597950 and Shri Gonade is available in Room No. 224, 2nd Floor, Faculty Building at the Institute on Phone No. 2597391.

Implementation of reservation orders:

The effective date of implementation of reservation for SCs and STs in the direct recruitment is 5th September 1974 in this Institute and the implementation of reservation for OBCs is w.e.f. the year 1995.

Maintenance of rosters/ Percentage of reservation:

The Board of Governors had approved, in its meeting held on July 27, 1995, maintenance of 120 points vacancy-based roster [for Group A other than exempted posts (Points reserved in favour of OBCs-31, SCs-20, STs-9)] & B posts; and 100 points roster for Group C & D posts (Points reserved in favour of OBCs-27, SCs-21, STs-1) for direct recruitment at the Institute.

On the basis of Judgment passed by the Constitution bench of Supreme Court, the Government of India, Deptt. Of Per. & Trg., issued O.M. 36012/2/96-Estt.(Res.) dated July 02, 1997 vide which the above vacancy-based rosters have been revised into post-based rosters for the different category of employees in direct recruitment. The Board after due consideration accorded its approval, in its 1997/5th meeting held on December 05, 1997 for maintenance of post-based rosters.

Further, the Board of Governors of the Institute (in its meeting held in May 2004, vide item no. 2004.2.13) has considered and approved the proposal for grouping of staff for the purpose of reservation and separate grouping of technical and non-technical posts. The proposal was as follows – the posts under Group-A, B, C & D would be grouped separately for technical and non-technical posts. However, there would be a single group under Group-D. Under this dispensation, there would be seven groups in all and as far as possible efforts would be made to provide adequate representation of SCs, STs and OBCs to each post under the group. The proposal was approved in the context that grouping of posts would provide greater leverage for purpose of securing adequate representation for SCs, STs and OBCs in the Institute

As per Recruitment & Career Progression Scheme (in operation at present) which is personal promotion scheme (non-vacancy linked promotion scheme), there is no promotion - based on vacancies, hence reservation in career advancement is not applicable.

Concessions/ Relaxations:

- (a) The upper age bar in the Institute (as per RCPS) is as follows: Group C&D Posts – 18 to 27 years; Group B Posts – 32 years. Relaxation in age is admissible as per Central Govt. Rules. For employees of IITs who are educationally qualified can be considered for direct recruitment across the whole IIT system up to a maximum of 50 years of age. The due relaxation in upper age is made available for SC/ST, OBC, PH and Ex-servicemen candidates as per Central Govt. Rules. There is no upper age limit for Group-A Officers at the Institute.
- (b) SC/ST and PH candidates are fully exempted from payment of application and registration fees:
- (c) To and fro TA is being paid to the candidates of all categories out of Kanpur to attend the interview [For Group-A: 1st class/AC-III and for Group B, C & D: 2nd class rail fare];
- (d) Experience requirement is relax able at the discretion of competent authority.

Employment notification etc.:

Advertisement/ Notification is released in the Employment News with details of concessions/ relaxations to SC/ST & OBC candidates and the number of posts reserved available for them. A copy of the Advt. is sent to AIR/ Doordarshan for

publicity. The copies of Employment Notices/ Notifications are sent to recognised SC/ST Welfare Associations for publicity among their members.

During the period of report, the detail of Advts. (internal/ external) issued through Recruitment Section is as under:

Advt. No.	Name of Post(s)	Pay Scale	No. of Vacancies					Total	Published in
			SC	ST	OBC	PH	UR		
1/2008	Librarian	Rs.16400-22400	-	-	-	-	1	1	All Editions of Dainik Jagran, Dainik Bhaskar, Amar Ujala Times of India, University News & Employment News
	Executive Engineer (Elect.)	Rs.10000-15200	-	-	-	-	1	1	
	Sr Lib. Information Asstt.	Rs.5500-9000	-	-	1	-	-	1	
	Junior Engineer (Elect.)	Rs.5500-9000	-	1	-	-	-	1	
	Jr Technical Supt.	Rs.5500-9000	-	-	-	1	1	2	
	Jr. Technical Supdt.	Rs.5500-9000	-	-	-	-	1	1	
	Jr. Technical Supdt.	Rs.5500-9000	-	1	-	1	1	3	
	Junior Technician	Rs.3200-4900	-	-	1	-	1	2	
	Junior Technician	Rs.3200-4900	1	-	-	-	-	1	
	Junior Technician	Rs.3200-4900	1	-	-	-	1	2	
	Junior Assistant (Lib)	Rs.3200-4900	1	-	-	1	1	3	
2/2008	Principal Medical Officer	Rs.16400-20000	-	-	-	-	1	1	Circulated vide No. RA/Advt.1/2008-IITK/2023 dated July 22, 2008
3/2008	Principal	Rs.7500-12000	-	-	-	-	1	1	Circulated vide No. RA/Advt.1/2008-IITK/2111 dated July 28, 2008

4/2008	Superintending Engineer	Rs.14300-18300	-	-	-	-	1	1	All Editions of Dainik Jagran, Amar Ujala Times of India, Hindustan times & Employment News
5/2008	Ex. Engineer (Electrical)	Rs.10000-15200	-	-	-	-	1	1	All Editions of Dainik Jagran, Amar Ujala Times of India, Hindustan Times, Riktiyan Rozgar Samachar, University News & Employment News
	Asstt Ex. Engineer (Civil)	Rs.8000-13500	-	-	1	-	-	1	
	Asstt Phy. Edu. Officer	Rs.8000-13500	-	-	-	-	1	1	
	Physical Training Instructor	Rs.5500-9000	1	-	1	-	1	3	
	Junior Engineer (Civil)	Rs.5500-9000	-	1	-	-	1	2	
	Jr. Technical Supdt.	Rs.5500-9000	1	-	-	-	1	2	
	Jr. Technical Supdt.	Rs.5500-9000	-	1	-	-	1	2	
	Junior Assistant	Rs.3200-4900	-	-	1	-	3	4	
	Junior Technician	Rs.3200-4900	-	-	-	-	2	2	
	Junior Technician	Rs.3200-4900	-	-	-	1	1	2	
	Junior Technician	Rs.3200-4900	-	-	1	-	1	2	
	Junior Technician	Rs.3200-4900	1	-	-	1	1	3	
	Junior Technician	Rs.3200-4900	-	-	1	-	-	1	
	Junior Technician	Rs.3200-4900	-	-	-	1	1	2	
	Junior Technician	Rs.3200-4900	1	-	-	-	1	2	
	Junior Technician	Rs.3200-4900	-	-	-	-	2	2	
	Total		7	4	8	6	30	55	

The recruitment for all academic posts of Institute is made through the press/ professional journals/ circulars to educational institutes etc.

Inclusion of SC/ST Member:

One SCT and/or OBC member of comparable status is included in the Selection Committee as a full member. For the period of report, the detail of Selection/ Assessment Committee meetings held through Recruitment Section is given below:

For Selection	Total 19 Selection Committee meetings: 12 S/C meeting, wherein SCT/OBC representatives included 05 S/C meeting, wherein OBC representative included
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	02 S/C meeting, wherein SCT representatives included
For Assessment	No assessment committee meeting held during the period

Call letters for Interviews/ Appointment letters:

1. To ensure that the interview/ appointment letters are received by the candidates (including reserved category candidates) well in time - the interview/ appointment letters are being sent through UPC & registered/speed post or courier to ensure delivery.
2. Normally for interviews a minimum of three weeks' time and for appointments a minimum of one month's period of interval is being provided.

Reservation of Quarters:

1. The Institute has been allotting 1st in every ten qrs. to SC/ST employees, out of Type-1A, Type-1B Type-1 and Type-II Qrs. & 1st in every twenty qrs. in Type-III, and Type-IV Qrs. (only from the pool reserved for allotment to Officers other than faculty).

The available data related to house allotment is given below for the period under reference:

Type of house	Houses allotted to			
	SC/ST		GEN	Total
	As per Reservation	As per Seniority		
Type-IA	-	-	-	-
Type-1B	-	-	5	5
Type-I	-	-	5	5
Type-II	2	1	13	16
Type-III	-	-	26	26
Type-IV	-	-	23	23
Type - V & VI	No reservation		18	18

2. There is no reservation in the quarters of Type -V & VI (as these quarters are more or less allotted to faculty members and other eligible officers without any discrimination of caste and creed etc.)

Complaints/ Grievances:

No letter received for redressal of grievance of a SC/ST/OBC employee under the period of report.

Any Caste falsification brought to notice is also followed up by the Cell. No new case came in notice.

Apart from the above, the data, as available for showing the representation of SCs/STs & OBCs in other areas, is given below:

A. Academic Staff:

Area(s)	SC	ST	OBC	GEN	TOTAL
Appointments	-	-	-	31	31
Retirement	-	-	-	3	3
Deaths	-	-	-	1	1
Resignation	-	-	-	4	4
V/Retirement	-	-	-	-	-
C/Retirement	-	-	-	-	-
SVRS	-	-	-	-	-
Deputationists repatriated	-	-	-	-	-
Termination	-	-	-	-	-
Dismissal	-	-	-	-	-
Total	-	-	-	39	39

B: Non-Academic:

Area(s)	SC	ST	OBC	GEN	TOTAL
<u>Appointments</u>					
a) On permanent basis (Through open Recruitment)	-	-	-	-	-
b) On compassionate grounds	-	-	-	1	1
c) On deputation basis	-	-	-	-	-
d) On contract for 5 yrs	4	-	3+1#	9	16+1#
Total (a-d)	4	-	3+1#	10	17+1#
Retirement	6+4*	-	-	38	44+4*
Deaths	-	-	-	1	1
Resignation	1	-	3	3	7
V/Retirement	-	-	-	1	1
C/Retirement	-	-	-	-	-
SVRS	-	-	-	-	-
Deputationists repatriated	1	-	-	-	1

Termination	-	-	-	-	-
Dismissal	-	-	-	-	-
End of contract	-	-	-	1	1
Grand Total	12+4*	-	6+1#	54	72+1#+4*

PH

*Cleaners

Assessment of Group 'A' Officers (Non-Vacancy linked personal promotion)

Pay-scale		SC	ST	OBC	GEN	TOTAL
From	To					
-	-	-	-	-	-	-

Assessment under RCPS

Detail of Employees Assessed / designation changed etc. under RCPS during 2008-2009.

SL No.	Pay Scale		SC	ST	OBC	UR	Total
	Previous	Present					
1	2650-4000	3050-4590	1	-	-	2	3
2	3050-4590	4000-6000	-	-	-	5	5
3	3200-4900	4500-7000	-	-	2	2	4
4	4500-7000	5500-9000	4	1	-	4	9
5	5500-9000	6500-10500	2	-	-	6	8
6	6500-10500	7500-12000	1	-	-	-	1
7	7500-12000	8000-13500	-			1	1
Total			8	1	2	20	31

Change of Designation

SL No.	Pay Scale		SC	ST	OBC	UR	Total
	Previous	Present					
1	5500-9000	5500-9000	10	1	-	12	23
2	6500-10500	6500-10500	15	1	15	69	100
3	7500-12000	7500-12000	7	-	-	5	12
4	8000-13500	8000-13500	-	-	1	10	11
Total			32	2	16	96	146

In addition to above, the data, as available for showing the representation of SCs/STs & OBCs related to existing strength of the employees at the Institute, is given below:

A. Existing Strength of Academic Staff (Teaching/Non-teaching) as on 01.04.2009:

Recruited through DOFA Office

Academic	SC	ST	OBC	GEN	Total
Teaching	2	-	-	324	326
Non-Teaching	1	-	-	36	37
Total	3	-	-	360	363

B. Existing Strength of Non-Academic Staff as on 01.04.2009:

Recruited through Recruitment Section

Group	SC		ST		OBC		GEN	Total
A	5	16.12	0	0.00	4	12.90	22	31
B	66	21.00	7	2.22	29	9.23	212	314
C	37	21.39	4	2.31	34	19.65	98	173
D	40	23.80	0	0.00	10	5.95	118	168
Total	148+10*	21.57	11	1.60	77	11.29	450	686+10*

- Cleaners, not counted towards reservation.

The detailed summary of existing strength of non-academic staff as on 01.04.2009 and representation of SC/ST/OBC

Group/ Stream/ Mode	SC		ST		OBC		GEN	TOTAL
ANR	2	13.33	0	0.00	3	20.00	10	15
ANU	2	28.57	0	0.00	0	0.00	5	7
ATR	1	33.33	0	0.00	1	33.33	1	3
ATU	0	0.00	0	0.00	0	0.00	6	6
A	5	16.12	0	0.00	4	12.90	22	31

BNR	3	13.04	2	8.69	5	21.73	13	23
BNU	30	28.30	1	0.94	0	0.00	75	106
BTR	17	16.83	3	2.97	24	23.76	57	101
BTU	16	19.04	1	1.19	0	0.00	67	84
B	66	21.00	7	2.22	29	9.23	212	314

CNR	12	19.67	0	0.00	15	24.59	34	61
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CNU	2	12.50	1	6.25	0	0.00	13	16
CTR	16	21.92	1	1.37	19	26.02	37	73
CTU	7	30.43	2	8.69	0	0.00	14	23
C	37	21.39	4	2.31	34	19.65	98	173

DR	6	21.42	0	0.00	10	35.71	12	28
DU	34	24.28	0	0.00	0	0.00	106	140
D	40	23.80	0	0.00	10	5.95	118	168

CLEAN ERS	10*		0		0		0	10*
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TOTAL	148+10*	21.57	11	1.60	77	11.2 2	450	686+10*
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Abbreviations: SC-Scheduled Caste, ST-Scheduled Tribes, OBC-Other Backward Class, GEN-General, A, B, C & D - Groups, N - Non-technical, T-Technical, R- Recruited, U- Upgraded, * Not counted towards reservation

C. Existing Strength of Account-II Employees as on 01.04.2009:

Recruited Through DORD Office					
Group	SC	ST	OBC	GEN	Total
B	-	-	1	10	11
C	1	-	-	09	10
D	3	1	5	3	12
Total	4	1	6	22	33

D. Existing Strength of Mess Employees as on 01.04.2009:

Recruited through COW Office					
Group	SC	ST	OBC	GEN	Total
B	-	-	1	4	5
C	-	-	1	2	3
D	17	-	32	56	105
Total	17	-	34	62	113

The data as available for showing the representation of SCs/STs/ OBCs related to the students admitted in the 1st Semester 2008-09 in various programmes/ disciplines at the Institute is given below:

Programmes	Registration Data in the 2008-2009 I Semester				
B.Tech	SC	ST	OBC	GEN	Total
AE	4	1	3	19	27
BSBE	2	2	3	20	27
ChE	7	2	4	31	44
CE	9	8	6	40	63
CSE	6	3	3	26	38
EE	11	6	9	47	73
MME	6	5	7	46	64
ME	8	4	5	37	54
TOTAL	53	31	40	266	390

Programmes	Registration Data in the 2008-2009 I Semester				
M.Sc. (5 yrs)	SC	ST	OBC	GEN	Total
Chemistry	0	0	2	12	14
Economics	1	0	3	16	20
Mathematics	4	0	3	24	31
Physics	1	0	2	14	17
Total	6	0	10	66	82

Programmes	Registration Data in the 2008-2009 I Semester				
BT-MT (dual)	SC	ST	OBC	GEN	Total
AE	2	1	1	4	8
ChE	2	1	1	8	12
CE	3	1	1	12	17
CS&E	4	2	6	17	29
EE	4	2	2	16	24
ME	3	1	2	13	19
Total	18	8	13	70	109

Programmes	Registration Data in the 2008-2009 I Semester				
M.Sc.-PhD (dual)	SC	ST	OBC	GEN	Total
Physics	1	0	1	6	8
Total	1	0	1	6	8

Programmes	Registration Data in the 2008-2009 I Semester				
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M.Sc. (2 yrs)	SC	ST	OBC	GEN	Total
Chemistry	5	2	3	21	31
Mathematics	2	0	7	14	23
Statistics	0	0	3	17	20
Physics	3	1	3	13	20
Total	10	3	16	65	94

Registration Data of M. Tech. / MBA/ M.Des. Students of 2008-09-I Semester

Dept.	SC	ST	OBC	GEN	Total
AE	05	03	01	36	45
CHE	08	02	01	63	74
CE	10	-	01	77	88
EE	08	04	02	131	145
ME	11	01	02	85	99
MME	05	-	01	36	42
CSE	01	-	04	75	80
MSP	02	-	02	23	27
IME	04	-	-	20	24
MBA	10	02	-	86	98
NET	02	-	-	17	19
LT	01	-	01	07	09
EEM	01	-	02	28	31
BSBE	02	-	-	23	25
DES	05	02	02	22	31
	75	14	19	729	837

Registration Data of Ph D students of 2008-09-I Semester

Dept.	SC	ST	OBC	GEN	Total
AE	02	-	01	30	33
CHE	07	01	-	39	47
CE	01	-	-	33	34
EE	04	-	-	54	58
ME	05	01	01	63	70
MME	03	01	-	26	30
CHM	16	02	01	156	175
MATH	02	-	01	60	63
PHY M Sc- PhD (Dual)	05	-	-	78	83
HSS	02	01	-	46	49
CSE	01	-	-	14	15
MSP	01	-		10	11
STA	-	-	-	05	05
IME	02	-	-	20	22

NET	-	-	-	02	02
BSBE	05	01	02	54	62
TOTAL	56	07	06	690	759

RAJBHASHA PRAKOSHTHA

IIT Kanpur is an Institute of national importance where students from all over the country and abroad are admitted for higher education in Science, Engineering, Technology and Humanities disciplines. Therefore, the English language has been adopted as the medium of instruction/syllabus, research and academic activities.

Rajbhasha Prakoshtha was established in the Institute in September 1986. It has got its own office which is equipped with the two bilingual personal computers for smooth and efficient working. It is managed by a liaison Officer, Assistant Registrar, a Superintendent and two technical assistants (Translation) The Rajbhasha Prakoshtha is effortive in creating awareness of Hindi among the Institute employees. "Sansthan Rajbhasha Karyanvayan Samiti" constituted by the Director, monitors and provides guidelines to the Rajbhasha Prakoshtha in its planning and performance. The Rajbhasha Prakoshtha performs various activities like organization of Hindi Diwas, Hindi workshop and holds meeting for promoting the atmosphere of Rajbhasha in the Instiute round the year.

The Rajbhasha Prakostha has adopted the following policies:

1. Entire correspondence with Group D employees are done in Hindi.
2. All Hindi letters are replied to in Hindi.
3. All routine forms and the heading of Registrars have been printed bilingually in most of the department of the Institute.
4. The name plates, office stamps, sign boards, letters heads and the envelopes etc. have been made bilingual. Three Assistants have been trained in Hindi Stenography under the scheme.
5. Regular class of Prabodh, Praveen & Pragya for the Non Hindi speaking employess have already been started. Sixteen Non Hindi speaking employees have been trained in Prabodh and Praveen and Pragya.

The act and the Statutes of the Institute have been made bilingual.

The Annual Report of the Institute for 2007-2008 and the Audit Report 2007-2008 received from the Account Section/AG,UP were translated into Hindi and fair copies typed for submission to the ministry.

The press release and invitation cards for the Convocation were issued bilingually. All periodical reports were sent to the Ministry and the Nagar Rajbhasha Karyanvayan Samiti in time.

In compliance with the directives of Official Language Department, New Delhi, Hindi week was observed by conducting various competitions and on 15 Sept. 2008 Hindi Diwas samaroh was held in the Lecture Hall complex, in which winners of the various competitions were honoured with suitable books awards.

Following Competitions were held from 09.09.08 to 15.09.2008.

- a) Dictation competition (Fourth class employees)
- b) Hindi essay competition
- c) Dictation competition (Non Hindi Speaking employees)
- d) Noting Drafting competition
- e) Poetry recitation competition

Winner of above competitions were as under :

A) Dictation competition (Fourth class employees)

- 1. Smt. Pramod Tripathi (First)
- 2. Shri Shiv Shanker Tiwari (Second)
- 3. Shri O.P.Yadav (Second)
- 4. Shri P.S. Negi (Third)

B) Hindi essay competition

- 1. Shri Rajesh K. Srivastava (First)
- 2. Shri Yawar Husain (Second)
- 3. Shri Ram Lakhan (Third)

C) Dictation competition (Non Hindi Speaking employees)

- 1. Shri Binu S. (First)
- 2. Shri Goutam Karmakar (First)
- 3. Shri Namdeo Murkhey (First)
- 4. Shri Pradeep Sahoo (Second)
- 5. Shri Shiv Nath Pal (Third)
- 6. Shri Lokesh Malgey (Third)

D) Noting Drafting competition

- 1. Moh. Nizam Khan (First)
- 2. Shri Tej Prakash Sharma (Second)
- 3. Shri Saneep Kumar (Third)

E) Poetry recitation competition

- 1. Shri Ram Lakhan (First)
- 2. Shri Rajesh K. Srivastava (Second)
- 3. Shri Somnath Danayak (Second)
- 4. Shri Hari Singh (Third)

In Hindi Diwas samaroh 16 Institute employees were honoured whose working in official language.

During the year 2007-08 about 193 letters from Directorate, 237 letters from Registrar's office, 379 letters/circulars from Administration Section and 467 letters from others were issued in Hindi.

Rajbhasha Prokoshtha is dedicated to the upliftment of Hindi at the Insitute. It is always prepared to co-ordinate with each and every department of the Institute in the implementation of the orders and directives received time to time from the Ministry of Human Resources & Development, Govt. of India.

MEDIA TECHNOLOGY CENTER

Data Missing

FINANCE

The Ministry of Human Resources & Development (MHRD) has released Rs. 11348.00 lakh as Non-Plan Grant, Rs. 6817.00 lakh as Normal Plan Grant and Rs. 7256.75 lakh as Plan (OSC) in the financial year 2008-2009.

NON-PLAN

The total receipt under Non-Plan during the financial year 2008-2009 from Ministry of Human Resources & Development, Government of India is Rs. 11348.00 lakh including Rs.2518.00 lakh towards 40% arrear and revised pay and allowances as per 6th CPC to both faculty and non-faculty w.e.f 01.09.2008. The Internal Receipts of Institute is Rs. 2241.13 lakh.

The Total Non Plan expenditure during the financial year 2008-2009 comes out to Rs. 13311.71 lakh.

NORMAL PLAN

A total receipts under Normal Plan during the financial year 2008-2009 is of Rs. 6817.00 lakh under Plan from the MHRD, Government of India.

The total expenditure under Normal Plan is restricted to Rs. 6096.20 lakh. This expenditure includes Rs. 3127.16 lakh on Building & Works and Central AC Facility, Rs. 2256.16 lakh on Non-Consumable purchases including Equipment, Furniture & Fixtures etc., Rs. 635.83 Lakh on Library Books, Digitalization of Library and Periodicals & Journals and Rs. 77.05 Lakh on Recurring Expenditure such as Pay & Allowances and Initiation Grant of New Recruits.

PLAN (OSC)

A total receipts under Plan (OSC) during the financial year 2008-2009 is of Rs. 7256.75 lakh under Plan from the MHRD, Government of India.

The total expenditure under Normal Plan is restricted to Rs. 6208.59 lakh. This expenditure includes Rs. 2729.50 lakh on Building & Works and Central AC Facility, Rs. 2521.12 lakh on Non-Consumable purchases including Equipment, Furniture & Fixtures etc., Rs. 601.77 Lakh on Library Books, Digitalization of Library and Periodicals & Journals.

INCOME AND EXPENDITURE UNDER MAJOR HEADS

Sl. No.	Particulars	Income (Rs. In Lakh)	Expenditure (Rs. In Lakh)
1	Non- Plan	13589.13	13311.71
2	Normal Plan	6817.00	6096.20
3	Plan (OSC)	7256.75	6208.59
3	GPF/CPF	1460.49	760.06 (Non Plan)*
4	JEE	452.50	497.24 (Non Plan)* 0.54 (Plan)
5	GATE	226.67	179.36 (Non Plan)* 2.36 (Plan)
6	GATE (JMET)	298.28	282.37 (Non Plan)*
7	Research & Development	1268.12	247.74 (Non Plan) 101.33 (Plan)
8	Deans Capital Fund	61.37	17.57 (Non Plan)* 14.17 (Plan)
9	Hall Management	520.18	523.08 (Non Plan)*
10	Fund Hall Management	71.61	43.86 (Non Plan)*
11	Pension Hall Management	51.61	66.75 (Non Plan)*
12	Student Gymkhana	29.74	28.47 (Non Plan)*
13	Visitors Hostel	86.04	78.60 (Non Plan)*
14	Endowment Fund	1329.68	415.60 (Non Plan)
15	GATE (JAM)	82.86	161.40 (Non Plan)*
16	New Pension Scheme	6.09	00.01 (Non Plan)*

Endowment Report

The total amount of donation received during 2008-09 was Rs. 5.12 crore contributed by 974 donors as compared to Rs. 5.96 crore contributed by about 1017 donor in 2006-07.

Many new chairs, students scholarships and awards have been instituted during the financial year.

Partial travel support from the donations enabled 95 students for participation in international conferences during 2008-09. The support ranges from Rs. 20,000 to Rs. 40,000 per student.

Partial travel support from the donations enabled 11 new faculty members for participation in international conferences during 2008-09.

In the year 2008-2009 cash award for publishing journal papers in journal was given to 155 students of IITK.

The following expenditure were made during 2008-09 for various DRPG activities.

S.No.	Project Title	Total Amount
1-	Opportunity College Project	2,46,642.00
2-	Development of Campus School	941684.00
3-	SURGE Program	7,07,034.00
4-	Cash Award to Students	12,50,000.00
5-	Travel Support to New Faculty	4,98,036.00
6-	Travel Support to Students	33,92,644.00
7-	General Corpus Fund	91,72,020.00
8-	Patent Filing	9,36,311.00
9-	Contract Workers Welfare Relief fund	50,000.00
10-	Prabhu Goel Research Centre for Computer Security	16,63,520.00
11-	N. Rama Rao Chair	13,52,864.00
12-	New CSE Building Maintenance Project	1,07,333.00
15-	Research I-Foundation	74,11,129.00
16-	Research and Outreach Activities in earthquake engineering	18,00,208.00
17-	Research and Outreach Activities in Solar Energy	4,34,910.00
18-	Student Gymkhana Activities	1,00,000.00
20-	Shiksha Sopan	97,275.00
	Total	3,01,61,610.00

FACILITIES TO STUDENTS

1. RESIDENTIAL ACCOMMODATION FOR STUDENTS

Hall of Residence:

IIT Kanpur is a residential Institute and thus requires that all students registered for a degree programme in the Institute reside in the Campus itself. Therefore, all students except (i) married students who are allotted alternative accommodation in single bed room apartments (SBRA) and (ii) students who are wards of campus residents, are provided room accommodation in the Halls of Residences with mess and other facilities. Students, who are wards of campus residents, as a special case, are permitted to stay with their parents on the campus.

The Institute has nine Halls of Residence for boys, namely Hall I to Hall X, and two for girls (GH) with total capacities of 3800 and 450 for boys and girls respectively. In addition, there is accommodation for 72 students in single bedroom apartments (SBRA).

The Halls have single and double seated rooms. Presently, most of the senior undergraduate and all post graduate students are given single-seated rooms, while most of first and second year and some third year B. Tech. and M.Sc., (Integrated) students and 1st year M. Sc.(2 Yr.) are living in double seated rooms. Each Hall has a mess of which every hall resident is a member. The Halls of Residence also have a well subscribed reading room, TV room, TT rooms, PC room, badminton and volley ball courts, canteen, library (with the books on general topics) and several hobby clubs. The affairs of these amenities in each Hall are managed by (i) the respective committee of students for the amenities and (ii) a central Hall Executive Committee (HEC) under the overall guidance and supervision of three wardens (two for Hall-VI). The overall management of the Halls of residence is through the central Hall Management Council (HMC). The Council of Wardens (COW) looks after the affairs of mess workers.

In addition to students, staffs working in various research projects of the Institute are also provided accommodation in the halls depending upon the availability of the rooms. The boarding and lodging arrangements for the participants of conferences and short-term courses are also made in the Halls of Residence.

Single Bed Room Apartments (SBRAs)

Depending on the availability, the accommodation in single bedroom apartments (SBRA) is provided to married students. In exceptional cases bachelors, on specific medical grounds, may also be provided SBRA accommodation. A Married Students Welfare Committee (MSWC) manages the affairs of SBRAs under the supervision of the Warden-in-Charge.

2. FINANCIAL ASSISTANCE TO STUDENTS

All possible efforts are made by the Institute to render financial assistance (i) in the form of scholarships and (ii) short-term loans to needy and deserving students during their stay at the Institute. Short-term loans are given to some students, depending on the requirement of the case, out of the Students' Benefit Fund (SBF) so that their minor financial emergencies are overcome. The details of the financial assistance offered to the students at the Institute are given below:

Loan	Short Term	Long Term
Short Term/Long Term	25	3

Student's Benefit Fund (SBF) also provides scholarships of the value of Rs. 1200/- per month to the needy students. 59 scholarships from the SBF were provided during the year 2008-09.

SCHOLARSHIPS FOR UNDERGRADUATE STUDENTS

Merit-cum-Means scholarships of the value of Rs. 1000/- per month with tuition fee waiver are awarded per semester to students up to 25% of the total strength enrolled in each of the batches of the B. Tech., M. Sc. (Integrated), B. Tech-M. Tech. Dual degree and M. Sc. (2-year) programmes provided that the income of their parents does not exceed Rs. 2,00,000.00 per annum. SC/ST students not in receipt of scholarships from any other source including the State Governments or Directorate of Harijan and Social Welfare are eligible for the Free Basic Mess (scholarships).

In addition, several students of the B. Tech. /M. Sc. (Integrated) and M. Sc. (2-year) programmes are in receipt of the financial assistance through scholarships, stipends and grants from Central and State Governments, Directorate of Education and other organizations. Table-I shows various scholarships awarded to undergraduate students during 2008-09.

TABLE-I (A): Scholarships for B. Tech. / B. Tech.-M. Tech. Dual degree/ M. Sc. (Integrated) 2008-09

Undergraduate Scholarships	Year				
	I	II	III	IV	V
MCM @ Rs. 1000/- p.m. with Freeship	117	89	95	95	07
Freeship	---	13	19	09	--
Free Basic mess plus Pocket Allowance @ Rs.250/- p.m.	45	48	55	33	8
Anurag Bartaria	---	---	1	---	---
Arakere and Karen Vasudev	--	--	1	--	---
Baljit and Nirmal Dhinsa	1	1	--	--	--
BGM Kumar Foundation	1	--	--	--	--
Bhuwan and Indira Joshi	--	--	--	1	--

Bishambar Gupta and Anguri Gupta	--	--	1	--	--
Biswanath Jha Memorial	--	--	1	--	--
Dharmavati Garg	--	--	--	3	--
Dr. D.R. Bhagat	--	--	2	--	--
Dr. Gurcharan Singh Kainth	--	1	1	1	--
Dr. K.P. Gupta	--	--	1	--	--
Govinda and Indira Srikantiah	--	--	1	--	--
Guru Ji Ghasit Ram	--	--	1	1	--
Hari Mohan and Pushpa Srivastava	--	--	1	--	--
Harish and Sushila Chandra	--	1	--	--	--
I.W.A. Bonn	--	1	2	--	--
Indra Dhanush Awards	--	--	--	--	1
Jamuna Prasad and Basanti Gupta	--	--	1	--	--
K. N. Saluja	2	2	2	--	--
Khem Chandra Yadav	--	--	2	--	--
Kinra	1	--	1	1	--
Kunta Jha	--	--	--	1	--
Mahesh & Shashi Chandra	--	--	--	1	--
Mathur Brothers	1	--	--	--	--
Mona and Paramjit Singh	--	--	1	1	--
N.S. Rajaraman	--	1	--	--	--
Neeraj Kapoor Memorial	--	--	--	1	--
Neta Ji Balwan Singh	1	--	1	--	--
Nita Goyal and Ashish Gupta	1	--	1	1	--
P.D.Murti Memorial	--	1	1	1	--
Pratima Ghosh Memorial	---	--	1	--	--
Prof. C.N.R. Rao Science Talent	--	--	--	1	--
Prof. Netarlal Kapur	--	--	1	--	--
Pt. Balajee Govind Hardikar Memorial	1	--	--	--	--
Ram Rajendra Malhotra Education Society	3	--	--	--	--
Romesh Chandra Memorial	--	--	--	2	--
Sarpanch Salik Ram Katiyar	--	--	1	1	--
Shanti Devi and Omkar Nath Maewal Memorial	--	--	1	--	--
Shiv Kumari Shukla	--	--	1	--	--
Shiv Prakash and Dayawanti Sharma	--	1	---	--	--
Shri D.P. Shukla	--	---	--	1	--
Shri Kalp Nath Singh	--	--	1	--	--
Simran Mandeep Kainth Memorial	--	1	1	1	--
Smt. Jagat Kaur Memorial	--	--	1	--	--
Sri Singhasan Singh	--	--	2	--	--
Sri Temasek@iitk	1	--	--	--	--
Tapan Kumar and Swapna Bandhyopadgyay	--	--	--	1	--
Vasudeo Laxman Sahasrabuddhe Vaidya	--	--	2	---	--

Yasodha Yadav	2	--	---	--	--
Yogendra Nath and Sushma Gupta	1	--	--	--	---
Pushpa Garg	1	--	--	--	--
Rajnath Singh Scholarship	--	--	--	1	--
Aedunuthula Prasad Memorial	--	--	--	1	--
Anil and Reshma Nigam	--	--	1	--	--
Swaminathan and Garg	--	--	1	--	--
I.W.A. Bonn	--	1	--	--	--
Dilip Kohli Memorial	--	1	--	1	--
Nitish Thakor	1	--	--	--	--
Sagnik Asis Ray	--	--	--	1	--
Vinay Kapoor Memorial Scholarship	--	--	1	--	--
Shrikant Mishra Scholarship	--	1	--	--	--
Bhawan Das Kapoor Memorial Scholarship	--	1	--	--	--
Sudarshan Kasturia Memorial Scholarship	--	--	--	--	1
Sport Scholarship	2	7	8	2	1
Dr. V. Rajaraman Scholarships	--	--	--	2	--
NTS Scholarships	29	13	17	7	1
State Merit Scholarships (AP)	--	1	1	--	--
Post Metric Scholarship Gwalior	--	--	--	1	--
Post Metric Scholarship, AP	1	2	--	--	--
Post Metric Scholarship, Kadapa	--	1	--	--	--
Senior Secondary Board, Rajasthan, Ajmer	--	--	--	1	--
FAEA Scholarship	--	1	--	--	--
SAIL Scholarship	--	1	--	--	--
SC/ST Welfare Deptt, Tekamgargh	1	--	--	--	--
Board of Secondary Education, Rajasthan	--	--	--	1	--

TABLE-I (B): Scholarships for M. Sc. (2-year)/ M. Sc. - Ph. D. Dual degree 2008-09

Undergraduate Scholarships	M. Sc. (2-years)	
	I-year	II-year
MCM @ Rs. 1000/- p.m. with Freeship	44	29
Freeship	--	4
Free Basic Mess Plus Pocket Allowance @ Rs.250/- p.m.	10	07
FBM Plus Pocket Allowance @ Rs.250/- p.m. for Prep.	18	---
ACC Scholarships	1	--
Smt. Durga Devi Memorial Scholarship	--	1
Jasmine and Mohiuddin Scholarship	--	1
Ramesh Chandra Yadav Scholarship	1	1
Seema Jain Memorial	--	1

POSTGRADUATE STUDENTS

The amount of teaching/research assistantship or fellowship for M. Tech. students is Rs. 8000/- per month while that for Ph. D. students in engineering disciplines is (a) Rs. 14000/- for first two years and (b) Rs. 15,000/- for subsequent years. The amount of assistantship or fellowship for Ph. D. students in Sciences and Humanities & Social Science is (a) Rs. 12000/- per month for the first two years of their programmes and (b) Rs. 14000/-per month for subsequent years & Rs.15000(in 5th year), with stipulation that these students are expected to devote up to eight hours per week towards job(s) assigned to him/her.

EDUCATIONAL GRANTS TO POSTGRADUATE STUDENTS

The Institute gives financial assistance to the M. Tech. / Ph. D. students who are in receipt of Institute scholarship in the form of grant for (a) the preparation of thesis, (b) purchase of books and stationary items and (c) charges for photocopying. The amounts of grants given under these heads are summarized in Table-II.

Table-II: Amount of Educational Grants given to Postgraduate Students

S. No.	Items of Expenditure	Ph. D.	M. Tech.
1.	Thesis Preparation Aid	3,000.00	750.00
2.	Purchase of Stationary Items and payment of photocopying charges or purchase of books	5,000.00	1000.00

3. SPECIAL ASSISTANCE TO SC/ST & OBC STUDENTS

Rules for admission to undergraduate programme through JEE are relaxed for the SC/ST categories of students. 15% of seats are reserved for the Scheduled Caste (SC), 7.5% for the Scheduled Tribes (ST) students & 18% seats are reserve for OBC (for non-creamy layer). A separate merit list is drawn for those OBC & SC/ST students, who appear for the Joint Entrance Examination. Cut-off point for calling them for the Counselling and thereafter for the offer of admission is based on the relaxed criteria.

In addition, SC/ST students are also selected from among the list of students who do not qualify for the admission for a one-year preparatory course scheme.

All the SC/ST category students get tuition fee waiver irrespective of their parent's income. Concession of free messing (basic menu only) plus pocket allowance of Rs. 250/- per month and room rent exemption are admissible to these SC/ST category students whose parents income does not exceed Rs. 2,00,000/- per annum, in the previous financial year.

While granting any financial assistance other than the teaching/research assistantship or fellowship available to all the students, including SC/ST students, the SC/ST students are given special consideration.

4. AWARDS AND PRIZES TO MERITORIOUS STUDENTS

The students at IIT Kanpur are engaged throughout their programme in various academic, co-curricular and extracurricular activities. The outstanding students are given various awards and prizes for their achievements in their activities. Table-III shows the awards and prizes given during 2008-09. In addition, 7% students in order of merit in each year are given a Certificate of Merit and a cash prize of Rs. 400/- for UG and Rs. 600/- for PG students.

TABLE-III: AWARDS AND PRIZES (2008-09)

S. No.	Awards and Prizes	B. Tech./ M. Sc. (Intg.)/Dual degree	M. Sc. (2-Year) / Dual degree
1	President Gold Medal	1	--
2	Directors Gold Medal	1	--
3	General Proficiency Medal	22	5
4	Proficiency Medal	15	3
5	Cadence Gold Medal	1 (M. Tech)	
6	Cadence Silver Medal	1	--
7	Prof. Adidam S. R. Sai Memorial Gold Medal	1 (M.Tech.)	
8	Prof. Adidam Sri Ranga Sai Memorial Medal	1	--
9	Ratan Swarup Memorial Prize	1	--
10	Banco Foundation Prize (ME)	1	--
11	Dr. Shanker Dayal Sharma Medal	1 (M.Tech)	
12	Prof. Vijay Mahajan Gold Medal	1 (MBA)	
13	Batra Gold Medal	1	--
14	IEEE/Pedes'96 Award	2 (M.Tech.)	
15	Bhagwani Devi Maheshwari Gold Medal	1	--
16	Prof. Bal Deva Upadhyaya Memorial Gold Medal	1 (M.Tech.)	
17	Mars G. Fontana Prize (MME)	1	--
18	N. Balakrishnan Award	--	1
19	Prof. J. N. Kapur Prizes	2	1
20	Smt. P. K. Subbulakshmi Memorial Award	01 (M.Tech.)	
21	Gargi, Kritika & Maitreyi Awards	3	--
22	Jayesh Memorial Award	4	--
23	Dr. Sangeeta Goel Memorial Award	1	--
24	Notional Prizes (UG)	138	8
25	Notional Prizes (PG)	56 (M. Tech.)	
26	O. P. Bajaj Memorial Award	1	--
27	Aditya Birla group of Industries Scholarships	6	--

28	OPJEMS Scholarship	4	--
29	GE Fund Scholarships	2	1 (M.Tech.)
30	Aviation Development Award	14	
31	Goldman Sachs Global Leaders Program	4	--
32	Mehta M.Tech. Gold Medal Award	1 (M.Tech.)	
33	Best Software Award	1 (M.Tech.)	
34	Binay Kumar Sinha Award	4	--
35	IITK Excellence Award for Leadership in Students' Affairs	4	--
36	IITK Excellence Award in Art & Cultural Activities	1	--
37	IITK Excellence Award in Community Service	1	--
38	Sports Prize	77	--
39	GDB Memorial Distinguished Teacher Award	1 (Prof. B.N. Banerjee, ME)	

5. ACTIVITIES OF STUDENTS' GYMKHANA

As mentioned above, academic activities are only one facet of student's life at IIT Kanpur. Our students actively participate in various extra and co-curricular activities focussed towards the holistic development of their mind and body. The year 2008-2009 also saw a very active calendar in the form of various games and cultural events.

GAMES AND SPORTS ACTIVITIES

In the arena of sports IIT Kanpur came up with a creditable show in the inter IIT sports meet held at IIT Bombay. The team finished fourth in the General championship and had a number of podium performances both in the team and individual events. To strengthen the sports culture, an inter-hall games event called JOSH was also organized which witnessed mass participation from the students.

The Tae-kwon-do Club is growing slowly but steadily. The Club has now more than two hundred members who come regularly. The Club is also taking out students to take part in the District Championships where the students performed credibly.

Udghosh'

Udghosh, the annual sports festival of IIT Kanpur was held this year from Sept 18th to 21st. The festival saw colleges from Tamil Nadu, Madhya Pradesh, Rajasthan, Delhi, West Bengal and Sikkim, spanning the length and breadth of the country. Udghosh'08 witnessed a higher competition level than last year with the home team winning in 5 out of the 12 team event. A novel addition to the festival was the Mini Marathon which attracted participation from various sections of the campus community including the staff. The Kanpur was honored to have Mr. Abhin Shyam Gupta, the only Indian to have won the French Open in badminton, as a guest in the festival. This Arjuna awardee also played an exhibition match with the institute team.

Udghosh'08 witnessed around 800 participants from all over the country. Total of 14 colleges participated in Udghosh. The number of IITK contingent was around 200.

All the colleges played the games in full spirit and enthusiasm. The cooperation shown by the teams was commendable as they had to play in a packed schedule due to untimely rains at the time of Udghosh '08.

The participants were quite satisfied with the Hospitality of IIT Kanpur and the keenness of the organizing team to sort out their problems at the earliest. The dedicated team of volunteers of the Security team along with the HECs of different halls and the S.I.S. ensured smooth conduction of the festival. No untoward incident took place and all of the participants and particularly the IITK students cooperated well to maintain the discipline during the festival.

This year we had brought in International Sports brands to sponsor in Udghosh. Apart from sports related companies we had IMS and SBI as sponsors.

The opening ceremony was held on 18th September, 2008. Prof. S G Dhande, The Director, IIT Kanpur was the chief guest with Prof. R K Thareja and Prof Partha Chakraborty being the other dignitaries at the ceremony. A march past of all the college contingents was escorted by the Band of Opportunity School, IIT Kanpur. The March past was followed by the oath taking ceremony by all the contingent leaders. After this the chief guest and other dignitaries addressed all the participants. The fire cracker show in the end of the ceremony opened Udghosh'08.

All the events except lawn tennis were held this year. This year new events were added to Udghosh such as Skating, Weightlifting and Taekwondo. Chess was conducted as a formal event this time with extremely competitive teams invited to play chess from all over the country. Huge participation was seen from the institute crowd in the informal events conducted in SAC.

The competition level of Udghosh touched unprecedented heights this year. The institute team won in 5 of 12 team events. We were able to call some of the best teams from all around the country. League format was used in most of the games so that all the teams get an ample change to compete.

The closing ceremony was held in Lecture Hall 7 on 21st Sept. 2008. Arjuna Awardee Mr. AbhinShyam Gupta graced the event. The ceremony commenced with the motivational address by the Chief Guest. Following the address, winners of various events were awarded certificates, medals, mementoes and shields. Dr. Anupam Saxena, Festival Chairman, Udghosh'08 delivered the Vote of Thanks.

Antaragni'08

Antaragni'08 was successfully organized from October 23rd to 26th, 2008. The festival witnessed participation from 1824 outstation participants from nearly 100 colleges all across the country. The festival was officially inaugurated on October

23rd in the Main Auditorium with the address by the Deputy Director of IIT Kanpur, Dr. R K Thareja, who welcomed the participants to the festival and urged everyone to uphold the spirit of participation. The ceremony also saw the unveiling of the trophies for the General Championship and the 8 group championships. These championships were instituted for the first time with aim of uplifting the level of competitions at Antaragni and making the festival synonymous with competitive excellence.

Competitions at Antaragni'08 were grouped in 8 sub categories namely, Dance, Dramatics, English Literary, Films Photography & Media, Fine Arts, Hindi Literary, Music and Quiz.

After four days of high quality competitions, IIT Kanpur emerged with the maximum cumulative points, followed by Kirori Mal College from Delhi University in second place. IIT. Kanpur also topped 5 out of the 8 categories of the competitions.

Numerous respected artists and experts as the judges for the finals of the competitions graced the festival. This was done on the basis of the suggestions and complaints from the participating teams about the level of judging in the previous years. The high level of expertise involved in judging the competitions this year was highly appreciated by the participating teams.

The competitions this year also saw the introduction of the new category of Films, Photography & Media consisting of a mix of competitions related to film making, photography, journalism and design. Special stress was put by the team in ensuring participation in these new competitions. A special movie hub was also created in the Media Center Lawns where critically acclaimed movies were screened for most part of the day. The dimension of a film and media festival was successfully added to Antaragni this year with the road ahead full of promises and improvements in strengthening this component of culture in the festival.

In addition to the above competitions, Antaragni'08 will also saw the Rock Competition Synchronicity, getting bigger and better than ever before. Appreciated for the spectacular rise in the level of the competition, Synchronicity saw 30 top bands shortlisted from among 200 bands from all corners of the country's rock fraternity, perform in the prelims. The finalists got a chance to open for the headlining act, Glyder at the Rock Nite. 'Dark Horizon' emerged as the winning band, pocketing a prize money of 1 Lac INR.

The Professional Shows this year showcased cultural and popular performances for the entertainment of the audience.

The Opening Show saw a special dance and drama performance by the cultural troupe from the Russian Academy of Theatre Arts. This performance was organized as part of the 'Year of Russia in India' celebrations. This was followed by a musical performance by Pt. Habib Khan, the world renowned exponent of Indian classical music. The Rock Nite was headlined by the Irish Rock sensation, Glyder who put together a scintillating performance for the rock loving audience.

The highpoint of the festival was however Blitzkrieg - the Professional Nite. The audience in the newly extended Auditorium Grounds were mesmerized by a musical performance by Shankar & Ehsaan & Loy and their troupe. The Nite also had a surprise for the audience in the form the

hugely popular Director□Actor□Singer Farhaan Akhtar, who performed along with Shankar□Ehsaan□Loy for the overjoyed crowd.

India Inspired: The topic of India Inspired was Youth & Politics: the perpetual blame game, where we debated on the imminent antipathy of the country's youth towards all matters relating to politics and governance. The panel discussion was graced by Mr. Rajeev Pratap Rudy (MP Lok Sabha), Mr. J M Lyngdoh (Former Chief Election Commissioner of India) and Mr. Vinay Rai (Founder, Rai Foundation) where they discussed why politics is not a popular career choice when compared to Medicine, Engineering or Commerce. The discussion by moderated by Mr. Abhigyan Prakash (Journalist, NDTV). The campaign also included a Manifesto Writing Competition and Essay Writing Competition. A Vote India Campaign was also run in an effort to motivate the youth of the country to come out and vote. As part of this a signature campaign and a survey was conducted in the run up to the festival in the hostel messes all over the campus.

Youth Summit: The Youth Summit saw representatives from colleges and schools converge in Antaragni'08 to work under the guidance of experienced mentors and formulate an action plan for the adoption of environment friendly measures in campuses all over the country. The Youth Summit had participation from over 25 representatives from the IIT's and other colleges and received support from the Delta Climate organization.

Kaleidoscope: The brand new addition to the festival, Kaleidoscope was aimed at exposing the audience to a wide range of workshops, exhibitions, talks and giving the audience a teasing taste of activities and opinions from all walks of life.

Workshop on Pottery by Ms. Mudita Bhandari (a renowned contemporary artis)

Workshop on Hypnotism and Dream Interpretation by Dr. Nita Yuvraj (a well known psychiatrist)

Workshop on Mocktail Making by representatives from TulleeHo.com

Talk on Movie Appreciation by Mr. Kunal Kohli (famous Bollywood movie director and film critic)

Talk on Shootout at Lokhandwala by Mr. Aftab Ahmad Khan (former DIG Police of Maharashtra and the character played by Sanjay Dutt in Shootout at Lokhandwal

Talk on 'Cooking for a Dinner Date' by Ms. Ritu Dalmia (world renowned chef)

Antaragni '08 was incident free with the security team performing exceptionally well.

MEGABUCKS 09

Megabucks 09 were conducted from 8th-11th January 2009. This year we conducted twelve competitions and six events. Two conferences were held, on Young Guns & Pioneers and Social Entrepreneurship, along with lectures and workshops by renowned dignitaries and firms. The events conducted are:

1. Opening Night

Andrew Horne (Vice President, South Asia, XEROX)

Jaya Jha, CEO and Founder, Pothi.com

Naveen Tewari, CEO and Founder, mKhoj.com

“Brainwave” – First of its kind Idea contest on the occasion of the launch of the awaited Entrepreneurship Cell. Top 25 ideas were appreciated with a sum of Rs. 2,000 each as prize money.

2. Young Guns & Pioneers:

Naveen Tewari (Founder & CEO of mkhoj.com)

Amit Kumar (Country Head, Grail Research)

Jaya Jha, CEO and Founder, Pothi.com

3. Social Entrepreneurship:

Arbind Singh (Social Entrepreneur of the Year)

Prema Gopalan (Founder of Swayam Shiksha Prayog (SSP))

S. Rajagopalam (Founder TIDE)

4. Workshops:

Workshop by NSE on the basics of trading and an insight on the share market

Workshop by Microsoft on Business Plan Essentials

COMPETITIONS

1. iDeas, the Business Plan Competition -

Prize Money : INR 2,00,000

2. Battlefield, the Case Study Competition

The biggest case study competition with three Corporate cases from Xerox, Technopak and IBM. We received 263 entries in total, from IIMs, IITs and other management and technical colleges.

3. Admad, the Advertisement Design Contest

The competition was conducted in 4 categories:

Video Ad, 26 Entries, Print Ad by Xerox Corp., 34 Entries ,Photo Ad, 47 Entries

Strategy Ad by Jet Airways, 13 Entries

4. HeadOn, the Debates

Dr. Sachin Phaniskar, VP, Business Standard

5. Mayhem, the Over-The-Counter Floor Trading Game

Workshop by National Stock Exchange (NSE)

6. Bulls & Bears, the Stock Market Simulator

7. Acumen, the Street Entrepreneurship Game

8. MarkStrat, the Marketing Strategy Contest

The game named “CXO” was conducted by Dr. Vinod Dumblekar. The event saw overwhelming participation from various colleges and we had to finally restrict the entries to 30 teams.

9. Cliffhanger, the Corporate Quiz
Quiz Master – Avinash Mudaliar

10. Kingpin, the Board Game Contest

11. Megaworld, the Virtual Microeconomy
The biggest and the most successful competition of Megabucks 09 with 1126 participants and total goodies worth 2 lakhs were auctioned.

This year, Megabucks received national coverage in its print media partners, Business Standard and Business & Economy which ran a series of articles and advertisements as a run up to Megabucks.

TECHKRITI

Techkriti'09 was successfully organized from February 12th – 15th, 2009.

The festival was officially inaugurated on February 12th in the Main Auditorium with the address by the Following personalities:

Director of IIT Kanpur, Dr. Dhande, Dean, Students Affairs, Dr. Partho Chakraborty
Festival Chairman, Dr. Mukesh Sharma, Guest of Honor, Dr. David Morrisson, NASA

Techkriti 09 saw a successful conduction of the following competitions:

Rube Goldberg Challenge -organized in Tutorial block and was judged by DOSA & DOAA. (2) Crypto Contest - online results (3) National spaghetti Bridge Design Channel - finals was open stage in SAC (4) Junkyard Wars - Final showdown was conducted live from SAC gate to main stadium gates. (5) Bio Business Plan (6) Turbulence (7) Cosmos (8) Eureka (9) Gearloose (10) Radio-Active (SDR Workshop: Foxhunt: Electro-buzz) (11) Online events:

Indian Open Rubik's Cube

1. Endeavour
2. School Bag:
(Science Exhibition, Mathematical Model Exhibition, Programming Contest, Audio Visual Quiz, Essay and Debate Competition, Robotics Workshop, Electronics Workshop, Astronomy Session, Interaction Session with faculty Members from IIT Kanpur)
3. Robogames :
 1. Robo-Ex: Build autonomous robots that can solve amaze and extinguish a fire.
 - (2) RoboWars: Manually controlled robots built for the fighting arena.
 - (3) Shoot on Sight: Manually controlled robots that can shoot wherever they want.
 - (4) Park ur Porsche: Solve the parking problem using autonomous bots.
4. International Online Hacking Contest:
5. Olymbiz:

(IBM INNOV8: Commercial Break: StockSim: Battle of Ideas: Revenge of the Nerds)

6. Software Corner:

(Open Software Contest : Gimmick :Instant: Chaos:)

7. Electronic Circuit Design Contest:

(Electromania: Embedded Design)

Conduction of Lectures and Panel Discussion

GCOSE- Lecture Series:

- Dr. Lee Hartwell – Noble Prize in Physiology
- Dr. Ron Eglash, Fractals Study.
- Dr. G Madhvan Nair – Chairman, Indian Space Research Organization(ISRO)
- Dr. David Morrison – Senior Scientist, Ames Research Center, NASA
- Dr. Stephen Wolfram – CEO, Wolfram Research
- Dr. Hanson – CEO of Hanson Robotics
- Deepak Munganahalli - Senior Vice President, Asia and Pacific Unit, Transocean Ltd
- Dr. Shahid habib, NASA
- Kanwal Rekhi – Venture Capitalist, IITB Alumunus

“Techkriti Conclave: Energy” – Panel Discussion

- Exhibitions from GTZ, TERI, TATA BP Solar on renewable and non-renewable sources of energy.
- Panelists :
 1. Dr. R B Grover,Director, Srategic Planning Group,Department of Atomic Energy
Government of India
 2. Shailja Sharma,Head, Shell Energy Scenarios
 3. Steve MyersPresident, Transocean India
 4. Anil Patni, Head, Communication and External Affair
TATA BP Solar

Tech-Planet:

The dome shaped arena covering the entire Convocation grounds was the landmark of Techkriti'09.It housed the following events:

- Endeavour
- Exhibitions
- Research at IIT Kanpur

Conduction of Exhibitions shows a workshop

3D Movie workshop and shows – US

Various 3D movie shows were conducted each comprising of 600 students at a time.

As per the overly enthusiastic response, we had to conduct repeated movie shows.

Interactive Screens – GestureTek, UK

They were placed in the Outreach auditorium and tech-Planet

Hanson Robotics - US

Zeno, the humanoid was on display for 4 days in Tech-Planet.

Conduction of Wrokshops

CUDA, NVIDIA

- Beagle Board Workshop, Texas Instruments, IBM, Innov8 – a BPM Simulator, Robotics workshop, Brics, Voice Apps, Simmortel, SDR workshop ,Telescope making workshop
- Conduction of Professional Night

We organized a laser cum pyro technic show of duration 1 hour on the closing night of Techkriti'09. This show was conducted by Thriller SFX Fireworks, Mumbai, India.

6. COMPULSORY PHYSICAL ACTIVITIES (CPA)

With the objective of a sound physical health and an all round development of personality of students, several co-curricular and extracurricular physical activities have been integrated as Compulsory Physical Activities (CPA) with the regular curriculum at IIT Kanpur. The streams of activities are:

1. Games and Sports
2. National Cadet Corps (NCC)
3. National Service Scheme (NSS)
4. Yoga
5. Tae-Kwando

All the 1st year students admitted in the B. Tech. /M. Sc. (Integrated) programme are required to exercise their option for one of the above activities at the time of registration under the course PE. The two courses PE 101 and PE 102 constitute Compulsory Physical Activities (CPA) at IIT Kanpur.

NATIONAL CADET CORPS (NCC)

1. It is a matter of grate pride that the National Cadet Corps (NCC) has been spearheading the youth movement in the country. It has played an important role in propagating the ideals of secularism, national integration and selfless service, which are ever so essential in the present day context. During the past 56 years, the NCC has come a long way. It has grown into a vibrant youth organization and has made substantial contribution for creation of disciplined, and well- motivated citizens, ready for service of the nation. Its credentials as the largest youth organization engaged in grooming the youth and endowing them with qualities of character, comradeship and leadership are unquestionable.

2.The NCC is authorized and administered by the Govt. of India as an integral part of its National Plan. For the successful implementation of the NCC Programme, the scheme has been inter-woven with the National Education Programme. In order the thoroughly groom the NCC cadets to be tomorrow leaders, they are exposed to every

facet of the multi-dimensional training programme in as realistic a manner as possible. Due emphasis is given to constantly update and refine training method and ensure its proper implementation. The NCC training strives to inculcate in cadet the qualities of leadership, discipline, courage and corporate living, which stand them in good stead in whatever vocation they choose. The various activities undertaken by the NCC cadets, such as mountain craft, rock climbing, skiing/jumping, camping, gliding and flying and sea faring provide students an immense opportunity to be nature friendly and helps in self discovery.

NATIONAL SERVICE SCHEME (NSS)

The Scheme provides the most diversified opportunities to the students to upgrade their personality through social add community service of different variety, suiting different aptitudes and needs. Special emphasis is laid on tutorial assistance to the weaker sections of the campus. The students volunteers participated in teaching at the opportunity school. Some volunteers visited nonformal schools. NSS volunteers visited nearby villages for distributing books and demonstrating science experiments.

YOGA

Classes to train students in Yoga, as one of the stream of PE courses, were conducted during both the semesters of 2008-2009 successfully by a yoga teacher. These classes included Joints and Glands exercises, Asanas (Postures) in standing, sitting and lying positions, Mudras (Gestures), Bandhas (Locks), body cleansing Kriyas (techniques); Pranayama (Breathing exercises) and Meditation. Counselling is also provided to students for solving their personal physical, mental and emotional problems through yoga.

TAE-KWON-DO

The new scheme of Tae-Kwon-Do as approved by the Senate was introduced from the year 1998-1999. It was found to be extremely popular.

7. SWIMMING POOL

Institute has a full size (50x20 meters) Swimming Pool for its students, faculty and staff and also for their family members. The membership is open to all on payment of a nominal fee. Arrangements have been made to coach beginners in swimming. To ensure maximum safety of the members, life-guards are engaged. The exact rates for these sessions are fixed and notified by the Swimming Pool Management Committee, for regular memberships as well as guest charges. The Pool has been operating for 7 months in a year, i.e. from April to October on monthly basis. Pool is operating in the morning as well as evening hours i.e. 5:30 am to 8:15 am and 3:30 pm to 8:00 pm divided into 45 minutes slots with 15 minutes free time in between. Swimmers and non-swimmers are separated.

8. COUNSELLING SERVICE

Counselling Service has remained committed to serving the student community from the year of its inception in 1964. Over all these years, its domain of activities has extended as much as its team of volunteers (students and faculty members) and professionals (counsellors and psychiatrists). Thus, for the session 2008-2009, it functioned under the able guidance of Prof. A. K. Ghosh with a team of 110 UG student members, 50 PG student members, 90 faculty members, one professional counsellor and two psychiatrists.

Student Guide Workshop and Orientation Programme:

Like every year, the activities of the Counselling Service started with a two day workshop for all the student guides selected to assist the new students. They were sensitized to various issues that the new students may face, through sessions with faculty members, psychologists, and senior students. This was followed by the '*Orientation Programme*' for the new UG and PG students that spanned over a period of 3 days.

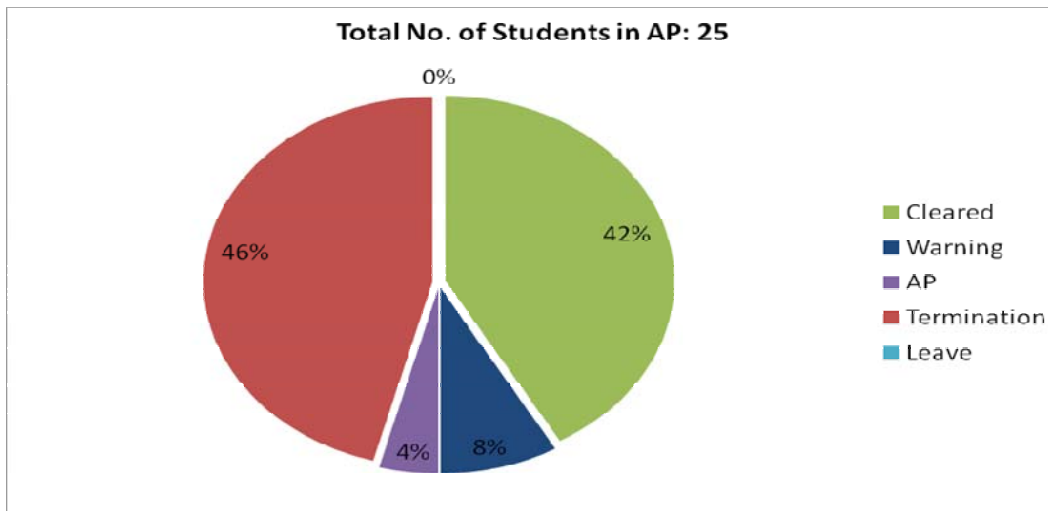
During this period the student guides not only helped the new students to settle down comfortably in the new environment, but also assisted them in completing various official procedures like opening up new bank accounts, making identity cards, getting health-center booklet, computer centre logins as well as completing the academic registration process. Apart from that, the student guides developed a friendly relation with their counselees and helped them tackle the academic and non-academic issues they faced throughout the year.

Academic Help:

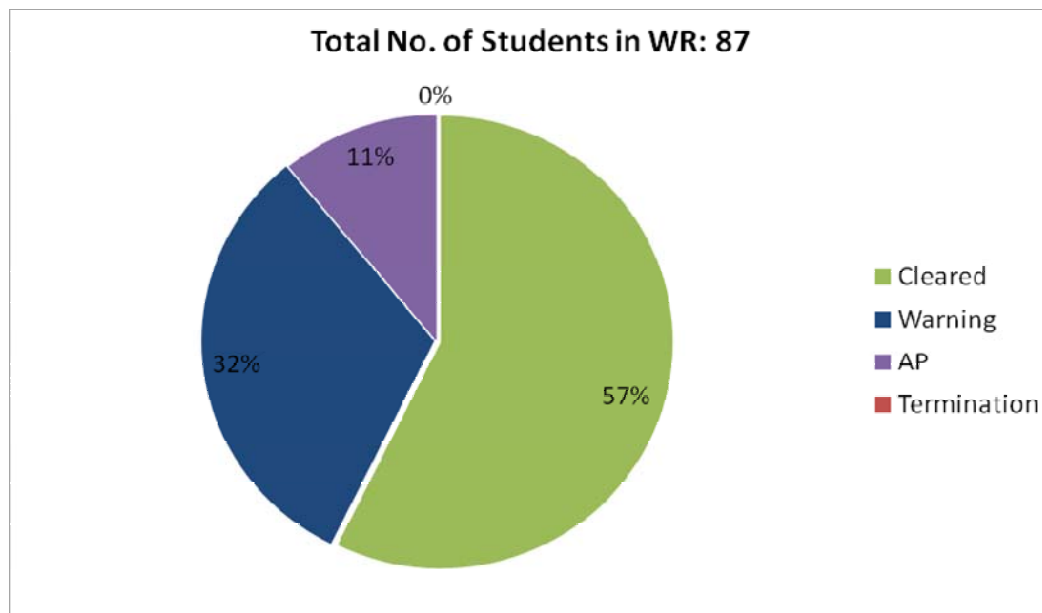
With the commencement of the session, students on Warning and Academic Probation because of under performance in the previous semester, were met in a few group Counselling sessions. Through individual sessions the counsellor also helped them in effective target setting, developing better time management skills, or in resolving any other conflict that may be affecting them.

A team of link students was also selected to tutor the students who required academic help. *Slow Paced Programme* was recommended for certain students, on the basis of their performance up to the first mid semester examination. Meetings were held with these students to suggest semester wise course plan according to their department.

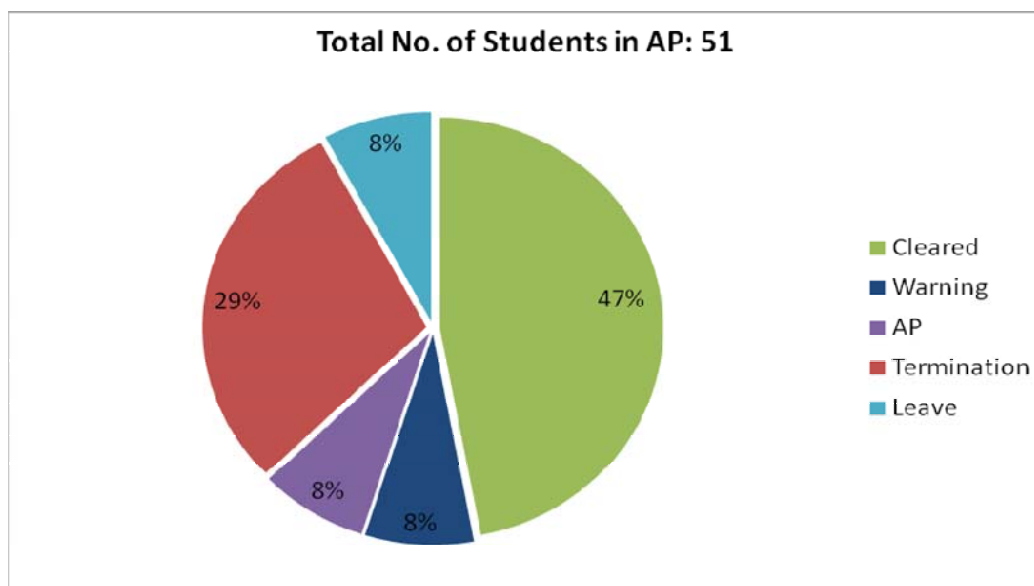
Progress Report of Students on AP During 2008-09 I



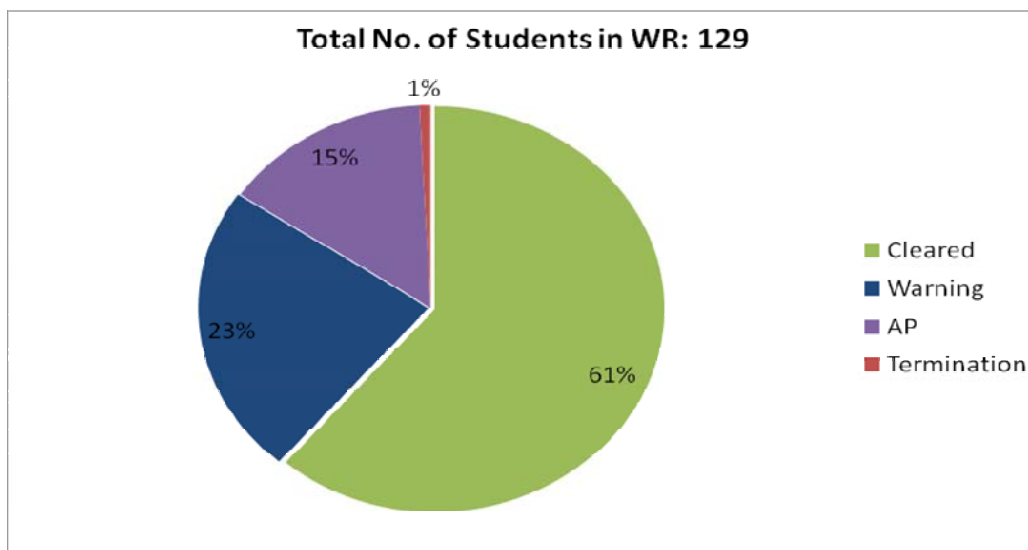
Progress Report of Students on WR During 2008-09 I



Progress Report of Students on AP During 2008-09 II



Progress Report of Students on WR During 2008-09 II



English Conversation Classes:

English Conversation Classes were also conducted by the Counselling Service at nominal rates in both the semesters of the session 2008-2009, to help students having problems in English conversation and comprehension.

Psychological Support:

Apart from academic problems, students who required emotional support and guidance met the Counsellor as well. The Counsellor on assessing the requirement of the individual advised either individual counselling sessions or psychiatric intervention along with the counselling sessions.

Psychiatrists visited the campus on a regular schedule to meet the students who were advised to consult them. Regular follow up sessions with these students were also conducted by the Counsellor.

Financial Support:

On the financial front, students were provided assistance through SBF scholarships. Around 70 students could avail this facility. Loans were provided to students facing acute financial problems.

Workshops and Publications:

In the session 2008-2009, awareness building amongst the residents of our campus about the growing psycho socio economic changes in the student population was emphasized.

'Aspirations, Career and You', a career awareness workshop was conducted on September 6, 2008 for the students by Dr. Manas Mandal (Director, Defense Institute of Psychological Research).

A sensitization session for the faculty members was organized by the Counselling Service on March 01, 2009 titled *'Changing Times, Changing Minds'*. It was addressed by the Institute Psychiatrists Dr. Alok Bajpai and Dr. Sanjay Mahendru; Director, DIPR, Dr. Manas Mandal and Counsellor Mrs. S. Chakroborty. An information booklet titled *'Together we strive to make a difference'* was also published on this occasion to enable the faculty members to identify students in distress and to understand their role in this context.

A pamphlet *'Partners in Building a Happier Campus'* was also printed to generate awareness amongst students about various mental health issues.

Survey of Parents:

To understand the expectations and awareness of parents about the Institute, a survey was conducted during the JEE counselling 2008. The results of this survey were discussed with the parents during the Orientation Programme in a special session with the Counselling Service, which was found very useful in clearing some of the misconceptions among the parents.

8. FACULTY INCHARGES STUDENTS'S AFFAIRS

Dean, Students Affairs	Dr. Partha Chakroborty	From June 2008
Head, Counselling Service	Dr. A.K. Ghosh	From 01.05 2008
Chairman, Council of Wardens	Dr. Sudhir Mishra	From 10.07.2008

Counsellors, Students' Gymkhana

Chief Counsellor	Dr. Partha Chakroborty
Cultural Counsellor	Dr. (Ms) Suchitra Mathur
Games Counsellor	Dr. C.S. Upadhyay
Films Counsellor	Dr. Satyaki Roy
Science & Technology Counsellor	Dr. Rajat Moona
Treasurer	Dr. D Bhaguna
Chairman Students Benefit Fund	Dr. A.K. Ghosh
Chairman Students' Placement Committee	Dr. Bharat Lohani
Faculty Advisor, NSS	Dr. H.C.Verma
Chairman, Swimming Pool Management Committee	Dr. P Shunmugaraj
Faculty Advisor, Yoga	Dr. A.K. Sharma
Faculty Advisor, Tae-kwon-do	Dr. B.V. Phani

10. WARDENS

HALL OF RESIDENCE No. I

Dr. Arun P. Sinha Warden I/C
Dr. Sanjeev Garg, Warden
Dr. Satyajit Banerjee, Warden
<i>HALL OF RESIDENCE No. II</i>
Dr. Shalabh Srivastava, Warden I/c
Dr. Kallol Mondal, Warden
Dr. Kumar Ravi Priya
<i>HALL OF RESIDENCE No. III</i>
Dr. Abhijit Kusheri, Warden I/c
Dr. Amit Prashant
Dr. Anjan Kumar Gupta
<i>HALL OF RESIDENCE No. IV</i>
Dr. H. Karnik, Warden I/C
Dr. V. Subrahmanyam, Warden
Dr. V Shankar, Warden
<i>HALL OF RESIDENCE No. V</i>
Dr. Rajesh Srivastava, Warden I/C
Dr. Siddharth Panda, Warden
Dr. T Ravichandran, Warden
<i>HALL OF RESIDENCE No. VI</i>
Dr. Y. N. Singh, Warden I/C
Dr. Nandini Gupta, Warden

HALL OF RESIDENCE No. VII
Dr. Zakir Hossain , Warden
Dr. S.S.K Iyer, Warden
Dr. Yogesh M Joshi
HALL OF RESIDENCE No. VIII
Dr. S. N. Singh, , Warden I/C
Dr. Pranab Mohapatra, Warden
Dr. Venkitanarayanan P, Warden
HALL OF RESIDENCE No. IX
Dr. Sudhir Kamle, , Warden I/C
Dr. A. K. Saha, Warden
Dr. J. Ram Kumar
HALL OF RESIDENCE No. X
Dr. Sandeep Sangal
HALL OF RESIDENCE for Girls (GH-1)
Dr. V.N. Kulkarni, Warden I/C
Dr. Shikha Dixit, Warden
Dr. Minichandran
SBRA
Dr. A K Ghosh, Warden I/C
Mr Vinay Singh, Convener (M) 09415830806

10. STUDENTS' GYMKHANA EXECUTIVE

The philosophy followed at this Institute is to involve students at various decision-making levels. The President, Students' Gymkhana and the Convener, Students' Senate are special invitees to the Senate. Students' Senate also sends its nominees for various standing committees of the senate namely EPC, SPGC, SUGC, SSAC, SLC, SSPC and various other users committees. The following list gives the names of students holding various posts of the executive wing of students' Gymkhana.

President

Mr. Anurag Sujania (upto Feb. 2009) Mr. Mohit Kumar Jolly (From March 2009.)

Convenor, Students Senate

Mr. K Sudheendra Rao (Upto Feb. 2009) Mr. Ashish Agarwal (From March 2009)

General Secretary (Cultural)

Mr. Anuj Gupta (Upto Feb. 2009) Mr. Apoorva K Srivastava (From March 2009)

General Secretary (Games)

Mr. Abhishek Tiwari (Upto Feb. 2007) Mr. Shilendra S Rajput (From March 2009.)

General Secretary (Films)

Mr. Ramik Sadana (Upto Feb. 2007) Mr. Naved Siddiqui (From March 2007)

General Secretary (Science & Technology)

Mr. Abhineet Gupta (Upto Feb. 2007) Mr. Puneet Singh Rathor (From March 2009)

STUDENTS' PLACEMENT



Students' Placement Office

Introduction

The Students' Placement Office plays an important role in assisting the students in their career planning and helping them in their placement. This year the Students' Placement Office was confronted with a big challenge of conducting recruitment in the most difficult times for the economy. Hence forth more companies were contacted and sessions were held for students to take an informed decision.

Pre-Placement Talks were held during the 7th semester and the final placements were scheduled after the end semester exams. Multiple companies were called in a day. The PPT's started from 24th August and 58 companies gave their presentations. The final Placements began from 1st December and is still continuing for the students who have not yet secured a job.

Invitation letters for participating in the Campus Recruitment Programme 2007-08 were sent to over 1124 Organizations. A total of 126 companies visited the campus and recruited 546 students out of the 766 students who had registered with the SPO (see Table 1). The placement statistics for our B.Tech students is 76% this year while for the M.Tech. students it is 63.56% till date. The MBA program has had 93% and Dual Degree Programme has had 89% placement. The overall placement for 2008-09 has been 71.3%. With the objective of providing uniform opportunity to all students registered for placement, the policy of "one job per student" still continues. The average salary this year for the overall batch is Rs.6.00 lakhs per annum. The core sectors attracted maximum number of students. Amongst the new

organizations, the major ones that recruited this year are Chevron, DAR Group, SAIL, ISPAT India, JP Morgan and AMCC.

This year workshops were also conducted in a big way and in all 34 workshops were organized. This also included Career Awareness Workshops for the first time.

Placement Statistics

Legend

AE=Aerospace Engineering

BSBE=Biological Sciences & Bioengineering

CE=Civil Engineering

CHE=Chemical Engineering

CSE=Computer Science & Engineering

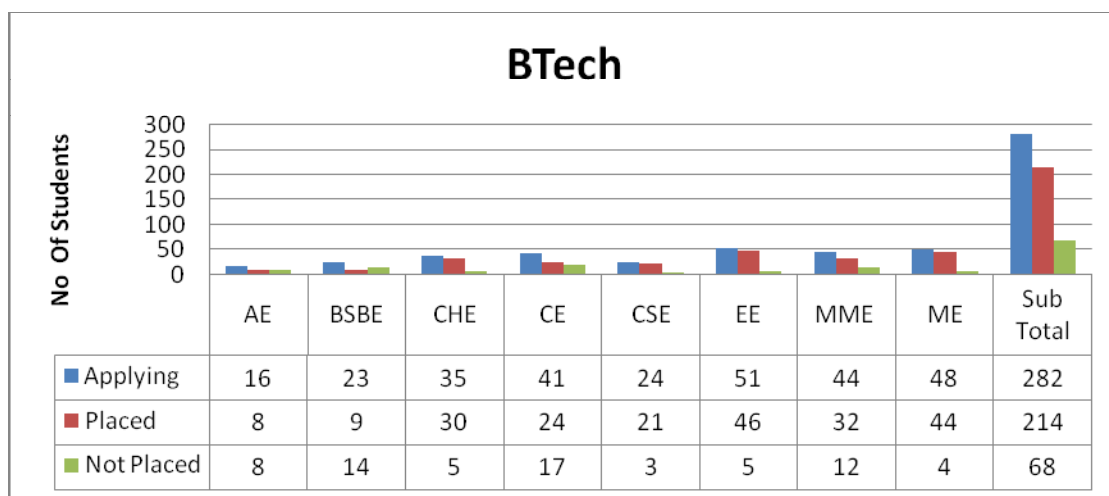
EE=Electrical Engineering

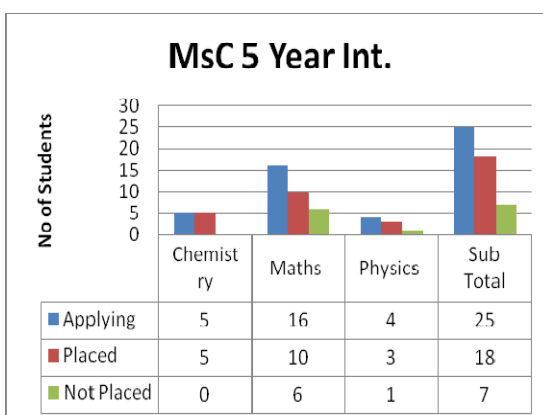
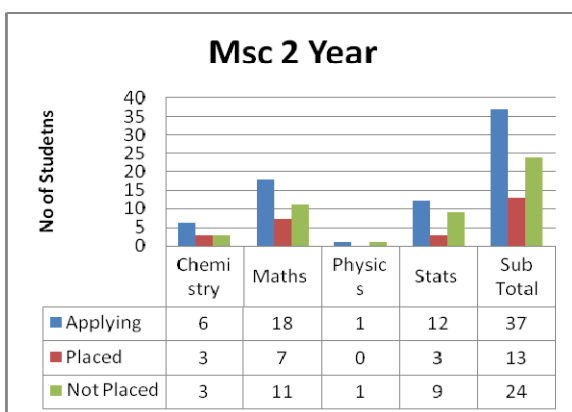
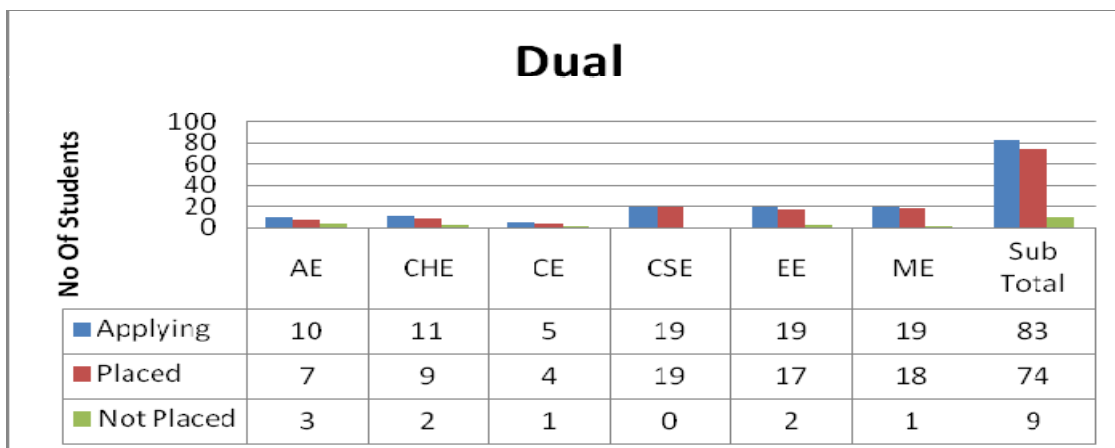
LT=Laser Technology

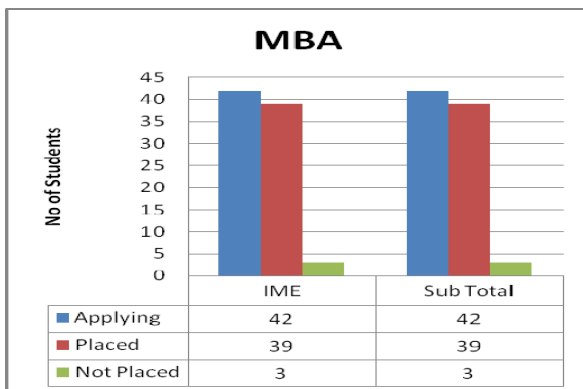
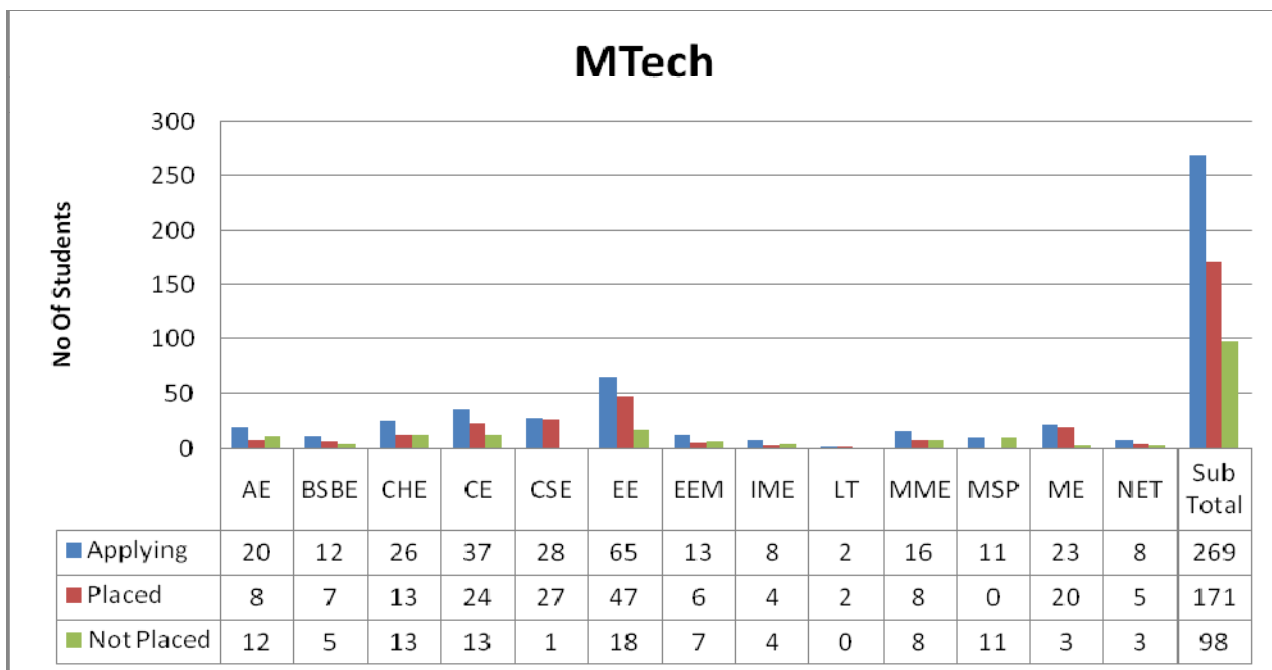
ME=Mechanical Engineering

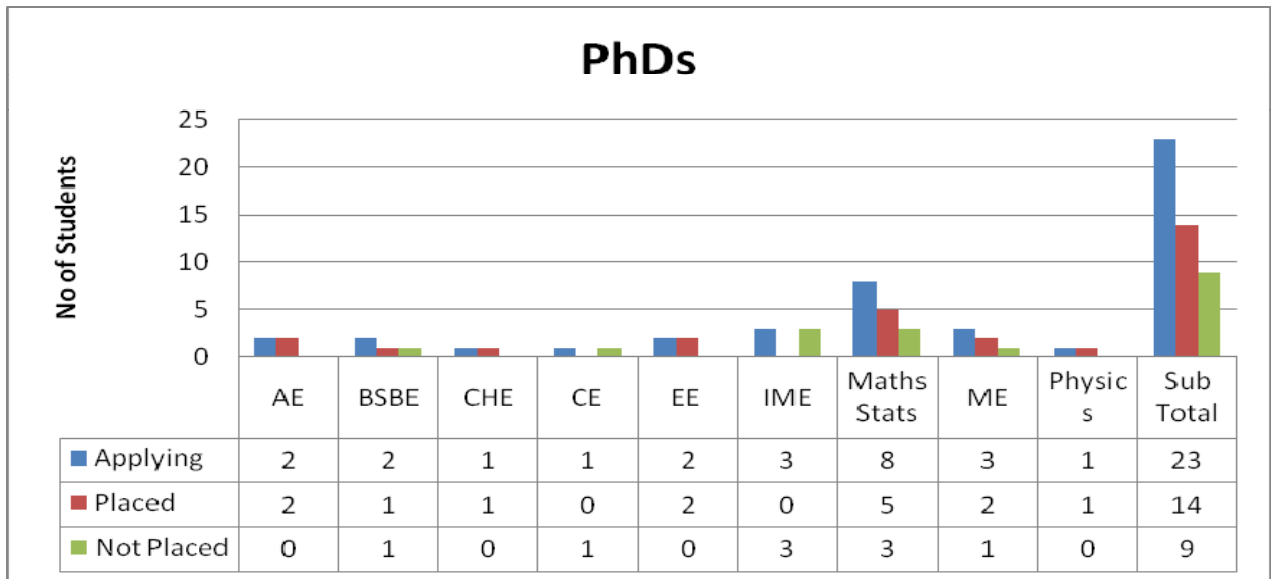
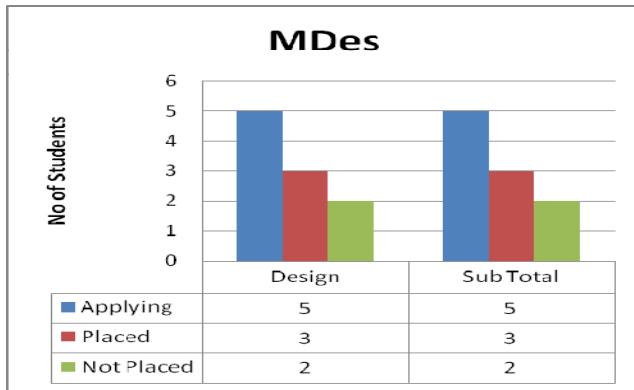
MME=Materials & Metallurgical Engineering

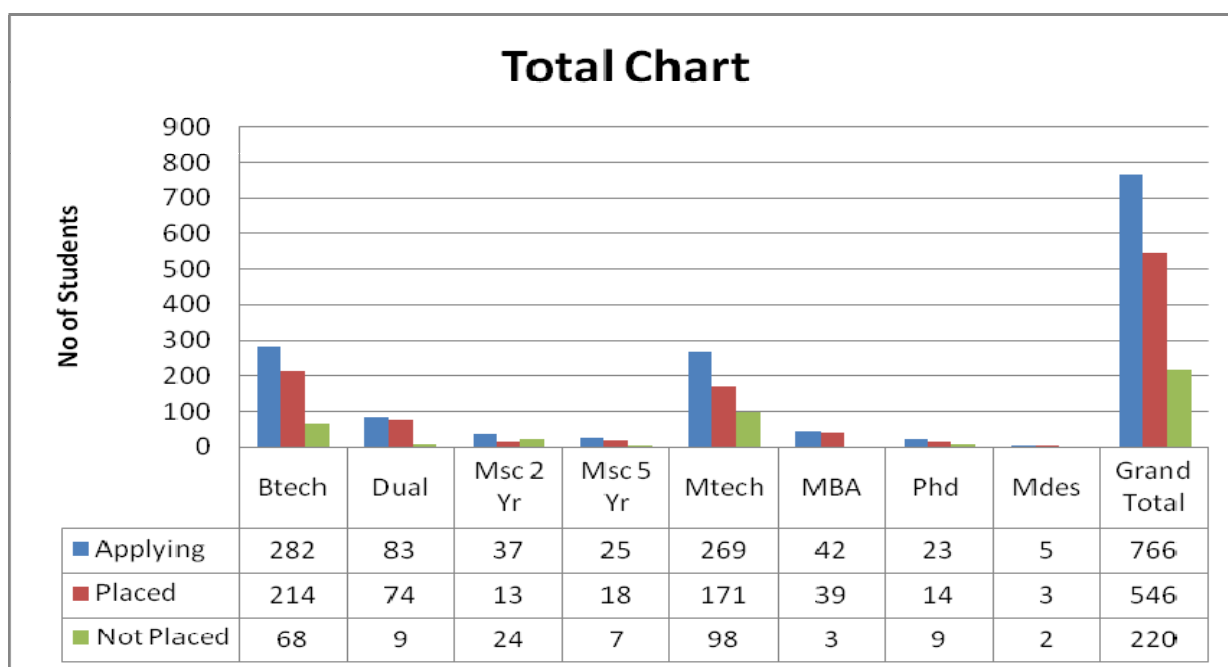
NT=Nuclear Technology











ROADBLOCKS

Owing to economic slump many companies did not recruit this year. A total of 1200 companies were contacted out of which 240 companies filled in the proforma. However, around 110 companies backed out before the final placements and 130 companies finally conducted the recruitment process. Even companies that finally conducted the recruitment process did not take in large number of students. Many bulk recruiters of the previous year like G.E, JLLM, Infosys did not visit this year.

There were many occasions when companies couldn't come for recruitment as accommodation was not available in the Institute for some reason. Some companies had to stay in Lucknow as no accommodation was available then in Kanpur and hence found it inconvenient to conduct the recruitment process without compromising on time for interviews.

INITIATIVES TAKEN

This year a number of initiatives were taken to counter the economic slump prevalent in the market. Different strategies were adopted both in contacting companies and preparing students.

Networking

This was the first year that alumni input was taken in a big way. The Board of Directors Alumni Association was approached for help in contacting more companies. Student representatives had gone for the PAN IIT meet held in IIT Chennai this year. Alumni Reunions was targeted for placements as well. Different Alumni chapters helped a lot in getting more companies for campus recruitment. Alumni from different batches were contacted directly for help in contacting companies. Sahara Next, Finmechanics, Tholons are a few examples of companies that came through alumni support.

Crossroads: An Alumni Student Interaction Interface

It was started with a vision to inculcate the culture of preparation amongst the students by helping them learn directly from the alumni in the company. As per our past experience and the feedback given by the companies and alumni, students at IIT Kanpur did not deliberate much before taking decision about their career and did not get a platform to interact with alumni of different sectors. To cater with these problems, we started a student-alumni interaction portal named Crossroads. On this portal student post their queries and alumni answer to the same after being informed by Students' Placement Office about the query. Currently there around 3000 student members and 1200 alumni registered on the portal.

Career Awareness Workshop

Conducted in the second semester, the workshop was aimed at giving pre-final year students a comprehensive idea of different job opportunities that one has after passing out of IIT Kanpur. Talks were given by alumni from non-core sectors namely: Finance, Consultancy, FMCG, IT and Analytics. To give students an idea of core companies departmental session for Mechanical, Material and Metallurgical and Electrical were also conducted in April. To help students better prepare for companies, workshops for Resume making, case

study and mock placements were also conducted in the months of March and April.

Strategy

- Since many companies were not looking at large number of students and preferred taking students from IITs that were in the same region, students were sent to Delhi and Bangalore for final interviews. Video Conferencing and telephonic interviews was more common this year.
- Though start ups and educational institutes did come earlier for recruitment this year they were pursued in a big way because of the comparatively larger number of opportunities in this sector.

Services / Amenities

INSTITUTE WORKS DEPARTMENT

Institute Works Department (IWD) is primarily responsible for the maintenance of capital assets for providing the following utility services to the resident community

Civil, Electrical and Air-conditioning
maintenance services
Water Supply and Sewage Disposal
Power Distribution
Estimate Management
Sanitation and upkeep
Horticulture Development and
Maintenance
Furniture repairs
Roads

In addition to above, IWD also executes development projects from concept to commissioning. It comprises of the following units for facilitating opening & maintenance of services and construction activity.

Sl. No.	Unit	Responsibility	Unit-in-charge
1	Civil Division-I	Maintenance, upgradation and development works / new construction works water supply, furniture, roads	Officer-In-Charge, IWD
2	Civil Division-II	Maintenance & development works	Officer-In-Charge, IWD
3	Electrical & Air-Conditioning Division	Electrical maintenance domestic / central AC maintenance	Officer-In-Charge, IWD
4	Horticulture	Development & maintenance	Officer-In-Charge,

			IWD
5	Estate	Estate management & sanitation	Estate Officer

STORES & PURCHASE SECTION

The Store and Purchase Section is an important service unit to cater the needs of departments/units for purpose of various equipments, chemicals, glassware, hardware, consumables, stationery etc. and all medicines/pharmaceutical products, industrial gases etc., for research and general purpose. The procurements are from both indigenous and foreign source.

The Import Section handles customs clearance of all foreign consignments and matters relating to Import Licenses/Custom Duty Exemption Certificate/Excise Duty Exemption Certificate and other certificates from Government of India. The re-export of consignments to the suppliers for repairs/ replacements is also done through this section.

During the financial year 2008-2009 the Purchase Section places 1887 orders valued Rs.93,32,55,443=09 which includes import order numbering 482 costing Rs.65,77,67,378=73 and indigenous order numbering 1405 Costing 27,54,88,064=36. The purchase orders and their values under various categories are as follows.

<i>Category</i>	No. of P.O.	Amount(in Rs.)
Import :-		
(A) Institute fund		
Consumable	34	31,40,247=47
Non consumable	138	23,30,06,168=82
(B) Project fund		
Consumable	118	1,50,84,550=42
Non consumable	192	40,65,36,412=02
Total Import (A&B)	482	65,77,67,378=73

(C) Indigenous :-		
Institute fund		
Consumable	252	2,58,17,478=14
Non consumable	448	12,30,39,904=55
(D) Project fund		
Consumable	190	16,861,892=67
Non consumable	515	10,97,68,790=00
Total Indigenous (C&D)	1405	27,54,88,065=36
Total Value	1887	93,32,55,443=09

Central Stores procure highly technical items as and when required by the different departments to maintain the pace with science and technology development. It stocks some items of consumable in nature like stationary, hardware, and liveries etc. The Central Store has four units, namely Purchase Unit, Import Unit, Bill Unit and Receipt/Issue Unit. This section is headed by a professionally competent person and he is also assisted by a professionally competent team of 20 personnel.

The store also maintained the records of disposal of unusable and scrap materials. Clearance of parcels and dispatch of rejected materials to both local and foreign firms for repair/replacement is also done by this section. It assists the department in areas like transportation, procurements of furniture etc.

Stores Accounts maintain the expenditure details under working expenses and stationery grants sanctioned to Department/Section etc.

This Section also started reconditioning of wooden & steel furniture. During The Financial year 2008-2009 we have reconditioned different type of furniture and issued to various departments. The details of reconditioned furniture are as follows. (1) Chair 182 nos(2)Office Table 82 nos(3)Almira 17 nos (5)Wooden Racks 4 nos(6) Filling Cabinet 4 nos In this way we have saved lot of money of the institute.

We have been successful in computerizing the transactions both in Stores, Purchase & Import Section. We are processing all Indents through the software developed by Automation Division and each & every function of Store &

Purchase has been automated in this financial year. We can generate reports as our requirements as and when needed. We have full connectivity in Central Store through LAN/WAN for complete automation. Maximum correspondence is done by e-mail where it is available keeping in view the speedy action for the procurement. Stores and Purchase is now connected with main frame computer of Computer Center. Full communication with every net user is now possible in campus from Store and Purchase Section. We are also planning to provide the web based postal, so that department can send electronic indent directly to Central Store and check the status of this indent/sanction sheet on the monitor.

ESTATE OFFICE

The Institute has a sprawling area of 960 acres having total population around ten thousand. Being a residential campus with 1034 houses in various categories far away from the heart of the city, the Institute had to create its own infrastructure and civic amenities such as sanitation, water supply, sewage disposal and shopping complexes and such facilities, which are required for day-to-day living.

The estate office is entrusted with various kinds of activities including house allotment, commercial shops management, tendering process of unserviceable materials, eviction of unauthorized occupants, realization of license fee/ electric charges from shopkeepers & house allottee's, estate management and civic amenities.

The Institute has various types of residential accommodation, i.e. Type-IA, IB, I, II, III, IV & V out of which Type-III & above are allotted to Faculty members, Scientists, Research Engineers, Group-A Officers and rest are allotted to other staff. We have mainly four shopping complexes at various locations i.e. one in the heart of campus called as main shopping complex and other at Type-II complex, third one at security crossing & fourth one at Type-I area consisting of various kinds of 98 shops, which fulfill the basic needs of the residents.

Besides the above shopping complexes, we have 10 hostels for students' accommodation out of which seven are for boys and two are for girls, one

more hostel is under construction for boys. Every hostel has a barbershop, washer man shop, tailoring shop which mainly fulfills the immediate needs of students. As per demand, we have already started the operation of the PCOs in most of the hostels.

The construction of twelve residences for visiting faculty completed and is used for providing accommodation.

Further a cable T.V. Network is also being operated round the clock by the Institute to provide entertainment to the entire campus community.

Besides, the estate office is managing all types of activities related to the estate successfully and cautiously by way of taking all the precautions to solve all types of problems. During the financial year 2008-09, the office has realized about **Rs. 87,88,267/-** (43.16% more than the last year, i.e. 2007-08) from the different sources.

CAMPUS SCHOOL

Honorable Chief Guest Prof. S. G. Dhande, Director of the Institute, Prof Joseph John, Chairman S. M. C., distinguished guests-ladies & gentlemen.

It is my profound privilege to extend a warm welcome to all of you on the occasion of Open House of Campus School. I am personally grateful to Prof. Dhande, who, in spite of his extremely tight schedule conceded to our request, and is present on occasion to inaugurate the function. Sir, your presence is a source of encouragement to all of us. Thank you very much. Now I take this opportunity to present the annual report of the school.

Physical Panorama:

1) School Strength:

- (A) Students on roll: 374
- (B) Teachers – regular: 15 and the Principal
- (C) Teachers – contractual and others: 12
- (D) Supporting staff: 11

2) Infrastructure:

The school is equipped with the following:-

Open shelf library, computer room, dance & music room, art room, science room, P.T. room for indoor games, a big playground for Basket ball, Kho-Kho, Cricket, Football, Volley ball, and a play area with swings, slides, seesaw and other play equipment.

1. The infrastructure of the school is quite old and requires considerable repair, renovation and modernisation. Some steps have already been taken to improve the infrastructure of various sections of the school. These are as follows:-
2. The K.G. section has been renovated to a great extent with the addition of new toys, puzzles, games & activities. It is also equipped with a computer, internet connection & a projector to create a stimulating environment for the children.
3. The Art room has been renovated with the latest furniture, storage cabinet and large display panels on the walls.
4. The Library is in the process of being computerized. A large number of books and many magazines have been added to the collection. The furniture & shelves have been renovated.
5. A Maths Lab has been set up, which has become a unique feature of Campus School. Tools to make the understanding of the mathematical concepts & operations easy & interesting are being developed and deployed in this Lab.
6. The Staffroom for teachers has been newly furnished and equipped with a computer with internet connection and electrical appliances for the tea club. This room is now used by the teachers to relax during the break, to prepare test papers, and for all staff meetings.
7. The Dance & Music rooms have also been modified to meet the needs of the students.
8. The office records of the school till date are being computerized & smartcard system of e-attendance has been introduced.
9. Some sections of the school that still need attention & modifications are the Science room, Computer lab and the Games room.

3) P. T. A. Meetings

P.T.A. meetings are scheduled on every third Saturday of the month.

Open P.T.A. meetings are held twice a year. The first meeting for this year was held on 26th April, 2008. Two parents, Dr. Sandeep Sangal & Mr. Sheetla Prasad Tripathi were unanimously elected in the meeting as members of the school management committee. The second Open P.T.A. meeting is scheduled to be held towards the end of the academic year.

Since Campus School is a community school, suggestions of parents and well wishers are always welcome. All comments are given due consideration, and all feasible suggestions that are for the betterment of the school are implemented. Parental care of the students, democratic set up, self discipline and transparency in functioning and activities make Campus School different from other educational institutions.

4) Activities

- a) Students are given a wide range of exposure necessary for the all round development of personality.
- b) Story telling, quiz, news reading & poetry recitation are regular features of morning assembly.
- c) Different festivals & functions such as Janamashtami, Gandhi Jayanti, Dussehra, Deepawali, Eid, Christmas, etc are organized in the morning assembly to acquaint the kids with the socio-cultural heritage of our country.

I. School Competitions

Fancy Dress, Poetry Recitation, Book Reading, Mental Maths, Mono Acting, Elocution, Debate, Singing, Art, Quiz, Handwriting competitions, etc. are organized.

II. Inter-school Competitions:

During the Hindi Week & Wild Life Week celebrations our children participated in several interschool competitions in sub-junior (I to IVth) &

junior (Vth to VIIIth) groups and brought many laurels to the school. Hindi Dictation: won 17 prizes, out of 22 & Kavya Paath: won 6 prizes out of 7.

Our class Vth students competed with class VIIIth students of the city schools in the group song, group dance, Casio playing, mono acting & quiz and stood first in each of the competitions. The performance of the Campus School students was appreciated and applauded by all including the Director of the Zoo & the local daily Newspapers.

III. Art competitions

Five students won Rs. 1300 as cash awards at the State Level in the All India Camel Colour Contest & five students got prizes in the Navneet Colour Contest.

Most of the students of class IVth & Vth visited the Water Park under the guidance & supervision of Mr. V. Victor, PTI, Mr. D. Pathak, and Dr. N. Agnihotri & Mrs. U. Mahajan. All children from class K.G. to Vth visited either the Children's Park cum Japanese Garden or the Zoological Garden, after many years.

5) Mega Events Celebration

- ❖ Independence Day: Chief Guest Prof. J. John, Chairman S.M.C. A patriotic cultural programme at the IIT Kanpur auditorium.
- ❖ Teacher's Day: Chief Guest Prof. Kripa Shankar. Thanks to the Institute administration for remembering and recognizing the services of the teachers.
- ❖ Children's Day: Chief Guest Dr. (Mrs.) Medha Dhande. Children presented a short cultural programme. An art competition & puppet show was organized & small gifts were distributed to all children. The chief guest encouraged the children by giving away awards & prizes.

- ❖ Annual Sports Day: 20th Dec'08. Chief Guest Dr. N. S. Vyas. Children showed their skill, dexterity and discipline in their Displays, Drills and Gymnastics. Parents and guests participated in the games organised specially for them.
- ❖ Republic Day: Chief Guest Prof. J. John. Chairman S.M.C. A short cultural programme at I.I.T. Stadium.
- ❖ Annual Open House: 21st Feb'09. Chief Guest Prof. S. G. Dhande, Director of the Institute. Open House will include activities based on Language, Art & Craft, Dance & Music, Theatre, and Maths & Science. All children of the school are participating in it.

6) Special Events

- ❖ The number of evening co-curricular activities has increased under the project INDRADHANUSH. The response is quite encouraging one. The energy & vitality of the children are being channelised in a proper & positive direction under the supervision of qualified teachers through art & craft, music, language & theatre activities, science, dance, and games & sports. Mr. D. Pathak, Mr. V. K. Trivedi and Mr. V. Victor and Ms. S. Iyengar from campus school are giving their best contribution in these activities. More than 200 children are being benefited through these activities.
- ❖ Mr. M. A. Siddiqui – Principal, Mrs. S. Yadav -Teacher Gd.1 & Mr. Ram Lakhan – Teacher Gd. 1 have retired from their services by virtue of superannuation. Their sincere, valuable & exemplary services rendered to the school are highly appreciated. We wish them a very happy, prosperous & peaceful long life.
- ❖ Mrs. Sushma Hora took over the charge as officiating principal from July 1st 2008 & later appointed as Principal w.e.f. Sept. 23rd 2008.

- ❖ One of our colleagues Mrs. Malini Sinha was honoured by the Director for her long & satisfactory services to the Institute on the occasion of Republic Day. Congrats!
- ❖ The principal & two teachers Mr. Mewa Lal & Mr. U. Mahajan went for training at Sidh Training Centre, Mussoorie.
- ❖ I would like to thank the Institute Administration for facilitating the functioning of the school by providing new teachers through DRPG Project. We heartily welcome these teachers in the fold of school family with the hope that their professional experience, dedication & devotion will help in upholding the school's educational environment.

7) Training Programmes

The following professionals were invited to conduct teachers' training workshops.

- a. Prof. P. P. Sah for Interactive English.
- b. Prof. Amitabh Mukherjee from Delhi for a Maths Workshop.
- c. Dr. Alok Bajpai for an Interactive Session on "How to Deal with Special Kids".
- d. Dr. Shashi Umesh for awareness of dental health & care.
- e. Mrs. Mani for demonstration of paper crafts.
- f. Prof H.C.Verma & his team of students for Science Workshop of

100 experiments .

I extend my sincere thanks to them for sharing their precious time. I also thank to the parents, teachers & supporting staff for making all the events a great success.

As mentioned earlier, Campus School is a community driven school. Members of the IIT Kanpur campus have been of invaluable help in the Upgradation and Restructuring process that has recently begun in the School. We are very grateful to them for spending their time, energy and expertise to help the school grow to new heights. I would specially like to mention Dr. Guhapriya Gurunath, and her Indradhanush team for their help. Others who are

continuing to contribute actively to the school are Professor Bisakh Bhattacharya , Mr. Vijay Anand, Ms. Satrupa Ray, and Dr. Koumudi Patil. I would also like to specially thank Ms. Rita Singh, who is always ready to offer her unmatched support for any of the school's needs.

A special Thanks must also be given to Professor Joseph John, Chairman of the School Management Committee. Dr. John is one of the pivotal factors that have enabled the recent changes and progress in Campus School. He has worked proactively for the betterment of the school. The school will always be grateful for this generous and progressive minded chairman.

HEALTH CENTRE

Health Centre had been established with the objective of addressing health needs of the Institute Community. Health Centre provides services round the clock to meet out the objective. Health Centre is manned by 8 Medical Officers and a Medical Advisor of the Institute.

The details of the Health Centre services provided for the period with effect from 01.04.2008 to 31.3.2009, are as follows:

Sl.No.	Particulars	Number
01.	Number of patients treated in OPD	50211
02.	Number of students treated	12220
03.	Number of patients manually registered	419
04.	Number of patients treated in Indoor	971
05..	Number of patients treated in Homeopathy including students	7721
06..	Number of patients treated in Physiotherapy	4049
07.	Number of Surgical Operations (Minor)	NIL
	Number of Tubectomy	NIL
	Number of D&C	10
08..	Number of Deliveries	01
09..	Number of Plastering	75
10..	Number of Surgical Dressing	4368
11..	Number of Injections	90000
	Number of Tetvac	840

12.	Number of babies attended in Well Baby Clinic	656
13.	Number of X-Ray done	2 446
14..	Number of babies attended-National Pulse Polio Programme	253
15.	Number of Anti Rabies Injections	154

Immunization is done round the year in the Health Centre for protection against Typhoid, Cholera, Tuberculosis, Diphtheria, Peruses Tetanus, Polio and Measles. Facilities for maternity management, Family Planning Counseling and Tubectomy operations are also available.

VISITORS' HOSTEL

Housed in an imposing double storied building and located at a central place, Visitors' Hostel provides boarding and lodging facilities for the Institute's guests, newly appointed faculty and staff members, delegates and participants attending various conferences, seminars, symposia and workshops. The Visitors' Hostel has some allied facilities for the benefit of the Institute's Visitors.

Allied Facilities:

- Visiting Faculty Apartment at IIT Kanpur
- Outreach 69 & 80 building, IIT Kanpur
- Community Hall (Main Auditorium), IIT Kanpur
- Transit Accommodation, Chittaranjan park , New Delhi

The Visitors' Hostel and allied facilities are operated as a non-profit activity to mainly support the academic and research activity on the campus with a homely atmosphere and ambience, traditionally acclaimed for its environs of hygiene and food of homely relish and richness. The following are the various activities undertaken by the team managing the affairs of the Visitors' Hostel and allied facilities.

Accommodation (Visitors' Hostel):

Visitors' Hostel has been equipped with 70 Standard rooms of which 55 are AC and 15 are Non- AC. Further there are 15 Deluxe AC rooms. It can accommodate a maximum of 170 guests at a time on twin sharing basis. All the rooms have attached bathrooms with modern amenities.

Dining Facility (Visitors' Hostel):

VH provides dining facilities to in-house guests staying in VH and Visiting Faculty Apartment and for Institute activities. The Visitors' Hostel has 2 air-conditioned dining halls with capacity of 30 and 70 guests respectively. One of the dining halls has a well furnished sitting room attached with it.

Accommodation (Transit Accommodation, New Delhi):

Transit accommodation is a rented property situated at Chittranjan Park, New Delhi. It is equipped with 5 Deluxe air-conditioned rooms. It can accommodate a maximum of 10 guests at a time on twin sharing basis. All the rooms have attached bathrooms with modern amenities.

Dining Facility (Transit Accommodation, New Delhi):

The dining facility is provided to the in-house guests staying in the Transit accommodation. The accommodation has one air-conditioned dining area.

Conferencing Facilities:

A. Pioneer Batch Continuing Education Center (PBCEC)

S. No.	Name of Facility	Max. Capacity
1	VH Lounge (round table)	16
2	PBCEC Lawns	250
3	PBCEC Conference Room (U shaped)	18
4	PBCEC Small Class Room	36
5	PBCEC Big Class Room	65

6	PBCEC Committee Room	11
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B. Outreach 69 & 80

S. No.	Name of Facility	Max. Capacity
1	Auditorium	210
2	Seminar Room-1	40
3	Video-Conferencing Room	30
4	Outreach Lawns	250
5		
6		

C. Community Center (Main Auditorium)

S. No.	Name of Facility	Max. Capacity
1	Auditorium	1300
2	Auditorium Lawns	2500
3	Foyer	250
4	Prayer Hall	50

Additional Facilities:

- Centralized reservation system for all facilities at VH and Allied Services through prescribed formats. All the forms are made available in departmental offices as well as downloadable from the website of VH at <http://www.iitk.ac.in/vh>.
- Intimation of confirmation of bookings through e-mail.
- Wi-fi connectivity is enabled in the entire premises of Visitors' Hostel and all its allied services.
- DHCP: All the guest rooms have DHCP (Dynamic Host Control Protocol) for direct Internet Connection, i.e. No IP Address, no User ID or password is required for accessing the Wi-Fi/ or LAN enabled internet services through their laptop or PC.

- All the rooms have Television sets equipped with cable connections.
- All the Deluxe rooms have a PC.
- All the deluxe rooms have a small pantry and a small refrigerator.
- Acceptance of payment through Cash or Local Cheque/ Demand Drafts.
- For detailed information, website of Visitors' hostel can be accessed at <http://www.iitk.ac.in/vh>.

Renovation Work:

- Renovation and expansion of Front Office has been completed.
- 15 Non-AC rooms have been converted into Standard AC rooms.

On the Anvil:

- Refurbishing of standard and deluxe rooms.
- Maintaining an online Wait-list for allotment of facilities at VH & Allied Services.

Management of day-to-day hospitality service has been outsourced to a private agency. An increase in facilities and services and a more professional approach has led to more transparency in day-to-day functioning of the system and increased occupancy rate, thus achieving more financial viability in terms of operational expenditure.

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243. Simulation and Optimization of Drying of Wood Chips with Superheated Steam in a Rotary Kiln, Proc. 2008 ASME Summer Heat Transfer Conference, August 10-14, 2008, Jacksonville, Florida, USA, Paper No. HT2008-56258, 2008, P.S.Ghoshdastidar and Ankit Agarwal.
244. Numerical Prediction of the Temperature Distribution within a Human Eye during Laser Surgery, Proc.2008 ASME Summer Heat Transfer Conference, August 10-14, 2008, Jacksonville, Florida, USA, Paper No. HT2008-56259, Sandeep Singh Kushwaha and P.S. Ghoshdastidar.
245. State of the art Magnetic Abrasive Finishing, 14th International Conference on Frontiers in Design and Manufacturing Engineering (ICDM - 08), Sandeep Nair and J.Ramkumar.
246. Dynamic Characterization of Nano Composite Pillars, Condensed Matter Physics Workshop and ME Department Poster Presentation, IIT Kanpur, 20-22 Feb 09, Tarun Mankad, Amit Banerjee, S. Dhamodaran, J. Ramkumar and V. N. Kulkarni.
247. Tribological Performance of Nano Alumina Composites, International Conference on Sintering 2008, California, USA, S.Aravindan and J.Ramkumar.
248. Rubber Composite: a Deformable Nano Finishing Tool for Viscoelastic Flow Finishing Process, ICCE-16 July, 2008, Kunming China, Piyushkumar B Tailor, J. Ramkumar, Kamal K. Kar.
249. R.E.De vor, Characterization of plasma in Micro-EDM discharge using Optical Spectroscopy, ICOMM - 08, September 2008 Carnegie Mellon, US, Nagahanumaiah, J.Ramkumar, Nick Glumac, S.G. Kapoor.
250. R.E.De vor, Understanding Gap Phenomena in Micro EDM process using underwater acoustics, IWMF 2008, October 2008, Chicago, US, Anuj Kumar Garg, Nagahanumaiah, J.Ramkumar, Nick Glumac, S.G.Kapoor.

251. Rheological characterization and performance evaluation of a new medium developed for abrasive flow finishing, 2nd International and 23rd All India Manufacturing Technology, Design and Research conference, December 2008, IIT Madras, M. Ravi Sankar, V. K. Jain, J. Ramkumar, Kamal K. Kar.
252. Development of MAF setup for finishing of ultra high speed shafts, 2nd International and 23rd All India Manufacturing Technology, Design and Research Conference, Dec 15-17, 2008, R. Sandeep Nair, G.Karthikeyan, J.Ramkumar, Sunil Jha, Anil Varghese.
253. Investigation on Laser Shot Peening (LSP) of Ti alloys, International Conference on Emerging Research and Advances in Mechanical Engineering, ERA-2009, Chennai, India, S.Kanmani Subbu, J.Ramkumar, N. J. Vasa.
254. Micro Fabrication through micro EDM, International Conference on Advanced Manufacturing And Automation Incama-2009, G. Karthikeyan, J. Ramkumar.
255. Parametric investigation on Laser shock processing (LSP) parameters using Dimensional Analysis, Design and Manufacturing Issues Relevant to Automotive and Allied Industries, IPRoMM-2009, Chennai, India, S.Kanmani Subbu, J.Ramkumar, N.J.Vasa.
256. Estimation of diameter during machining of Tungsten electrode by micro Block EDG process, Design and Manufacturing Issues Relevant to Automotive and Allied Industries, IPRoMM-2009, Chennai, India, G. Karthikeyan, J. Ramkumar, Shalabh.
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258. A robust evolutionary framework for multi-objective optimization. Proceedings of Genetic and Evolutionary Computation conference (GECCO-2008), (Atlanta, USA), 633-640, 2008, Deb, K.
259. A local search based evolutionary multi-objective optimization technique for fast and accurate convergence. Proceedings of the Parallel Problem Solving From Nature (PPSN-2008), (Dortmund, Germany), Berlin, Germany: Springer-Verlag, 815-824, 2008, Sindhya, K., Deb, K., and Miettinen, K.
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264. Visualizing multi-dimensional Pareto-optimal fronts with a 3D virtual reality system. Proceedings of the International Multiconference on Computer Science and Information Technology, Volume 3, Wisla, Poland, 907-913, 2008, Madetoja, E., Ruotsalainen, H., Mönkkönen, V.-M., Hämäläinen, J., and Deb, K.
265. Deciphering innovative principles for optimal electric brushless D.C. permanent magnet motor design. Proceedings of the World Congress on Computational Intelligence (WCCI-2008), Hong Kong, Piscataway: IEEE Press, 2283-2290, 2008, Deb, K. and Sindhya, K.
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270. Complex Shaped Micro- channel Fabrication using Electrochemical Spark, Proc. AIMTDR Conference held at IITM Chennai, 2008, Anjali Kulkarni, V.K.Jain, K.A Mishra and Prachi Saxena.
271. Multiobjective Optimization of Piezoelectric Actuator Placement for Shape Control of Plates using Genetic Algorithms, ASME Conference on Smart Materials & Intelligent Systems, SMASIS 2008-343, pp. 1-12, 2009, R. Kudikala, K. Deb and B. Bhattacharya.

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273. Control of Instabilities of Pipes Conveying Pulsating Fluid using SMA based actuation, Proceedings of the ISSS, 2008, N. H. Sheik and B. Bhattacharya.
274. Real time integrity monitoring of composite laminate with magnetostrictive sensory layer, Proc. of SPIE, Vol. 7268, I. Kumar and B. Bhattacharya.
275. Parametric Study of Strain Hardening Behaviour of Glassy Polymers using Molecular Simulations, Proceedings of the ICTAM2008, ISBN 978-0-9805142-0-9, Mahajan D and Basu S.
276. On the invariance of structure-borne sound source unit. IISc Centenary - International Conference on Advances in Mechanical Engineering, Bangalore, India, July 2-4, 2008, P.Wahi and B.A.T. Petersson.
277. Infinite dimensional slow modulations in a delayed model for orthogonal cutting vibrations. ASME Engineering Systems Design and Analysis Conference, ESDA2008-59339, Haifa, Israel, July 7-9, 2008. K. Nandakumar, P. Wahi and A. Chatterjee.
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279. Nonlinear stability analysis of the Advanced Heavy Water Reactor (AHWR) near the linear stability boundary. 2009 International Conference on Advances in Mathematics, Computational Methods, and Reactor Physics, Saratoga Springs, New York, USA, May 3-7, 2009, V. Kumawat and P.Wahi.
280. Influence of wake structure on unsteady flow in an LP turbine blade passage, ASME Turbo Expo 2008, Paper No. GT2008-50809, Berlin, Germany, 2008, S. Sarkar.
281. Wake and Boundary Layer Interactions as Shape Changes from a Circular to an Elliptic Cylinder, FMFP 2008, pp.168-175, 2008, S. Sarkar and Sudipto Sarkar.
282. Large Eddy Simulation of a Separation Bubble, FMFP 2008, pp.176-184, 2008, S. Sarkar and N. K. Singh.

Humanities and Social Sciences

283. ICT Productivity Across Nations Using DEA and Malmquist Indices. Proceedings of the Fourth Annual APEA (Asia Pacific Economic Association) Meeting, Beijing, China, December 13-14, 2008 - S.K. Mathur.

284. Chiba Consuming America: The Local Toppling the Global in Postmodern Science Fiction. From Global to Glocal: The Future of American Studies-- Proceedings of the 43rd American Studies Association of Korea (ASAK)s International Conference, Seoul National University, Seoul, 24-25 October 2008, pp.134-140, T. Ravichandran.

Chemistry

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Mathematics and Statistics

286. Rough set theory: a temporal logic view. In: Studies in Logic Vol. 15, Proc. Logic, Navya-Nyāya & Applications: Homage to Bimal Krishna Matilal, January, 2007, Kolkata, Eds. Chakraborty, M.K., Löwe, B., Mitra, M.N., Sarukkai, S. (College Publications, London), 1-20, 2008, Mohua Banerjee and M.A. Khan.
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291. On Generalized Hamming Weights and the Covering Radius of Linear Codes, LNCS, 4851/2007, 347-356, H. Janwa and A. K. Lal.
292. Stochastic comparisons and aging properties of multivariate reversed frailty models. Proceedings of International Conference on Mathematical Sciences-2007 (ICMS-2007) Bangi-Putrajaya, Malaysia, 2007, 993-1015, Neeraj Misra, Nitin Gupta and R. D. Gupta.

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Physics

294. Temperature Dependent Tunneling study of $\text{La}_{0.625}\text{Ca}_{0.375}\text{MnO}_3$ Thin Films, J. Phys.: Conf. Ser. 150, 042183, 2009, Udai Raj Singh, S. Chaudhuri, R. C. Budhani, and Anjan K. Gupta.
295. A compact low temperature scanning tunneling microscope, J. Phys.: Conf. Ser. 150, 012007, 2009, Anjan Kumar Gupta, Jaivardhan Sinha, Shyam Kumar Choudhary.
296. Time-independent excited-state density-functional theory, AIP Conference Proceedings 1108, 54, 2009, M.K. Harbola, Md. Shamim, P. Samal, M. Rahman, S. Ganguly and A. Mookerjee.
297. Time-Dependent Density Functional Theory Calculation of van der Waals Coefficient of Metal Clusters, AIP Conference Proceedings 1108, 114, 2009, A. Banerjee, M.K. Harbola, A. Chakrabarti and T.K. Ghanty.
298. Investigating the effect of blind hole pinning on the magnetization response of a superconductor, Proceedings of the DAE solid state physics symposium Vol. 53, 949, 2008, Gorky Shaw, Shyam Mohan, Jaivardhan Sinha, Pabitra Mandal, S. S. Banerjee.
299. Nonlinearities in the moving elastic vortex state of 2HfNbSe_2 , Proceedings of the DAE solid state physics symposium Vol. 53, 929, 2008, Shyam Mohan, Jaivardhan Sinha, S. S. Banerjee, A. K. Sood, S. Ramakrishnan, A. K. Grover.
300. Magnetic domain patterns produced in a magnetic tape with Femtosecond laser pulse irradiation, Proceedings of the DAE solid state physics symposium Vol. 53, 1211, 2008, Jaivardhan Sinha, Shyam Mohan, S. S. Banerjee, Subhendu Kahaly and G. Ravindra Kumar.
301. ^{11}B NMR study of possible heavy fermion compound $\text{CePt}_2\text{B}_2\text{C}$, AIP Conference Proceedings, Vol. 1003, 213-15, 2008, Sarkar, R.; Ghoshray, A.; Pahari, B.; Ghoshray, K.; Anand, V.K.
302. Antiferromagnetism in Fe-doped PrRh_2Si_2 : a Mössbauer Study; Hyperfine Interact, V. 184, 2008, 173, V.K. Anand, B. Pandey, Z. Hossain, H.C. Verma, C. Geibel.
303. Comparing spectral fluctuations between Laser and Lamp tissue auto fluorescence data, Saratov Fall Meeting SFM08 and XII International School for Junior Scientists and Students on Optics, Laser Physics & Biophotonics, Saratov, Russia, September 23-26, 2008, A. Gharekhan, D. Rath, M.B. Sureshkumar, P. K. Panigrahi, A. Pradhan.

304. **Comparing spectral features of normal and cancerous human breast tissues with laser and lamp as excitation sources, Proceedings of SPIE 09, Biomedical Optical Spectroscopy, San Jose, USA, Jan 2009, A. Gharekhan, D. Rath, A. Oza, A. Pradhan M.B. Sureshkumar, P. K. Panigrahi.**
305. Characterizing Fluorescence Spectral features of Tissues through Principal Component Analysis, National Laser Symposium, New Delhi, India, 2008, A. Gharekhan, D. Rath, A. Oza, M.B. Sureshkumar, P. K. Panigrahi, A. Pradhan.
306. Potential of Principal Component Analysis (PCA) for discriminating normal against dysplastic state in cervical tissues, National Laser Symposium (NLS08), New Delhi, India, 2009, Prashant Shukla, Binay Bhushan and Asima Pradhan.
307. Polarized Fluorescence Studies in Breast Tissue. CLBAS-2009, Department of Physics, Shantiniketan, West- Bengal, Feb 14-17, 2009, Rajbeer Singh, Dharitri Rath, Prashant Shukla, Asima Pradhan.
308. Sensitivity of Mueller decomposition images for highly scattering media, MMSETLSA 09, Allahabad, 2009, Prashant Shukla, Prabodh Kr. Pandey and Asima Pradhan.
309. Study of ion energy distribution in a microwave plasma ion source for focused ion beams, Proceedings 23rd National Symposium on Plasma Science and Technology (PLASMA 2008), pp. 215 – 217, BARC, Mumbai, December 10-13, 2008, Jose V. Mathew Abhishek Chowdhury, Shail Kumari, Samit Paul and S. Bhattacharjee.
310. Standing-wave interaction with an anisotropic plasma column, Proceedings 23rd National Symposium on Plasma Science and Technology (PLASMA 2008), 91-94, BARC, Mumbai, December 10-13, 2008, Indranuj Dey and Sudeep Bhattacharjee.
311. Development of a microwave plasma based negative ion source, Proceedings 23rd National Symposium on Plasma Science and Technology (PLASMA 2008), 113-115, BARC, Mumbai, December 10-13, 2008, Debaprasad Sahu and Sudeep Bhattacharjee.
312. Study of electromagnetic waves in a bound anisotropic plasma using the finite difference time domain (FDTD) technique, Proceedings 23rd National Symposium on Plasma Science and Technology (PLASMA 2008), BARC, Mumbai, 109-111, December 10-13, 2008, Mani Chandra, Udit Khanna and Sudeep Bhattacharjee.
313. Generation of multiple focused ion beamlets from a compact microwave driven plasma ion source, Proceedings 23rd National Symposium on Plasma Science and Technology (PLASMA 2008), BARC, Mumbai, 115-118, December 10-13, 2008, Abhishek Chowdhury, Jose V. Mathew and S. Bhattacharjee.

314. Pre-discharge electron dynamics in a gas in the presence of linearly and circularly polarized electromagnetic wave, Proceedings 23rd National Symposium on Plasma Science and Technology (PLASMA 2008), BARC, Mumbai, 126-128, December 10-13, 2008, Samit Paul, Indranuj Dey and S. Bhattacharjee.
315. Subnanosecond electron transport in polarized electromagnetic waves and the quasi steady state interpulse plasma, Proceedings 22nd National Symposium on Plasma Science and Technology (PLASMA 2007), Institute for Plasma Research (IPR) and Plasma Science Society of India (PSSI), pp. 3, December 6, 2007, S. Bhattacharjee.
316. Black rings in a R-S Brainworld, , Proceedings of the Workshop on Physics of Extra Dimensions, PWED 2008, Center for Theoretical Studies, Indian Inst. of Technology, Kharagpur, 2008, Anurag Sahay and Gautam Sengupta.
317. Energy transfer in anisotropic MHD turbulence, in the proceedings of PAMIR International Conference on Fundamental and Applied MHD, Presqu'île de Giens - France, September 8 - 12, 2008, B. Teaca, M. K. Verma, P. Buratini, B. Knaepen, M. Kinet, D. Carati.

CONFERENCES ATTENDED OUTSIDE IIT KANPUR

Aerospace

1. Effect of Mach Number on Supersonic Wrap Around Fin Aerodynamics, National Conference on Advances in Armament Technology, ARDE, Pashan, Pune, India, Peyada, N. K., Sen, A., Dutta, G. G., Singhal, A., Rajan, K. M., Raj, A. and Ghosh, A. K.
2. 5-Degree of Freedom Dynamic Rig for Wind Tunnel Tests of Aerospace Vehicles, National Conference on Advances in Armament Technology, ARDE, Pashan, Pune, India, Sen, A., Peyada, N. K., Subrahmanyam, S., Wahi, P. and Ghosh, A. K.
3. Wind Tunnel Study of A Grid Fin Stabilized guided Projectile, AIAA Atmospheric Flight Mechanics Conference and Exhibit, Honolulu, Hawaii, USA, Misra A., Singhal A., Ghosh A.K. and Ghosh K.
4. Cascade Fins - An Alternate Tail Stabilization Unit, AIAA Atmospheric Flight Mechanics Conference and Exhibit, Honolulu, Hawaii, USA, Misra A., Ghosh A.K. and Ghosh K.
5. Aerodynamic Parameter Estimation using New Filtering Technique Based on Neural Network and Gauss-Newton Method, ARMS 2008, ARDE, Pashan, Pune, Peyada, N. K. and Ghosh, A. K.
6. Neural Networks Based Approach to Model Lattice Fin Aerodynamics, INSARM-2008, National Seminar on Aerospace and Related Mechanism at ARDE Pune, Pune, Misra A., Uma P., Singhal A., Ghosh A.K. and Ghosh K.
7. International conference on creep and fatigue (CF-5), IGCAR, Kalpakkam, S. Mahesh.
8. International Conference on Aerospace Science and Technology (INCAST), NAL, Bangalore, Venkatesan C.
9. 34-th European Rotorcraft Forum, Liverpool, UK, Venkatesan C.
10. International Conference and Exhibition on Total Engineering, Analysis & Manufacturing Technologies, Bangalore, Venkatesan C.
11. INDUS MAV Workshop, NAL, Bangalore, Venkatesan C.

Biological Science and Bio-engineering

12. HUGO 13th Human Genome Meeting, held at International Convention Centre, Hyderabad, Ganesh S.

13. 1st International Stem Cell Summit India - 2008, IIT Chennai, Amitabha Bandyopadhyay.
14. Young Investigators' Meeting Estuary Island, Kerala, Amitabha Bandyopadhyay.
15. Young Investigators' Meeting Estuary Island, Kerala, Jonaki Sen.
16. Papers presented, Joint International Meeting of Neurogastroenterology and Motility, Lucerne, Switzerland, Anupam Pal.
17. Local longitudinal muscle contractions of the stomach during peristalsis in Wistar rats, Anupam Pal, D. Verma.
18. Papers presented, Joint International Meeting of Neurogastroenterology and Motility, Lucerne, Switzerland, Anupam Pal.
19. Assessment of in vivo gastric muscle stress through finite element analysis of concurrent magnetic resonance imaging and fiber optic pressure measurement during gastric emptying, T. Rawal, V. Pagaria, S. H. Rizvi, M. R. Fox, A. Steingoetter, P. Boesiger, M. Fried, W. Schwizer, Anupam Pal.
20. 1st Biennial Congress of Asian Neurogastroenterology and Motility Association, Seoul, Korea, Anupam Pal.
21. Analysis of local longitudinal muscle contractions of the stomach during peristalsis in Wistar rats, D. Verma, Anupam Pal.
22. Analysis of gastric flow using computer simulation, Pal, J. G. Brasseur, B. Abrahamsson.
23. Understanding root-knot nematode development using RNAi, Fifth International Congress of Nematology, Brisbane, Australia, B.C. Yadav, Y.S. Bibin and K. Subramaniam.
24. C. Elegans proteins puf-8 and mex-3 promote germline stem cell mitosis, Germ cells, October 1-5, 2008, Cold Spring Harbor Lab., Cold Spring Harbor, New York, USA, 2008, M. Ariz, M. Rana and K. Subramaniam.

Chemical

25. Elastic instability and pattern formation in confined soft elastomeric films, American Physical Society Meeting, Pittsburgh. Presented invited paper in the session on Elastic Instability and Pattern Formation in Confined Soft Elastomeric Films, A Ghatak.
26. Two phase flow in multi-helical micro-channels, Indo-German Workshop on Micro-reaction Technology, Pune. SR Ganneboyina, A Ghatak.
27. 3rd International Conference on Safety and Environment in Process Industry, Rome, Italy, D Kunzru.
28. INTERFACE-08 held at HBTI-Kanpur, PK Bhattgacharya.

29. Axial segregation in horizontally vibrated granular materials: A numerical study, International association for computer methods and advances in geomechanics, Goa, 2008, A Bhateja, JK Singh, and I Sharma.
30. Critical properties of fluids in nanopores, CHEMCON 2008, SK Singh, S Jana, JK Singh.
31. Interface mixing behaviour of Lennard-Jones FCC (100) thin film, AIChE, Annual Meeting, P Gazali, SK Kwak, JK Singh.
32. Thermophysical properties of confined fluids, AIChE, Annual Meeting, SK Singh, S Jana, SK Kwak JK Singh.
33. Surface phase morphological transitions on functional surfaces, AIChE, Annual Meeting, JK Singh and J Saha.
34. Wetting transitions on functional surfaces, Nanomem, FORTH-ICT, Greece, JK Singh.
35. Contributed oral presentation at the International Congress on Rheology at Monterey, California, USA, V Shankar.
36. Lattice Boltzmann study of velocity, temperature, and concentration in micro-reactors, ICMES-2008, Amsterdam (Netherlands), N Verma, D Mewes and A Luke.
37. 25th Annual meeting of Polymer Processing Society, Goa, YM Joshi.
38. Annual Meeting of the Indian National Academy of Engineering, Goa, Y M Joshi.
39. 78th Annual Session of the National Academy of Sciences, Chandigarh, YM Joshi.
40. The XVth International Congress on rheology, monterey (California), de Gennes days symposium, Paris, YM Joshi.

Civil

41. National Conference HYDRO 2008, MNIT Jaipur, Rajasthan, Jain, A.
42. Brainstorming Workshop on Application of Advanced Soft Computing Techniques in Geospatial Data Analysis, IIT Bombay, Mumbai, Jain, A.
43. Water Industry Alliance Awards Ceremony, Adelaide Convention Center, Adelaide, Australia, Jain, A.
44. Living Laboratories Technological Innovation in Wetland Management, The Vines Room, National Wine Centre, University of Adelaide, Adelaide, Australia, Jain, A.
45. REACH2008 Symposium, Khajuraho, M.P, Organized by IIT Kanpur, Jain, A.
46. Track Chair for Infrastructure Session in the National Frontiers of Engineering Symposium-3, IIT Madras, Das, A.

47. Earthquake Research Institute, University of Tokyo, as Visiting Scientists under a fellowship awarded by ERI to work with Prof. Satake, J. N. Malik.
48. ESC (European Seismological Commission) - at Crete, Greece, J. N. Malik.
49. Earthquake Research Institute, University of Tokyo, Japan under the joint INDO-JAPAN project on Paleoseismology of Andaman Island with Prof. Satake, sponsored by DST New Delhi and JSPS, J. N. Malik.
50. International Symposium on the Restoration Program from Giant Earthquakes and Tsunamis, Phuket, Thailand, J. N. Malik.
51. ESC (European Seismological Commission) - at Crete, Greece, Dikshit, O.
52. National Conference on Communications, I.I.T. Guwahati; Chaired a session, presented a contributed paper, Adrish Banerjee.
53. Presented paper entitled On the optimality of sliding window Lempel - Ziv algorithm with side information, International Symposium on Information Theory and its Applications, ISITA 2008, Auckland, New Zealand, R. K. Bansal.
54. IFAC World Congress, Seoul, Laxmidhar Behera.
55. World Congress on Computational Intelligence (WCCI), in Hongkong, Laxmidhar Behera.
56. IEEE Multi-Conference on Systems and Control, San Antonio, USA, Laxmidhar Behera.
57. Fifteenth National Conference on Communications, IIT Guwahati, A. K. Chaturvedi.
58. Chair, Technical Committee, IEEE Conference and Exhibition on Control, Communication and Automation, INDICON 2008, IIT Kanpur, A. K. Chaturvedi.
59. Presented peer reviewed paper at the National Conference on Communications (NCC 2009), IIT Guwahati, India, Rajesh M. Hegde.
60. Presented two contributed papers at IEEE-IECON 08, Orlando, Florida, US, Parthasarathi Sensarma, Rajesh M. Hegde.
61. 3rd National Frontiers in Engineering, IIT Madras. Theme IV – Infrastructure, S. N. Singh.
62. Colloquium for Humboldt Alumni in the Engineering Sciences in India, New Delhi / INDIA, S. N. Singh.
63. IEEE Conference & Exhibition on Control, Communication and Automation, INDICON 2008, IIT Kanpur, S. N. Singh.
64. 15th National Power System Conference, IIT Bombay (Mumbai), S. N. Singh.
65. GRIDTECH 2009 Conference and Exhibition, PGCIL, New Delhi, S. N. Singh.
66. IEEE Power Engineering Society, General Meeting, Pittsburg, USA, S. N. Singh.

67. Power Systems Conference and Exhibition (PSCE 09), Seattle, Washington USA, S. C. Srivastava.
68. North American SynchroPhasor Initiative (NASPI) Working Group Meeting during at Electric Power Research Institute (EPRI) office, Charlotte, NC, USA, S. C. Srivastava.

Computer Science

69. Formal Methods Update Meeting, held at TRDDC, Pune, Foundations of Software Technology and Theoretical, Anil Seth.
70. Computer Science, held at Indian Institute of Science, Bangalore, India, Anil Seth.
71. International Conference on Scientific and Statistical Database Management (SSDBM) at Hong Kong, China, Arnab Bhattacharya.
72. 15th IEEE International Symposium on High-Performance Computer Architecture, Raleigh, NC, USA, Mainak Chaudhuri.
73. 10th Asia Pacific High-Performance Computing Conference, Kaohsiung, Taiwan, Mainak Chaudhuri.
74. Foundations of Computer Science, Philadelphia, Manindra Agrawal.
75. Indian Algorithms Seminar, Khandala, Manindra Agrawal.
76. Foundations of Software Technology and Theoretical Computer Science, Bangalore, Manindra Agrawal.
77. ICDCIT, New Delhi, R.K. Ghosh.
78. Intl Conf of Parallel Processing, Portland, Oregon, Sanjeev K. Aggarwal.
79. Asia Academic Forum, Taipei, Taiwan, Sanjeev K. Aggarwal.
80. High Performance Computing, Bangalore, India, Sanjeev K. Aggarwal.
81. Intl Conf on Distributed Systems and Internet Technologies, Delhi, India, Program Chair, Sanjeev K. Aggarwal.
82. India Software Engg Conference, Pune India, Session Chair, Sanjeev K. Aggarwal.
83. 20th Canadian Conference on Computational Geometry (CCCG'08), McGill University, Montreal, Canada, Shashank K Mehta.
84. Dagstuhl Seminar 08341 on Sublinear Algorithms, Dagstuhl, Germany, Sumit Ganguly.
85. Computer Science Conference of Russia (CSR), Moscow, Russia, Sumit Ganguly.
86. Frontiers of Algorithmics, Changsha, China, Sumit Ganguly.
87. International Conference on Scientific and Statistical Database Management, Hong Kong, contributed paper, Sumit Ganguly.
88. Indian Algorithms Seminar, Khandala, Sumit Ganguly.

89. International Symposium on Automata, Algorithms and Computation, Gold Coast, Australia, contributed paper, Sumit Ganguly.
90. Computing: The Australasian Symposium (CATS), Wellington, New Zealand, contributed paper, Sumit Ganguly.

Electrical

91. National Conference on Communications, I.I.T. Guwahati; Chaired a session, presented a contributed paper, Adrish Banerjee.
92. Presented paper entitled On the optimality of sliding window Lempel - Ziv algorithm with side information, International Symposium on Information Theory and its Applications, ISITA 2008, Auckland, New Zealand, R. K. Bansal.
93. IFAC World Congress, Seoul, Laxmidhar Behera.
94. World Congress on Computational Intelligence (WCCI), in Hongkong, Laxmidhar Behera.
95. IEEE Multi-Conference on Systems and Control, San Antonio, USA, Laxmidhar Behera.
96. Delivered a plenary talk Limited Feedback in Wireless Communication Systems, at the Fifteenth National Conference on Communications, IIT Guwahati, A. K. Chaturvedi.
97. Chair, Technical Committee, IEEE Conference and Exhibition on Control, Communication and Automation, INDICON 2008, IIT Kanpur, A. K. Chaturvedi.
98. Presented peer reviewed paper at the National Conference on Communications (NCC 2009), IIT Guwahati, India, Rajesh M. Hegde.
99. Presented two contributed papers at IEEE-IECON 08, Orlando, Florida, US, Parthasarathi Sensarma.
100. 3rd National Frontiers in Engineering, IIT Madras. Theme IV – Infrastructure, S. N. Singh.
101. Colloquium for Humboldt Alumni in the Engineering Sciences in India, New Delhi / INDIA, S. N. Singh.
102. IEEE Conference & Exhibition on Control, Communication and Automation, INDICON 2008, IIT Kanpur, S. N. Singh.
103. 15th National Power System Conference, IIT Bombay (Mumbai), S. N. Singh.
104. GRIDTECH 2009 Conference and Exhibition, PGCIL, New Delhi, S. N. Singh.
105. IEEE Power Engineering Society, General Meeting, Pittsburg, USA, S. N. Singh. (Panelist)
106. 2009 Power Systems Conference and Exhibition (PSCE09), Seattle, Washington, USA, S. C. Srivastava.

107. North American SynchroPhasor Initiative (NASPI) Working Group Meeting at Electric Power Research Institute (EPRI) office, Charlotte, NC, USA, S. C. Srivastava.

Industrial & Management

108. Reliability in Portfolio Optimization using Uncertain Estimates, 6th Computational Management Science, University of Geneva, Geneva, Switzerland, Presenter, R. Seth, R. N. Sengupta, P. Winker
109. 32nd Indian Social Science Congress, Jamia Millia Islamia New Delhi, Chairman Multidisciplinary Thematic Research Committee: Labour In Organized And Unorganized Sectors, Rahul Varman
110. 32nd Indian Social Science Congress, Jamia Millia Islamia New Delhi, Varman, Rahul & Chakrabarti, Manali.
111. International Conference on Social Network Analysis, Mumbai: Tata Institute of Social Sciences, D. Pattanaik and J. Chatterjee.
112. A session on Data Mining at the IEEE International conference on Systems, Mann and Cybernetics at Singapore, B. Chandra.
113. International Conference on Neural Information Processing at Auckland, New Zealand, B. Chandra.
114. IFORS conference held at Johannasberg, B. Chandra.

Materials and Metallurgical

115. Processing and Fabrication of Advanced Materials, Delhi, K. Balani.
116. Gorden Research Conference on Aqueous Corrosion New London, R. Balasubhramaniam.
117. International Workshop on Corrosion Evaluation and Mitigation Defense Institute of Advanced Technology, Pune, R. Balasubhramaniam.
118. Conference on Failure Investigation: A Pathway for Railway Safety Research Designs and Standards Organization, Lucknow, R. Balasubhramaniam.
119. International Conference on Processing and Fabrication of Advanced Materials XVII New Delhi, R. Balasubhramaniam.
120. International Conference on Frontiers of Metallurgy and Materials Technology Hyderabad, R. Balasubhramaniam.
121. International conference on Processing and Fabrication of Advanced Materials -XVII, New Delhi, Krishanu Biswas.
122. DAE-BRNS 2nd International Symposium on Materials Chemistry, M. Katiyar.

123. DST's Pan-IIT Solar-research Initiative Workshop at IIT Bombay, M. Katiyar.

Mechanical

124. Technex 2008, 2nd Global Automotive Technology Conference, New Delhi, A.K. Agarwal.
125. SAE World Congress, Detroit, USA, A.K. Agarwal.
126. Indo-US Frontiers of Engineering, Irvine, CA, A.K. Agarwal.
127. Petrotech 2009, Delhi, A.K. Agarwal.
128. Winrock International 6th International Conference on Biofuels-2009, New Delhi, A.K. Agarwal.
129. ASME Conference on Smart Materials, Adaptive Structures & Intelligent Systems (SMASIS 2008), Maryland, B. Bhattacharya.
130. Fluid Mechanics and Fluid Power Conference 2008, held at PESIT Bangalore, K. Muralidhar.
131. IACMAG, Goa, I. Sharma.
132. Indo-Russian workshop on Topical Problems in Solid Mechanics, Goa, Contributed paper, I. Sharma.
133. Discussion on Contribution of Women in Science and Strategies and Methods to Promote women towards Science Education, Anjali K.
134. National Women's Science Congress, at Karnataka State Women University, Bijapur, Anjali K.
135. 2nd Intl. and 23rd AIMTDR Conf., IIT Madras, Anjali K.
136. Interquadrennial Conference of the International Congress on Fracture, IISc Bangalore, P. Venkitanarayanan
137. Indo-Russian Workshop on Topical Problems in Solid Mechanics, BITS, Goa, P. Venkitanarayanan.
138. 2008 ASME Summer Heat Transfer Conference, Jacksonville, Florida, USA, P. Venkitanarayanan.
139. International conference on creep and fatigue (CF-5), IGCAR, Kalpakkam, S. Mahesh.
140. Characterization of plasma in Micro-EDM discharge using Optical Spectroscopy, ICOMM - 08, Carnegie Mellon, USA, Nagahanumaiah, J.Ramkumar, Nick Glumac, S.G.Kapoor, R.E.De vor.
141. Understanding Gap Phenomena in Micro EDM process using underwater acoustics, IWMF 2008, Chicago, USA, J. Ramkumar, Anuj Kumar Garg, Nagahanumaiah, J.Ramkumar, Nick Glumac, S.G.Kapoor, R.E.De vor.
142. World Congress on Computational Intelligence (WCCI-2008), Hong Kong, K. Deb.
143. Genetic and Evolutionary Conference (GECCO-2008), Atlanta, USA, K. Deb.

144. Parallel Problem Solving from Nature (PPSN-2008), Dortmund, Germany, K. Deb.
145. Biologically Inspired Memetic Optimization (BIOMA-2008), Ljubliana, Slovenia
146. Simulated Evolution and Artificial Learning (SEAL-2008), Melbourne, Australia, K. Deb.
147. Dagstuhl Seminar, Saarbrücken, Germany, K. Deb.
148. Evolutionary Multicriterion Optimization (EMO-2009), Nantes, France, K. Deb.
149. 1st Int. Conference on Abrasive based Processes held at Churchill College, Cambridge (UK), V. K. Jain.
150. 23rd AIMTDR conference held at IIT Madras, Chennai, V.K. Jain.
151. Indo - US workshop held at PSG College, Coimbatore, V.K. Jain.
152. Inter Quadrennial International Conference on Fracture at Bangalore India, August 2008, Basu S.
153. XXII international Conference on Theoretical and Applied Mechanics at Adelaide, Australia, Basu S.
154. IISc Centenary - International Conference on Advances in Mechanical Engineering, Bangalore, P. Wahi.
155. Indo-Russian workshop on Tropical Problems in Solid Mechanics, BITS Pilani, Goa Campus, Zuvarinagar, Goa, P. Wahi.
156. 2009 International Conference on Vibration Problems, Kharagpur, P. Wahi.

Humanities and Social Sciences

157. Fifth All India Conference of Indian Association for Social Sciences and Health, Xavier Institute of Management, Bhubaneswar, A.K. Sharma and Rita Singh.
158. Workshop on Orientation of the Selected Mapping Agency and SACS/TSU, National Aids Control Organization, Ministry of Health and Family Welfare, Chandralok Building, Janpath, New Delhi, A.K. Sharma.
159. International Conference on Fundamental and Transnational Research on HIV/AIDS – Global Perspectives, ISSRF and ICMR, ITC Grand Sheraton Hotel and Towers, Mumbai, Sonal Mobar, Ashish Kumar Mishra, A.K. Sharma, and Rita Singh.
160. 30th Annual Conference of IASP, ISEC, Bangalore, Ashish Kumar Mishra and A. K. Sharma.
161. National Seminar on Methodological Issues in Measuring Millennium Development Goals in Districts of India, International Institute for Population Sciences, Mumbai, A.K. Sharma and Rita Singh.

162. Sixth Annual Conference of Indian Association for Social Sciences and Health (IASSH), School of Social Sciences & International Studies, Pondicherry University, Pondicherry, Ashish Kumar Mishra and A. K. Sharma.
163. Workshop on Productivity Measurements jointly organized by Swiss Re and CDE (Centre for Development Economics), DSE (Delhi School of Economics) at the DSE, S.K. Mathur.
164. From 'Spiderman' to 'Nagraj': The Nativisation of the American Superhero. International Comics Conference 2009 organised by CPRAC SIS, Thrissur, Kerala, Suchitra Mathur.
165. The Superhero Goes Native: 'Translating' Spiderman for an Indian Audience. Annual IACLALS International Conference, Karnataka University, Dharwad, Suchitra Mathur.
166. International Conference on Translation and Postcolonialities, organized by IACLALS (Indian Association for Commonwealth Literature and Language Studies) and Department of English, Karnataka University, Dharwad, Mini Chandran.
167. 18th Annual Conference of National Academy of Psychology,- India, IIT Guwahati, Braj Bhushan.
168. World Intellectual Property Organization (WIPO) in cooperation with the Department of Industrial Policy and Promotion (DIPP), Government of India and the Federation of Indian Chambers of Commerce and Industry (FICCI), New Delhi, P.M. Prasad.
169. Maintaining Sustainable Flows in River Ganga: Approach and Methodology Workshop, New Delhi; and IIT Kanpur- P.M. Prasad.
170. Water logging, Land Development & Drainage in Agriculture, State Water Resources Agency (SWaRA), PACT and Irrigation Department UP, Lucknow, P.M. Prasad.
171. Participated in Indo-German Symposium on Education and Research in Sustainability, IIT Madras, Chennai, P. M. Prasad.
172. The challenge of renewing the social sciences and humanities in India, National Seminar, Higher Education: Policies and Perspectives, Department of Political Science, Osmania University, Amman Madan.
173. Questioning dominant discourses in higher education: the struggle to rethink the global university, National Seminar, Sociology - Meeting the Challenges of Globalization, University of Kashmir, Srinagar, Amman Madan.
174. A Cultural Psychological Inquiry among the Survivors of Post-Godhara Riots in Gujarat at the 18th Annual Conference of National Academy of Psychology, IIT Guwahati, Kumar Ravi Priya.

175. Symposium on 'Teaching of Psychology in India: Mapping the Terrain'. 18th Annual Conference of National Academy of Psychology, IIT Guwahati, Kumar Ravi Priya.
176. Contextualizing Social Psychological Research on Trauma and Healing in India: Promises and Challenges, National Seminar on Social Psychology in India: Perspective and Potential, D. D. U. Gorakhpur University, Kumar Ravi Priya.
177. 18th Annual Conference of NAOP, IIT Guwahati, L. Krishnan and P. Varma.
178. Realistic self-esteem. National Seminar on Healthy Adolescent Girl -Sarojini Naidu Women's PG College, Bhopal, L. Krishnan.
179. The role of changing parenting attitudes. National Seminar on Changing Trends in Family Environment, Mata Jeejabai Girls' Post-Graduate College, Moti Tabela, Indore, L. Krishnan.
180. Sixth conference of Indian Association for Social Sciences on Health, Equity and Human Rights, organized by School of Social Sciences and International Studies, Pondicherry University, Puducherry, S. Dixit.
181. 12th International and 43rd National Conference of the Indian Academy of Applied Psychology, organized by Department of Applied Psychology, University of Calcutta, Kolkata, in Collaboration with National Institute of Technical Teachers' Training and Research, Kolkata, and Psychology Research Unit, ISI Kolkata, Kolkata A. Mehrotra and S. Dixit.

Chemistry

182. 4th EuCheMS Conference on Nitrogen Ligands' at Garmisch-Partenkirchen, Germany, J.K. Bera
183. 38th International Conference on Coordination Chemistry (37th ICCC)' at Jerusalem, Israel, J. K. Bera. Symposium on Chemical Dynamics in Complex Systems, held in IISc, Bangalore, A. Chandra.
184. Eighth Triennial Congress of the World Association of Theoretical and Computational Chemists, held in Sydney, Australia, A. Chandra.
185. The International Conference on Theory and Applications of Computational Chemistry, held in Shanghai, China, A. Chandra.
186. Seminar on Frontiers of Spectroscopy, held at Lucknow University, A. Chandra.
187. Meeting on Future Directions of Ultrafast Spectroscopy: A Guideline, held at S.N. Bose Centre for Basic Sciences, Kolkata, A. Chandra.
188. Theoretical Chemistry Symposium (TCS 2009), held at IISc and JNCASR, Bangalore, A. Chandra.

189. Sixth Discussion Meeting on Spectroscopy and Dynamics of Molecules and Clusters (SDMC 09), held at Mandarmoni, West Bengal, India, A. Chandra.
190. India-Japan Workshop on Frontiers in Molecular Spectroscopy and Theory, held at IACS, Kolkata, A. Chandra.
191. National Seminar on Current Trends in Chemistry - III, held at University of Kalyani, West Bengal, A. Chandra.
192. Molecules and Materials: New Directions at JNCASR, Bangalore, V. Chandrasekhar.
193. 4th EuCheMS Conference on N-Ligands, Garmisch-Partenkirchen, Germany, V. Chandrasekhar
194. UGC/State symposium at Goa University, Goa, M. K. Ghorai.
195. National seminar on recent trends in chemistry Punjabi University Paptiala, Member National Advisory Committee, B. D. Gupta.
196. 4th International Conference on Coherent Multidimensional Spectroscopy (CMDs 2008), Fukui Institute for Fundamental Chemistry, Kyoto University, Kyoto, Japan, S.K. Karthick Kumar, T. Goswami, A. Kumar, A. Nag and D. Goswami.
197. Control of laser induced molecular fragmentation benzene using chirped femtosecond laser pulses, AISAMP8, Perth, Australia, Tapas Goswami, S. Karthick Kumar, Aveek Dutta and Debabrata Goswami.
198. Photonics-2008, Habitat World Convention Center, New Delhi, Stable optical trapping: towards trapping single molecules, A. K. De, D. Roy and D. Goswami.
199. Nonlinear optical response of carbon nanotubes functionalized with a water soluble ink, Jyotsana Gupta, C. Vijayan, Sandeep Kumar Maurya and D. Goswami.
200. National Laser Symposium 2008 (NLS-08), DRDO Complex, New Delhi, Control of Laser Induced Molecular Fragmentation of n-Propylbenzene Using Chirped Femtosecond Laser Pulses, T. Goswami, S.K.K. Kumar, A. Dutta and D. Goswami.
201. Investigation of the effect of slit-width on the retrieved group delay from XSTRUT pulses, A. Dutta, I. Bhattacharya and D. Goswami.
202. Spectroscopy and Dynamics of Molecules and Clusters (SDMC) Discussion Meeting 09, Mandarmoni, Kolkata, Chirp enhanced molecular photo-fragmentation, D. Goswami.
203. Control of Laser Induced Photo-Fragmentation of n-Propylbenzene with Chirped Femtosecond Laser Pulses, T. Goswami, S.K.K. Kumar, A. Dutta and D. Goswami.
204. Towards polarization dependent control using collinear pump-probe z-scan technique, Sandeep Kumar Maurya and D. Goswami.

205. Probing Ultrafast Two-photon Fluorescence Dynamics in Laser-scanning Microscopy, A.K. De, S.K. Maurya, and D. Goswami.
206. Fluorescence-2009: An International Conference on Fluorescence in Biology, TIFR, Mumbai, Optical Sectioning with one-photon femtosecond laser illumination, Debabrata Goswami.
207. Probing Ultrafast Two-photon Fluorescence Dynamics in Laser-scanning Microscopy, A.K. De and Debabrata Goswami.
208. JNOST, Madurai, R Gurunath.
209. Lattice Inclusion Cornucopia: Sterically-Engineered Rigid Molecular Modules for Kaleidoscopic Guest Inclusion, J.N. Moorthy.
210. Indo-US bilateral workshop on pharmaceutical co-crystals and polymorphs, Mysore, J.N. Moorthy.
211. Influence of weak interactions on the self-assembly of sterically-hindered acids, amides, boronic acids and alcohols, J.N. Moorthy.
212. Discussion Meeting on Crystal Engineering and Noncovalent Interactions: Contemporary Themes and Futuristic Developments, Orange County, Coorg, J.N. Moorthy.
213. The 4th Asian Biological Inorganic Chemistry Conference (AsBIC-IV), Jeju, Korea, R.N. Mukherjee.
214. International Conference on Coordination Chemistry (ICCC38), Jerusalem, Israel, R.N. Mukherjee.
215. 11th National Symposium in Chemistry (NSC-11), National Chemical Laboratory, Pune, Book of Abstracts (P-49), R.N. Mukherjee.
216. Discussion Meeting on Theoretical Chemistry, IISc Bangalore, Nisanth Nair.
217. Recent trends in Organometallic Compounds & their Industrial Application, OMCA-2009, KIIT-University, Patia, Bhubaneswar, M.L.N. Rao.
218. 11th CRSI National Symposium in Chemistry (NSC-11) held on NCL, S. K. Ghosh, R. Patra and S. P. Rath.
219. 1st FOIC held at Jadavpur University, S. P. Rath.
220. Nanosteps Summer Workshop, Cargese, Madhav Ranganathan.
221. National Conference on Thermodynamics of Chemical and Biological Systems, Nagpur, Madhav Ranganathan.
222. Theoretical Chemistry Symposium, IISc. Bangalore, Madhav Ranganathan.
223. Molecular Science Conference, Fukuoka, Japan, Pratik Sen.
224. FACSS Conference, Reno, USA, Pratik Sen.
225. 11th NSC CRSI 2009, Pune, Pratik Sen.
226. National Symposium on Radiation and Photochemistry, Nainital, Pratik Sen.
227. BIFUR08, Madrid, Spain, K. Srihari.
228. Theoretical Chemistry Conference, Bangalore, K. Srihari.

229. Spectroscopy and Dynamics of Molecules and Clusters VI, Sana Beach Resort, Kolkata, K. Srihari.
230. American Physical Society Focus meeting on Transition States in Chemistry, Physics, and Astrophysics, Pittsburg, USA, K. Srihari.


Physics

231. International Conference on Cold Atoms, IISER-Kolkata, T.K. Ghosh.
232. K. S. Krishnan Discussion Meeting on Frontiers in Quantum Science, The Institute of Mathematical Sciences, Chennai, T.K. Ghosh
233. New Trends in Field Theories, BHU, Varanasi, S.D. Joglekar
234. New Trends in Field Theories, BHU, Varanasi, S.D. Joglekar
235. International conference on computational material science and engineering (ICCMSE) 2008, held at Crete, Greece, M.K. Harbola
236. Controlling magnetic and superconducting properties at extreme scales in the International symposium on clusters, cluster assemblies and nanomaterials (ISCANM 2009), held at HRI, Allahabad, S.S. Banerjee
237. Controlling magnetic and superconducting properties at extreme scales in the Workshop on Magnetic Nanomaterials and their Application (MNTA), at S.N. Bose Center, Kolkata, S. S. Banerjee.
238. Indian Condensed Matter Physics Workshop, Mahabaleshwar, S.S. Banerjee.
239. 4th Indo-Israeli conference in Condensed Matter Physics, Zfat, Israel. S.S. Banerjee.
240. Talk in the Condensed Matter Seminar at Weizmann institute of Science, Israel, on Instabilities and nonlinearities in bulk and nanopatterned superconductors. S.S. Banerjee.
241. Quantum Phase Transition and Dynamics: Quenching, Annealing and Quantum Computation, Saha Institute of Nuclear Physics, Kolkata, Beyond the Kibble-Zurek Scaling: Quenching through a multicritical point and a gapless line. A. Dutta
242. Recent trends in condensed matter II, Saha Institute of Nuclear Physics, Kolkata, Adiabatic dynamics of quantum spin chains across quantum critical points: A. Dutta
243. Unconventional Phases and Phase Transitions in Strongly Correlated Electron Systems, MPIPKS, Dresden, Germany, Quenching Dynamics and Defect Generation in a transverse XY Chain. A. Dutta
244. Conference on Laser Applications in Basic and in Applied Sciences, Allahabad University, A. Pradhan
245. Meghnad Saha Memorial Symposium, Santiniketan, A. Pradhan.

246. 23rd National Symposium on Plasma Science and Technology (PLASMA 2008), BARC, Mumbai, Sudeep Bhattacharjee.
247. International workshop titled "CMB anisotropy and polarization measurements held in Inter University center for Astronomy and Astrophysics (IUCAA) Pune, Kaushik Bhattacharyya.
248. International Symposium on clusters and nan-scale materials, HRI, Allahabad, R. Prasad.
249. Recent trends in Condensed matter physics, LNMIIT, Jaipur, R. Prasad.
250. Member, National Organizing Committee and Session Chair in the Indian Strings Meeting 2008 (ISM 08), Pondichery, G. Sengupta.
251. Workshop on Advanced Instability Methods, IIT Madras, M.K. Verma.
252. Plasma Society of India Annual conference at BARC, M.K. Verma.
253. International Workshop on Entanglement in Condensed Matter Physics at Matscience, Chennai. V. Subrahmanyam.
254. Krishnan Conference at Matscience, Chennai, V. Subrahmanyam.
255. QAQC International Workshop, at SINP, Kolkata, V. Subrahmanyam.

Mathematics

256. Stochastic Differential Equation Modeling of Some Ecological Systems, National Conference on Mathematical Modeling and Simulation, IIITM Gwalior, Malay Banerjee.
257. Stochastic Modeling and Simulation in Bio-mechanics, National Conference on Biomechanics, IIT Roorkee, Malay Banerjee.
258. 4th Asia-Pacific Computing and Philosophy (APCAP) Conference, NIAS, IISc Bangalore, Mohua Banerjee.
259. Logics from Rough Sets, National Seminar on Mathematics with special emphasis on Discrete Mathematics (NSMDM 2009), Univ. of Calcutta, Mohua Banerjee.
260. Rough Sets: Algebraic Aspects, 74th Annual Conference of the Indian Mathematical Society, Univ. of Allahabad, Mohua Banerjee.
261. Third Indian Conference on Logic and its Applications (ICLA 2009), IMSc, Chennai, Mohua Banerjee.
262. Subnormal Algebraic Operator Tuples, HRI International Conference in Mathematics held at Harish-Chandra Research Institute, Allahabad, S. Chavan.

263. Interdisciplinary Science Conference - 2008 on Mathematics in Biology, Jamia Milia Islamia, New Delhi, P. Chandra.
264. 76th Annual session of Indian Mathematical Society, Allahabad University, Allahabad, P. Chandra.
265. National Conference Mathematical Modeling and Computer Simulation, ABV IITM Gwalior, P. Chandra.
266. National Seminar on Mathematics & Its Applications to Industries - DBS College, Kanpur, P. Chandra.
267. National Seminar on 'Advanced Fluid Mechanics', NIT Warangal, P. Chandra.
268. Great Plains Operator Theory Symposium, University of Cincinnati, Cincinnati, USA, M. Gupta.
269. International workshop on Operator Theory, College of Williams and Mary, Williamsburg, Virginia, USA, M. Gupta.
270. International conference on Analysis and its Applications, Aligarh Muslim University, Aligarh, India, M. Gupta.
271. Indian Mathematical Society Annual Meeting, University of Allahabad, M. Gupta.
272. International conference on Differential Equations and Dynamical Systems and at Baltimore, Maryland, USA, M. K. Kadalbajoo.
273. The International Conference on Numerical Methods for PDEs, IIT Bombay, M. K. KadalBajoo.
274. Indo-French Conference in Mathematics, Madras, P. Mohanty.
275. Nonlinear Elliptic equations-an over view, National conf. on Analysis and applications, Department of Mathematics, Sardar Patel university, V.V. Nagar, Gujarat. Also chaired a session, V. Raghavendra.
276. Nonlinear Elliptic Equations, 24th Annual conference of the Mathematical Society of BHU, Dept. of Mathematics, BHU, Varanasi, V. Raghavendra.
277. Approximation by K finite functions, National Conference on Fourier analysis and its Applications, Ramanujan Institute for Advanced Study in Mathematics, University of Madras, Chennai, R. Rawat.
278. Twisted spherical means in annular regions in , HRI International Conference in Mathematics, Harish-Chandra Research Institute, Allahabad, R. Rawat.
279. Obata's theorem and its generalizations, HRI International Conference in Mathematics, HRI Allahabad, G. Santhanam.
280. Thermal and roughness effects in a slider bearing with special reference to load generation in parallel sliders, presented at the 63rd Annual Meeting of the Stle, Cleveland, OH, USA, Prawal Sinha & Getachew Adamu.

281. Mathematical Modeling of Thermo Hydrodynamic Effects in a Rough Slider Bearing Considering Heat Conduction through the Pad, presented at the 2008 International Conference on Modeling, Simulation and Visualization Methods (MSV'08) held at Las Vegas, NV, USA, Prawal Sinha & Getachew Adamu.
282. The STLE/ASME International Joint Tribology Conference, at Miami, Florida, USA, Prawal Sinha & Getachew Adamu.
283. The Fourier Algebra of a Locally Compact Group and Completely Bounded Multipliers, IMS-2008, U. B. Tewari.

SEMINAR PRESENTED

Aerospace

1. Grid and Cascade Fins for control of Large-incidence Missiles, BIT Ranchi (Mesra) Deptt of Aerodynamics & Rocketry, Kunal Ghosh.
2. Damage LMT mesomodel and its validation, International Seminar on Composites for Aerospace Applications, Hindustan University, Chennai, PM Mohite, G Lubineau, P Ladevèze and AC Galucio.
3. Hierarchical modeling of polycrystals. IIT Bombay, Metallurgical Engineering and Materials Science Dept., S. Mahesh.
4. Banding in single crystals. IIT Kanpur, ME Department seminar series. Creep lifetime of fiber composites, International conference on creep and fatigue (CF-5), IGCAR, Kalpakkam, S. Mahesh.
5. Design and development of an autonomous mini helicopter, *Invited Talk* in International Conference and Exhibition on Total Engineering, Analysis & Manufacturing Technologies, Bangalore, Venkatesan. C., Kushari, A., Upadhyay, C.S., Dhadwal, M., and Swaroop, B.
6. Flight dynamic modeling and analysis of a mini helicopter for trim and stability *Invited Talk* in INDUS MAV Workshop, NAL, Bangalore, Venkatesan. C.
7. Rotary-Wing Technology: Past, Present and Future, *Invited Talk* in Industry Awareness Workshop, University of Petroleum and Energy Studies, New Delhi, Venkatesan. C.

Biological Science and Bio-engineering

8. *Invited talk* in the BSI Invited Seminars & Forums, organized by the RIKEN Brain Science Institute, Wako-shi, Japan, Ganesh S.
9. *Invited talk* in the HUGO 13th Human Genome Meeting, held at International Convention Centre, Hyderabad, Ganesh S.
10. 1st International Stem Cell Summit India - 2008, IIT Chennai, Amitabha Bandyopadhyay.
11. *Invited talk* - Yin and Yang of skeletal development: Gene hunting and Genetics, CDRI, Lucknow, Amitabha Bandyopadhyay.
12. From sequence analysis to structural simulations: How can basic and applied biology benefit from bioinformatics applications, *plenary lecture* in the National Seminar on Bioinformatics Applications in Medical Sciences organized by SRM University, Chennai, R. Sankar.

13. Comparative molecular dynamics simulations reveal specificity of Bcl-XL anti-apoptotic protein, *Invited talk* at the Bioinformatics Institute, Singapore, R. Sankar.
14. Biomolecular simulations: Future challenges in high performance computing, *Invited talk* in the HPC User Group Workshop on Advancements in High Performance Computing and Interoperability jointly organized by Microsoft Inc. and SERC, Indian Institute of Science, Bangalore, R. Sankar.
15. Comparative molecular dynamics simulations reveal specificity of a member of Bcl-2 cancer proteins, *Invited talk* in the International Conference on Emerging Trends in Biological Sciences at KIIT University, Bhubaneswar, R. Sankar.
16. Protein-Protein interactions in Bcl-2 apoptotic proteins: Comparative MD simulations on Bcl-XL complexes, *Invited talk*, Biotechnology Centre, School of Biosciences and Bioengineering, Indian Institute of Technology, Bombay, R. Sankar.
17. New generation of polymeric biomaterials for biotechnological and bioengineering applications. 13th International Biotechnology Symposium and Exhibition, Dalian-China, Kumar, A.
18. Designing New Supramacroporous Cryogels Biomaterials for Bioengineering applications. Tissue and Cell Engineering Society, Annual conference, University of Nottingham, UK, Kumar, A.

Chemical

19. Adhesion enhancement via physical patterning of surfaces, TATA Iron and Steel Co., Jamshedpur, A Ghatak.
20. 3-dimensionally Oriented Multihelical Channels for Microfluidic Mixing, Indo-German Workshop on Micro-reaction Technology, Pune, A Ghatak.
21. Bio-inspired Microfluidic Adhesion. Department of Physics, Indian Institute of Technology, Kanpur, A. Ghatak.
22. Pressure driven membrane processes: Effluent Treatment, INTERFACE-08 held at HBTI-Kanpur, PK Bhattacharya.
23. Genetic Algorithm and Multi Objective Function Optimization, Harcourt Butler technological Institute Kanpur, S Garg.
24. Chemical sensors - Engineering Perspectives, Institution of Engineers, Kanpur Chapter, S Panda.
25. Organic Chemical Sensors, Summer Course on Organic Electronics, IIT Kanpur, S Panda.
26. Atoms, Summer Course on Organic Electronics, IIT Kanpur, S Panda.

27. Molecular Modeling and Simulation: Can it help in the development of micro and nano devices?, INDO- US Workshop, IIT KGP, J.K. Singh.
28. Molecular simulation of fluids near surfaces, HPC workshop, IISc Bangalore, J.K. Singh.
29. Mechanical Engineering Seminar, IISc Bangalore, V Shankar.
30. Fluid Dynamics Colloquium, JNCASR, Bangalore, V Shankar.
31. Time-Temperature superposition in soft glassy materials, 25th Annual meeting of Polymer Processing Society, Goa, Y.M. Joshi.
32. Time-Temperature superposition in soft glassy materials, Annual Physics convention, Department of Physics, Indian Institute of Technology-Kanpur, Y.M. Joshi.
33. Ageing under deformation field: Time-Stress superposition, Tata Research Development and Design Center, Pune, Y.M. Joshi.
34. Ageing under deformation field: Time-Stress superposition, National Chemical Laboratory-Pune, Y.M. Joshi.
35. Ageing under deformation field: Time-Stress superposition, Annual Meeting of the Indian National Academy of Engineering, India, Goa, YM Joshi.
36. Ageing under deformation field: Time-Stress superposition, 78th Annual Session of the National Academy of Sciences, India, Chandigarh, YM Joshi.
37. Ageing under deformation field in soft glassy materials, Polymères, Colloïdes, Interfaces, Université du Maine, Le Mans, YM Joshi.
38. Ageing under deformation field in soft glassy materials, Laboratoire de Physique des Solides, Université Paris Sud Bât, Orsay, YM Joshi.
39. Ageing under deformation field in soft glassy materials, Navier Institute, University of Eastern Paris, Paris, YM Joshi.
40. Ageing under deformation field in soft glassy materials, Dipartimento di Fisica Università di Roma La Sapienza, Rome, YM Joshi.

Civil

41. *Invited Talk* entitled Rainfall-runoff modeling using neural networks: State-of-the-art and future research needs in The Brainstorming Workshop on Application of Advanced Soft Computing Techniques in Geospatial Data Analysis, IIT Bombay, Mumbai, India, Jain, A.
42. *Invited Guest Lecture* entitled Integrated Hydrologic Modeling and Knowledge Extraction from Trained ANN Hydrologic Models in Prof. Holger Maiers class: C&ENVENG 4087 (Final Year) and C&ENVENG 7029 (Masters) Environmental Modelling, Management and Design 08, School of Civil

- Environmental, and Mining Engineering, University of Adelaide, Adelaide, Australia, Jain, A.
43. School Seminar entitled Development of Integrated Hydrologic Models, School of Civil Environmental, and Mining Engineering, University of Adelaide, Adelaide, Australia, Jain, A.
 44. ICE WaRM Public Seminar entitled Water Problems and Solutions: An Indian Perspective, Water SA, 77 Grenfell Street, Adelaide, Australia, Jain, A.
 45. School Seminar entitled Integrated Hydrologic Modelling and Hidden Neuron Specialisation in Neural Network Hydrologic Models, School of Civil and Environmental Engineering, University of New South Wales, Sydney, Australia, Jain, A.
 46. ICE WaRM Public Seminar entitled Water Problems and Solutions: An Indian Perspective, Radisson Hotel, Liverpool Street, Sydney, Australia, Jain, A.
 47. Centre for Water Management and Reuse Seminar entitled Modelling of Water Resources Variables using Soft Computing Approaches, School of Natural and Built Environments, University of South Australia, Adelaide, Australia, Jain, A.
 48. Hydrology Discussion Forum Seminar entitled The Development of Hybrid Hydrologic Models using Process Based and Artificial Neural Network Methods, School of Chemistry, Physics and Earth Sciences, Flinders University, Adelaide, Australia, Jain, A.
 49. Disaster management and mitigation related issues related to road infrastructure, Workshop on disaster management and mitigation, HBTL, Kanpur, Das, A.
 50. Do we know how to build roads? National Seminar in Geotechnical Engineering for applications in pavement, embankment and retaining wall constructions, IT-BHU, Varanasi, Das, A.
 51. Aggregate shape characterization for bituminous mixes, National Seminar in Geotechnical Engineering for applications in pavement, embankment and retaining wall constructions, IT-BHU, Varanasi, Das, A.
 52. Center for Archaeological Sciences and Technologies (CAST): An Indian Initiative, Dikshit O, Malik J N, Dhande S G, Chatterjee A , Rai G K, Mani B K, Fonia R S, Prabhakar V N.
 53. Paleoseismological Investigations around Port Blair, Andaman Islands: Evidence of Subsidence and Uplift from Sedimentary Records, Malik J N, Shishikura M, Echigo T, Ikeda Y, Satake K , Kayanne H, Basir S R, Chakraborty G K, Murty C V R & Dikshit O.
 54. Paleo-Earthquake Evidence from Archaeological Site in Mesoseismal Zone of 1819 Allah Bund Event, Great Rann of Kachchh, Gujarat, Western India, Malik J N, Gadhavi M S, Ansari K, Dikshit O.

55. Lead Speaker, Third Indo-US Frontier of Science held in Agra, S.N. Tripathi.
56. Invited Lecture at Aryabhatta Research Institute of Observational Sciences (ARIES), Nainital, S.N. Tripathi.
57. Chairpersons talk delivered titled, Brief overview of Atmospheric Haze/Aerosol research in India with Special Reference to Ground Based Measurement and Chemical Characterization of Submicron Aerosol Particles at National frontiers of Science, DST sponsored symposium, New Delhi, Tarun Gupta,
58. Presentation on Measurement and chemical characterization of submicron aerosol collected at IITK made at Indo-US Frontiers of Science, Agra, Tarun Gupta,

Computer Science

59. Talk, Title: Parity Games on Multi-Stack Pushdown Systems Delivered as part of the Indo-French Workshop on Automata Concurrency and Timed Systems (ACTS), held at Chennai Mathematical Institute, Anil Seth.
60. Distributed Indexing and Querying in Sensor Networks using Statistical Models at Universite Libre de Bruxelles, Brussels, Belgium, Arnab Bhattacharya.
61. Arithmetic Circuits: A Chasm at Depth Four, Tokyo Institute of Technology, Tokyo, Japan, Manindra Agrawal.
62. Arithmetic Circuits: A Chasm at Depth Four, Kyoto University, Japan, Manindra Agrawal.
63. A Possible Pseudorandom Generator Against Arithmetic Circuits, Indian Algorithms Seminar, Khandala, Manindra Agrawal.
64. Fermats Last Theorem: From Integers to Elliptic Curves, BHU, Manindra Agrawal.
65. Arithmetic Circuits: A Chasm at Depth Four, MSR Theory Day, Bangalore, Manindra Agrawal.
66. The P versus NP Question and Pseudorandom Generators, INSA Diamond Jubilee lecture, Delhi, Manindra Agrawal.
67. The P versus NP Problem, Infosys Award lecture, Bangalore, Manindra Agrawal.
68. Cooperative Black and Gray Hole attacks on Mobile Ad hoc Networks, University of Louisville, Kentucky, R.K. Ghosh.
69. Security attacks on MANET, University of Texas at Arlington, R.K. Ghosh.
70. Multi-core program at IIT Kanpur, Intel Asia Academic Forum, Taipei, Taiwan, Sanjeev K. Aggarwal.

71. Program Optimization for Multi-core Architectures: Current Trends, Wipro Technologies, Bangalore, Sanjeev K. Aggarwal.
72. Program Optimization for Multi-core Architectures: Opportunities and Challenges, NIT, Trichy, Sanjeev K. Aggarwal.
73. Lower bound for estimating frequencies of data streams, University of Frankfurt, Sumit Ganguly.

Electrical

74. Smart House, 40th World Telecommunication and Information Society Day, IIT Kanpur organized by IETE Kanpur Chapter, Adrish Banerjee.
75. Turbo Code Design For Half-Duplex Relay Channels, Department of Electronic Engineering, Far East University of Science and Technology, Taiwan, Adrish Banerjee.
76. Quantum Computational Intelligence, *Invited Talk* in Indo-US workshop held in DEI, Agra, Laxmidhar Behera.
77. Decision-Directed Channel Estimation and Data Detection over Time Varying Flat Fading Channels, School of EEE, NTU, Singapore, K. Chaturvedi.
78. Low Complexity Frequency Offset Estimation for Flat Fading MIMO Channels, School of EEE, NTU, Singapore, A.K. Chaturvedi.
79. Power Electronics Today, COMPCON-08 (A National Seminar and Workshop on Communication, Power Electronics and Control Systems), Mohandas College of Engineering and Technology Thiruvananthapuram, Shyama P. Das.
80. Partial Discharges, NERIST (AICTE course), Itanagar, Nandini Gupta.
81. Nano-dielectrics, NERIST (AICTE course), Itanagar, Nandini Gupta.
82. Partial Discharges in High Voltage Power Apparatus, *Invited Lecture*, NIT Durgapur, Nandini Gupta.
83. RFID and Applications, IETE Kanpur Chapter, R. Harish.
84. RFID and Location Sensing, Institution of Engineers, Kanpur, R. Harish.
85. RF Research at IIT Kanpur, International crossroads at TELECOM and Management, SudParis, R. Harish.
86. Antenna Design for CReSIS Radars, University of Kansas, USA, R. Harish.
87. Active and Passive RFID and Location Technology Research at IIT Kanpur, Boeing Company, St Louis, USA, R. Harish.
88. Speaker Recognition: Part I: Speech Production, Broad Overview of Vector Quantization, and Gaussian Mixture Models, National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh, Rajesh M. Hegde.

89. Speaker Recognition: Part II: Theoretical and Implementation Aspects of VQ and GMM for Speaker Recognition, National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh, Rajesh M. Hegde.
90. Data Acquisition using LabVIEW, Lohia Starlinger Ltd., Chaubepur, Kanpur, Joseph John.
91. Health Monitoring of Internal Combustion Engine, Indo-German, Theme Meeting, Kolkata, P. K. Kalra.
92. Advanced Converter Technology for FACTS Controllers, QIP Course, IIT Kanpur, Santanu K. Mishra.
93. Variable Phase Input Power Plant Design for Telecom Application, Power Plant Workshop, ALTTC, BSNL, Ghaziabad, Santanu K. Mishra.
94. Introduction to Controller Area Network, Lohia Starlinger Ltd., Chaubepur, Kanpur, R. Potluri.
95. Key Note speaker at AICTE-ISTE course on Recent Trends in Power Systems at NERIST, Nirjuli, Itanagar, S. N. Singh.
96. Key Note speaker at All India Seminar on Energy Management in Indian Perspective; Efficiency Improvement and Energy Conservation in Power & Utilities & Emerging Technologies in the Alternative Energy for Power Generation, IE (I), Lucknow, S. N. Singh.
97. Key Note speaker and Panelist at National Seminar on Non-Conventional Energy Resources & Its Application (NCERU09), KNIT Sultanpur, S. N. Singh.
98. FACTS Course at POWERGRID Substation, Lucknow, S. N. Singh.
99. Optical Networks, IMPACT 2009, Zakir Hussain College of Engineering, Aligarh Muslim University, Y. N. Singh.
100. Optical Networks, Ambedkar Institute of Technology, Geeta Colony, Delhi, Y. N. Singh.
101. Fast dynamic ATC determination and its enhancement using FACTS controller Invited Lecture at Illinois Institute of Technology, Chicago USA, S.C. Srivastava.
102. Development of methods for optimal placement of PMUs, machine internal state estimation and a global index for voltage stability prediction, Invited Presentation (a working group presentation authored by S.C. Srivastava, S.N. Singh, Ranjana Sodhi, Praveen Tripathi and K. Seethalekshmi) in the NASPI working group committee meeting, at EPRI Charlotte, North Carolina, USA, S.C. Srivastava.
103. Computer Vision Applications: an Introduction, IIITM-K Thiruvananthapuram, K. S. Venkatesh.
104. New Trends in Video Surveillance Technology, LNMIIT, Jaipur, K. S. Venkatesh.

105. Short Course in Image Processing, BMS Engineering College, Bangalore, K. S. Venkatesh.
106. Surveillance Video Analysis Systems: Components, Developments and Challenges, Univ. of Ulster, Magee, Derry, N. Ireland, K. S. Venkatesh.
107. A General Theory of Signals and Processing: The Formalism, Univ. of Ulster, Magee, Derry, N. Ireland, K. S. Venkatesh.

Industrial & Management

108. Use of Asymmetric Loss Functions in Sequential Estimation Problem for the Multiple Linear Regression, Department of Industrial and Operations Engineering, University of Michigan, Ann Arbor, USA, R. N. Sengupta.
109. Impact of information sharing and lead time on bullwhip effect and on-hand inventory, Department of Information, Operations & Management Sciences, STERN School of Business, New York University, USA, R. N. Sengupta.
110. Use of Asymmetric Loss Functions in Sequential Estimation Problem for the Multiple Linear Regression, Department of Computer Science, The University of Memphis, USA, R. N. Sengupta.
111. Bankruptcy Prediction Using Artificial Immune Systems, Lally School of Management & Technology, Rensselaer Polytechnic Institute, USA, R. N. Sengupta.
112. A study of two different variants of adaptive sampling procedures and some interesting applications in management science, Fordham University, USA, R. N. Sengupta.
113. Study of Asymmetric Loss function and its use in Sequential Analysis Estimation, Department of ORFE, Princeton University, USA, R. N. Sengupta.
114. Concept of Alternative Development, Jharkhand Alternative Development Forum, Ranchi, Rahul Varman
115. Role of Incubation for successful Entrepreneurship: TiE-UP, B.V.Phani
116. Teaching Entrepreneurship: A Practitioners View NEN Calcutta, B.V.Phani
117. Entrepreneurial Eco System, IITs Role in Nation Building, Pan IIT-Global Conference, B.V.Phani
118. Intellectual Property Rights: Where, When and Why-RDSO, Lucknow, B.V.Phani

119. Tacit and its dynamics, International Workshop on Knowledge Management, Aligarh: Aligarh Muslim University, D. Pattanaik and J. Chatterjee.
120. KM strategy and assessment to strategic assessment of KM, KM India 2008 - Enhancing Competitiveness through KM, Mumbai, D. Pattanaik and J. Chatterjee.
121. A case study on knowledge networking - DEAL as an innovation ecosystem, IMI-CSIR HRD Workshop on Knowledge Management, New Delhi, D. Pattanaik and J. Chatterjee.
122. Gene Expression Data Analysis at the Workshop on Bio Informatics organized by Mahila University Tirupathi, B. Chandra.
123. Two Way Clustering at Virginia Tech, USA, B. Chandra.
124. Data Mining for Manufacturing at Nanyang Technological University, Singapore, B. Chandra.

Mechanical

125. Simulation of Oscillatory Flow in Tubular Bifurcations on Unstructured Grids, presented at the International Workshop on New Horizons in Nuclear Reactor Thermal Hydraulics, Bhabha Atomic Research Center, K. Muralidhar.
126. Optical imaging of convection during growth of KDP and protein crystals, the second joint symposium between NTU Singapore and IIT Kanpur (at IIT Kanpur), K. Muralidhar.
127. Refractive index methods for the measurement of temperature, solutal concentration and fluid flow, presented at AFFTS-2008 (National Conference on Advanced Fluid Flow and Thermal Sciences), K. Muralidhar.
128. Hierarchical modeling of polycrystals. IIT Bombay, Metallurgical Engineering and Materials Science Dept. S. Mahesh.
129. Banding in single crystals. IIT Kanpur, ME Department seminar series, S. Mahesh.
130. Creep lifetime of fiber composites, international conference on creep and fatigue (CF-5), IGCAR, Kalpakkam, S. Mahesh.
131. Applied Mechanics, IGCAR, I. Sharma.
132. Thermal ratcheting in pipes, IGCAR, I. Sharma.
133. *Invited talk* at MNIT Allahabad for workshop on faculty development entitled Optical Techniques in Mechanical Engineering, P.K. Panigrahi.
134. *Invited talk* at IET Lucknow for workshop on Research Methodologies entitled Design and analysis of experiments, P.K. Panigrahi.
135. Prediction of Bubble Growth in Film Boiling using a Variant of Volume-of-Fluid Method, University of Western Ontario, Research Seminar of the Faculty of Engineering, G. Biswas.

136. Analysis of Bubble Growth in Film Boiling Using a Variant of Volume of Fluid Method, BRNS-INS Symposium on Multiphysics Modeling for Current and Future Nuclear Reactors, BARC, Mumbai, G. Biswas.
137. Educational (Science and Technology) Environment in India and Distance Mode of Delivering Education - A Proposal, Educational Track, PAN-IIT, IIT Madras, G. Biswas.
138. Profile of Engineering Education in India: Status, Concerns and Recommendations, INAE Seminar on Agenda for Reforms in Engineering Education, ISRO Satellite Centre, Bangalore, G. Biswas.
139. *Invited lecture* in AICTE approved Summer School (STTP) on Computational Fluid Dynamics: Basics and Applications) at Department of Mechanical Engineering, S.V. National Institute of Technology Surat, Gujarat-395007, 2008, A.K. Saha.
140. Micro to Nano-finishing presented in the SERC school on Micromachining held at IIT Bombay, Mumbai, V.K. Jain.
141. Mechatronics: The Highway to the National Development Invited talk presented at National Womens Science Congress, Karnataka State Women University, Bijapur, 2008, Anjali K.
142. 22nd National convention of Metallurgical and materials Engineers, Hyderabad, N.V. Reddy.
143. Indo-US Workshop held at PSG, Coimbatore, N.V. Reddy.
144. Third National Frontiers of Engineering (NatFOE) (organized by INAE), N.V. Reddy.
145. The Puzzling Primes, the open house of Mathematics Department at IIT Kanpur, A.K. Mallik.
146. Pendulum - The Paradigm of Oscillations, S. N. Bose National Centre of Basic Sciences, Kolkata, A. K. Mallik.
147. The science and art of planar linkage design - *Invited lecture* delivered at AMM Workshop held at IIT Madras, A. K. Mallik.
148. Mathematical Black Holes and Dynamical Systems - National meet of Research Scholars in Mathematics and Statistics, IIT Kanpur, A K Mallik.
149. Pendulum - The Paradigm of Oscillations - Prof. B Karunesh Memorial Lecture in 53rd Congress of ISTAM, Osmania University, Hyderabad, A K Mallik.
150. Significance of Nonlinearity in Vibration Control - Keynote address in ICOVP at IIT Kharagpur, A K Mallik.
151. Geometry and Nonlinearity in Mechanics - Pravartana II at IIT Kanpur, March 6, 2009, A.K. Mallik.
152. Concept of Stability in Mechanics and Mathematics - Workshop on teaching Mechanics at BESUS, A.K. Mallik.

153. Abrasive flow machining (AFM): An Overview, INDO - US WORKSHOP on Smart Machine Tools, Intelligent Machining Systems and Multi-scale Manufacturing, M. Ravishankar, V.K. Jain and J. Ramkumar.
154. Tutorial delivered at GECCO-2008 in Renaissance Atlanta Hotel, USA, entitled `Evolutionary Multi-Criterion Optimization, K. Deb.
155. Tutorial to be delivered at SEAL-2008 Conference in Melbourne, Australia entitled `Evolutionary Multi-Objective Optimization (EMO), K. Deb.
156. Evolutionary Practical Optimization at the Ship Laboratory, Helsinki University of Technology, Espoo, Finland, K. Deb.
157. Masters Course on Evolutionary Computation delivered at University of Pavia, Italy, K. Deb.
158. Energy Scavenging Sensors for Automobiles and Crawling Robots for Health Monitoring of Pipes and Barrels, IPS, Waseda University, B. Bhattacharya.
159. Principles of Vibration Control, given jointly with Prof A. K. Mallik organized by i2k at Delhi, B. Bhattacharya.
160. Smart Materials and Design of Intelligent Systems, organized by Cats Inc. at Delhi, B. Bhattacharya.
161. Describing Mechanical Properties of Amorphous Polymers through Simulations at Multiple Scales, invited talk at National Chemical Labs Pune, CFPE Seminar series, S. Basu.
162. Control of Friction-Driven Oscillations by Time-delayed Feedback, Aerospace Engineering Department, Indian Institute of Technology Kanpur, P. Wahi.
163. Bifurcation and Chaos in Rayleigh-Benard Convection, Pravartana II - Nonlinearity and Geometry in Mechanics, Indian Institute of Technology-Kanpur, P. Wahi.

Humanities and Social Sciences

164. Productivity Analysis of the ICT Sector Across Countries with Special Reference to India: Directions for New Science Policy. International Conference on Liberalizing Research in Science and Technology, organized by Department of HSS, IIT Kanpur and Institute of History of Science and Technology, St Petersburg, Russia, S.K. Mathur.
165. Vulnerability Mapping and District Situation Analysis of HIV/AIDS in two districts of Bihar - Muzaffarpur and Vaishali, Reports based on studies sponsored by UNICEF Bihar, BSACS, Patna, Rita Singh and A.K.Sharma.
166. Invited talk on Research Methodologies, National Meet of Research Scholars in Mathematics and Statistics (NMRSMS-08), Department of Mathematics and Statistics, IIT Kanpur, A.K. Sharma.

167. Studying factors in prevention & management of post partum hemorrhage (PPH). Meeting of Pathfinders International, A.K. Sharma.
168. Invited paper - From ICT to Empowerment: Roadmap towards a Sensitive Society for Persons with Disabilities. National Symposium on Road Designs and Accessibility for Persons with Disabilities, ISIC, New Delhi, Vineet Sahu.
169. Invited talk on Science and Technology in India for Class formation or Class annihilation-Department of Humanities and Social Sciences, IIT Kharagpur, B.K. Pattnaik.
170. Cognitive Emotional Processing in the Aftermath of Trauma: Reflections from Questionnaire Based Assessment, Universities of Wurzburg and Bamberg, Germany (Graduiertenkolleg: Cognition and Emotion- Forced Choice between Siamese Twins?), Braj Bhushan.
171. Earthquakes: Human behaviour and societal impact. IIT Madras & Structural Engineering Research Center (at University of Stuttgart, Germany). TU9-IITM Indo-German Workshop on Earthquake Engineering for Sustainable Structures), Braj Bhushan.
172. Stress research in perspectives. Keynote address at the National conference on Management of stress for Quality Living. Amity Institute of Behavioural & Allied Sciences, Lucknow, Braj Bhushan.
173. *Invited talk* - Dynamic Post Disaster Socio-economic and Cultural Contexts and the Challenges of Psycho-social Rehabilitation and Disaster Management. Workshop on Disaster Management and Mitigation, Department of Civil Engineering, HBTI Kanpur, Kumar Ravi Priya.
174. From Verbal to Visual: Recapturing the Postmodern Comic Sublimity in Paul Austers City of Glass: The Graphic Novel, International Conference on Representing Comics: Transgressions in Culture and Media, organised by the Centre for Performance Research and Cultural Studies in South Asia-CPRAC SIS at Thrissur, Kerala, T. Ravichandran.
175. Future Trends: Cybercriticism - lecture for the Short Term Course on Literary Theory: Theories of Reading and Writing, organised by the Department of Humanities and Social Sciences, IIT Kharagpur, T. Ravichandran.
176. Future Trends: Ecocriticism - lecture for the Short Term Course on Literary Theory: Theories of Reading and Writing organised by the Department of Humanities and Social Sciences, IIT Kharagpur, T. Ravichandran.
177. Popular *invited talk* - Game Theory and its Applications - at Business Club, IIT, Kanpur, Sarani Saha.

Chemistry

178. *Invited talk* is given by my student K. Elango, at Recent Advances in Metalloorganic Chemistry (RAMC), held at Periyar University, Salem, Synthesis and Hydrolysis of NHC-Stabilized Zinc Aryloxides, Kandasamy Elango and Ganapathi Anantharaman and obtained best oral presentation award, G. Anantharaman.
179. *Invited talk* on Recent trends in Organometallic Compounds and their Industrial Applications (OMCA) held at KIIT, Bhubaneshwar, Synthesis and Hydrolysis of NHC-Stabilized Zinc Aryloxides, G. Anantharaman.
180. Frontiers of Science at Indian Science Congress on in Shillong, J.K. Bera.
181. Hydrogen and Hydrogen Storage – Methods and Materials in Bangalore, India, January, J.K. Bera.
182. Vibrational spectral diffusion in aqueous solutions, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, A. Chandra.
183. Theoretical studies of water dynamics under normal and supercritical conditions from first principles, Solid State & Structural Chemistry Unit, Indian Institute of Science, Bangalore, A. Chandra.
184. Hydrogen bond fluctuations and vibrational spectral diffusion in normal and supercritical water, Shanghai Jiao Tong University, China, A. Chandra.
185. Vibrational spectral diffusion in water under normal and supercritical conditions, Lucknow University, A. Chandra.
186. Dynamics of water and aqueous solutions from ab initio molecular dynamics, Department of Chemistry, IIT Delhi, A. Chandra.
187. Charge defects in hydrogen bonded clusters, monolayers and chains: Hydration characteristics, dynamics and vibrational spectroscopy, S.N. Bose Centre for Basic Sciences, Kolkata, A. Chandra.
188. Ab initio molecular dynamics studies of aqueous systems: Hydration dynamics and vibrational spectroscopy, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, A. Chandra.
189. Proton transfer Kinetics in water clusters, monolayers and chains, Indian Association for the Cultivation of Science, Jadavpur (talk held at Sana Resort, Mandarmoni), A. Chandra.
190. Kinetics of proton transfer in aqueous systems of different dimensions, Indian Association for the Cultivation of Science, Jadavpur, Kolkata, A. Chandra.
191. Proton transfer in water-filled narrow pores, Department of Chemistry, University of Kalyani, A. Chandra.
192. 3d-4f Heterometallic Trinuclear Compounds. A New Family of Single-Molecule Magnets, Talk at CHEMFEST Conference held in Kanpur, V. Chandrasekhar.
193. 3d-4f Heterometallic Trinuclear Compounds. A New Family of Single-Molecule Magnets, Invited Talk in the conference: Molecules and Materials:

New Directions at JNCASR, Bangalore, V. Chandrasekhar.

194. Phosphorus-supported Multidentate N-Donor ligands for the Construction of Multimetal Assemblies, Invited Talk at the 4th EuCheMS Conference on N-Ligands, Garmisch-Partenkirchen, Germany, V. Chandrasekhar.
195. Nobel Prize in Chemistry – 2008, An invited Institute Talk at IIT Hyderabad, V. Chandrasekhar.
196. 3d-4f Heterometallic Trinuclear Compounds. A New Family of Single-Molecule Magnets Department of Chemistry, IIT Bombay, V. Chandrasekhar.
197. 3d-4f Heterometallic Trinuclear Compounds. A New Family of Single-Molecule Magnets Department of Chemistry, IIT Kharagpur, V. Chandrasekhar.
198. Modelling the luminophore of the green fluorescent protein; Seminar presented at the Du pont knowledge center Hyderabad, R. Gurunath.
199. *Invited lecture* at Institut fuer Chemie und Biochemie, Freie Universitaet Berlin, Organische Chemie, Takustr. 3, D-14195 Berlin, Germany, F.A. Khan.
200. *Invited lecture* at Department Chemie und Biochemie, Ludwig-Maximilians-Universitaet Muenchen, Germany, F.A. Khan.
201. *Invited lecture* at Institut für Organische Chemie, Universitaet Stuttgart, Germany, F.A. Khan.
202. *Invited lecture* at Institut für Organische Chemie, Johannes Gutenberg University Mainz, Germany, F.A. Khan.
203. *Invited lecture* at Institute of Chemistry, University of Potsdam, Germany, F.A. Khan.
204. *Invited lecture* at Fachbereich Chemie, Philipps-Universität Marburg, Germany, F.A. Khan.
205. *Invited lecture* at Organisch-Chemisches Institut, Ruprecht-Karls-Universität Heidelberg, Germany, F.A. Khan.
206. *Invited Lecture* at Technische Universität Dresden, Germany, F.A. Khan.
207. *Invited Lecture* at Institut de Chimie des Substances Naturelles, CNRS, F-91198 Gif-sur-Yvette, France, F.A. Khan.
208. *Invited Lecture* at LABORATOIRE DE CHIMIE ORGANIQUE, ESPCI, 10 rue Vauquelin, 75231 Paris Cedex 05, France, F.A. Khan.
209. *Invited Lecture* at the Department of Chemistry, IIT Bombay, F.A. Khan.
210. *Invited lecture* at Sixth One Day National Symposium in Chemistry on 8th of November, Dept of Chemistry, Indian Institute of Technology, Kharagpur, F.A. Khan.
211. *Invited lecture* at Indo-Korean symposium (KOSEF), NCL Pune, F.A. Khan.
212. Discussion Meeting on Crystal Engineering and Noncovalent interactions: Contemporary Themes and Futuristic Developments Orange County, Coorg, Karnataka, R.N. Mukherjee.

213. Rational approaches to engineering organic nanoporous materials and organic amorphous functional materials, Humboldt-Keelg on Structural characterization and spectroscopy of materials relevant to nanotechnology, biomedical and geobiology, BHU, Varanasi, J.N. Moorthy.
214. Rational Approaches to organic porous and amorphous functional materials, Indian Science Congress, NEHU, Shillong, J.N. Moorthy.
215. In Silico Prebiotic Peptide Synthesis, IISc Bangalore, Nisanth Nair.
216. Iron Sulfur World and Iron Sulfur Proteins, IACS, Kolkata, Nisanth Nair.
217. Motion of Spiral Steps on Pb Crystallites, at Nanosteps Summer Workshop, Cargese, France, Madhav Ranganathan.
218. Impurity Effects in Crystal Growth from Solutions, National Conference on Thermodynamics of Chemical and Biological Systems, Nagpur, Madhav Ranganathan.
219. Impurity Effects in Crystal Growth from Solutions, Department of Physics, IIT Kanpur, Madhav Ranganathan.
220. Incorporating Elastic Effects in Kinetics Monte Carlo Simulations of Heteroepitaxial Growth, Theoretical Chemistry Symposium, IISc. Bangalore, Madhav Ranganathan.
221. Title: Bioinspired Design of Porphyrin and Bisporphyrin based Metal Complex, ChemFest, IIT Kanpur, S. P. Rath.
222. Study of Interfacial Molecules using Novel Nonlinear Electronic Spectroscopy, FACSS Conference, Reno, USA, Pratik Sen.
223. Study of Interfacial Molecules using Novel Nonlinear Electronic Spectroscopy, Chemistry Department, University of California at Berkeley, Pratik Sen.
224. Unique Property of Nano-thick Interface Revealed by Novel Nonlinear Electronic Spectroscopy. Department of Nanoscience, Chiba University, Chiba, Japan, Pratik Sen.
225. Study of Interfacial Molecules using Novel Nonlinear Electronic Spectroscopy, National Symposium on Radiation and Photochemistry, Kumayun University, Nainital, Pratik Sen.
226. Classical-Quantum correspondence in isomerization dynamics: quantum eigenstates and classical Arnold web, at the APS Focus meeting on Transition States in Chemistry, Physics, and Astrophysics, Pittsburg, USA, K. Srihari.
227. Classical-Quantum correspondence: Three Examples, theory talk at Berkeley, USA, K. Srihari.
228. Local phase space barriers and quantum control: interplay of classical and quantum mechanisms, at the Theoretical Chemistry Conference, Bangalore, K. Srihari.

229. Classical Mechanics and Chemical Reaction Dynamics?, Mechanical Engineering seminar, IITK, K. Srihari.
230. Postmodern Chemical Dynamics, IACS Kolkata, K. Srihari.
231. Intramolecular vibrational energy flow, quantum eigenstates and the dynamical Arnold web, at BIFUR08, Madrid, Spain, K. Srihari.
232. Triarylbi-muthanes as atom-efficient sub-stoichiometric organometallic reagents for carbon- carbon bonds formations in organic synthesis (invited), Recent trends in Organometallic Compounds & their Industrial Application, OMCA-2009, KIIT-University, Patia, Bhubaneswar, M.L.N. Rao.
233. Delivered a lecture entitled Design and Synthesis of Mono and Bicyclic Glycosidase Inhibitors at Chemistry Department IIT Bombay, Y.D. Vankar.

Mathematics and Statistics

234. Dynamical Analysis in Mathematical Ecology, IIT Kanpur, Malay Banerjee.
235. Nonlinear Dynamical Modelling in Mathematical Ecology, Department of Mathematics, IIT Guwahati, Malay Banerjee.
236. Logics for Information Systems, invited talk at the Workshop on Logic and Cognition, Jadavpur University, Kolkata, Mohua Banerjee.
237. Mathematical Modeling - Invited theme Lecture in a workshop on Advanced mathematics, Department of Mathematics, BHU, Varanasi, P. Chandra.
238. Hyperexpansivity version of the Berger-Shaw Theorem, delivered a presentation in the conference International Workshop on Operator Theory and its Applications held at the College of William and Mary, Virginia, S. Chavan.
239. On hereditary semi-embeddings and G_δ -embeddings of Banach spaces, presented at ISI Bangalore while visiting there under young scientist visiting program of ISI, S. Dutta.
240. Simple Box Model and Advection Diffusion Equations and Numerical Solutions, IIT Kanpur, S Ghorai.
241. Presented 04 invited lectures in the Indo- German instructional school and workshop held at IIT Madras, FEM-A Birds Eye view and FEM for Unsteady Problems, M K Kadalbajoo.
242. A Look at Cardiac-Electric-Activity & Domain Decomposition Methods, ICCPDE-08, IIT Mumbai, B.V. Rathish Kumar.
243. A Look at the Arlequin Approach for Multiscale / Multimodel Problems (53rd Congress of ISTAM (An International Meet) University College of Engineering, Osmania University, Hyderabad, B.V. Rathish Kumar.
244. Mathematics at the frontiers of Science & Technology, DBS College Kanpur, B. V. Rathish Kumar.

245. Glimpses of Mathematical Modeling and Simulations pertaining to Cardio-Vascular Flows under Pathological conditions, ICRTMA-09, B. V. Rathish Kumar.
246. Bivariate Generalized Exponential Distribution, Presented at Indian Statistical Institute, New Delhi, D. Kundu.
247. Reliability Sampling Plan, Presented at Indian Statistical Institute, New Delhi, D. Kundu.
248. Generalized Exponential Distribution: A Review, Presented at the University of Cochi, Trivandam, D. Kundu.
249. Convex Functions and Inequalities. Christ Church College, Kanpur, Neeraj Misra.
250. Extensions of Multipliers, University of Hawaii, P. Mohanty.
251. On Maps which are one-one iff they are onto (an *invited talk*), IIT Madras, V. Raghavendra.
252. On Elliptic equations and jumping nonlinearities (an *invited talk*), IIT Madras, V. Raghavendra.

Physics

253. Signatures of Coherent Polarons in STM/S study of CMR Manganites, Invited talk in Symposium on Physical Sciences, JNU, New Delhi, A.K. Gupta.
254. Local Electronic Properties of Graphene, CMP Workshop, IITK. A.K. Gupta.
255. Electronic and transport properties of graphene in presence of inhomogeneous magnetic fields, IIT-Kanpur, T.K. Ghosh.
256. Low-energy properties of fermionic superfluid along the BEC-BCS crossover, IISER-Kolkata, T.K. Ghosh.
257. Causality violation and its detection, BHU, Varanasi, S.D. Joglekar
258. Lee-Wick Quantum field theories, IIT Kanpur, S.D. Joglekar
259. Time-independent excited-state density-functional theory, Centre for Theoretical studies, IIT Kharagpur, M.K. Harbola.
260. Can we construct excited-state energy functionals by splitting k-space? Condensed Matter Theory workshop, IIT Kanpur, M.K. Harbola.
261. *Invited talk* on Magneto-optical imaging technique: from superconductors to plasmas at the Condensed Matter Physics Workshop held at IIT Kanpur, India, S.S. Banerjee.
262. *Invited lectures*, 33rd Mahabaleshwar Seminar on Modern Biology, Mahabaleshwar, D. Chowdhury.
263. *Invited talk*, Nonequilibrium Phenomena in Condensed Matter, Indian National Science Academy, New Delhi, D. Chowdhury.

264. *Invited lectures*, CCMT advanced Graduate School in Statistical and Condensed Matter Physics, Indian Institute of Science, Bangalore, D. Chowdhury.
265. Plenary lecture, ACRI 2008: 8th international conference on Cellular Automata for Research and Industry, Yokohama, Japan, D. Chowdhury.
266. *Invited talk*, Indo-Israeli Conference in Condensed Matter Physics, Zfat, Israel, D. Chowdhury.
267. *Invited talk*, Indo-Belgian Conference on Statistical Physics of Small Systems, IIT, Chennai, D. Chowdhury.
268. *Invited talk*, DISCOMB09: Disordered Systems, Complexity and Biology, Banaras Hindu University, Varanasi, D. Chowdhury.
269. Adiabatic quantum dynamics of quantum spin chains, International School for advanced studies, Trieste, Italy, A. Dutta.
270. Spin Dynamics in Diluted Magnets, Correlation Effects in Metallic Ferromagnets, Two invited talks of 1.5 hrs duration each presented at the Homi Bhabha Centenary DAE-BRNS National Conference & HRI School on Spintronic and Magnetoelectronic Materials and Devices (NCSMMD), jointly organized by BARC, Mumbai; HRI, Allahabad; IACS, Kolkata; IoP, Bhubaneswar at Toshali Sands, Puri, A. Singh
271. Correlated Motion of Electrons and Quantum Magnetism *Invited talk* at a Symposium on Recent Trends in Condensed Matter Physics organized by the JNU - School for Physics Sciences, A. Singh
272. *Invited Talk* at TIFR-ANSO Collaboration Initiative Meeting, Mumbai, Interplay between superconductivity and magnetism: from borides to iron arsenides; Z. Hossain
273. Physics Colloquium: Interplay between superconductivity and magnetism in conventional and unconventional superconductors Organization: Dept. Physics, IIT Kanpur, Z. Hossain
274. *Invited Talk*, Biomedical Optics: Polarization Based Spectroscopy and Imaging, Condensed Matter Workshop, Conference on Laser Applications in Basic and in Applied Sciences, Santiniketan, A. Pradhan
275. *Invited Talk*, Biomedical Optics: Polarization Based Spectroscopy and Imaging, Condensed Matter Workshop, IIT Kanpur, A. Pradhan
276. *Invited Talk*, Biomedical Optics: Polarization Based Spectroscopy and Imaging, Condensed Matter Workshop, Meghnad Saha Memorial Symposium, Allahabad University, A. Pradhan
277. *Invited talk*, New Frontiers in Mesoscopic Physics and Applications using Multielement Focused Ion Beams from intense collimated plasmas, Condensed Matter Physics Workshop 2009, Department of Physics, IIT Kanpur, Sudeep Bhattacharjee.

278. *Invited talk*, One day workshop and inauguration of Ion Beam Facility for Micro and Nano Scale Science and Engineering at IIT Kanpur, Department of Physics, IIT Kanpur, Sudeep Bhattacharjee.
279. *Invited talk*, New Frontiers in Nanoscience and Technology using Microwaves for Generation of Multielement Focused Ion Beams, Horizons of Microwave and Millimeter wave Engineering and Research (Hommer), Institute of Radio Physics and Electronics, University of Calcutta., Kolkata, Sudeep Bhattacharjee.
280. *Invited talk*, Electromagnetic wave interactions with an anisotropic plasma: Non-linear phenomena, fluctuations and stability, DST-PSSI Meeting for popularization of plasma science in India, Institute for Plasma Research (IPR), Ahmedabad, Sudeep Bhattacharjee.
281. The Legacy of Nambu, Kobayashi and Maskawa given in IIT Kanpur Kaushik Bhattacharyya.
282. *Invited talk*, Nanofabrication by ion beams; Indo-French conference on Nanostructuring by ion beams under Indo French Centre for Promotion of Advanced Research (IFCPAR), Bhubaneswar, V.N. Kulkarni.
283. Introduction to Turbulence (6 lectures) at SERC school in Gauhati, M. K. Verma.
284. Workshop on Turbulence (3 lectures) at SN Bose Institute, Kolkata, M. K. Verma.
285. *Invited talk*, Entanglement in Many-electron systems at Workshop on Entanglement in Condensed Matter Physics, Matscience, Chennai V. Subrahmanyam.
286. *Invited talk*, How entangled is a quantum state? at Quantum Annealing and Quantum Correlations Workshop, SINP, Kolkata, V. Subrahmanyam.
287. Slow Dynamics in Hard Condensed Matter: a Case Study; CMP Workshop, 2009, IITK; K.P. Rajeev.

OTHER ACTIVITIES

(A) TECHNOLOGY DEVELOPED

Biological Science and Bio-engineering

1. Joint chemical and plasma sterilizer for Indian hospitals, Anupam Pal.

Civil

2. 10LPM all aluminum body air sampler (PM1.0 inertial impactor) as part of the M.Tech. thesis of Mr. Kamal K. Ujinwal, Tarun Gupta.
3. Developed Terrestrial Laser Scanning (ILRIS3D) and data processing facility at GI laboratory, Lohani B.

Electrical

4. Review of electrical clearance in air for 25 kV, 50 Hz ac overhead electric Traction system of Indian Railways, sponsored by RDSO Lucknow, Ravindra Arora.
5. A Multi modal Data Acquisition Test Bed for simultaneous recording of 4 channel video and 8 channel Audio Data, Rajesh M. Hegde.
6. Fully automated Trackside Bogie Monitoring System for measuring i) angle-of-attack using laser range finder based system, ii) lateral and vertical rail forces, Joseph John.
7. Fully operational system installed at Ajgain Railway Station (Unnao Dist.) on the Kanpur - Lucknow main track, Graphical LCD-based Human-machine interface for a digital automatic voltage regulator for captive power plants, R. Potluri and P. Sensarma.
8. A DSP-based controller platform for automatic voltage regulator applications, P. Sensarma and R. Potluri.
9. Silhouette and Structured Light Based Low Cost 3D Scanner Laser Based Pointing Device for Large Screens, K.S. Venkatesh.

Mechanical

10. Electrochemical spark based micromachining (ECSMM) technology developed for varied materials, Prof. V.K. Jain (IIT) and Prof. K.A. Misra (HBTI), Anjali. K.

11. Development of Pipe Crawler for Health Monitoring, Development of Antenna Shape Control System, B. Bhattacharya.
12. Development and analysis of foil air bearing (air cooling application), S. Sarkar.

Physics

13. A compact ion energy analyzer for the measurement of ion energy distribution, Sudeep Bhattacharjee.
14. A compact B dot and antenna probe has been developed for the measurement of electromagnetic wave fields (E and B) inside a plasma, Sudeep Bhattacharjee.
15. A fully automated Langmuir probe system using LabView and National Instruments Data Acquisition card for measurement of plasma density and electron temperature, Sudeep Bhattacharjee.
16. A triplet Einzel lens for the extraction and focusing of ion beams, Sudeep Bhattacharjee.
17. A compact multiple beamlet extraction electrode system for extracting micron to nanosize ion beamlets from the plasma, Sudeep Bhattacharjee.

(B) SOFTWARE DEVELOPED

Biological Science and Bio-engineering

18. MRI3D – An MRI to 3D reconstruction software for gastrointestinal diagnosis, Anupam Pal.
19. Image Based Structural Characterization System for Fibrous Materials, Anupam Pal.

Civil

20. SBCM: Segmentation Based Classification Module for Indian Space Research Organization (ISRO), Dikshit O.
21. RISHI: Resource Information System for Heritage of India, a Cultural Resource Management (CRM) system for documentation of Antiquities, Dikshit O.
22. DHAROHAR: Documentation for Historical and Archaeological Research on Heritage and Remains, Cultural Resource Management (CRM) system for documentation of Monuments, Dikshit O.

Electrical

23. Location sensing simulator for indoor environments, A.R. Harish.
24. File Tracking System using RFID, A.R. Harish.
25. Digital Mandi for the Indian Kisan: Web interface for accessing current mandi prices on line, Rajesh M. Hegde.
26. Internal Combustion Engine Fault Diagnosis System, P.K. Kalra.
27. Software for calculating inductance of large non-linear shunt reactors, Parthasarathi Sensarma.

Mechanical

28. Analysis of IPMC based Flexible Smart Manipulator, B. Bhattacharya.
29. LES Solver for Turbomachinery Application (LES_TURBO), S. Sarkar.

IME

30. A combination of Wiki and Blog platform for knowledge sharing, Jayanta Chatterjee, Gaurav Vinod, Nai Dishayeen.
31. Krishi Katha (Mobile and voice protocol services through internet for knowledge sharing, Abhishek Jain, Jayanta Chatterjee.

Physics

32. Pseudospectral turbulence code: TARANG, M.K. Verma.

(C) INDUSTRIES VISITED

Aerospace

33. ARDE Pune, ADRDE Agra, Ghosh A.K.
34. IGCAR, Kalpakkam, P.M. Mohite.

Chemical

35. TISCO; February, 2009, A. Ghatak.
36. Institut für Mikrotechnik, Mainz, Germany; May 2008, D. Kunzru.
37. Thermax (Pune); August 2008, S. Panda.
38. Moser Baer (Noida); October 2008, S. Panda.
39. Université du Maine France ; Visiting Professor ; May-June 2008, YM Joshi.

Civil

40. Indian Institute of Tropical Meteorology, Pune, Tripathi, S. N.
41. Aryabhatta Research Institute of Observational Sciences (ARIES), Nainital, Tripathi, S. N.

Computer Science

42. University of Bonn, Research on data stream processing, August 22-24, 2008, Sumit Ganguly.
43. Department of CSE, University of Texas at Arlington, for collaborative research in wireless sensor networks and mobile computing, Sept 2, 2008-December 7, 2009, R.K. Ghosh.
44. Department of CSE, University of Louisville, for collaborative research in mobile agents, November 6-9, 2008, R.K. Ghosh.

Electrical

45. Department of Electrical Engineering, National Yunlin University of Science and Technology, Douliou City, Taiwan, July-August 2008, Adrish Banerjee.
46. Department of Electrical and Electronics Engineering, Chung-Ang University, Seoul, South Korea, Sept-December 2008, Adrish Banerjee
47. University of Manchester, Manchester, UK, December, 2008, UKIERI/British Council project, Animesh Biswas.
48. School of EEE at NTU, Singapore from 15 May to 15 July, 2008 as a Tan Chin Tuan Fellow, K. Chaturvedi.
49. GE India Technology Centre Private Limited, Bangalore for Consultancy from July 2- 17, 2008, S.P. Das.
50. Boeing, Seattle, USA for discussion on project proposal entitled Prognosis and Diagnosis in HVAC Systems and Rotating Machinery, P. K. Kalra.
51. TVS Motors, Hosur, Bangalore for final Installation of hardware and software for project entitled Condition Monitoring of Internal Combustion Engine, P. K. Kalra.
52. Lohia Starlinger Ltd., Chaubepur, Kanpur for technical interactions; August 2008, Joseph John.
53. BSNL Field Trip: Kalyanpur and Lakhanpur to study power plant systems used within BSNL, Santanu K. Mishra.

54. Moserbear solar cell manufacturing facility in Greater Noida, Santanu K. Mishra.
55. POWERGRID SVC station Bhauti to show the SVC station to Course participants, S. N. Singh.
56. UPSIDC Ghaziabad for Third party checking of 33kV substation at Bagpat, S. N. Singh.
57. Electrical and Computer Engineering Department at Mississippi State University USA, for one year from 1st August 2008, S. C. Srivastava.
58. Univ. of Ulster, Magee, Derry, N. Ireland, UKIERI project on Assisitive Robotics, 17 Nov to 20 Dec 2008, K.S. Venkatesh.

Mechanical

59. IIGCAR Kalpakkam, August 2008 and March 2009, I. Sharma.
60. ISRO, Trivandrum: Meeting on Lunar rover power module, December 2008, Malay K Das.
61. DST, Delhi: Meeting on Pan-IIT solar research initiative, November 2008, Malay K Das.
62. IIT Bombay: Meeting on Pan-IIT solar research initiative, February 2009, Malay K Das.
63. HAL, Lucknow: Meeting on starter-generator simulation project, 18th April, 2009, Malay K Das.
64. Nokia, Finland, October 2008, K. Deb.
65. KONE, Finland, September 2008, K. Deb.
66. Rolls Royce, UK, October 2008, K. Deb.
67. Orelogy, Australia, December 2008, K. Deb.
68. Endesa Power Company, Madrid, Spain, February 2009, K. Deb.
69. University of Waseda, Japan for Joint Research and Collaboration, March 19-28, 2009, B. Bhattacharya.
70. HAL, NAL, S. Sarkar.

Materials and Metallurgical

71. Moserbaer Photovoltaic, 18th Oct 2008, M. Katiyar.
72. Tata Steel R&D, Jamshedpur, March 2009, M. Katiyar.

IME

73. Dr. Eric Hoffman of Centre for Genetic Medicine, Washington D.C. at his invitation in the area of Bio Informatics using Data mining techniques, B. Chandra

HSS

74. Workshop on Productivity and Efficiency Measurement, Delhi School of Economics, Jan 5-7, 2009, S.K. Mathur.

Chemistry

75. Jacobs University Bremen, Bremen, Germany, During June-July 2008, J. N. Moorthy.

Mathematics

76. Department of Mathematics, University of Limoges, France, 26 May to 1 June 2008, J. Dutta.
77. Department of Mathematics, University of Perpignan, France, June 2-30, 2008, J. Dutta.
78. Dept. of Mathematics, IIT Guwahati, Dec. 17-23, 2008, A. K. Lal.
79. Department of Econometrics and Business Statistics, Monash University, Melbourne, Australia, May 18-July 12, 2008, A. Mitra.
80. IISc., Bangalore, to attend a lecture series on 'Multi-normed spaces and multi-Banach algebras', Jan. 01-06, 2009, S. R. Patel.
81. Department of Pure Mathematics, University of Leeds, Leeds, U. K.; to avail a Commonwealth fellowship; from Jan. 26 to Jul. 26, 2009, S. R. Patel.

Physics

82. NISER, Bhubaneswar; Purpose: Meeting of Academic Council; March 27-28, 2009, S.D. Joglekar
83. National Centre for Education and Research and Training, New Delhi; Purpose: To develop a book Exemplar Problems in Physics for class XII; June 4-9, 2008, S.D. Joglekar
84. T.I.F.R., Mumbai during August 2008, Z. Hossain.
85. Bright Engineering Works, Mumbai, to monitor progress of fabrication of the multielement focused ion beam system, April 7 - 10, 2009, by Ph.D student: Jose V. Mathew, Sudeep Bhattacharjee.
86. Computational Research Laboratory, Pune- December 2008; M.K. Verma.

(D) PATENTS

Biological Science and Bio-engineering

87. Process for adsorption-based separation of bioparticles from an aqueous suspension. PCT/SE 2006/000556, Mattiasson, Bo; Galaev, Igor Yu; Kumar, Ashok; Dainiak, Maria.
88. Antiseptic polymeric macroporous hydrogel based thin sheets containing iodine as wound dressing materials (Patent filed, 2009), Ashok Kumar and Era Jain.
89. Polymer Matrix Scaffold and Process for Preparation Thereof (Patent filed; IPA 3948; 2009), Ashok Kumar and Anuj Tripathi.

Chemical

90. Methods and apparatus to synthesize nano-metals impregnated hierarchal web of micro/nano carbon fibers for the adsorptive and catalytic remediation in air and liquid systems, IPA_4395, January 2009; Inventors: Nishith Verma and Ashutosh Sharma.

Electrical

91. An improved lateral bipolar junction transistor (BJT) on selective buried oxide (selbox) and a method for manufacturing the same, patent application No. 1478/DEL/2008, S. Qureshi and S. S. K. Iyer.

Mechanical

92. Enhancing blood flow images using computational fluid dynamics, jointly with ETH Zurich, PCT/EP2008/061078 (2008), international patent filed in Switzerland, K. Muralidhar.
93. Jute sandwich composites – Small scale industries, Kanpur, 2009, J. Ramkumar.
94. Rotatory Abrasive Flow Machining – novel set-up, 2009, J. Ramkumar.

Materials and Metallurgical

95. Two patents currently filed and under processing, R. Balasubhramaniam.

96. A novel 2/3-Dimensional Soft-lithography technique to formulate micro-channels and evaluation of various associated mechanical and biological phenomena, under the process for filing Indian Patent, R K Singh, S. Bhattacharya and B. Basu.
97. A tundish adapted for reduction in residual metal losses and a method there of, Application No 1397/MUM/2008, Date of Application 03.07.08, D Satish Kumar, Dipak Mazumdar, B.Reddi Prasad, Sujay Pandit Patil, Abijit Sarkar, P.C.Mahapatra and Madhu Ranjan.

Chemistry

98. Optical enhancement of two-photon absorption process, Patent Application No. 704/DEL/2008, 19-03-2008, D. Goswami, Chemistry, and students Sumit Ashtekar, M.Sc. & Amit Nag, Graduate Student.

(E) AWARDS AND HONOURS

Aerospace

99. Guided a team of students from Mariampur Senior Secondary School, Kanpur, to help them secure the first position in a national competition concerning deployment of satellites solar arrays, Hari B Hablani.

Biological Science and Bio-engineering

100. Major international collaborative research project jointly funded by Research Council UK (RCUK) and Department of Science and Technology, (DST) India under the auspices of a newly launched UK-India Science Bridge Program. A combined funding to the tune of 1 million pounds (UK) Dr. P. Sinha.
101. UKIERI Award for research project on cartilage tissue engineering-2009, Ashok Kumar.
102. National Bioscience Award for Career Development for the year 2008 DBT, Ganesh S.
103. Scopus Young Scientist Award in Biological Sciences for the year 2008 (by Elsevier South Asia), Ganesh S.
104. Biotechnology Overseas Associateship, DBT, Ganesh S.

105. Invited to join the editorial board of the journal, Annals of Neurosciences (published by the Indian Academy of Neuroscience), Ganesh S.
106. IBRAO-Sfn travel fellowship award for attending the Sfn 2008 meeting in Washington, Deepti Dubey (PhD student).
107. Company Cell Biologist travel fellowship award for attending the Sfn 2008 meeting in Washington, Rajat Puri (PhD student).
108. Young Investigator Award by Joint International Society of Neurogastroenterology and Motility, Anupam Pal.
109. Young Investigator Award by Asian Neurogastroenterology and Motility Association, Anupam Pal.
110. National Bioscience Award for Career Development, 2008 by DBT, R. Sankar.

Chemical

111. The TWAS Prize in Engineering Sciences, TWAS, The Academy of Sciences for the Developing World, Trieste, Italy (2008), A Sharma.
112. BOYSCAST Fellowship, 2008-2009, JK Singh.
113. Young Engineer Award, Indian National Academy of Engineering, 2008, YM Joshi.
114. Young Scientist Platinum Jubilee Award, National Academy of Sciences (NASI) 2008, YM Joshi.

Civil

115. Co-convenor of the Composite Pavement Committee appointed by Indian Roads Congress from July, 2008 to December, 2011, Das, A.
116. Won Silver Medal for developing Limulator2 at XXI ISPRS Congress, Beijing, Lohani, Bharat.
117. Organization: Earthquake Research Institute, University of Tokyo, Japan Malik, J. N.
118. Mr. Sagnik Dey, for doctoral work at IITK received INSA Young Scientist Award in 2008, Tripathi, S. N (Guide).
119. Young Engineer Award in Environmental Engg. Division from Institution of Engineers, India (2008-2009), Tarun Gupta.
120. Best Poster Award, International Conference of Environmental Research, Dec, 2008, Tarun Gupta.
121. Young scientist startup grant from UP Council for Science and Technology, 2008, Tarun Gupta.
122. Young Scientist Fast Track grant from DST, 2008, Tarun Gupta.

Computer

123. Awarded the first Infosys Mathematics Prize, Manindra Agrawal.

Electrical

124. Erasmus-Mundus Visiting Professor and Researcher Scholarship for European Master of Research on Information and Communication Technologies (MERIT), 2008, Adrish Banerjee.
125. Received the Tan Chin Tuan Fellowship of Nanyang Technological University, Singapore, A.K. Chaturvedi.
126. Welliver Faculty Fellowship, Boeing, USA, P. K. Kalra.

Mechanical

127. Ralph R. Teetor Educational Award-2008, awarded by SAE International, USA, A.K. Agarwal.
128. BOYSCAST Fellowship - Sponsored by Department of Science and Technology, India, J. Ramkumar.
129. MCDM Edge worth-Pareto Award by International Society on Multiple Criteria, Decision Making (MCDM), 2008, K. Deb.
130. Best paper award at the ISSS 2008 for the paper Control of Instabilities of Pipes Conveying Pulsating Fluid using SMA based actuation, B. Bhattacharya.
131. DAE Young Scientist Award, 2008, J. Ramkumar.
132. Elected as the President of the Indian Society of Theoretical and Applied Mechanics (ISTAM), 2008, Gautam Biswas.
133. Chair the Automobile Technology Park under the Board for Smart Materials Research & Technology (B_SMART) of the National Program on Smart Materials, N. S. Vyas.
134. Chair a session entitled 'Digital Empowerment-Outcome of Desktop, A. Chatterjee.
135. Young Scientist Award (2007-08) - Engineering Sciences, Indian Science Congress Association, J. Ramkumar.
136. Fellow of the National Academy of Sciences, India. He has also been elected as the Indian Representative to the apex body for promotion of research in Mechanics, International Union of Theoretical and Applied Mechanics (IUTAM) for four years w.e.f January 2008, Gautam Biswas.

HSS

137. Awarded the CDN Prize for Best Research Paper presented at the Annual IACLALS conference held at Karnataka University, Dharwad, Feb. 18-20, 2009, Suchitra Mathur.
138. Charles Wallace Fellowship in Social Anthropology. By the Charles Wallace Trust, UK, Munmun Jha.
139. Abstract Award, International Association for Suicide Prevention (at the 3rd Asia Pacific Regional Conference of IASP, Hong Kong), Braj Bhushan.

Chemistry

140. Swarnajayanti Fellowship, DST India, J.K. Bera.
141. Elected to the Editorial board of Organometallics an American Chemical Society Journal, V. Chandrasekhar.
142. Shanti Swarup Bhatnagar Prize in Chemical Sciences, 2008, Awarded by CSIR, J.N. Moorthy
143. Best Poster Award at the SPIE Photonics West 2009 at San Jose, CA on the poster: Coherent Control in Multiphoton Fluorescence Imaging, A.K. De and D. Goswami.
144. Best Poster Award at the 8th National Laser Symposium to Control of laser induced molecular fragmentation using chirped ultrafast laser pulses, T. Goswami, S.K.K. Karthick and D. Goswami.
145. Best Device Oriented Paper at Photonics-2008 for: Stable optical trapping: Towards trapping single molecules, A.K. De, D. Roy and D. Goswami.

IME

146. 2008 Man of The Year, American Biographical Institute Inc., 5126 Bur Oak Circle, PO Box 31226, North Carolina, 27622, USA, RRK Sharma.
147. OUTSTANDING EDITOR: AIMS International Journal of Management, at AIMS-6 conference, Dec 28-31, 2008; held at Greater Noida, RRK Sharma.
148. IAAP-PPA Best Psychologist Award 2008, Indian Academy of Applied Psychology and Pondicherry Psychology Association, Governing Council, Pondicherry Psychology Association, Pondicherry, N K Sharma.
149. RESEARCH EXCELLENCE AWARD 2008, awarded by WorldComp, USA, for research excellence in Software Engineering and Software Management, Subhas C. Misra.

Referee in 2008-09

150. European Journal of Operational Research, Decision, International Journal of Engineering and Science and Technology and AIMS International Journal of Management, RRK Sharma.
151. Competitive Paper Reviewer for ACR-2008 (Association for Consumer Research, USA); Reviewed two papers for the 8th International Marketing Trends Congress, Paris, January 16-17; Referee for Decision Support Systems; Reviewer for the following journals: Decision (Journal published by IIM Calcutta); IIMB Review, N. K. Sharma.
152. Editorial board, People's News Network; Consulting editor, E-Social Sciences Editorial Review Board, Decision; IMR Elite Panel of Area Editors, Rahul Varman.
153. Refereed papers for the following journals, IEEE Transactions on Fuzzy Sets and Systems, Pattern Recognition Letters, IEEE transactions on Systems Mann and Cybernetics, B. Chandra.

Honor(s)

154. Associate Editor of the Telecom Systems Journal, Springer, 2008, Subhas C. Misra.
155. Appointed as a Regional Editor of the International Journal of Business and Globalization, U.K, 2008, Subhas C. Misra.
156. *Invited* as a Keynote Speaker in the International Conference on Systems Engineering and Engineering Management, Imperial College, London, England, July 2008, Subhas C. Misra.
157. *Invited* as a Keynote Speaker in the International Computer Science and Technology Conference, San Diego, California, USA, April 2008, Subhas C. Misra.
158. Invited as a *Plenary Speaker* in the International Conference on Innovation and Management, Netherlands, December 2008, Subhas C. Misra.
159. Invited as a *Plenary Speaker*, International Conference on E-Activity and Leading Technologies, Spain, December 2008, Subhas C. Misra.
160. Invited as a *Plenary Speaker*, International Conference on Computer Design and Applications, Singapore, May 2009, Subhas C. Misra.

Materials and Metallurgical

161. Distinguished Overseas Guest Lecturer, TUBITAK, National Science Foundation, Tukey, July 2008, *invited* lectures at several Universities in Turkey), B. Basu.

- 162. Young Metallurgist of the Year, 2008 by Ministry of Steel, GOI, K.Biswas.
- 163. INSA (Indian National Science Academy) Young Scientist Award (2008), A. Garg.
- 164. Micrographs Contest: Zeiss prize for Best TEM micrograph in Materials Science Category, EMSI 2009, Gouthama.
- 165. Elected Vice-President of Electron Microscope Society of India in its 30th AGM at Jhansi, 2009, Gouthama.

Mathematics

- 166. Elected Secretary, Association for Logic in India, Mohua Banerjee.
- 167. Commonwealth Academic Staff Fellowship; awarded by the Commonwealth Scholarship and Fellowship Commission in the United Kingdom, S. R. Patel.

Physics

- 168. Appointed to the Academic Council of NISER, Bhubaneswar, Oct. 2008, S.D. Joglekar
- 169. Legion of Honor United Cultural Convention, ABI, USA June 2008; S.D. Joglekar.
- 170. Inclusion in Marquis' Who's who in the world and Who's who in America 2009, S. D. Joglekar.
- 171. Invited on advisory board for Superconductor Science and Technology for an initial period of two years from January 2009 to December 2010. S.S. Banerjee.
- 172. Elected Fellow, National Academy of Sciences, India (2008). D. Chowdhury.
- 173. Appointed Managing Editor, International Journal of Modern Physics C (World Scientific, 2008), D. Chowdhury.

(F) CONTINUING EDUCATION ACTIVITIES

Aerospace

- 174. Satellites Orbits, Navigation, and Stationkeeping, Hari B Hablani.
- 175. Spacecraft Guidance, Navigation, and Control, Hari B Hablani, plan to present them next year.

Chemical

176. DST-SERC school on Newer Optimization Techniques for Chemical Engineering Applications, IIT Kanpur, June 2008 for teachers from academic institutes and a few participants from industries, S Garg and SK Gupta.

Civil

177. Self-sponsored Short course: Principles of Transportation Engineering, February 18-20, 2009, IIT Kanpur, Dr. P. Chakroborty, Das, A.

Computer Science

178. *Invited talk* on Indexing and Searching Techniques in Databases at Dr. Ambedkar Institute of Technology for Handicapped (AITH), UP as part of the Faculty Development Program, Arnab Bhattacharya.
179. Summer Course on Program Optimization for Multi-core architectures, Sanjeev K Aggarwal.

Chemistry

180. Organised the E-learning classroom for Chattisgarh colleges in Biochemistry, Botany, Zoology and Microbiology, R. Gurunath.

Electrical

181. Short Course (Doordarshan Sponsored) on Design and Analysis of Microcontroller-based System with Embedded Technology during Aug. 11-15, 2008 at IIT Kanpur. Participants were engineers from Doordarshan and Industry, S.P. Das.
182. Offered course on Advanced VLSI Design at ABVIITM, Gwalior, from Dec 10 to Dec 15, 2008 for M.Tech students in VLSI Design, S.Qureshi.
183. Coordinator of DST SERC School on Power Quality: Monitoring, Analysis and Mitigation at IIT Kanpur, April 7-11, 2008, S. N. Singh.
184. Coordinator of Quality Improvement Program Course on Flexible AC Transmission Systems Controllers and Their Applications in Emerging Power Systems at IIT Kanpur, March 23-27, 2009, S. N. Singh.
185. Co-coordinator DST SERC School on Power Quality: Monitoring, Analysis and Mitigation at IIT Kanpur, April 7-11, 2008, S.C. Srivastava.
186. General Chair, IEEE Conference and Exhibition on Control, Communication and Automation, INDICON 2008, IIT Kanpur, December 11-13, 2008, S.C. Srivastava.

187. Organizing Committee for Winter School on Speech and Audio Processing (Speaker and Language Recognition), Organised by: ISCA, IEEE - UP and IIT Kanpur, 9-12 January 2009. S. Umesh, Rajesh Hegde, P. Sircar, D. R. Sanand, S. P. Rath and A. K. Sarkar.

Industrial & Management

188. A Short Course on Globalisation: A Critique and Possibilities beyond the Present Order, 1st -7th June 2008 Anasakti Ashram, Kausani, Almora, Rahul Varman.

Materials and Metallurgical

189. Material Advantage at IIT Kanpur chapter for students comprising (i) American Society of Metals (ASM), (ii) The minerals metals and materials society (TMS), (iii) American Ceramics Society (ACerS), and (iv) Association of Iron and Steel Technology (AIST), K. Balani.
190. Archaeomaterials in collaboration with Archaeological Survey of India, New Delhi, R. Balasubhramaniam.
191. VLFM 2009, IIM activities, K. Biswas.
192. Taught Materials part in the HAL trainees course, A. Garg.
193. VLFM 2009, IIM activities, K. Mondal.
194. HAL materials lectures, K. Mondal.
195. Lecture delivered on White Organic Light Emitting Diodes in International Winter School for Graduate Students organized jointly by IIT Kanpur and NNIN, USA, 8-18 Dec 2009, IIT Kanpur, M. Katiyar.
196. Lecture delivered on Single Layer Devices in SERC Organic Electronics Summer School, 7-18 July 2009, IIT Kanpur, M. Katiyar.
197. Lecture delivered on Overview of activities at SCDT: Organic Electronics in VLFM 20 Feb 2009, IIT Kanpur, M. Katiyar.

Mechanical

198. A one-week short course sponsored by Quality Improvement Program for engineering college teachers and industry entitled Diesel Engine Management from 18th-22nd March 2009, Avinash Kumar Agarwal.
199. Coordinated the Second Joint IITK - NTU Singapore Workshop In Mechanical, Aerospace, And Industrial Engineering during 5-6 April 2008 at IIT Kanpur (India), K. Muralidhar.

- 200. QIP course proposed for December 2009: Transport phenomena in Phase change and reacting systems, Malay K., Dr. S. Khandekar.
- 201. Micromachining was held at IITK and sponsored by AICTE New Delhi and BARC Mumbai, V.K. Jain.

Humanities and Social Sciences

- 202. QIP on Efficiency and Productivity Measurements, May 2009, S.K. Mathur.
- 203. Faculty Advisor for English Writing and Speaking, Opportunity College – the adult education programme run under the auspices of DRPG, Suchitra Mathur.
- 204. Social stratification and education for State Council of Educational Research and Training, Raipur, Chattisgarh, 19-20 December 2008. Participants were from the Department of Education, Chhattisgarh, Amman Madan.
- 205. Induction Training Workshop at Eklavya, Hoshangabad, September 2-6, 2008. Participants were the staff of Eklavya, Amman Madan.
- 206. Lectured in Certificate Programme on Foundations of Education, Digantar, Jaipur, July 1 – 12, 2008. Participants were middle level staff of several NGOS working on education, Amman Madan.
- 207. Team Building and Interpersonal Communication for CA trainees of Institute of Chartered Accountants of India, Kanpur, two sessions in Aug 2008 and Feb. 2009. L. Krishnan.

Mathematics and Statistics

- 208. Algebraic Logic, January 7-8, 2009, IMSc, Chennai, Mohua Banerjee Co-ordinator M. Gehrke.
- 209. Worked as a resource person in Advanced Training in mathematics for Lecturers (Functional Analysis-II) funded by NBHM at Bhaskaracharya Institute of Mathematics, Pune, 3-15 Dec. 2008, S. Chavan.
- 210. Advanced Training Programme (Supported by DST, New Delhi) Pondicherry University, June 16- 20, 2008 - Resource Person, P. Chandra.
- 211. Basic Training Programme in Mathematics for UG students (Supported by DST, New Delhi), BNSD College, Kanpur, Nov. 17 - 30, 2008 - Resource Person, P. Chandra.
- 212. Basic Training Programme in Mathematics for UG students (Supported by DST, New Delhi), BNSD College, Kanpur, Nov. 17 - 30, 2008 - Resource Person, A. K. Lal.

- 213. A series of lectures in the Indo-French Workshop on Harmonic Analysis, Dec. 2008, Bangalore, S. Madan.
- 214. Study Group Meeting on Industrial Mathematics, March 16-21, 2009, IIT Roorke, B. V. Rathish Kumar.
- 215. BNSD College Nov 17-30, 2008 (sponsored by DST) Basic Training Programme in Mathematics, B. V. Rathish Kumar.
- 216. Resident Faculty at MTTS Programme held at RIE, Mysore, May 19-June 14, 2008, G. Santhanam.

Physics

- 217. Lectures to Chattisgarh from the e-classroom at IIT Kanpur under the CHIPS programme and also gave lecture on Quantum-Mechanics, M.K. Harbola.

(G) PARTICIPATION IN HIGH LEVEL INDUSTRY ACADEMIA INDUSTRY INTERACTION PROGRAMME DURING SUMMER

Aerospace

- 218. Member of TIFAC CORE, DST and Member of academic committee, HCE Chennai, Ghosh A.K.

Biological Science and Bio-engineering

- 219. Editorial board member of Biotechnology Advances, Elsevier Publishers, Ashok Kumar.
- 220. Executive Member for Asian Federation of Biotechnology (AFOB), Ashok Kumar.

Chemical

- 221. Elected Member, The Asia-Pacific Academy of Materials (APAM), (2008) [elected membership of APAM is from India, Russia, Japan, China, Uzbekistan, Korea, Taiwan and Australia], A Sharma.

Civil

- 222. Visiting Research Faculty, Ecole des Mines, d'Ales, France, June, 2008, Tarun Gupta.
- 223. Two masters level French student from Ecole des Mines, d'Ales, France are carrying out their summer research for 10 weeks under my guidance at IITK, Tarun Gupta.
- 224. Member, Editorial board, International Journal of Pavement Research and Technology, 2008 till date, Das, A.

Industrial & Management Engineering

- 225. Nominated as member of the Editorial Board of the following Journals: Journal of Marketing Trends, Paris; Decision, IIM Calcutta, N. K. Sharma.
- 226. Area Editor, Management Review, Indian Institute of Management Bangalore; Member, Editorial Review Board, Decision, Indian Institute of Management Calcutta; Reviewer, Annual Eastern Finance Association Meetings, B.V.Phani.
- 227. Member, evaluation committee for professors, Weldon School of BioMedical Engineering, (2008) Purdue University, MJIS Building, 206 S Martin Jischke Drive, West Lafayette, IN 47907-2032 USA; 001-765-494-2998, RRK Sharma.

Materials and Metallurgical

- 228. Editorial Board Member, International Journal of Corrosion, published by Hindawi Publishing Corporation, R. Balasubramaniam.
- 229. Editorial Board Member, The Open Corrosion Journal, Bentham Science Publishers, R. Balasubramaniam.
- 230. Appointed member of National Commission for History of Science and Research Council for History of Science, Indian National Science Academy, New Delhi, India for a period of three years, R. Balasubramaniam.
- 231. Editorial board member, Materials Science and Engineering: C - Materials for Biological Applications (Elsevier Journal), Editorial board of MSE-C, B. Basu.
- 232. Editorial board member, Journal of Materials Engineering Innovation-IJMatEI, published by Inderscience Publishers, UK, B. Basu.
- 233. Editorial board member, International Journal of Biomaterials, published by Hindawi Publishing Corporation, USA, B. Basu.

234. A member of the Editorial Board of the journal Powder Metallurgy published by the Institute of Materials, Minerals and Mining, London, R.K. Dube.

Mechanical

235. Member of the Editorial Board of Computational Thermal Sciences (Begell House, USA), G. Biswas.

Chemistry

236. Invited member of Editorial Board of the Journal of Molecular Liquids (published by Elsevier), A. Chandra.

Physics

237. On the selection committee for faculty recruitment at Dept of Physics, NISER, Bhubaneswar, S.D. Joglekar
238. On the committee to prepare the entire syllabus for the M.Sc. integrated program in Physics at NISER, Bhubaneswar, S.D. Joglekar.
239. On the National Organizing Committee and Convener of Local Organizing committee of a national workshop on Non-commutative Quantum Field Theory planned at Indian Institute of Technology, Kanpur during July–August 2009, S. D. Joglekar.

(H) ANY OTHER IMPORTANT ACTIVITY NOT SPECIFIED IN ABOVE COLUMNS

Aerospace

240. Avionics and Satellite-Based Navigation Lab, Hari B. Hablani.
241. Three-Axis Spherical Air Bearing Testbed for Multi-body Spacecraft Precision Pointing, Tracking, Maneuvers, and Attitude Determination Experiments, Hari B. Hablani.
242. Computing Facility for Nonlinear Optimization, Hari B. Hablani.
243. Computing facility for Satellite Propellant Gauging from Dynamic Response, Hari B. Hablani.

244. Attitude control using magnetic torquers, Jugnu Nanosatellite, Hari B. Hablani.
245. Attitude determination using magnetometers, Jugnu Nanosatellite, Hari B. Hablani.
246. GPS navigation, Hari B. Hablani.
247. GAGAN (Geostationary Augmented GPS Air Navigation) - an ISRO / Airports Authority of India Program, Hari B. Hablani.
248. IRNSS (Indian Regional Navigation Satellites System) - an ISRO / Airports Authority of India Program, Hari B. Hablani.
249. Chandrayan II trajectory design using ISRO's GSLV / PSLV, Hari B. Hablani.
250. Design of remote sensing satellites, Hari B. Hablani.
251. Design of ISRO's ASTROSAT - a satellite to study astrophysics of celestial sphere, Hari B. Hablani.
252. Design of a laser communication satellite, Hari B. Hablani.
253. Design of a surveillance satellite to monitor border and coast, Hari B. Hablani.
254. Deployment of satellite solar arrays / antennas, Hari B. Hablani.
255. Modeling of attitude dynamics of spacecraft with flexible solar arrays, Hari B. Hablani.
256. GAGAN, Hari B. Hablani.
257. IRNSS, Hari B. Hablani.
258. Punjab Engineering College, Chandigarh: Introduced one student, Ankita, to many facets of satellites dynamics and control; guiding her with her project related with Satellite Attitude Determination, Hari B. Hablani.
259. Contributed to a proposal for setting up a Center for Aviation and Outer Space Exploration at IITK, Hari B. Hablani.
260. Member, International Steering Committee, IUTAM-MMSS 2008, Venkatesan C.
261. Plenary Session Chairman: International Seminar Organised by NAL, Venkatesan C.

Chemical

262. Director, Rajiv Gandhi Institute of Petroleum Technology, Rai Bareli, UP, JP Gupta.
263. Member, PAC (Chemical Engineering), DST, N Delhi, D Kunzru.
264. Member, Board of Governors, Rajiv Gandhi Institute of Petroleum Technology, Rai Bareli, UP, D Kunzru.
265. Member, Editorial Board, International Journal of Chemical Engineering, D Kunzru.

266. Member, Advisory Committee, Advances in Chemical Engineering (AChemE 2009), Feb 27-28, 2009, Patiala, D Kunzru.
267. Member, Advisory Board, Elsevier (India), 2008- present, A Sharma.
268. Research Advisory Council, Hari Shankar Singhania Elastomer and Tyre Research Institute, Kankroli, 2009-2011, A Sharma.
269. Council Member (Materials), Indo-French Centre for the Promotion of Advanced Research (IFCPAR), New Delhi, 2008-2010, A. Sharma.
270. Member, Governing Body, Translational Health Science & Technology Institute (THSTI; DBT-MIT-Harvard partnership institute), Faridabad, 2008, A Sharma.
271. Member, Program Advisory Committee for International Division's Programme on Materials, Mining and Mineral Engineering, (PAC-MAT), Department of Science and Technology, New Delhi (2009-1011), A Sharma.
272. Member, The Nano Applications and Technology Advisory Group (NATAG), Department of Science & Technology, New Delhi (2008-2010), A Sharma.
273. Member, Platinum Jubilee Advisory Group of the Indian Academy of Sciences, Bangalore & Editor, Platinum Jubilee Proceedings Volume, Engineering sciences (2008), A Sharma.
274. Expert Panel Member, TATA NEN Hottest Startup Awards, National Entrepreneurship Network (2008), A. Sharma.
275. Member, PAC (Chemical Engineering), DST, N. Delhi, A. Sharma.

Civil

276. Member, Steering Committee, National Guidelines on Urban Flooding, National Disaster Management Authority (NDMA), Government of India, Jain, A.
277. Organised International School on LiDAR Technology conducted 31 March to 4 April 2008, Lohani B.
278. Serving as member of Editorial Board for Chemical Geology, Paul, D.
279. Member, Publications Committee, American Geophysical Union, Tripathi, S. N.
280. Expert Member, DST Fast Track Scientist Committee on Earth and Atmospheric Sciences, Tripathi, S. N.
281. Member, National Steering Committee, Cloud, Aerosol and Precipitation Enhancement Experiment (CAIPEX), Largest Project Ever Taken by Ministry of Earth Sciences, Tripathi, S. N.
282. Member, Geophysical Research Letter Editor Search Committee, Tripathi, S. N.

283. Lifting the Veil from Jupiter Cloud, Biplab Das, nature India, Tripathi, S. N.
284. Biting Dust in Mars, Biplab Das, nature India, Tripathi, S. N.
285. Our work was extensively referred in the article Aerosol: The Earth's Sun Shield, N. Gopal Raj, The Hindu Survey of Environment, 2008, Tripathi, S. N.
286. Strengths 2009 (student magazine), faculty advisor, Tarun Gupta.
287. Installed ICP-OES (iCAP6300 model, Thermo Inc.), CARE grant, Tarun Gupta.
288. *Invited lecture* on Late Quaternary evolution of the Ganga plains, India: myths and misconceptions, new developments and future directions. Fluvial Archives Group (FLAG) meeting, Budapest, Hungary, Sept., 2008
289. Pradhan H Prasad memorial lecture on Kosi Floods: system failure and human tragedy, Patna, 30th November, 2008.
290. *Invited talk* on River dynamics (avulsion), hydrological variability and climate change: insights from the Gangetic rivers, IISc Bangalore Centenary workshop on Earth and Climate Sciences, 14th Dec., 2008.
291. *Invited lecture* on Role of basin geomorphology and application of river style framework for sustainable river management with special reference to north Bihar, Patna seminar on Floods: problems and challenges, 23 Feb., 2009.
292. *Invited lecture* on Land degradation and drainage development: Role of geomorphology, National workshop on Basin wise Drainage Master Plan for Uttar Pradesh-Priorities & Actions, Lucknow, 2-3 March, 2009.

Electrical

293. Chaired three sessions in IFAC World Congress, Seoul, July 2008, Laxmidhar Behera.
294. Chaired one session in IEEE MSC, San Antonio, USA, Sept 2008, Laxmidhar Behera.

Industrial & Management

295. Visiting Professor, National Yunlin University of Science and Technology, Taiwan. (May 2008 – June 2008; Dec 2008), RRK Sharma.
296. Visiting Researcher, Statistik und Ökonometrie at Justus-Liebig-Universität Gießen, Gießen, GERMANY. (13th December – 17th December, 2008), RN Sengupta.

Materials and Metallurgical

297. The Department invited Dr. Paul Craddock of the British Museum, England

as visiting faculty between December 2008 and March 2009. During his stay in the Department, Dr. Paul Craddock taught the course on History Of Science and Technology of Metallurgy with R. Balasubramaniam. In addition, he took part in various academic activities in the institute during his stay as Visiting Faculty in the MME Department.

Mechanical

- 298. Visiting Professor at the University of Western Ontario, Canada, May 08-June 08, G. Biswas.
- 299. Visiting Professor at the ENSAM, Angers, France, November 25 - December 09, G. Biswas.
- 300. Involved in the Solar Energy Research Enclave initiative, IIT Kanpur, Malay K Das.
- 301. Manager, Jugnu Nano satellite project, IIT Kanpur, Anjali K.
- 302. Acting Head, Centre for Mechatronics, for 4 terms of duration of 1-2 weeks, Anjali K.
- 303. Personal interview for TV media for Programmable Educational, Anjali K.
- 304. Aajtak TV channel, aired on 13.1.2008, Anjali K.
- 305. E TV Uttarakhand channel, in 'Exclusive News', aired on 15.1.2008, Anjali K.
- 306. Personal interview for print media for Programmable Educational, Anjali K.
- 307. Amar Ujala, Kanpur, 7.1.2008, Anjali K.
- 308. Hindustan Times, Kanpur, 11.2.2008, Anjali K.
- 309. Telegraph, Kolkata (on Robotics Opportunities), interviewed on 31.1.2008, Anjali K.
- 310. Hindi article on 'Badhe Hai Shodh Ke Avasar' (On Augmented Research Opportunities), in Hindustan Times, 28.5.2008, Anjali K.
- 311. Visited 18th World Book Fair held in New Delhi during 7-8 Feb, 2008, Anjali K.
- 312. Counselor Committee member, IIT Kanpur, Anjali K.

Humanities and Social Sciences

- 313. Initiation Grant Project (DORD, IITK) entitled Productivity Analysis of the ICT Sector and Linkages in Some Countries of South Asia East Asia, Australia and New Zealand, A DEA and Malmquist Analysis- S.K. Mathur.

314. Faculty Advisor for the Students' Gymkhana Cultural Council (2008-09), Suchitra Mathur.
315. Member of the Advisory Board for NERD, the Students' Science Magazine, Suchitra Mathur.
316. Organized International Conference (in the capacity of Convener) on Liberalizing Research in Science and Technology: Studies in Science Policy, at IIT Kanpur: in collaboration with the Centre for Sociological and Science-studies Research (IHST) Russian Academy of Sciences, St. Petersburg, Russia, February 4-6, 2009, B.K. Pattnaik.
317. Consultancy Project - Modeling and Impact Assessment Component of the India- Climate Change, Impact and Adaptation of Coastal Cities Study: The Case of Kolkata, P.M. Prasad.
318. Organized Workshop on Patent Drafting at IIT Kanpur - Sponsored by the Ministry of Human Resource Development under IPR Chair, November 7-9, 2008, P.M. Prasad
319. Coordinated DIES Partnership Project under German Academic Exchange Service (DAAD) subject-specific funding (Euros 48000) to promote academic interaction between University of Applied Sciences, Darmstadt, Germany and Indian Institute of Technology, Kanpur, India - P.M. Prasad.
320. Member, Institute DRP&G Committee, since 2008 - P.M. Prasad.
321. Visiting Faculty at Department of Sociology and Social Work, University of Kashmir - Amman Madan.
322. Visiting Faculty in MA programme in Elementary Education at the Tata Institute of Social Sciences - Amman Madan.
323. Member of advisory committee of Pragat Shikshan Sansthan, Phaltan, Amman Madan.
324. Member of advisory committee of Early Literacy Project, New Delhi, Amman Madan.
325. Member of advisory committee, Vidya Bhawan Centre for Societal Studies, Udaipur, Amman Madan.
326. Risks in a technocracy, Hindi version published in Srote: Vigyan evam Technology Features, December 2008, Amman Madan.
327. Labeling and the creation of Pariahs: A Pardhi story, Hindi version published in Srote: Vigyan evam Technology Features, April 2008, Amman Madan.

Physics

328. A 1.7 MV accelerator has been installed and inaugurated in October 2008 with the help of funding of about 15 Crores from DST. The objective is

to provide a common platform for researchers in the field of Physics, Materials Science, Electrical Engineering, Mechanical Engineering, Bioscience, etc. to work on the following themes: To build an infrastructure for Research and Development of ion beam based cutting edge technologies with an emphasis on applications of focused ion beams in micro and nanofabrication and diagnosis of materials; To enhance the understanding of ion-nano/micro matter interaction and harness it for developing ion beam based modern and futuristic technologies; To develop focused ion beam based technologies suitable for prototype fabrication of MEMS and NEMS devices for engineering, biological and biomedical applications, V.N. Kulkarni

Chemistry

- 329. Guided summer research fellow of IASc, Bangalore, F. A. Khan.
- 330. *Invited lectures* on Chemical reaction dynamics: from transition state to RRKM and beyond at the Indian Association for Cultivation of Science, Kolkata, December 2008, K. Srihari.
- 331. Invited to Chair the opening session of the APS Focus meeting on Transition States in Chemistry, Physics, and Astrophysics, March 2009, Pittsburg, USA, K. Srihari.

Mathematics and Statistics

- 332. Programme Committee Member, IFSA-EUSFLAT 2009, July 20-24, 2009, Lisbon, Portugal, Mohua Banerjee.
- 333. Programme Committee Member, Third Indian Conference on Logic and its Applications (ICLA 2009), January 7-11, 2009, IMSc, Chennai, Mohua Banerjee.
- 334. Editorial Board Member of the Journal of Modern Applied Statistical Methods, D. Kundu.
- 335. Editorial Board Member of the Journal: Statistics and Its Applications, D. Kundu.
- 336. D. Kundu, Editorial Board Member of the Journal: Communications in Statistics - Theory and Methods, D. Kundu.
- 337. Editorial Board Member of the Journal: Communications in Statistics - Simulation and Computation, D. Kundu.

- 338. Awarded DST SERC Project titled 'Analyzing Non-Stationary Signals' from the Department of Science & Technology, Government of India, Amit Mitra and Debasis Kundu.
- 339. Organized 23rd annual meeting of the Ramanujan Mathematical Society at IIT Kanpur in May 2008, S. K. Ray.
- 340. A DRDO project titled Development of nodal platform for quantitative methods for MRI and MR Spectroscopy for the study of human brain with a grant of Rs. 35,00,000/- (Rupees Thirty Five Lakhs Only), R. K. S. Rathore.