**Director’s Report**

Honourable President of India Shri Pranab Mukherjee, Honourable Governor of Uttar Pradesh Shri B. L. Joshi, Honourable Chairman, Board of Governors of the Indian Institute of Technology Kanpur, Professor M. Anandakrishnan, Shri N. R. Narayana Murthy, Executive Chairman of Infosys Limited, Professor Ashoke Sen, Harish-Chandra Research Institute, Allahabad, Members of the Board of Governors, Members of the Academic Senate, all graduating students and their family members, 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-fifth convocation of the Indian Institute of Technology Kanpur.

**Academic Activities**

The academic year closing in June 2013 has been momentous, and I consider it a privilege to review our activities pertaining to this period. I am very happy to share with you that 132 Ph. D students have graduated over the last academic year. The number of graduating students at the undergraduate level was 691 and at the postgraduate level it was 636.

**Awards and Honours**

Reporting about the awards and honors won by our faculty and students is always a proud moment for the Director. It gives me enormous sense of pride to share with you that Professor Sanjay G. Dhande, former Director of the Institute and Professor Manindra Agrawal (CSE) have been conferred Padma Shri by the Government of India.

The many prestigious scholarships and awards received by our students have been a matter of pride and pleasure for us. This year 8 Japanese TODAI scholarships were awarded to IITK students.

I am happy to inform you that during the academic year, several honours were bestowed on the distinguished faculty members of IITK family in the form of various awards and honours, including fellowships of professional societies and editorships of international journals.

Prof. S. A. Ramakrishna (phy) has been awarded the Swarnajayanti Fellowship by the DST. Dr. Pankaj Wahi (ME) and Dr. Nishant Nair (CMH) have been awarded the prestigious Indian National Science Academy (INSA) Young Scientist Medal. Dr. Bushra Ateeq (BSBE) received Wellcome Trust-DBT India Alliance Intermediate Fellowship Award. Prof. Ashok Kumar (BSBE) has been selected for TATA Innovation...
Fellowship by DBT. Prof. Mukesh Sharma (CE) has been awarded Hiyoshi Environmental Award by Hiyoshi Corporation, Japan and Hiyoshi India Ecological Services Pvt. Ltd., Chennai, for his outstanding contribution in fundamental research for Environmental Conservation and Protection. Dr. Yogesh Joshi (CHE) received NASI Scopus Young Scientist Award in Engineering from the National Academy of Sciences, Allahabad. Dr. Raja Angamuthu (CHM) received Young Scientist Research Award of DAE. Prof. S. C. Srivastava (EE) received Academic Excellence Award at the 17th National Power Systems Conference held at IIT BHU Varanasi for his exemplary contributions in the field of power engineering. Dr. Yogesh Singh Chauhan (EE) received Ramanujan Fellowship by DST. Prof. Kalyanmoy Deb (ME) has been awarded TWAS Prize in Engineering Sciences. Prof. Avinash Agarwal (ME) has been chosen for the NASI-Reliance Industries Platinum Jubilee Award for Application Oriented Innovations in Physical Sciences. Dr. Kantesh Balani (MSE) received TMS Young Leader Professional Development Award of the Minerals, Metals and Materials Society. Dr. Krishanu Biswas (MSE) received the DAAD Fellowship and Prof. Dipak Mazumdar (MSE) has been awarded the SAIL Gold Medal of the Indian Institute of Metals for the third time in his career. Dr Amit Agarwal (Phy) has been awarded the Inspire Fellowship by DST. IIT Kanpur received the Agriculture Leadership Award of Agriculture Today.

Research & Development Overview

During the year, the Institute has witnessed significant growth in its Research and Development activities. The number of externally funded ongoing projects has reached 588 with a sanctioned amount of Rs. 314 crores. During 2012-2013, the Institute got sanctions for 119 sponsored projects worth Rs. 54 crores and 101 consultancy projects of value Rs. 11 crores. Some of the major grants sanctioned by various agencies during the year are DST Rs. 7 crores, SERB Rs. 7 crores, ARDB Rs. 4 crores, DRDO Rs. 6 crores, DAE Rs. 2 crores, UGC Rs. 1 crore and DBT Rs. 1 crore. Some of the major industries which have funded projects are Unilever, HUDCO, CEAT, Intel, Power Grid Corporation of India, BHEL, and GE. At the international level, organizations like Samsung, Boeing, the Finnish Meteorological Institute, Finland have funded our research. A list of major projects is given at the end of the report.

The Institute and consumer goods company Unilever signed a wide ranging partnership agreement to collaborate on several cutting edge research projects in the areas of materials science and engineering. Overall, during the year, the Institute signed around 110 MoUs/agreements with various sponsors and research institutions.
During the year, twelve technologies developed at the Institute were licensed for commercialization while we filed eighteen national patents including two design patents. Three patents were granted and our earnings from intellectual property are US$ 86,400.

Twenty-two companies are currently being incubated at SIDBI Innovation and Incubation Centre (SIIC) while twenty-one have graduated. SIIC has successfully incubated eight Bio-Tech Companies with two more in the pipeline. BIRAC has sanctioned Rs. 833.716 lacs to SIIC under its Bio-incubator Scheme. SIIC plans to establish the Bio-incubator as per the timeline laid down under the scheme in the next one year.

A novel Zero Discharge Toilet System has been developed in the Department of Civil Engineering. The toilet system eliminates use of fresh water for flushing and converts human excreta into manure and fertilizer. Over 300 such toilets were deployed in Maha Kumbh 2013 at Allahabad which served approximately one million users. Housing and Urban Development Corporation (HUDCO) facilitated this initiative under their Corporate Social Responsibility program.

An Autonomous Mini-Helicopter model was displayed in Bangalore at AERO India 2013. It weighs only a few kilograms and incorporates most of the functions of a real life helicopter and achieves autonomous control in hover and forward flight. This project serves as a platform to test innovative ideas in the design, development, ground/flight testing of autonomous flying vehicles. A laboratory focusing on the fundamentals of design, manufacturing, and testing of systems and sub systems has been created to assist the development and testing of the mini helicopter. An agreement was also signed with HAL Bangalore for the development of autonomous mini helicopter.

With the growing popularity of Massively Open Online Courses (MOOCs), the problem of automating components of education is the need of the hour. We are developing Intelligent Tutoring Systems to aid online classrooms as well as traditional classrooms. Automated tutoring systems are being developed for topics such as Periodic Table, Limits, Trigonometry, Natural Deduction, Visual Sequences to name a few. These tutoring systems can help instructors in creating sample solutions to assignment problems and new problems along with their solutions and can automatically generate
variants of given seed problems with similar difficulty level. The project is being done in collaboration with Microsoft Research, and was recently showcased at Techfest 2013, Microsoft Research, Redmond, USA.

The contributions of Prof. A. K. Ghosh (AE) towards the successful flight of a supersonic (Mach=3.5) 214 mm PINAKA Mk-II artillery rocket weighing 300 Kg was commended by the Director, ARDE (DRDO). After the first round of rockets failed, modifications were incorporated on the basis of Prof. Ghosh’s recommendation and all the rockets exhibited majestic flight.

A new DC power supply has been designed by BSNL-IITK Telecom Centre of Excellence at IIT Kanpur for rural telecom exchanges. It works with one, two or three phase grid input and obviates the need for operating diesel generators during partial grid failure. The product will result in savings in operational cost and an environment friendly telecom exchange. It was showcased in Delhi at India Telecom 2012.

**Major projects sanctioned**

In a recent high level meeting with DRDO, the Institute has expressed its desire to embark upon mega projects which can lead to the development of challenging products which are challenging and which are required by the country's defence or by society, in general.

I am happy to inform you that DRDO has sanctioned two major projects as part of its nano-photonics program, with a funding of Rs. 309 lakhs. One project targets the development of miniaturized optical devices to function as sources and detectors based on the concept of photonic crystals. The other project concerns the development of large area micro and nano structured meta-materials for visible and infra-red frequencies with a view to developing selective absorbers, detectors and shields.

An Indo-German project-FLEXIPRIDE (Flexible Printed Integrated Disposable Electronics) - has been initiated with one academic Institute and one industrial partner from each country to develop circuits on flexible substrates on which electronic components such as displays, solar cells and transistors can be printed. The main thrust of the project is to improve and integrate components to produce multifunctional system applications such as electronic seals. As a part of the project various printing techniques such as ink-jet and gravure will be used to port ink-based applications from one platform to another. The project spans over three years at a cost of Rs. 4 crores among all the partners.
DBT has sanctioned a project on unraveling the role of Glycogen metabolism in neurodegenerative disorders. Glycogen is the principle storage form of energy in all cell types except the neurons which store either no or negligible amount of glycogen. Intriguingly, neurons in the patients with Alzheimer’s disease, Parkinson’s disease, Amyotrophic lateral sclerosis or Lafora disease are known to have increased glycogen content, although the significance of the glycogen accumulation in the neurodegeneration is not understood. The outcome of the project is likely to unravel the commonality in the pathological process of diverse set of neurodegenerative disorders and may help to explain the possible role of glycogen metabolism in neurodegenerative disorders.

A project for research and demonstration of the concept of Homogeneous Charge Compression Ignition (HCCI) and Partially Premixed Charge Compression Ignition (PCCI) combustion in Single Cylinder Engine using diesel and biodiesel as test fuels has been sanctioned by DST. It is a three year project with a budgetary allocation of Rs 1.58 crores and Tata Motors, Pune, as the industrial partner. The objective of the project is to develop HCCI/PCCI concept with biodiesel and development of biodiesel PCCI combustion system as an ultra clean combustion system. This advanced combustion seeks to decrease the rate of consumption of conventional fuel-stock and reduce the high pollutant level in exhaust, simultaneously.

The Obama Singh scheme is an Indo-US initiative that aims to form partnerships between US institutions and institutions of higher learning in India. IIT Kanpur partnered with Virginia Tech and was one of the four Indian led partnerships to be funded in the first year of the scheme to create an international program for Sustainable Infrastructure Development. The project with a total funding of Rupees 122.808 lakhs over a three year period seeks to (1) conduct research in areas related to the development, maintenance, and monitoring of infrastructure (2) apply geospatial techniques to infrastructure monitoring (3) develop curriculum in educational institutions and (4) conduct an awareness and sensitization program towards the need for comprehensive planning, development, and maintenance of infrastructure among practicing engineers (5) and contribute to greater mutual understanding among faculty at both the institutions through exchange of scholars, joint publications, and collaborative research.

The state of the art Photovoltaic (PV) Field Performance Test Station has been established under the DST sponsored Indo-UK project Stability and Performance of Photovoltaics. A 50 KWp solar power station having five PV technologies has been created. The power station is unique and first of its kind in the country hosting five PV technologies; mono-crystalline silicon, multi-crystalline silicon, amorphous silicon thin film, copper-indium-gallium-selenide (CIGS) thin film and high concentration high
efficiency triple Junction solar cells in two different configurations, i.e., fixed angle and 2D tracker at 5 KWp levels. An online monitoring system for comprehensive field performance evaluation of various PV system parameters and ambient conditions has been designed. The test station also provides an R&D platform to faculty, research engineers and students of the institute associated with the Solar Energy Research Enclave (SERE). Besides providing opportunity for R&D in PV technologies, the enclave acts as a demonstrator of solar based technologies. The enclave is self sufficient in its electricity needs through 5 KWp battery supported solar panels and is also feeding about 200 units/day to the IITK electricity grid.

Infrastructure Development

Keeping in view the requirements of the campus community, the institute has embarked upon a major exercise to enhance the infrastructure in the campus. Some of the new facilities that are being planned are a Convention Centre including a Senate Hall, a new Sports' Complex, Vivekananda Youth Centre, TeQIP Nodal Centre, Engineering Core Laboratory, Administrative Block and faculty apartments. As a part of this exercise, some of the existing low usage footprints like Workshop and Aerospace buildings will be converted to multistoreyed buildings.

The Institute strives to provide the state-of-the-art equipments to its faculty, students and staff to facilitate cutting edge research in the frontier areas of science and technology.

During the year, the Institute has procured the following facilities under its CARE scheme: Anechoic Acoustic Chamber, Femto-second Transient Absorption Spectrometer, Laser Micro-pattern Generator, Femto-second Laser based Beam Delivery and Scanning System, Large area nano/micro depth profiling by AFM, Facility for transgenesis of multiple model organisms and a large scale centrifugation facility.
Under the FIST scheme of DST, the Department of Chemistry received a total budget of Rs. 465.00 lakhs and procured several new facilities including Mass Spectrometer, Computer Cluster, Fluorimeter, GA-DSC, Atomic Force Microscopy, Resonance Raman Spectrometer, etc.

Other facilities established in the Institute during this year are listed at the end.

**International Academic Collaborations**

For promoting scientific and academic co-operation, the Institute has entered into MoUs with the University of Gothenburg, Sweden, National University of Ireland at Galway, Ireland, Singapore Management University, Singapore, University of Applied Sciences, Germany, Ecole Centrale Nantes, France, Ecole Nationale Superieure D Arts et Metiers, France, Erasmus Mundus Europe Asia (EMEA), Sweden, The University of Melbourne, Australia, RWTH Aachen University, Germany, The University of Tokyo, Japan, Ulsan National Institute of Science and Technology, Korea, University of Malaya, Malaysia, and University of Saskatchewan, Canada.

The Department of Industrial Management and Engineering helped Defence Engineering College, Ethiopia to establish an M.Tech program in Industrial Management.

**Financial Resource Mobilization**

The year 2012-13 has witnessed significant growth in financial resource of the institute. The total Grant-in-aid received during the financial year from MHRD, Govt. of India, under non-plan was Rs. 169.65 crores and under Plan Rs. 163.80 crores.

The year was good for fund raising as well. The Institute received Rs. 4.54 crores from 701 donations made by 538 donors (334 donors from India and 204 donors from...
abroad). A total of 310 donors (169 donors from India and 141 donors from abroad) contributed Rs. 54.8 lakhs under the Annual Gift Programme (AGP). Donations received under AGP have been utilized for providing travel support to the students for attending international conferences, cash award for publication of their research papers in reputed journals, support to community services and other activities encouraging excellence in the Institute.

The class of 1988 has contributed Rs 1,11,20,790.00 (Rs one crore eleven lakhs twenty thousand and seven hundred ninety) during their Silver Jubilee Reunion towards naming of squash court, Community outreach activities, Noida campus, alumni association, merit cum means scholarship, mess workers’ pension fund, tinkering lab, various student activities and center for development of soft skills.

Mr. Anil Kumar Singh (BT/AE/1970) has donated for Kunwar Devendra Pratap Singh & Kunwarani Krishna Kumari Memorial Award and Mr. Puneet Prakash (MSC5/MTH/1992) has donated for Shailja Srivastava Award.

Several donors have instituted new scholarships during the financial year 2012-13. Arpita Mahila Mandal, Azad Nagar, Kanpur has instituted two scholarships named as “Arpita Mahila Mandal Scholarship” to provide financial assistance to two poorest girl students during the full degree program. Mr. Rangarajan Vellamore R, B. Tech from Mechanical Engineering (1990) has instituted Sri R & R Chari Scholarship. Mr. Anupam Saronwala, B. Tech from Electrical Engineering (1980) has instituted Dr. K. C. Saronwala Memorial Scholarship. Mr. Rajeev Chopra (B. Tech Metallurgy 1985) and Sandeep Chopra (B. Tech, Electrical 1993) has donated to institute four annual scholarships namely Ram Parkash Chopra Memorial Scholarship. Mr. Satya P. Chauhan (BTech/ChE/1968) has instituted Shri Ranbir and Shrimati Mahadevi Chauhan Scholarship. Mr. Santosh Mehra (BT/EE/1966) & Mrs. Anita Mehra, donors of "Anita and Santosh Mehra Scholarship" instituted in 2010 have instituted four more scholarships and all the four scholarships will be named under "Anita and Santosh Mehra Scholarship".

Mrs. Asha Jadeja, wife of Late Prof. Rajeev Motwani (BT/CSE/1983), has donated US$ 181,000 towards the Rajeev Motwani Building for CSE department. Mrs. Jadeja has committed to donate 50% cost of Rajeev Motwani building which is presently under construction.
Mr. Jagjeet Singh Bindra has donated US$ 20,000 towards Mr. & Mrs. Gian Singh Bindra Chair. Mr. Kamlesh Dwivedi has donated US$ 40,000 towards Pandit Girish Ranjan & Sushama Rani Pathak Chair.

SURGE 2012 program was conducted during summer 2012 which saw student participation of 95 members from 122 Institutes, and faculty participation of 72 members from IIT Kanpur as mentors. The selection of student participants was very competitive as 2600 applications were received from various institutions in the country, which gives a clear indication of its increasing popularity.

The Institute encourages research by providing travel support to students and rewarding students for publishing research papers in high quality journals. The Institute provided travel support of Rs. 68 lakhs to 155 students for attending international conferences, and cash awards of Rs. 18.20 Lakhs to 147 students for publication of their research papers in reputed ISI Web Journals during the financial year 2012-13.

Rs. 1.59 crores from endowment fund account was reimbursed for New Faculty Fellowships during the financial year 2012-13.

The Institute is working on an ambitious plan for raising substantial resources to increase the research and development activities on campus and hopes to launch some new initiatives in the year 2013-14.

Students’ Activities

IIT Kanpur continues its striving to encourage an equitable balance between academics and extracurricular activities among its students. Our vision is to create future leaders in their field of interest 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. With a firm belief in self-governance, Students’ Gymkhana continues to provide platform to all students to pursue their interest. This year also witnessed the Golden Jubilee of Students’ Gymkhana.

A variety of activities are pursued by various clubs coming under the broad ambit of the councils of the Students’ 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. This year Institute’s technical team won the Overall Championship at
IITM’s technical competition. Our dance club also made their impact in Mood Indigo, IITM cultural festival and IITD cultural festival. Music club is actively working on launching a music album of its own, again first of its kind initiative by any student group in India. It has composed three patriotic songs and is working on composing the Anthem for IIT Kanpur. Apart from these, Vox Populi, the campus newspaper provides the news from every aspect of the campus community. A full-fledged studio for photography has come into existence and the last phase of work is under progress. It will be fully operational from the month of July. Other technically oriented student groups as part of the Science and Technology Council are engaged throughout the year in pursuing special interests like robotics, electronics, astronomy, aero-modeling, business, programming, HAM, Rubik’s cube to name only a few activities. This year was a landmark for Science and Technology Council. We saw International participation in Techkriti’13 and also our SAE team participated in the International competitions. This time we have successfully completed many engrossing projects such as Microsoft Touch Table, Hexapod (six legged robot bot), and India’s first student made in house Planetarium which is all set to enter the Limca Book of Records. Also we have put up a splendid show in IITB’s Technical festival and in Intel Embedded Challenge. We have also successfully set up the Society of Automotive Engineers, IIT Kanpur chapter and are all set to take part in Formula SAE 2013 which is going to be held in December.

The overriding objective of the large-scale events of the Institute such as Antaragni (the cultural festival), Techkriti (the technical and entrepreneurship festival) and Udghosh (the sports festival) is to infuse a sense of richness and purpose in the lives of students. All these social, cultural and sporting activities play a crucial role in the transformation of a student into a complete human being. 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. Social activists like Medha Patkar, economists like Trilochan Sastry and Mahesh Murthy and veteran journalists like Kuldip Nayar, and many more have visited the campus in the past. The Institute sports teams participated in the Inter IIT Sports meet this year held at IIT Roorkee. The Athletics team was successful in securing Gold Medal. We also secured Silver Medal in Table Tennis (boys) and Squash (boys) and Bronze Medal in Table Tennis (Women). This was the first time when both the Men and Women team won a medal in any Inter-IIT sport. The year also saw the addition of a new Rock Climbing wall and an air-conditioned gymnasium to the Institute Facilities. This year also marked the presence of an Archery, Horse-riding and Boxing Workshop for the students.
The Institute witnessed stiff Inter-Hall competition in the form of Galaxy, Takneek, Spectrum and Inferno, Inter-Hall Cultural, Science & Technology, Films & Media and Sports championships respectively. Fresher Inferno tournament also was organized to find some new talent from the freshers’ batch. The sole guiding principle behind organizing these championships is to provide the students of this campus, a much needed platform to compete and showcase their cultural and sports talents and to give them a reason and a motivation, strong enough, to come out of their rooms and participate in group activities.

Significantly, the students also engaged in an Energy Saving Competition amongst hostels through an Inter-Hall Competition called Green Opus. The results were astounding in that the students just by internal competition were able to markedly reduce the average energy consumption. Results from all the five Inter Hall Competitions were then used to identify the winner of the Overall Championship Trophy.

This year, the Gymkhana’s Golden Jubilee is being celebrated to commemorate the momentous journey of the Students’ Gymkhana. The Golden Jubilee celebrations were inaugurated by Dr. A P J Abdul Kalam on the 25th of October. Dr. Kalam’s speech during the ceremony was witnessed by thousands of students despite the event occurring during the mid-semester recess.

The Counselling Service is an active wing of our 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 alike.

Despite the fear of a second recession, several companies actively participated in the Campus placement programme with many old recruiters registering their presence once again after the recession in 2007. Apart from an overwhelming response from the traditional Consulting, FMCG and the core engineering sectors, the e-commerce sector registered a sizeable presence with a total of 30 job offers from companies such as Myntra, Flipkart and Snapdeal.

Around 914 students registered for placements this year, of which 709 received job offers from 200 companies. Thus the overall placement record stands at 78% as on 5th of May, 2013. The break-up is as follows: B. Tech 80%, Dual 98%, M. Tech 70%, M. Des 62%, Integrated M.Sc. 92%, and M.Sc. 2 year 49%, and MBA 90%. Results from several companies that participated in the placement process are still awaited.
The Career Counseling Program continued successfully this year with almost a two-fold rise in the number of students availing this facility. The Institute has put in place the entire infrastructure necessary to meet the requirements of the enhanced student strength. As of now, there are eleven halls of residence, nine for boys and two for girls. The total capacity in these halls is over five thousand.

The Students’ Gymkhana of IIT Kanpur was established in the year 1962, with the goal of complementing education through exposure to science, culture and sports and thereby fostering an environment that provides every student that passes through the hallowed halls of IIT Kanpur with an opportunity to develop and have a wholesome college experience.

A number of events like The Golden Jubilee Duathlon, Montage Film Festival, Vivekananda Youth Convention and Stress Buster events like “Laugh it Out” were organized. This year is not just about celebrating and recognizing the 50 years’ worth of achievements of the Gymkhana but also to contemplate and look towards the future, to leave behind a legacy that would continue to benefit the student community over the years to come. In this direction, a number of infrastructural projects dealing with every council have been taken up this year, right from establishing our very own in-house recording studio to setting up an archery range on campus. Apart from the infrastructural projects, a number of workshops were organized to introduce the campus to new forms of art, culture and media. A solar tree has been put up in the campus. Many other procedures have started on for IITK Paper Waste Management and Water Harvesting. These, we are told, are long term projects and will take time to complete.

In Hall-2, work on a Mini-Library in the Reading Room has started, if successful it will be implemented in other halls too. An Electronic Voting Machine has been brought to the campus. The mail-quota is also going to be increased. Study kits have been given to all the students in Prayas. A ball-throwing machine is soon to arrive in the campus, much to the enjoyment of the cricket lovers. An exquisite projector has been bought and will be used in the Auditorium for screening movies.

Over the past 50 years, the Gymkhana has developed into one of the finest models of student Governance and Organization in the country and is now an integral part of the life of every student on campus.

It represents, to a student of IIT Kanpur, the most unique feature of our Institute life: the independence that an autonomous student body offers us. The privilege to organize our own student-managed festivals, the privilege to compete with each other in student-organized competitions, the opportunity to perform and participate in a spate of
extracurricular activities and the chance to exemplify the spirit of competition are all offered to us by the institution of the Gymkhana.

While the connectivity of Lucknow airport to major metros has considerably improved, the same cannot be said for the connectivity between IIT Kanpur and Lucknow airport. To address this issue, a helicopter service operated by Pawan Hans has been started from the institute to Amausi airport. While presently it is running on an experimental basis, efforts are being made to explore how it can be operated as a regular service.

I am happy to say that the Institute has also joined hands with the Merchants' Chamber of Uttar Pradesh to provide its services towards improving the traffic and related civic infrastructure in Kanpur city.

Dear graduates, on this occasion of the forty-fifth convocation, I extend my heartiest congratulations and best wishes to the Class of 2013 passing out today. This hard-earned success is a major milestone in your career. I also take this opportunity to salute your parents who have ensured your success and glory in all you have chosen to do through their quiet support.

As individuals you will choose the profession that excites you, that generates intellectual passion within yourself, engages your mind in the best possible way. I fervently hope that you are successful in your endeavors. Today, you will be leaving the protected environment of the Institute to find your place in the larger order of society. Prepare yourselves to evaluate the needs of others and respond to the call for action. It is people like you who keep our flag flying high.

I admire you for your fine accomplishments during your stay at IIT Kanpur. Given your intellectual attainments and breadth of understanding, you are destined to bring cheer, hope, joy and luck in all the lives you touch. Each of you in your own way has internalized the spirit of IIT Kanpur that imbibes commitment, excellence, fellowship, and, importantly, service. No matter where you are, continue to dream and dream big at that! My sincere, good wishes for the productive work you aspire to do in the future.

Jai Hind.
Books Published

1. A book written by Prof. Ashish Tiwari (AE) titled *Atmospheric and Space Flight Dynamics* has been translated into Chinese language by National Defense University Press (Beijing).
3. *El Comercio De Bienes Amigables Con El Ambiente Y Otros Productos Especializados Del Ecuador* (in Spanish), Mathur Somesh K (HSS) with Luis Barreno, Maria Isabel and Rene Vasconez, UTE (Universidad de Tecnología Equinoccial), Ecuador, Quito, Ecuador.

Fellowships

1. Prof. Sanjay Mittal (AE) has been awarded the J C Bose Fellowship by DST.
2. Prof. Sanjay Mittal (AE) has been elected Fellow of National Academy of Sciences, India.
3. Prof. Ashok Kumar (BSBE) has been awarded Tata Innovation Fellowship by Department of Biotechnology, Ministry of Science & Technology, Govt. of India.
4. Dr. Bushra Ateeq (BSBE) has been awarded Wellcome Trust-DBT India Alliance Intermediate Fellowship.
5. Prof. S. Ganesh (BSBE) has been awarded Ramanna Fellowship by Department of Science & Technology.
6. Prof. S. Ganesh (BSBE) has been elected Fellow of the National Academy of Sciences, Allahabad.
7. Prof. Animesh Das (CE) has been awarded Fulbright-Nehru Senior Research Fellowship.
8. Prof. Amalendu Chandra (CHM) has been awarded the J C Bose Fellowship by DST.
9. Prof. Amalendu Chandra (CHM) has been elected Fellow of the Indian National Science Academy (FNA).
10. Prof. Sandeep Verma (CHM) has been awarded the J C Bose Fellowship by DST.
11. Prof. Manindra Agrawal (CSE) has been elected Fellow of the Academy of the Developing World, Trieste, Italy.
12. Dr. Yogesh Singh Chauhan (EE) has been awarded Ramanujan Fellowship by DST.
13. Prof. Arvind K Sinha (HSS) has been elected Fellow of the National Academy of Psychology.
14. Prof. Avinash Kumar Agarwal (ME) has been elected as SAE International Fellow by the Society of Automotive Engineers (International), USA.
15. Dr. Anupam Saxena (ME) has been awarded Alexander von Humboldt Fellowship from Alexander-von-Humboldt Stiftung.
16. Prof. Gautam Biswas (ME) has been elected Fellow of Indian National Science Academy.
17. Dr. Krishanu Biswas (MSE) has been awarded DAAD Fellowship.
18. Prof. S. A. Ramakrishna (Physics) has been awarded Swarnajayanti Fellowship for the year 2012.
19. Dr. Amit Agarwal (Physics) has been awarded Inspire Fellowship by DST.
20. Prof. Debashish Chowdhury (Physics) has been awarded the J C Bose Fellowship by the DST.

Awards and Honours

1. Prof. Ashok Kumar (BSBE) received GRO Samsung project award by Global Research Outreach, Samsung Ltd, Korea.
2. Prof. Mukesh Sharma (CE) has been awarded 'Hiyoshi Environmental Award' by Hiyoshi Corporation, Japan and Hiyoshi India Ecological Services Pvt. Ltd., Chennai.
3. Prof. Sudhir Jain (CE) has been elected President of the International Association for Earthquake Engineering (IAEE).
4. Prof. Mukesh Sharma (CE) has been chosen for 2012 Kong Ha Award for Excellence in Air Quality Management.
5. Prof. Ashutosh Sharma (CHE) has been awarded the Syed Husain Zaheer Medal by the Indian National Science Academy.
6. Prof. D. Kunzru (CHE) has been awarded Chinnamaul Memorial Prize and M. H. Shukla 1st Prize by the Indian Institute of Chemical Engineers.
7. Dr. Yogesh Joshi (CHE) has been awarded NASI Scopus Young Scientist Award in Engineering by National Academy of Sciences, Allahabad.
8. Prof. P. K. Bharadwaj (CHM) has been awarded Prof. P. R. Ray Memorial Award by Indian Chemical Society.
9. Prof. Sandeep Verma (CHM) has been awarded Prof. R. C. Mehrotra Commemorative Lecture and Gold Medal by Indian Science Congress Centenary Session, Kolkata.
10. Dr. Raja Angamuthu (CHM) has been awarded Young Scientist Research Award by BRNS, DAE.
11. Prof. Debabrata Goswami (CHM) has been awarded Thathachari Research Award 2012 by Bramhara Trust.
12. Dr. Nisanth N Nair (CHM) has been awarded INSA Medal for Young Scientist.
13. Prof. Vinod Singh (CHM) has received Pt Jawaharlal Nehru Award from the Dept. of Science and Technology, MP Govt.
14. Prof. Vinod Singh (CHM) has received the Distinguished Alumnus Award from the Banaras Hindu University.
15. Prof. Sanjay G. Dhande, former Director IIT Kanpur has been conferred Padma Shri by the Government of India.
16. IIT Kanpur received the Agriculture Leadership Award of Agriculture Today.
17. Prof. Manindra Agrawal (CSE) has been conferred Padma Shri by the Government of India.
18. Prof. S C Srivastava (EE) received Academic Excellence Award at 17th National Power Systems Conference.
20. Prof. M. Ramamoorty (Visiting Professor and also former faculty, EE) received Malviya Excellence Award in Power Systems at 17th National Power Systems Conference.
21. Dr. Prashant Bagad (HSS) received the P. N. Pandit Puraskar for his short story collection in Marathi titled 'Vivade Vishade Pramade Pravase' by the Sarvajanik Vachanalay (‘Public Library’), Nashik.
22. Dr. Prashant Bagad (HSS) received Baburao Bagul Shabda Puraskar.
23. Prof. Anoop Singh (IME) has received Amity Academic Excellence Award in Management & Engineering from Amity University.
24. Prof. Peeyush Chandra (Math) has been elected President, Indian Society of Theoretical and Applied Mechanics.
25. Prof. Avinash Agarwal (ME) has received the NASI-Reliance Industries Platinum Jubilee Award for Application Oriented Innovations in Physical Sciences.
26. Dr. Pankaj Wahi (ME) has been awarded the INSA Medal for Young Scientist.
27. Prof. Kalyanmoy Deb (ME) has been awarded TWAS Prize in Engineering Sciences.
28. Prof. Gautam Biswas (ME) has received Distinguished Alumnus Award from the Bengal Engineering and Science University (BESU) Shibpur.

29. Prof. N. N. Kishore (ME) and Prof. Prabhat Munshi (ME) received ASNT Outstanding Paper Award for the article, “Tomographic Reconstruction of Defects in Composite Plates Using Genetic Algorithms with Cluster Analysis”.

30. Prof. Dipak Mazumdar (MSE) has been selected Chair Professor by the Ministry of Steel, Govt. of India.

31. Prof. Dipak Mazumdar (MSE) has been awarded the SAIL Gold Medal of the Indian Institute of Metals.

32. Professor Dipak Mazumdar (MSE) has been selected INAE Distinguished Industry Professor.

33. Prof. R. C. Budhani (Physics) has received the Distinguished Alumnus Award of IIT Delhi.

**Editorships**

1. Prof. T. K. Sengupta (AE), Regional Editor, *Computers and Fluids*.
5. Prof. Ashok Kumar (BSBE), Advisory Board Member, *Biotechnology Journal*, Elsevier Publications.
7. Prof. Ashutosh Sharma (CHE), *Editorial Advisory Board Member*, ACS Applied Materials & Interfaces, American Chemical Society (ACS).
11. Prof. Sandeep Verma (CHM), Member, Editorial Advisory Board, *Chemical Communications*, Royal Society of Chemistry, London, UK.
15. Prof. Debabrata Goswami (CHM), Senior Member, *Optical Society of America*.
21. Dr. Shantanu Bhattacharya (ME), Editorial Board Member, *Trends in Mechanical Engineering & Technology*, STM Journals.
23. Dr. Sujeeet Kumar Sinha (ME), Editorial Board Member, *Tribology International*, Elsevier, UK.
24. Dr. Sujeeet Kumar Sinha (ME), Editorial Board Member, *Advances in Tribology*, Hindawi Publishing, USA.
25. Dr. Sujeeet Kumar Sinha (ME), Editorial Board Member, *Tribology–Materials, Surfaces and Interfaces*, Maney Publishing and the Institute of Materials, Minerals and Mining, UK.
27. Dr. Sameer Khandekar (ME), Associate Editor, *Interfacial Phenomena and Heat Transfer*, Begell House.
29. Dr. Anupam Saxena (ME), Associate Editor, *ASME Journal of Mechanisms and Robotics*, ASME.
30. Prof. V. K. Jain (ME), Editor, *Micro and Nanomanufacturing Series of Taylor and Francis* (CRC Press), USA.
31. Dr. Kantesh Balani (MSE), Associate Editor, *Nanomaterials and Energy*, ICE Publishing.
33. Dr. Kantesh Balani (MSE), Editorial Board, *Recent Patents on Nanotechnology*, Bentham.
37. Dr. Kantesh Balani (MSE), Key Reader, Metallurgical and Materials Transactions, Springer.
38. Prof. Dipak Mazumdar (MSE), Key Reader (Sub editor), MMTB, AIST, USA.
39. Prof. Dipak Mazumdar (MSE), Editor, Transactions of Indian Institute of Metals, Indian Institute of Metals, Kolkata.
41. Dr. Bikramjit Basu (MSE), Member, Journal of Biomaterials Applications and Advances in Ceramic Science and Engineering (ACSE).
42. Prof. S. Anantha Ramakrishna (PHY) Member, Editorial Board, Journal of Electromagnetic Optics, Institut Fresnel, CNRS, French Optical Society.

Students’ Awards

1. Mr. Joydeep Bhowmik (AE) won the first prize for Mechanical bird and also 3rd prize in Laws of Motion (Radio Controlled fixed wing aircraft design and flying competition) in ASME-Student Design Exposition held in Techno Management Fest at IIT Kharagpur.
2. Mr. Anjaney Kothari (BSBE) won the first prize for the paper presentation in the Annual Technical Festival, Cognizance held in IIT-Roorkee.
3. Mr. Paritosh Parashar (BSBE) won the BioAsia Innovation Award for 2013.
4. Shamjad P. M (CE) has been awarded the first prize for paper during Indian Aerosol Science and Technology Association (IASTA-2012) Conference.
5. Ms. Jaishree (CHE) won the Best Poster Award in International Conference on Materials Chemistry (ISMIC 2012) organized by BARC.
7. Aman Jain, Bhuvan Gupta, Shilpa Chhippa, Ujjwal Agrawal, (CHE) won the first prize in the competition Prototype, Chemical Engineering, held as a part of the annual technical festival of IIT Roorkee.
8. Sauvik Samanta (CHM) got the 1st prize in poster presentation in the '5th International symposium' on "Drug Development for Orphan/Neglected Diseases" organized by Current Trend in Drug Discovery Research (CTDDDR-2013) at CSIR-Central Drug Research Institute (CDRI), Lucknow.
9. Mr. Ashis Kumar Sahoo (CHM) got the Best Poster Award in the conference "Emerging Trends in Development of Drugs and Devices" (ETDDD-2013).
10. Dr. Sandipan Halder (CHM) has been awarded Nehru-Fulbright Post Doctoral Fellowship.
12. Mr. Pranay Dighe (CSE) and Anurag Kumar (EE) have won the Samsung Innovation Award in the Product Design Category.
13. Mr. Somak Bhattacharyya, Saptarshi Ghosh, Debdeep Sarkar (EE) received the best paper award of their respective sessions in Sixth Annual Conference of Antenna Test and Measurement Society of India (ATMS) held in Kolkata.
14. Mr. Somak Bhattacharyya (EE) has received Young Scientist Award at the International Symposium on Electromagnetic Theory, 2013 by International Union of Radio Sciences (URSI).
15. Power System Operation Corporation (POSOCO) in partnership with the Foundation for Innovation & Technology Transfer (FITT), IIT Delhi awarded POSOCO Power System Award (PPSA 2013) to the PhD theses of Dr. Seethalekshmi, Dr. Sachin Jain, and Dr. Naveen Jain (EE).
16. Power System Operation Corporation (POSOCO) in partnership with the Foundation for Innovation & Technology Transfer (FITT), IIT Delhi awarded POSOCO Power System Award (PPSA 2013) to the M.Tech theses of Mr. Dongare Kapil Subhash, Sivanagaraju Gangavarapu (EE).
17. Mr. Kunal (IME) has received the Best Paper Award at 6th Doctoral Colloquium 2013 at IIM Ahmedabad.
18. Mr. Dhananjay Kumar Srivastava (ME), Mr. Ajay M. Sidpara (ME), Kewal Dharmashi (ME) and Ms. Shanu Sharma (MDes) have been awarded Gandhian Young Technological Innovation Award.
19. Mr. Ambreen Nisar and Rajeev Kumar Sharma (MSE) received First Prize for their poster in Advanced Functional Materials and Structures workshop.
20. Mr. Abhijeet Moon (MSE) received the Best Paper Award in CORCON 2012.
22. Mr. Raghunandan Sharma (MSP) received the Poster Award in the National conference on Carbon Materials (CCM12) organized by Indian Carbon Society, Mumbai.
23. Ms. Soma Banerjee (MSE) received the Poster Award for in the National conference on Carbon Materials (CCM12) organized by the Indian Carbon Society, Mumbai.
24. Mr. Raghunandan Sharma and Charchit Kumar (MSE) won the third prize in the 4th International Exhibition and Conference ‘GRIDTECH 2013’.
25. Mr. Rajeev Kumar Sharma (MSE) bagged the First Prize in a poster competition of Advanced Functional Materials And Structures workshop.
26. Arun Kumar (MSE) received a special prize in International Conference on Advances in Materials and Processing: Challenges and Opportunities.
27. Mr. Anup Patel (MSE) received the Best Paper Award during ISRS 2012.
28. Mr. Amit Banerjee (Physics) won the best poster award at the International Conference on Material Science and Technology (ICMST 2012).
29. Mr. Gautam Nandi’s (CHM) poster was among the winners of the IUPAC Scholarships.
30. Mr. Sanchit Singhal (MSE) was awarded the 'Promising Young Asian Leader' award at Asia’99 Conference, at NUS, Singapore.
31. Mr. Ankit Sahu finished 3rd place representing IIT Kanpur in the first ever Inter IIT Messier Marathon organized in the GMRT campus, Pune.
32. Ms. Vatsal and Saumya were selected for Honda Young Engineer and Scientist Award in India 2012.

**Major Projects Sanctioned**

- Characterization and Modeling of Uncertainties in Composites (ARDB).
- Multi-Scale Damage Modeling, Testing and Analysis For Life Prediction of Fibrous Composite Structures (ARDB).
- Design of Composite Structures: Methodologies and Criteria (ARDB).
- Understanding Nanoparticle Internalization by Mammalian Cells (DST).
- Flexible Printed Integrated Disposable Electronics (FLEXIPRIDE) (IGSTC).
- Development and Demonstration of Nano-Sized TiO2-Based Photo Catalytic Oxidation Technology for Controlling Volatile Organic Compound (VOCS) at Source and In Situ Ambient Air (MOEF).
- Understanding Plant Nematode Interaction: Identification of Plant and Nematode Genes Involved in Disease Development (ICAR).
- Dynamics and Phase Behaviour of Anisotropic Soft Materials (DAE).
- Metamaterials and Plasmonic Structured Materials for Controlling Radiation (DRDO).
- Photonic Crystal Based Devices for Light Contr (DRDO).
- Femtosecond Study of Metal Complexes, Green Fluroscent Protein and related Molecules (SERB).
- Creating a International Program for Sustainable Infrastructure Development under Obama-Singh 21st Century Knowledge Initiative (OSI) grant (UGC).
- Aakash Lab (MHRD).
- Unraveling the Role of Glucose Metabolism in Neurodegenerative Disorders (DBT).
- CNT Reinforced Composites for Structural Application (STC).
• Development of NB-Based High Strength Ultrafine In-Situ Composites for High Temperature Application (BRNS).
• India-UK Advanced Technology Centre (IU-ATC PHASE 2) of Excellence in Next Generation Networks Systems and Services (DST).
• Complex Bioinspired Systems (DAE).
• Nano-Patterned Conductive Adhesive for Metal-Polymer Inter-Connectors in Solar Cell (DST).
• Understanding the Self Assembly Behaviour of Amphiphilic Molecules on Surfaces (SERB).
• Developing Low Carbon Cities in India: Focus on Urban Infrastructures, Climate Risks & Vulnerability (USAID).
• Installation of Zero Discharge Toilet System (ZDTS) at Kumbh 2013, Allahabad (HUDCO).
• Experimental Investigations of HCCI/PCCI Combustion in a Single Cylinder Research Engine using Biodiesel (DST).
• Bio-Incubator Facility at SIDBI Innovation & Incubation Centre (BIRAC).

Labs/Facilities Developed

• Interferometric technique for fracture analysis in thin films (AE).
• Buckling characterization in heterogeneous and FGM beams (AE).
• Single-Crystal and Powder X-ray Diffraction Facility (CHM).
• RF and Microwave characterization lab (EE).
• Transducers and instrumentation virtual laboratory (EE).
• Brain computer interface laboratory (EE).
• Acoustic and vibration data acquisition facility (EE).
• Facility for measuring the impact strength of nuclear grade concrete (ME).
• Surface and Tribology Laboratory (MSE).
• High Temperature Fuel Cell Laboratory (MSE).
• Full scale corrosion labs with potentiostat, in-house built salt fog test machine and other test facilities (MSE).
• Oxidation test facility like in-house developed DTA/TGA and Netszch DSC-TGA (upto 1500°C) (MSE).
• A virtual laboratory on oscillations and phenomena experiments in mechanics (Physics).
• Vibrating sample magnetometer and heat capacity set up for measurements in the temperature range 2K-400K and in magnetic field up to 14 Teslan (added as a part of PPMS) (Physics).
• Helium reliquifier for PPMS (Physics).
• E-beam lithigraphy set up (Physics).
Softwares Developed

- Monte Carlo software for heavy metal ion–solvent system Department of Atomic Energy (CHE).
- CPMD-GULP Hybrid Quantum Mechanical-Quantum Mechanical Interface (CHM).
- BSIM6.0 SPICE model for bulk MOSFET (EE).
- 3D Multipactin Analysis Code for BRNS (EE).
- Network Diagnostic and Optimization Tool (NetDOT) for BSNL (EE).
- Point of Use Kit Trays and Parts Tracking System for the Boeing Company (EE).
- Microwave material measurement code for thin samples for DRDO/DMSRDE (EE).
- Sensitive position finder for DAQ for the Boeing Company (EE).
- Android Application software for CBM for the Boeing Company (EE).
- Electronic Fuel Injection System For Diesel Locomotives (Technology Released for Serial Production) for RDSO, Lucknow (ME).

Technologies Developed

- Design and development of a deployable flight data recorder unit (DFDRU) for HAL, Korwa, which is ready for testing on Dornier DO-228 aircraft at HAL Kanpur (AE).
- Blood filter for leukocyte depletion for HLL-Life care, India (BSBE).
- Frequency Hopping UHF RFID Reader for the Boeing Company (EE).
- Smartphone Based Intelligent Condition Based Monitoring System for the Boeing Company (EE).
- Sensitive Position finder for Data Acquisition System for the Boeing Company (EE).
- Future Image Frame Generator (EE).
- An integrated microchip for the detection of a microorganism for Department of Biotechnology (ME).
- System with peristaltic motion for National Program of Micro and Smart Structures (ME).
- Nano-template based synthesis of high aspect ratio Zinc Oxide nano-bundle and their applications in Hydrogen detection for National Program of Micro and Smart Structures (ME).
- Passive vibration damping using polymer pads with micro-channel arrays for Possibility of US patent with Boeing Corporation (ME).
Organization

IIT Council

Chairman
Hon’ble Dr. M. M. Pallam Raju
Government of India
Minister of Human Resource Development
New Delhi - 110 001

Members

Shri Deepender Singh Hooda
Hon’ble Member of Parliament (Lok Sabha)
9, Pandit Pant Marg,
New Delhi - 110 011

Shri Janardhana Swamy
Government of India
Hon’ble Member of Parliament (Lok Sabha)
137, South Avenue,
New Delhi - 110 011

Smt. Vasanthi Stanley,
Hon’ble Member of Parliament (Rajya Sabha)
106, South Avenue,
New Delhi -110 011

Dr. Anil Kakodkar
Chairman, Board of Governors, IIT Bombay
& Chairman, Atomic Energy Commission
& Secretary, Department of Atomic Energy
Anushakti Bhawan, CSM Marg,
Mumbai – 400 001

Dr. Vijay P. Bhatkar,
Chairman, BOG, IIT, Delhi
34A, Vrindavan Society
Panchvati, Pashan Road
Pune - 411 008 (M.H.)
Dr. R. P. Singh  
Chairman, Board of Governors  
Indian Institute of Technology, Guwahati  
Guwahati – 781 039

Prof. M. Anandakrishnan  
Chairman, Board of Governors, IIT Kanpur  
8/15, Fifth Main Road,  
Madan Apartments  
Kasturibai Nagar, Adyar  
Chennai – 600 020, Tamil Nadu

Prof. M. M. Sharma,  
Chairman, Board of Governors, IIT Madras  
3, Jaswant Baug (Runwal Park),  
Behind Akbarallys, Chembur Naka  
Mumbai - 400 071 (M.H.)

Shri Shiv Nadar,  
Chairman, Board of Governors, IIT, Kharagpur  
& Chairman, HCL Technologies Ltd.,  
A-10/11, Sector-3,  
Noida - 201 301 (U.P.)

Shri Analjit Singh  
Chairman, Board of Governors, IIT Roorkee  
& Chairman, Max India Ltd.  
Max House, Okhla,  
1, Dr. Jha Marg, Okhla (Phase-III),  
New Delhi -110 020

Dr. P. Rama Rao  
Chairman, Board of Governors, IIT Bhubaneswar  
Bhubaneswar (Orrisa)

Dr. R. A. Mashelkar, FRS  
Chairman, Board of Governors, IIT Gandhinagar  
CSIR Bhatnagar Fellow, National Chemical Laboratory  
Dr. Homi Bhabha Road  
Pune - 411 008 (M.H.)
Shri Ajai Choudhary  
Chairman, Board of Governors, IIT Hyderabad  
Founder-HCL & Chairman, HCL Infosystems Ltd.,  
E-4, 5, 6, Sector-XI, Noida-201 301 (U.P.)

Prof. Goverhan Mehta  
Chairman, Board of Governors,  
Indian Institute of Technology, Jodhpur  
Jodhpur

Shri Ajay Parimal  
Chairman, Board of Governors,  
Indian Institute of Technology, Indore  
Indore (M.P.)

Shri M. Natarajan  
Chairman, Board of Governors,  
Indian Institute of Technology, Mandi  
Mandi (H.P.)

Dr. T. Ramasami  
Chairman, Board of Governors, IIT Ropar  
& Secretary, Department of Science & Technology  
Technology Bhawan, New Mehrauli Road  
New Delhi – 110 016

Dr. Lalji Singh  
Chairman, Board of Governors,  
Indian Institute of Technology (BHU)  
Varanasi – 221 005 (U.P.)

Dr. Devang V Khakhar  
Director  
Indian Institute of Technology, Bombay  
Powai  
Mumbai – 400 076

Prof. R. K. Shevgaonkar,  
Director  
Indian Institute of Technology, Delhi  
Hauz Khas, New Delhi – 110 016
Prof. Indranil Manna
Director
Indian Institute of Technology, Kanpur
Kanpur- 208016

Prof. Sankar Kumar Som
Director (Officiating)
Indian Institute of Technology, Kharagpur
Kharagpur – 721 302

Prof. Bhaskar Ramamurthi,
Director
Indian Institute of Technology, Madras
Chennai – 600 036

Prof. Gautam Barua
Director
Indian Institute of Technology, Guwahati
Guwahati – 781 039

Prof. Pradipta Banerji,
Director
Indian Institute of Technology, Roorkee
Roorkee – 247 667 (Uttarakhand)

Prof. Prem Kumar Kalra
Director, IIT Jodhpur
IIT Rajasthan Camp Office
Deptt. of CSE, MBM Engineering College
Jodhpur – 342 011 (Rajasthan)

Prof. Sudhir K. Jain
Director, IIT Gandhinagar
Vishwakarma Govt. Engg. College (VGEC) Campus
Chandkheda, Visat-Gandhinagar Highway
Ahmedabad – 382 424

Prof. Anil K. Bhowmick
Director, IIT Patna
Govt. Polytechnic, Pataliputra Colony
Patna – 800 013
Prof. U. B. Desai
Director, IIT Hyderabad
Ordnance Factory Estate
Yeddumailaram, -502 205 (Andhra Pradesh)

Prof. M. K. Surappa
Director, IIT Ropar
Nangal Road, Rupnagar
Punjab – 140 001

Prof. Madhusudan Chakraborty
Director, IIT Bhubaneswar
Samantpuri (Rear side of Hotel Swosti Plaza)
Jaydev Vihar, Bhubaneswar – 751 013 (Odisha)

Prof. Timothy Gonsalves
Director, IIT Mandi
PWD Rest House, 2nd Floor
Near Bust Stand, Mandi -175 001 (H.P.)

Prof. Pradeep Mathur
Director, IIT Indore
Institute of Engineering & Technology
DAVV Campus, Khandwa Road
Indore – 452 017

Prof. Dhananjai Pandey
Director, IIT (BHU)
Banaras Hindu University
Varanasi - 221 005 (U.P.)

Prof. Ved Prakash
Chairman (Actg.)
University Grant Commission
Bahadurshah Zafar Marg
New Delhi -110 002

Prof. Samir K. Brahmachari,
Director General (DG),
Council of Scientific and Industrial Research (CSIR),
Anusandhan Bhawan, 2 Rafi Marg, New Delhi-110001
Dr. K. Kasturirangan,
Chairman,
Council of Indian Institute of Science,
National Institute of Advanced Studies
Indian Institute of Science Campus
Bangalore- 560 012

Prof. P. Balaram
Director
Indian Institute of Science, Bangalore
Bangalore

Shri Sumit Bose
Secretary (Expenditure)
Ministry of Finance
Department of Expenditure
North Block, New Delhi – 110 001

Shri J. Satyanarayana,
Secretary, Department of Information Technology
Ministry of Communications & Information Technology (Govt. of India)
Electronics Niketan, 6, CGO Complex,
Lodhi Road, New Delhi: 110 003

Dr. S. S. Mantha
Chairman (Actg.)
All India Council for Technical Education (AICTE)
7th Floor, Chanderlok Building, Janpath
New Delhi -110 001

Secretary
Shri Ashok Thakur
Secretary (TE)
GOI, Department of Secondary & Higher Education,
Ministry of Human Resource Development
Shastri Bhawan
New Delhi – 110 115
List of Members of the Board of Governors
(As on 31.03.2013)

CHAIRMAN:
Prof. M. Anandakrishnan
Chairman, Board of Governors, IITK
8/15, Fifth Main Road,
Madan Apartments
Kasturibai Nagar, Adyar
Chennai – 600 020, Tamil Nadu

MEMBERS:

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

Prof. Indranil Manna
Director
Indian Institute of Technology Kanpur
Kanpur

COUNCIL NOMINEES:

Prof. Arup Kumar Raychaudhuri
Director and Senior Professor
S N Bose National Centre for Basic Sciences
JD Block, Sector III
Salt Lake City, Kolkata-700 098

Prof. E. D. Jemmis
Director
Indian Institute of Science Education & Research
Trivandrum-695016, Kerala

Shri Harsh Manglik
Former Senior Advisor & Former Chairman
& Geography Managing Director, Accenture
26, Crescent Park
2B, Rest House, Crescent Road,
Bangalore-560 001 (Karnataka)
Shri Irshad Mirza
Chairman, Mirza International Limited
H.No. 7/21, Parvati Bangla Road
Kanpur-208 001

STATE GOVERNMENT NOMINEE:

Uttar Pradesh Government:
Professor R .S. Nirjar
Former Vice Chancellor
House No. M-118, Sector – Delta- 3
Greater Noida, Gautam Buddha Nagar- 201 310
Uttar Pradesh

SENATE NOMINEES:

Professor Neeraj Misra
Department of Mathematics and Statistics
Indian Institute of Technology, Kanpur
Kanpur – 208016

Professor S. N. Singh
Department of Electrical Engineering
Indian Institute of Technology, Kanpur
Kanpur - 208016

SPECIAL INVITEES:

Professor S. C. Srivastava
Deputy Director
Indian Institute of Technology, Kanpur
Kanpur-208016

Professor Manindra Agrawal
Dean of Faculty Affairs
Indian Institute of Technology, Kanpur
Kanpur-208016

Professor Dheeraj Sanghi
Dean of Academic Affairs
Indian Institute of Technology, Kanpur
Kanpur-208016
LIST OF MEMBERS OF THE FINANCE COMMITTEE
(As on 31.03.2013)

CHAIRMAN:
Prof. M. Anandakrishnan
Chairman, Board of Governors, IITK
8/15, ‘Madan Apartments’
5th Main Road, Kasturibai Nagar
Adyar
Chennai – 600 020 (Tamil Nadu)

MEMBERS:
Prof. Sanjay G. Dhande
Director
Indian Institute of Technology Kanpur
Kanpur

Upto 06.11.2012
Prof. Indranil Manna  
Director  
Indian Institute of Technology Kanpur  
Kanpur  
w.e.f 07.11.2012

Shri Harsh Manglik  
Former Senior Advisor & Former Chairman  
& Geography Managing Director, Accenture  
26, Crescent Park  
2B, Rest House, Crescent Road,  
Bangalore-560 001 (Karnataka)

Shri Ashok Thakur  
Special Secretary  
Government of India  
Department of Secondary Education & Higher Education  
Ministry of Human Resource Development  
Shastri Bhawan  
New Delhi – 110 001

Shri C. Vishwanath  
Additional Secretary & Financial Adviser  
GOI, Department of Higher Education  
Ministry of Human Resource Development  
Shastri Bhawan  
New Delhi-110001

Prof. Neeraj Misra  
Department of Mathematics and Statistics  
Indian Institute of Technology Kanpur  
Kanpur – 208 016

SECRETARY:

Dr. Rakesh Kumar Sachan  
Acting Registrar  
Indian Institute of Technology, Kanpur  
Kanpur – 208016
LIST OF MEMBERS OF THE BUILDING & WORKS COMMITTEE
(As on 31.03.2013)

CHAIRMAN:
Prof. Sanjay G. Dhande
Director
Indian Institute of Technology Kanpur
Kanpur Upto 06.11.2012

Prof. Indranil Manna
Director
Indian Institute of Technology Kanpur
Kanpur w.e.f 07.11.2012

MEMBERS:
Prof. S. C. Srivastava
Dy. Director
Indian Institute of Technology, Kanpur
Kanpur – 208 016

Prof. S. N. Singh
Department of Electrical Engineering
Indian Institute of Technology, Kanpur
Kanpur – 208 016

Prof. S. Y. Kulkarni
Head, Deptt. of Planning & Architecture
Indian Institute of Technology, Roorkee
Roorkee – 247 667

Shri Mohan Swaroop
Addl. Director General (Retd.), CPWD
H-Block, 54-A, Sector-22
Noida- 201 301

Shri B. M. Agarwal
Retd. Engineer-in-Chief, UP Irrigation
102, Ravinder Garden
Sector-E, Aliganj
Lucknow – 226 024
Shri R. K. Govil  
Chief Engineer (Northern Zone-II), CPWD  
3rd Floor, Kendriya Bhawan  
Sector-H, Aliganj  
Lucknow – 226 024  

SECRETARY:  
Dr. Rakesh Kumar Sachan  
Acting Registrar  
Indian Institute of Technology Kanpur  
Kanpur – 208016  

LIST OF MEMBERS OF THE BOARD STANDING COMMITTEE (GRIEVANCES)  
(As on 31.03.2013)  

CHAIRMAN:  
Prof. Sanjay G. Dhande  
Director  
Indian Institute of Technology Kanpur  
Kanpur  
Upto 06.11.2012  

Prof. Indranil Manna  
Director  
Indian Institute of Technology Kanpur  
Kanpur  
w.e.f 07.11.2012  

MEMBERS:  
Professor R. S. Nirjar  
Former Vice Chancellor  
House No. M-118, Sector – Delta- 3  
Greater Noida  
Gautam Buddha Nagar- 201 310  
Uttar Pradesh  

Shri Irshad Mirza  
Chairman, Mirza International Limited  
H.No. 7/21, Parvati Bangla Road  
Kanpur-208 001
Professor Neeraj Misra  
Department of Mathematics and Statistics  
Indian Institute of Technology Kanpur  
Kanpur – 208016

Professor S. N. Singh  
Department of Electrical Engineering  
Indian Institute of Technology Kanpur  
Kanpur - 208016

SECRETARY:
Dr. Rakesh Kumar Sachan  
Acting Registrar  
Indian Institute of Technology Kanpur  
Kanpur – 208016

SENATE  
[From 01.04.2012 to 31.3.2013]

Director & Chairman Senate:  
Prof. Sanjay G. Dhande  
Director  
Indian Institute of Technology Kanpur  
Kanpur  
Upto 06.11.2012

Prof. Indranil Manna  
Director  
Indian Institute of Technology Kanpur  
Kanpur  
w.e.f 07.11.2012

Dy. Director  
Prof. S.C. Srivastava
Members of the Senate:

AEROSPACE ENGINEERING (AE):

Prof. E.Rathakrishnan  
Prof. Sanjay Mittal  
Prof. C. Venkatesan  
Prof. T. K. Sengupta  
Prof. Sudhir Kamle  
Prof. Kamal Poddar  
Prof. Ashish Tewari  
Prof. A. K. Ghosh  
Prof. C. S. Upadhyay  
Prof. D. P. Mishra

BIOLOGICAL SCIENCE & BIO-ENGINEERING (BSBE):

Prof. Pradip Sinha  
Prof. R. Sankararamakrishnan  
Prof. K. Subramaniam  
Prof. Subramaniam Ganesh  
Prof. Balaji Prakash  
Prof. Ashok Kumar  
Prof. Dhirendra S Katti  
Dr. Jonaki Sen  
w.e.f 01.12.2012

CHEMICAL ENGINEERING (CHE):

Prof. Deepak Kunzru  
Prof. P. K. Bhattacharya  
Prof. Ashok Khanna  
Prof. R. P. Chhabra  
Prof. Ashutosh Sharma  
Prof. Goutam Deo  
Prof. Nishith Verma  
Prof. V Shankar  
Prof. Nitin Kaistha

CHEMISTRY (CHM):

Prof. N Sathyamurthy
Prof. S. Sarkar  Upto 31.05.2012
Prof. Y. D. Vankar
Prof. V. Chandrasekhar
Prof. R. N. Mukherjee
Prof. Vinod K. Singh
Prof. Amalendu Chandra
Prof. P. K. Bharadwaj
Prof. N. S. Gajbhiye
Prof. S. Manogaran
Prof. Veejendra K Yadav
Prof. Faiz Ahmed Khan  Upto 31.07.2012
Prof. S. S. Manoharan
Prof. Sandeep Verma
Prof. J. N. Moorthy
Prof. S. R. Gadre
Prof. K. Srihari
Prof. Debabrata Goswami
Prof. R. Gurunath
Prof. Manas Kumar Ghorai
Prof. Jitendra K Bera
Prof. M. L. N. Rao

CIVIL ENGINEERING (CE):

Prof. Ashwini Kumar  Upto 02.07.2012
Prof. Sudhir K. Jain
Prof. Vinod Tare
Prof. Sarvesh Chandra
Prof. V. K. Gupta
Prof. S K Chakrabarti
Prof. Mukesh Sharma
Prof. Onkar Dikshit
Prof. Partha Chakraborty
Prof. Rajiv Sinha
Prof. Sudhir Misra
Prof. Rajesh Srivastava
Prof. Purnendu Bose
Prof. Soumyen Guha
Prof. Ashu Jain
Prof. Durgesh C. Rai
Prof. Animesh Das
Prof. Sachidanand Tripathi
COMPUTER SCIENCE & ENGINEERING (CSE):

Prof. Somenath Biswas
Prof. H. C. Karnick
Prof. T. V. Prabhakar
Prof. Manindra Agrawal
Prof. S. K. Aggarwal
Prof. Sanjeev Saxena
Prof. Rajat Moona
Prof. Amitabha Mukerjee
Prof. Ratan Kumar Ghosh
Prof. Phalgungi Gupta
Prof. Ajai K Jain
Prof. Dheeraj Sanghi
Prof. Sumit Ganguly
Prof. Shashank K. Mehta
Prof. Anil Seth

ELECTRICAL ENGINEERING (EE):

Prof. Avinash Joshi
Prof. Prem Kumar Kalra
Prof. S. C. Srivastava
Prof. Shafi Qureshi
Prof. (Ms) Sumana Gupta
Prof. Govind Sharma
Prof. Utpal Das
Prof. A. K. Dutta
Prof. Animesh Biswas
Prof. Pradip Sircar
Prof. Baquer Mazhari
Prof. A. K. Chaturvedi
Prof. R. K. Bansal
Prof. S. N. Singh
Prof. Shyama P. Das
Prof. Yatindra N. Singh
Prof. Laxmikant Behera
Prof. K. S. Venkatesh
Prof. A. R. Harish
Prof. S. Sundar Kumar Iyer
Dr. A. K. Jagannatham Upto 30.09.2012

HUMANITIES & SOCIAL SCIENCES (HSS)

Prof. (Ms) Lilavati Krishnan
Prof. Binayak Rath Upto 31.01.2012
Prof. A. K. Sharma
Prof. A. K. Sinha
Prof. K. K. Saxena
Prof. B. K. Pattnaik
Prof. G. Neelakantan
Prof. Surajit Sinha
Prof. (Ms) Achla M Raina
Prof. (Ms) Shikha Dixit
Prof. Munmun Jha
Dr. P. M. Prasad w.e.f. 01.10.2012
Dr. Satyaki Roy w.e.f. 01.12.2012

INDUSTRIAL & MANAGEMENT ENGINEERING (IME)

Prof. A. K. Mittal
Prof. Kripa Shanker
Prof. N. K. Sharma
Prof. Arun P Sinha
Prof. R. R. K. Sharma
Prof. Jayanta Chatterjee
Prof. Rahul Varman
Prof. Uday Shankar Racherla w.e.f. 25.07.2012
Dr. Anoop Singh w.e.f. 01.10.2012 to 07.01.2013

MATERIALS SCIENCE AND ENGINEERING (MSE):

Prof. S. P. Mehrotra Upto 30.4.2012
Prof. R. C. Sharma
Prof. Dipak Mazumdar
Prof. Rajiv Shekhar
Prof. Sandeep Sangal
Prof. Deepak Gupta
Prof. (Ms) Monica Katiyar
Prof. Anish Upadhyaya
Prof. Bikramjit Basu

MATERIALS SCIENCE PROGRAMME (MSP):

Prof. Jitendra Kumar

MATHEMATICS & STATISTICS DEPARTMENT (MTH & STATS):

Prof. R. K. S. Rathore
Prof. M. K. Kadalbajoo
Prof. (Ms) Manjul Gupta
Prof. Prawal Sinha
Prof. G. P. Kapoor
Prof. I. D. Dhariyal
Prof. Peeyush Chandra
Prof. (Ms) Shobha Madan
Prof. Debasis Kundu
Prof. Pravir Kumar Dutt
Prof. V. Raghavendra Upto 31.10.2012
Prof. Neeraj Misra
Prof. B. V. Rathish Kumar
Prof. D. Bahuguna
Prof. P. Shunmugaraj
Prof. Arbind Kumar Lal
Prof. Alok Kumar Maloo
Prof. (Ms) Mohua Banerjee
Prof. (Mrs) Rama Rawat
Prof. S. Ghorai
Prof. Joydeep Dutta
Prof. Amit Mitra
Dr. Shalabh w.e.f 01.12.2012

MECHANICAL ENGINEERING (ME):

Prof. M. S. Kalra
Prof. V. K. Jain
Prof. Prabhat Munshi
Prof. P. M. Dixit
Prof. N. N. Kishore
Prof. Himanshu Hatwal
Prof. K. Muralidhar
Prof. Kalyanmoy Deb
Prof. Subrata Sarkar
Prof. Bhaskar Dasgupta
Prof. Gautam Biswas
Prof. S. K. Choudhury
Prof. N. S. Vyas
Prof. P. S. Ghoshdastidar
Prof. P. K. Panigrahi
Prof. N. Venkata Reddy
Prof. Bishakh Bhattacharya
Prof. Kamal K. Kar
Prof. Avinash Kumar Agarwal
Prof. Sumit Basu
Prof. Ashish Datta
Prof. P. Venkitanarayanan
Prof. Annidya Chatterjee w.e.f. 02.07.2012
Dr. J. Ramkumar w.e.f 01.12.2012

PHYSICS (PHY):

Prof. R. K. Thareja
Prof. Keshawa Shahi
Prof. Rajendra Prasad
Prof. Debashish Chowdhury
Prof. R. C. Budhani
Prof. Y. N. Mohapatra
Prof. Avinash Singh
Prof. Deshdeep Sahdev
Prof. V. Ravishankar
Prof. Pankaj Jain
Prof. H. C. Verma
Prof. M. K. Harbola
Prof. K. P. Rajeev
Prof. Mahendra K Verma
Prof. (Ms) Asima Pradhan
Prof. (Ms) R. Vijaya
Prof. S. Anantha Ramakrishna
Prof. Amit Dutta
Prof. Satyajit Banerjee

LIBRARIAN
Dr. V. D. Shrivastava
Secretary, Senate
Dr. Rakesh Kumar Sachan
Acting Registrar
Indian Institute of Technology Kanpur
Kanpur

THREE NOMINEES OF THE CHAIRMAN, BOARD OF GOVERNORS
(FROM 01.11.2011 TO 31.10.2012)

1. Prof. Manoj K. Mishra
   Vice Chancellor
   University of Lucknow
   Lucknow

2. Dr. A. K. Verma
   General Manager
   H.A.L Lucknow,
   Lucknow

3. Mr. Najeeb Jung
   Vice Chancellor
   Jamia Millia Islamia
   Jamia Nagar
   New Delhi

THREE NOMINEES OF THE CHAIRMAN, BOARD OF GOVERNORS
(FROM 01.11.2012 TO 31.10.2013)

1. Prof. J. S. P. Rai
   Director
   H.B.T.I.,
   Nawabganj
   Kanpur - 208002

2. Dr. N. Nadarajan
   Director
   Indian Institute of Pulses Research (IIPR)
   Kanpur
SENATE STANDING COMMITTEES
[FROM 01.10.2011 TO 30.09.2012]

(1) SENATE EDUCATIONAL POLICY COMMITTEE:
   (a) MEMBERS (EX-OFFICIO):
       1. Chairman, Senate : Chairman
       2. Chairman, SPGC
       3. Chairman, SUGC
   (b) SENATE NOMINEES:
       1. Prof. K Muralidhar, ME
       2. Prof. Anish Upadhayaya, MSE
       3. Prof. Yogesh Joshi, ChE
   (c) STUDENTS’ SENATE NOMINEES:
       1. Mr. Shantanu Misra (Y7027410) shanm@iitk.ac.in
       2. Mr. Rishant Singh (Y8419) rishant@iitk.ac.in

(2) SENATE ELECTIONS COMMITTEE:

   SENATE NOMINEES:
   1. Prof. Sudhir Mishra, CE
   2. Prof. Pankaj Jain, Phy
   3. Prof. K. Srihari, Chem

(3) SENATE LIBRARY COMMITTEE:
   (a) LIBRARY:
       Librarian : Dr. V. D. Shrivastva
   (b) SENATE NOMINEES:
       1. Prof. R. Prasad, Phy
       2. Prof. S. Ganesh, BSBE
       3. Prof. Deepu Philip, IME
       4. Prof. Monica Katiyar, MSE
(c) NOMINEES OF DEPARTMENTS/PROGRAMMES:

1. Dr. D. P. Mishra AE
2. Prof. Balaji Prakash BSBE
3. Dr. Sri Sivakumar CHE
4. Dr. S. P. Rath CHM
5. Dr. Animesh Das CE
6. Dr. Tarun Gupta EEM
7. Prof. Amitabha Mukerjee CSE
8. Prof. L. Behera EE
9. Dr. Koumudi P Patil HSS
10. Prof. A. K. Mittal IME
11. Prof. Y. N. Singh(EE) LTP
12. Dr. I. Sharma ME
13. Dr. Vivek Verma MSE
14. Dr. Rajeev Gupta(PHY) MSP
15. Dr. Mohua Banerjee MTH & STAT.
16. Dr. M. S. Kalra (ME) NET
17. Dr. T. K. Ghosh PHY
18. Dr. Koumudi P. Patil (HSS) MDES

(d) STUDENTS’ SENATE NOMINEES:

1. Mr. Puneet Singh (Y8378), punsingh@iitk.ac.in
2. Mr. Mohammad Ashiq (Y9106064) mdashiq@iitk.ac.in

(4) SENATE POST-GRADUATE COMMITTEE:

(a) SENATE NOMINEE:

1. Dr. Zakir Hossain PHY - Outgoing Chairman
2. Prof. Phalguni Gupta, CSE

(b) NOMINEES OF DEPARTMENTS/PROGRAMMES:

1. Dr. P. M. Mohite AE
2. Dr. Mainak Das BSBE
3. Dr. Jayant K Singh CHE
4. Dr. Manas K Ghoria CHM
5. Prof. Rajiv Sinha CE
6. Dr. S. N. Tripathi EEMP
7. Dr. Anil Seth       CSE
8. Dr. P. Sensarma    EE
9. Dr. Sarani Saha    HSS
10. Dr. R. N. Sengupta IME
11. Dr. P. Kumar (EE) LTP
12. Dr. Venkitanarayanan ME
13. Dr. Krishanu Biswas MSE
14. Prof. K. Shahi (PHY) MSP
15. Dr. Amit Mitra    MTHS & STAT.
16. Dr. P. Munshi (ME) NET
17. Dr. Satyajit Banerjee PHY
18. Dr. Nachiketa Tiwari (ME) M DES

(c) STUDENTS’ SENATE NOMINEES:

1. Mr. Vinod Parmar (10114017) vinodp@iitk.ac.in
2. Mr. Ruchir Gupta (Y10104121) rgupta@iitk.ac.in
3. Mr. Karthik Balasundaram (10103066) karthikb@iitk.ac.in
4. Mr. Kanwar Deep Singh (11125025) kanwar@iitk.ac.in

(5) SENATE RULES COMMITTEE:

(a) MEMBER (EX-OFFICIO):

Parliamentarian of the Senate

(b) SENATE NOMINEES:

1. Prof. Neeraj Mishra, Maths
2. Prof. Somenath Biswas, CSE
3. Prof. P. Bose, CE

(6) SENATE SCHOLARSHIPS & PRIZES COMMITTEE:

(a) MEMBERS (EX-OFFICIO):

Head Institute Counselling Service
Chairman, APEC
Dean of Students’ Affairs
(b) SENATE NOMINEES:

1. Prof. D. Goswami, Chem upto 22.08.2012  
   Prof. B. Lohani, CE w.e.f 23.08.2013
2. Prof. S. Guha, CE
3. Prof. Sanjeev Garg, ChE
4. Prof. Sandeep Verma, Chem

(c) STUDENTS’ SENATE NOMINEES:

1. Mr. Meet Pathak (Y8291), meetp@iitk.ac.in
2. Mr. Vibhav Agarwal (Y8558), vibhav@iitk.ac.in
3. Mr. Jyoti Gupta (Y9265), gyoti@iitk.ac.in

(7) SENATE STUDENTS’ AFFAIRS COMMITTEE:

(a) MEMBERS (EX-OFFICIO):

Head Institute Counselling Service  
One member of the APEC nominated by Chairman, APEC  
One Warden of students; Hall of Residence nominated Chairman, COW  
Dean of Students’ Affairs : Chairman, Ex-Officio

(b) SENATE NOMINEES:

1. Prof. Rama Rawat, Maths
2. Prof. Jayant Singh, ChE
3. Prof. Mukesh Sharma, CE

(c) STUDENTS’ SENATE NOMINEES:

1. Mr. Aditya Gupta (Y8036) gaditya@iitk.ac.in
2. Mr. Sanchit Singhal (Y8442), sanset@iitk.ac.in
3. Mr. Abdullah Bin Abu Baker (Y7108061), abdullah@iitk.ac.in
4. Mr. Vivek Agarwal (Y7513), agvivek@iitk.ac.in

(8) SENATE UNDERGRADUATE COMMITTEE:

(a) SENATE NOMINEE:

1. Dr. Brijesh Eshpunyani AE - Outgoing Chairman
2. Prof. K Subramaniam, BSBE
(b) NOMINEES OF DEPARTMENTS/PROGRAMMES:

1. Dr. A. Kushari  
2. Prof. Pradip Sinha  
3. Dr. Pankaj A Apte  
4. Dr. Nisanth Nair  
5. Prof. Purnendu Bose  
6. Prof. Sumit Ganguly  
7. Dr. A. Jagannatham  
8. Dr. Suchitra Mathur  
9. Prof. A. P. Sinha  
10. Dr. Asima Pradhan (PHY)  
11. Dr. A. K. Saha  
12. Dr. Kantesh Balani  
13. Prof. Jitendra Kumar  
14. Prof. A. K. Lal  
15. Dr. P. Munshi (ME)  
16. Dr. Sudeep Bhattacharjee  
17. Dr. Braj Bhusan (HSS)  

(c) STUDENTS’ SENATE NOMINEES:

1. Mr. Keshav Goel (Y7196) keshavg@iit.ac.in
2. Mr. Aditya Gupta (Y8036) gaditya@iitk.ac.in
3. Mr. Apoorva Agarwal (Y9125), apoorvag@iitk.ac.in
4. Mr. Mihir Jha (10399), mihirj@iitk.ac.in

SENATE STANDING COMMITTEES
[FROM 01.10.2012 TO 30.09.2013]

(1) SENATE EDUCATIONAL POLICY COMMITTEE:

(a) MEMBERS (EX-OFFICIO) :

1. Chairman, Senate  
2. Chairman, SPGC  
3. Chairman, SUGC

(b) SENATE NOMINEES :

1. Prof. Y N Mohapatra, PHY
2. Prof. Partha Chakroborty, CE
3. Prof. P Munshi, ME

(c) STUDENTS’ SENATE NOMINEES:

1. Mr. Sumit Bhagwani (Y8127515) sumitb@iitk.ac.in
2. Mr. Ruchir Gupta (10104121) rgupta@iitk.ac.in

(2) SENATE ELECTIONS COMMITTEE:

SENATE NOMINEES:

1. Prof. S. S. K. Iyer, EE
2. Dr. A. Garg, MSE
3. Prof. A. K. Agarwal, ME

(3) SENATE LIBRARY COMMITTEE:

(a) LIBRARY:

Librarian : Dr. V D Shrivastva

(b) SENATE NOMINEES:

1. Prof. Mohua Banerjee, MTH & STAT- Outgoing Chairman
   (Included as approved in the Senate in its 2012-13/7th meeting held on 02.4.2013)
2. Dr. B. Lohani, CE
3. Prof. S. Sinha, HSS
4. Dr. S. Garg, CHE
5. Dr. R. Potluri, EE

(c) NOMINEES OF DEPARTMENTS/PROGRAMMES:

1. Prof. D. P. Mishra AE
2. Prof. Dhierendra S Katti BSBE
3. Dr. Sri Sivakumar CHE
4. Prof. Manas K. Ghorai CHM
5. Dr. Debajyoti Paul CE
6. Dr. Tarun Gupta EEM
7. Prof. Amitabha Mukerjee CSE
8. Prof. S. S. K Iyer EE
9. Dr. Vineet Sahu HSS
10. Prof. R. R. K. Sharma IME
11. Prof. Asima Pradhan LTP
12. Prof. B. Dasgupta ME
13. Dr. Gouthama MSE
14. Prof. Y. N. Mohapatra (PHY) MSP
15. Dr. Nandini Nilakantan MTH & STAT.
16. Prof. M. S. Kalra (ME) NET
17. Prof. R. Vijaya PHY
18. Dr. Shatarupa T. Roy (HSS) M. DES.

(d) STUDENTS’ SENATE NOMINEES:

1. Mr. Srinivasan V. (11103167) vsrini@iitk.ac.in
2. Mr. Arjun Ravichandran (11112004) arjunr@iitk.ac.in

(4) SENATE POST-GRADUATE COMMITTEE

(a) SENATE NOMINEE:

1. Prof. Rajiv Sinha, CE -Outgoing Chairman
2. Prof. A. K. Sharma, HSS

(b) NOMINEES OF DEPARTMENTS/PROGRAMMES:

1. Dr. P. M. Mohite AE
2. Prof. K. Subramaniam BSBE
3. Prof. V. Shankar CHE
4. Dr. Madhav Ranganathan CHM
5. Dr. N. R. Patra CE
6. Dr. P. M. Prasad(HSS) EEM
7. Prof. Anil Seth CSE
8. Dr. N. Naik EE
9. Dr. A. V. Ravishanker Sarma HSS
10. Dr. Veena Bansal IME
11. Dr. H. Wanare(PHY) LTP
12. Dr. P. Wahi ME
13. Dr. Ashish Garg MSE
14. Dr. Rajeev Gupta (PHY) MSP
15. Prof. Amit Mitra MTHS & STATS
16. Prof. P. Munshi (ME) NET
17. Prof. Satyajit Banerjee  PHY
18. Dr. Satyaki Roy (HSS)  M DES

(c) STUDENTS’ SENATE NOMINEE:

1. Mr. Sumit Kumar (11125058) sumitiit@iitk.ac.in
2. Mr. Koushik Roy (10103075) koushik@iitk.ac.in
3. Mr. Karthik Balasundaram (10103066) karthikb@iitk.ac.in
4. Mr. Charchit Chauhan (11112005) charchit@iitk.ac.in

(5) SENATE RULES COMMITTEE:

(a) MEMBER (EX-OFFICIO):

Parliamentarian of the Senate

(b) SENATE NOMINEES:

1. Prof. D. Majumdar, MSE
2. Prof. A. Jain, CSE
3. Prof. G. Neelakanthan, HSS

(6) SENATE SCHOLARSHIP AND PRIZES COMMITTEE:

(a) MEMBERS (EX-OFFICIO):

Head Institute Counseling Service
Chairman, APEC
Dean of Students’ Affairs

(b) SENATE NOMINEES:

1. Prof. A. K. Dutta, EE
2. Prof. S. Ghorai, MATHS
3. Dr. A. Singh, IME  upto 07.01.2012
   Dr. Debopam Das, IME  w.e.f 08.01.2012
4. Dr. J. N. Malik, CE

(c) STUDENTS’ SENATE NOMINEES:

1. Mr. Ravi Ranjan (Y9480) ravirj@iitk.ac.in
2. Mr. Ayush Gupta (11180) gayush@iitk.ac.in
3. Ms. Nidhi Pashine (Y9367) nidhip@iitk.ac.in

(7) SENATE STUDENTS’ AFFAIRS COMMITTEE:

(a) MEMBERS (EX-OFFICIO):

Head Institute Counseling Service
One member of the APEC nominated by Chairman, APEC
One Warden of students’ Hall of Residence nominated by Chairman, COW
Dean of Students’ Affairs : Chairman, Ex-Officio

(b) SENATE NOMINEES:

1. Dr. Nandini Gupta, EE
2. Prof. Shikha Dixit, HSS
3. Prof. Asima Pradhan, PHY

(c) STUDENTS’ SENATE NOMINEES:

1. Mr. Aditya Gupta (Y8127036) gaditya@iitk.ac.in
2. Mr. Abhay Jain (Y9009) abhayjan@iitk.ac.in
3. Mr. Abdullah Bin Abu Baker (Y7108061), abdullah@iitk.ac.in
4. Mr. Ahmed Sameer (11100061) asameer@iitk.ac.in

(8) SENATE UNDERGRADUATE COMMITTEE:

(a) SENATE NOMINEE:

1. Dr. A. K. Jagannatham, EE – Outgoing Chairman
2. Prof. A. K. Lal, MATHS

(b) NOMINEES OF DEPARTMENTS/PROGRAMMES:

1. Prof. C. S. Upadhyay AE
2. Prof. Pradip Sinha BSBE
3. Dr. Raj G. S. Pala CHE
4. Dr. Nisanth N. Nair CHM
5. Prof. Ashu Jain CE
6. Prof. Ajai Jain CSE
7. Dr. A. K. Jagannatham EE
9. Dr. Prasahant Bagad, HSS  w.e.f 15.12.2012
10. Prof. Arun P Sinha  IME
11. Dr. B. Lohani (CE)  LTP
12. Dr. Anurag Gupta  ME
13. Dr. Kantesh Balani  MSE
14. Dr. Malay K Das (ME)  MSP
15. Prof. Shakti Ghorai  MATHS & STAT.
16. Prof. M. S. Kalra (ME)  NET
17. Prof. Amit Dutta  PHY
18. Dr. J. Ramkumar(ME)  M. DES.
19. Prof. Purnendu Bose  EEM

(e) STUDENTS’ SENATE NOMINEES:

1. Mr. Aditya Gupta (Y8127036) gaditya@iitk.ac.in
2. Mr. Ankit Bhutani (Y9094) ankitbhu@iitk.ac.in
3. Mr. Ankur Pandey (10113), ankurpan@iitk.ac.in
4. Mr. Anurag Sahay (11141), asahay@iitk.ac.in
The Faculty

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

The faculty strength of the Institute as on March 31, 2013 was 347. Out of these 16 are shared by two departments on a half time basis. There were also 30 Academic staff comprising Research Engineers/Scientific Officers/Design Engineers and Library staff, who are treated at par with faculty, on March 31, 2013. The Institute also had a number of Visiting Faculty members. 21 faculty members retired/voluntarily retired/resigned (Technical); 03 visiting faculty/academic staffs have resigned/technically resigned/term over. 20 Faculty Members, 1 Academic Staff, 10* Visiting Faculty, 1 Distinguished Honorary Professor and 2 Adjunct Faculty joined during the year. The Visiting/Distinguished/Adjunct Faculty contributes significantly and they also get an opportunity to know the Institute.

*1 Visiting Faculty member has joined under the D N Wadia Chair.

AEROSPACE ENGINEERING DEPARTMENT       SANCTIONED STRENGTH:   20
      EXISTING STRENGTH: 18+1

PROFESSOR HAG Scale (67000-79000) EOC
1. 4458 Dr. Ethirajan Rathakrishnan
2. 4696 Dr. Sanjay Mittal

PROFESSOR AGP-10500 PB-4 (37400-67000)
1. 4694 Dr. Venkatesan Comandur
2. 4581 Dr. Tapan Kumar Sengupta
3. 4285 Dr. Sudhir Kamle
4. 4664 Dr. Kamal Poddar
5. 4660 Dr. Ashish Tewari
6. 4709 Dr. Ajai Kanti Ghosh
7. 4785 Dr. Chandra Shekhar Upadhyay
8. 4733 Dr. Debi Prasad Mishra

ASSOCIATE PROFESSOR   AGP-9500 Direct Recruitment PB-4 (37400-67000)
1. 4958 Dr. Abhijit Kushari
2. 4993 Dr. Debopam Das
3. *5129 Dr. Sivasambu Mahesh ME
ASSISTANT PROFESSOR AGP-9000 After 3 years experience PB-4 (37400-67000)
1. 5288 Dr. Preetamkumar Marutrao Mohite
2. 5366 Dr. Rajesh Kitey

ASSISTANT PROFESSOR AGP-8000 Regular PB-3 (15600-39100)
1. 5403 Dr. Ashoke De

ASSISTANT PROFESSOR AGP-7000 Contract PB-3 (15600-39100) Ph D + 1 year experience
1. 5396 Dr. Abhishek
2. 5431 Dr. Rakesh Kumar
3. 5452 Dr. Alakesh Chandra Mandal

ASSISTANT PROFESSOR AGP-6000 (Contract) PB-3 (15600-39100)

BIOLOGICAL SCIENCE & BIO-ENGINEERING SANCTIONED STRENGTH: 15
EXISTING STRENGTH : 11

PROFESSOR AGP-10500 PB-4 (67000-79000)
1. 4959 Dr. Pradip Sinha
2. 5005 Dr. Sankararamakrishnan Ramasubbu
3. 5009 Dr. Kuppuswamy Subramaniam
4. 5020 Dr. Subramaniam Ganesh
5. 5023 Dr. Balaji Prakash
6. 5103 Dr. Dhirendra Sushilendra Katti
7. 5119 Dr. Ashok Kumar

ASSISTANT PROFESSOR AGP-9000 After 3 years experience PB-4 (37400-67000)
1. 5206 Dr. Amitabha Bandyopadhyay
2. 5207 Dr. (Ms) Jonaki Sen

ASSISTANT PROFESSOR AGP-8000 Regular PB-3 (15600-39100)
1. 5376 Dr. Mainak Das
2. 5378 Dr. Ashwani Kumar Thakur

CHEMICAL ENGINEERING DEPARTMENT SANCTIONED STRENGTH: 32
EXISTING STRENGTH : 20

PROFESSOR HAG SCALE (67000-79000)
1. 3754 Dr. Prashant Kumar Bhattacharya
2. 4045 Dr. Ashok Khanna
3. 4244 Dr. Rajendra Prasad Chhabra
4. 4562 Dr. Ashutosh Sharma

55 | IIT Kanpur
## PROFESSOR AGP-10500 PB-4 (37400-67000)

<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. Goutam Deo</td>
<td>Professor</td>
</tr>
<tr>
<td>2</td>
<td>Dr. Nishith Verma</td>
<td>Professor</td>
</tr>
<tr>
<td>3</td>
<td>Dr. Viswanathan Shankar</td>
<td>Professor</td>
</tr>
<tr>
<td>4</td>
<td>Dr. Nitin Kaistha</td>
<td>Professor</td>
</tr>
</tbody>
</table>

## ASSOCIATE PROFESSOR AGP-9500 Direct Recruitment PB-4 (37400-67000)

<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. Siddharta Panda</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>2</td>
<td>Dr. Animangsu Ghatak</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>3</td>
<td>Dr. Yogesh Moreshwar Joshi</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>4</td>
<td>Dr. Sanjeev Garg</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>5</td>
<td>Dr. Jayant Kumar Singh</td>
<td>Associate Professor</td>
</tr>
</tbody>
</table>

## ASSISTANT PROFESSOR AGP-9000 After 3 years experience PB-4 (37400-67000)

<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. Pankaj Arvind Apte</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>2</td>
<td>Dr. Raj Ganesh Santharam Pala</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>3</td>
<td>Dr. Sri Sivakumar</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>4</td>
<td>Dr. Raghvendra Singh</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>5</td>
<td>Dr. Abhijit Chatterjee</td>
<td>Assistant Professor</td>
</tr>
</tbody>
</table>

## CHEMISTRY DEPARTMENT

**SANCTIONED STRENGTH:** 30  
**EXISTING STRENGTH:** 29

## PROFESSOR HAG SCALE (67000-79000)

<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. Narayanasami Sathyamurthy</td>
<td>Professor</td>
</tr>
<tr>
<td>2</td>
<td>Dr. Yashwant D Vankar</td>
<td>Professor</td>
</tr>
<tr>
<td>3</td>
<td>Dr. Vadapalli Chandrasekhar</td>
<td>Professor</td>
</tr>
<tr>
<td>4</td>
<td>Dr. Rabindra Nath Mukherjee</td>
<td>Professor</td>
</tr>
<tr>
<td>5</td>
<td>Dr. Vinod Kumar Singh</td>
<td>Professor</td>
</tr>
<tr>
<td>6</td>
<td>Dr. Amalendu Chandra</td>
<td>Professor</td>
</tr>
</tbody>
</table>

## PROFESSOR AGP-10500 PB-4 (37400-67000)

<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. Parimal Kumar</td>
<td>Professor</td>
</tr>
<tr>
<td>2</td>
<td>Dr. Namdeo Shriramji Gajbhiye</td>
<td>Professor</td>
</tr>
<tr>
<td>3</td>
<td>Dr. Sadasivam Manogaran</td>
<td>Professor</td>
</tr>
<tr>
<td>4</td>
<td>Dr. Veejendra Kumar Yadav</td>
<td>Professor</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>5.</td>
<td>4759</td>
<td>Dr. Sundar Soloman Manoharan</td>
</tr>
<tr>
<td>6.</td>
<td>4789</td>
<td>Dr. Sandeep Verma</td>
</tr>
<tr>
<td>7.</td>
<td>4816</td>
<td>Dr. Jarugu Narasimha Moorthy</td>
</tr>
<tr>
<td>8.</td>
<td>5389</td>
<td>Dr. Shridhar Ramachandra Gadre</td>
</tr>
<tr>
<td>9.</td>
<td>4760</td>
<td>Dr. Srihari Keshavarmurthy</td>
</tr>
<tr>
<td>10.</td>
<td>5071</td>
<td>Dr. Deabrata Goswami</td>
</tr>
<tr>
<td>11.</td>
<td>4876</td>
<td>Dr. Ramanathan Gurunath</td>
</tr>
<tr>
<td>12.</td>
<td>5024</td>
<td>Dr. Manas Kumar Ghorai</td>
</tr>
<tr>
<td>13.</td>
<td>5038</td>
<td>Dr. Jitendra Kumar Bera</td>
</tr>
<tr>
<td>14.</td>
<td>5056</td>
<td>Dr. Maddali Lakshmi Narayana Rao</td>
</tr>
</tbody>
</table>

**ASSOCIATE PROFESSOR**  AGP-9500 Direct Recruitment PB-4 (37400-67000)

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>5127</td>
<td>Dr. Sankar Prasad Rath</td>
<td></td>
</tr>
</tbody>
</table>

**ASSISTANT PROFESSOR**  AGP-9000 After 3 years experience PB-4 (37400-67000)

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>5236</td>
<td>Dr. Madhav V Ranganathan</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>5091</td>
<td>Dr. Anantharaman Ganapathi</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>5304</td>
<td>Dr. Nishanth Narayan Nair</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>5305</td>
<td>Dr. Pratik Sen</td>
<td></td>
</tr>
</tbody>
</table>

**ASSISTANT PROFESSOR**  AGP-8000 Regular PB-3 (15600-39100)

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>5427</td>
<td>Dr. Dattatraya Hanumant Dethe</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>5369</td>
<td>Dr. Ramesh Ramapanicker</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>5432</td>
<td>Dr. Ashis Kumar Patra</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>5456</td>
<td>Dr. Raja Angamuthu</td>
<td></td>
</tr>
</tbody>
</table>

**ASSISTANT PROFESSOR**  AGP-7000 Contract PB-3 (15600-39100) Ph D + 1 year experience

---
---
---
---

**CIVIL ENGINEERING DEPARTMENT**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SANCTIONED STRENGTH:</td>
<td>33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXISTING STRENGTH :</td>
<td>32</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROFESSOR HAG Scale (67000-79000)**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>4209</td>
<td>Dr. Sudhir Kumar Jain</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>4295</td>
<td>Dr. Vinod Tare</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>4399</td>
<td>Dr. Sarvesh Chandra</td>
<td></td>
</tr>
</tbody>
</table>

**PROFESSOR AGP-10500 PB-4 (37400-67000)**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>4586</td>
<td>Dr. Vinay Kumar Gupta</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>4464</td>
<td>Dr. Sekhar Kumar Chakrabarti</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>4799</td>
<td>Dr. Mukesh Sharma</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>4662</td>
<td>Dr. Onkar Dikshit</td>
<td></td>
</tr>
</tbody>
</table>
5. 4663 Dr. Partha Chakroborty
6. 4695 Dr. Rajiv Sinha
7. 4690 Dr. Sudhir Misra
8. 4798 Dr. Rajesh Srivastava
9. 4775 Dr. Purnendu Bose
10. 4784 Dr. Soumyen Guha
11. 4793 Dr. Ashu Jain
12. 4995 Dr. Durgesh Chandra Rai
13. 4871 Dr. Animesh Das
14. 5057 Dr. Sachidanand Tripathi

ASSOCIATE PROFESSOR AGP-9500 Direct Recruitment PB-4 (37400-67000)
1. 4978 Dr. Javed Noormohamed Malik
2. 5026 Dr. Bharat Lohani
3. 5079 Dr. Pranab Kumar Mohapatra
4. 5037 Dr. Nihar Ranjan Patra
5. 5192 Dr. Tarun Gupta
6. 5230 Dr. Priyanka Ghosh
7. 5307 Dr. Debajyoti Paul

ASSISTANT PROFESSOR AGP-9000 After 3 years experience PB-4 (37400-67000)
1. 5152 Dr. Amit Prashant
2. 5346 Dr. Samit Ray Chaudhuri
3. 5347 Dr. (Ms) Prishati Raychowdhury

ASSISTANT PROFESSOR AGP-8000 Regular PB-3 (15600-39100)
1. 5386 Dr. (Ms) Anubha Goel
2. 5393 Dr. Sudib Kumar Mishra

ASSISTANT PROFESSOR AGP-7000 Contract PB-3 (15600-39100) Ph D + 1 year experience
1. 5387 Dr. Vinod Vasudevan
2. 5388 Dr. Shivam Tripathi
3. 5405 Dr. Rajesh Sathiyamoorthy

ASSISTANT PROFESSOR AGP-6000 (Contract) PB-3 (15600-39100) -- -- -- --

COMPUTER SCIENCE & ENGINEERING SANCTIONED STRENGTH: 18
EXISTING STRENGTH : 24

PROFESSOR HAG Scale (67000-79000)
1. 3972 Dr. Somenath Biswas
2. 4297 Dr. Harish Chandra Karnick
3. 4370 Dr. Prabhakar Venkata Tadinada
4. 4754 Dr. Manindra Agrawal

PROFESSOR AGP-10500 PB-4 (37400-67000)
1. 4563 Dr. Sanjeev Kumar Aggarwal
2. 4490 Dr. Sanjeev Saxena
3. 4628 Dr. Rajat Moona
4. 4627 Dr. Amitabha Mukerjee
5. 4300 Dr. Ratan Kumar Ghosh
6. 4385 Dr. Phalguni Gupta
7. 4645 Dr. Ajai Jain
8. 4668 Dr. Dheeraj Sanghi
9. 4762 Dr. Sumit Ganguly
10. 5010 Dr. Shashank Kantilal Mehta
11. 4934 Dr. Anil Seth

ASSOCIATE PROFESSOR AGP-9500 Direct Recruitment PB-4 (37400-67000)
1. 5112 Dr. Mainak Chaudhuri
2. 5197 Dr. Surender Baswana
3. 5222 Dr. Peeyush Parameswaran Kurur

ASSISTANT PROFESSOR AGP-9000 After 3 years experience PB-4 (37400-67000)
1. 5268 Dr. Arnab Bhattacharya

ASSISTANT PROFESSOR AGP-8000 Regular PB-3 (15600-39100)
1. 5372 Dr. (Ms) Krithika Venkataramani
2. 5383 Dr. Amey Karkare
3. 5382 Dr. Satyadev Nandakumar

ASSISTANT PROFESSOR AGP-7000 Contract PB-3 (15600-39100) Ph D + 1 year experience
1. 5392 Dr. Subhajit Roy
2. 5429 Dr. Raghunath Tewari

ELECTRICAL ENGINEERING
SANCTIONED STRENGTH: 53
EXISTING STRENGTH : 35 +1 HT

PROFESSOR HAG SCALE (67000-79000)
1. 3927 Dr. Avinash Joshi
2. 4486 Dr. Prem Kumar Kalra
3. 4495 Dr. Suresh Chandra Srivastava
4. 4691 Dr. Shafi Qureshi
PROFESSOR AGP-10500 PB-4 (37400-67000)
1. 4372 Dr. Govind Sharma
2. *4687 Dr. Utpal Das
3. 4566 Dr. Aloke Kumar Dutta
4. 4652 Dr. Animesh Biswas
5. 4478 Dr. Pradip Sircar
6. 4670 Dr. Baquer Mazhari
7. 4827 Dr. Ajit Kumar Chaturvedi
8. 4489 Dr. Rakesh Kumar Bansal
9. 5003 Dr. Sri Niwas Singh
10. 4776 Dr. Shyama Prasad Das
11. 4771 Dr. Yatindra Nath Singh
12. 4988 Dr. Laxmidhar Behera
13. 4833 Dr. Venkatesh K Subramanian
14. 5013 Dr. A Ranganath Harish
15. 5113 Dr. Subramaniam Sundar Kumar Iyer

ASSOCIATE PROFESSOR AGP-9500 Direct Recruitment PB-4 (37400-67000)
1. 4938 Dr. Kasturi Vasudevan
2. 5012 Dr. Parthasarathi Sensarma
3. 5015 Dr. (Ms) Nandini Gupta
4. 5111 Dr. Adrish Banerjee
5. 5162 Dr. Ramprasad Potluri
6. 5293 Dr. Santanu Kumar Mishra
7. 5295 Dr. Rajesh Mahanand Hegde

ASSISTANT PROFESSOR AGP-9000 after 3 years experience PB-4 (37400-67000)
1. 5309 Dr. Kumar Vaibhav Srivastava
2. 5321 Dr. Naren Naik
3. 5326 Dr. Mohammed Jaleel Akhtar
4. 5327 Dr. Nishchal Kumar Verma
5. 5344 Dr. Bahniman Ghosh
6. 5343 Dr. Aditya Kiran Jagannatham
7. 5357 Dr. Pradeep Kumar Krishnamurthy
8. 5363 Dr. Saikat Chakrabarti

ASSISTANT PROFESSOR AGP-8000 Regular PB-3 (15600-39100)
1. 5458 Dr. Yogesh Singh Chauhan
ASSISTANT PROFESSOR  AGP-7000 Contract PB-3 (15600-39100)
1. 5478 Dr. Ketan Rajawat

HUMANITIES & SOCIAL SCIENCES  SANCTIONED STRENGTH : 31
EXISTING STRENGTH    : 29+ 2

PROFESSOR HAG SCALE (67000-79000)
1. 3838 Dr. (Ms) Lilavati Krishnan
2. 3983 Dr. Arun Kumar Sharma
3. 4016 Dr. Arvind Kumar Sinha
4. 4373 Dr. Kaushal Kumar Saxena

PROFESSOR AGP-10500 PB-4 (37400-67000)
1. 4791 Dr. Binay Kumar Pattnaik
2. 4729 Dr. Gurumurthy Neelakantan
3. 4488 Dr. Surajit Sinha
4. 4700 Dr. (Ms) Achla Misri Raina
5. 4702 Dr. (Ms) Shikha Dixit
6. 4773 Dr. Munmun Jha

ASSOCIATE PROFESSOR  AGP-9500 Direct Recruitment PB-4 (37400-67000)
1. 4957 Dr. (Ms) Suchitra Mathur
2. 5076 Dr. Thangamani Ravichandran
3. 5310 Dr. Praveen Kulshrestha
4. 4927 Dr. (Ms) Mini Chandran
5. 5075 Dr. Murli Prasad Panta
6. 5181 Dr. Braj Bhusan
7. *4976 Dr. Satyaki Roy  DP
8. 5231 Dr. Kumar Ravi Priya
9. 5296 Dr. Somesh Kumar Mathur

ASSISTANT PROFESSOR AGP-9000 After 3 years experience PB-4 (37400-67000)
1. 5270 Dr. (Ms) Sarani Saha
2. 5237 Dr. Ravishankar Sarma Ayyadevara
3. 5287 Dr. Anindita Chakrabarti
4. 5332 Dr. Vineet Sahu
5. 5333 Dr. Vimal Kumar
6. 5335 Dr. Prashant Bhalchandra Bagad
7. 5354 Dr. (Ms) Chaithra Puttaswamy

ASSISTANT PROFESSOR  AGP-8000 Regular PB-3 (15600-39100)
1. 5410 Dr. (Ms) Tanika Chakraborty
ASSISTANT PROFESSOR      AGP-7000 Contract PB-3 (15600-39100) Ph D + 1 year experience
1.  5367 Dr. (Ms) Sohini Sahu
2.  5409 Dr. Anirban Mukherjee

ASSISTANT PROFESSOR AGP-6000 (Contract) B-3 (15600-39100)
1.  *5183 (Ms) Koumudi Prakash Patil
   2.  5331 (Mrs) Shatarupa Thakurta Roy

INDUSTRIAL & MANAGEMENT ENGINEERING
SANCTIONED STRENGTH:  18
EXISTING STRENGTH      :  18

PROFESSOR HAG SCALE (67000-79000)
1.  3432 Dr. Ashok Kumar Mittal
2.  3792 Dr. Kripa Shanker
3.  3977 Dr. Narendra Kumar Sharma
4.  4042 Dr. Arun Pradeep Sinha

PROFESSOR AGP-10500 PB-4 (37400-67000)
1.  4525 Dr. Renovchintala Raghavendra Kumar Sharma
2.  4961 Dr. Jayanta Chatterjee
3.  4701 Dr. Rahul Varman
4.  5462 Dr. Uday Shankar Racherla

ASSOCIATE PROFESSOR AGP-9500 Direct Recruitment PB-4 (37400-67000)
1.  4865 Dr. (Ms) Veena Bansal
2.  4968 Dr. Anoop Singh
3.  5073 Dr. Raghu Nandan Sengupta
4.  5147 Dr. Bollempalli Venkata Phani
5.  5488 Dr. Puneet Prakash

ASSISTANT PROFESSOR AGP-9000 After 3 years experience PB-4 (37400-67000)
1.  5302 Dr. Subhas Chandra Misra
2.  5348 Dr. Deepu Philip

ASSISTANT PROFESSOR    AGP-8000 Regular PB-3 (15600-39100)
1.  5430 Dr. Sri Vanamalla Venkataraman

ASSISTANT PROFESSOR    AGP-7000 Contract PB-3 (15600-39100) Ph D + 1 year experience
1. 5428 Dr. Shashi Shekhar Mishra
2. 5449 Dr. Devlina Chatterjee

MATERIALS SCIENCE & ENGINEERING
SANCTIONED STRENGTH: 32
EXISTING STRENGTH : 23

PROFESSOR AGP-10500 PB-4 (37400-67000)
1. 3845 Dr. Romesh Chand Sharma
2. 4382 Dr. Dipak Mazumdar
3. 4565 Dr. Rajiv Shekhar
4. 4597 Dr. Sandeep Sangal
5. 4790 Dr. Deepak Gupta
6. 4796 (Ms) Monica Katiyar
7. 4919 Dr. Anish Upadhyaya
8. 4977 Dr. Bikramjit Basu

ASSOCIATE PROFESSOR   AGP-9500 Direct Recruitment PB-4 (37400-67000)
1. 5034 Dr. Ashish Garg
2. 5072 Dr. Gouthama
3. 5269 Dr. Kallol Mondal
4. 5273 Dr. Krishanu Biswas
5. 5289 Dr. Anandh Subramaniam

ASSISTANT PROFESSOR AGP-9000 After 3 years experience PB-4 (37400-67000)
1. 5297 Dr. Kantesh Balani
2. 5336 Dr. Vivek Verma

ASSISTANT PROFESSOR   AGP-8000 Regular PB-3 (15600-39100)
1. 5385 Dr. Tanmoy Maiti
2. 5404 Dr. Shashank Shekhar
3. 5381 Dr. Sarang Ingole
4. 5400 Dr. Shobit Omar
5. 5461 Dr. Anshu Gaur
6. 5463 Dr. Kaustubh Narhar Kulkarni

ASSISTANT PROFESSOR   AGP-7000 Contract PB-3 (15600-39100) Ph D + 1 year experience
1. 5475 Dr. Somnath Bhowmick
2. 5480 Dr. Nilesh Prakash Gurao

MATHEMATICS & STATISTICS DEPARTMENT
SANCTIONED STRENGTH: 36
EXISTING STRENGTH : 32
PROFESSOR HAG SCALE (67000-79000)
1. 3407 Dr. Ram Kishore Singh Rathore
2. 3739 Dr. Mohan Krishen Kadalbajoo
3. 3772 Dr. (Ms) Manjul Gupta
4. 3773 Dr. Prawal Sinha
5. 3776 Dr. Govind Prakash Kapoor
6. 3824 Dr. Ishwari Dutt Dhariyal
7. 4058 Dr. Peyush Chandra
8. 4290 Dr. (Ms) Shobha Madan
9. 4584 Dr. Debasish Kundu

PROFESSOR AGP-10500 PB-4 (37400-67000)
1. 4449 Dr. Pravir Kumar Dutt
2. 4726 Dr. Neeraj Misra
3. 4707 Dr. B Venkatesulu Rathish Kumar
4. 4782 Dr. Dhirendra Bahuguna
5. 4656 Dr. Palani Shunmugaraj
6. 4734 Dr. Arbind Kumar Lal
7. 4803 Dr. Alok Kumar Maloo
8. 4781 Dr. (Ms) Mohua Banerjee
9. 4832 Dr. (Mrs) Rama Rawat
10. 4870 Dr. Saktipada Ghorai
11. 5029 Dr. Joydeep Dutta
12. 5153 Dr. Amit Mitra

ASSOCIATE PROFESSOR AGP-9500 Direct Recruitment PB-4 (37400-67000)
1. 4822 Dr. Gopalapuram Santhanam
2. 4537 Dr. (Ms) Aparna Dar
3. 5189 Dr. Parasar Mohanty
4. 5036 Dr. Shalabh
5. 5121 Dr. (Ms) Nandini Nilakantan
6. 5229 Dr. Sharmistha Mitra
7. 5235 Dr. Sudipta Dutta

ASSISTANT PROFESSOR AGP-9000 After 3 years experience PB-4 (37400-67000)
1. 5291 Dr. Malay Banerjee
2. 5314 Dr. Sameer Laxman Chavan
3. 5361 Dr. Thirumalai Muthukumar
4. 5370 Dr. Akash Anand
ASSISTANT PROFESSOR  AGP-8000 Regular PB-3 (15600-39100)

ASSISTANT PROFESSOR  AGP-7000 Contract PB-3 (15600-39100) Ph D + 1 year experience

MECHANICAL ENGINEERING  SANCTIONED STRENGTH: 42  EXISTING STRENGTH: 35+ 2 HT

PROFESSOR HAG Scale (67000-79000)
1. 4061 Dr. Prabhat Munshi
2. 4210 Dr. Prakash Mahadeo Dixit
3. 4224 Dr. Nanda Nandivada Kishore
4. 4286 Dr. Himanshu Hatwal
5. 4398 Dr. Krishnamurthy Muralidhar
6. 4650 Dr. Kalyanmoy Deb
7. 4788 Dr. Subrata Sarkar
8. 4779 Dr. Bhaskar Dasgupta

PROFESSOR AGP-10500 PB-4 (37400-67000)
1. 4560 Dr. Gautam Biswas
2. 4452 Dr. Saunak Kumar Choudhury
3. 4459 Dr. Nalinaksh ShardaVyas
4. 4288 Dr. Partha Sarathi Ghoshdastidar
5. 4801 Dr. Pradip Kumar Panigrahi
6. 4823 Dr. Nallagundla Venkata Reddy
7. 4890 Dr. Bishakh Bhattacharya
8. *4928 Dr. Kamal Krishna Kar  MSP
9. 4931 Dr. Avinash Kumar Agarwal
10. 5014 Dr. Sumit Basu
11. 5022 Dr. Ashish Datta
12. 5054 Dr. Parameswaran Venkitanarayanan
13. 5455 Dr. Annidya Chatterjee

ASSOCIATE PROFESSOR  AGP-9500 Direct Recruitment PB-4 (37400-67000)
1. 4956 Dr. Anupam Saxena
2. 5120 Dr. Sameer Khandekar
3. 5074 Dr. Janakarajan Ramkumar
4. 5122 Dr. Arun Kumar Saha
5. *5129 Dr. Sivasambu Mahesh  AE
6. 5394 Dr. Nachiket Tiwari
7. 5399 Dr. Shakti Singh Gupta
8. 5199 Dr. Ishan Sharma  
9. 5234 Dr. Shantanu Bhattacharya  
10. 5299 Dr. Pankaj Wahi  
11. 5477 Dr. Sujeet Kumar Sinha

ASSISTANT PROFESSOR AGP-9000 After 3 years experience PB-4 (37400-67000)

1. 5267 Dr. Basant Lal Sharma  
2. 5294 Dr. Malay Kumar Das  
3. 5300 Dr. Anurag Gupta  
4. 5358 Dr. Sovan Das

ASSISTANT PROFESSOR AGP-8000 Regular PB-3 (15600-39100)

1. 5447 Dr. Arvind Kumar

PHYSICS DEPARTMENT  SANCTIONED STRENGTH: 38  
EXISTING STRENGTH: 33 + 3 HT

PROFESSOR HAG Scale (67000-79000)

1. 3980 Dr. Raj Kumar Thareja  
2. 4254 Dr. Rajendra Prasad  
3. 4642 Dr. Debashish Chowdhury  
4. 4688 Dr. Ramesh Chandra Budhani

PROFESSOR AGP-10500 PB-4 (37400-67000)

1. *4559 Dr. Yashowanta Narayan Mohapatra MSP  
2. 4651 Dr. Avinash Singh  
3. 4527 Dr. Deshdeep Sahdev  
4. 4504 Dr. Venkataramu Ravishankar  
5. 4708 Dr. Pankaj Jain  
6. 4723 Dr. Harish Chandra Verma  
7. 4881 Dr. Manoj Kumar Harbola  
8. 4653 Dr. Kocheri Parampan Rajeev  
9. 4692 Dr. Mahendra Kumar Verma  
10. *4679 Dr. (Ms) Asima Pradhan LTP  
11. 5407 Dr. (Ms) Ramarao Vijaya  
12. 5040 Dr. Subramaniam Anantha Ramakrishna  
13. 5041 Dr. Amit Dutta  
14. 5117 Dr. Satyajit Banerjee

ASSOCIATE PROFESSOR AGP-9500 Direct Recruitment PB-4 (37400-67000)

1. 4755 Dr. Vemuru Subrahmanyam
2. 4797 Dr. Gautam Sengupta
3. 4893 Dr. Harshwardhan Wanare
4. 5028 Dr. (Ms) Sutapa Mukherji
5. 5046 Dr. Anjan Kumar Gupta
6. 5102 Dr. Zakir Hossain
7. 5115 Dr. Tapobrata Sarkar
8. 5123 Dr. Sudeep Bhattacharjee
9. *5167 Dr. Rajeev Gupta  

ASSISTANT PROFESSOR AGP-9000 After 3 years experience PB-4 (37400-67000)
1. 5284 Dr. Tarun Kanti Ghosh
2. 5290 Dr. Kaushik Bhattacharya
3. 5306 Dr. Dipankar Chakrabarti

ASSISTANT PROFESSOR AGP-8000 Regular PB-3 (15600-39100)
1. 5355 Dr. Krishnacharya
2. 5417 Dr. Soumik Mukhopadhyay
3. 5454 Dr. Saikat Ghosh
4. 5467 Dr. Amit Kumar Agarwal
5. 5481 Dr. Sagar Chakraborty
6. 5503 Dr. Anand Kumar Jha

ASSISTANT PROFESSOR AGP-7000 Contract PB-3 (15600-39100) Ph D + 1 year experience

MATERIALS SCIENCE PROGRAMME SANCTIONED STRENGTH: 06
EXISTING STRENGTH: 00 + 3 HT

PROFESSOR AGP-10500 PB-4 (37400-67000P)
1. *4559 Dr. Yashowanta Narayan Mohapatra Phy
2. *4928 Dr. Kamal Krishna Kar ME

ASSOCIATE PROFESSOR AGP-9500 Direct Recruitment PB-4 (37400-67000)
1. *5167 Dr. Rajeev Gupta Phy

ASSISTANT PROFESSOR AGP-9000 After 3 years experience PB-4 (37400-67000)

LASER TECHNOLOGY PROGRAMME SANCTIONED STRENGTH: + 02 HT

PROFESSOR AGP-10500 PB-4 (37400-67000)
1. *4687 Dr. Utpal Das EE
2. *4679 Dr. (Ms) Asima Pradhan PHY

67 IIT Kanpur
ASSOCIATE PROFESSOR  AGP-9500 Direct Recruitment PB-4 (37400-67000)

DESIGN PROGRAMME

SANCTIONED STRENGTH:  
EXISTING STRENGTH:  +2 HT

ASSOCIATE PROFESSOR  AGP-9500 Direct Recruitment PB-4 (37400-67000)

1. *4976 Dr. Satyaki Roy       HSS

ASSISTANT PROFESSOR  AGP-8000 Regular PB-3 (15600-39100)

ASSISTANT PROFESSOR AGP-6000 (Contract) PB-3 (15600-39100)

1. *5183 (Ms) Koumudi Prakash Patil       HSS

================================================================

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 APRIL 01, 2012

<table>
<thead>
<tr>
<th>Sl No.</th>
<th>Name &amp; Designation</th>
<th>Department/ Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 4983</td>
<td>Alok Gupta</td>
<td>A E</td>
</tr>
<tr>
<td>2. 4616</td>
<td>Susmit Sen</td>
<td>Robotics</td>
</tr>
<tr>
<td>3. 4824</td>
<td>(Ms) Anjali V Kulkarni</td>
<td>Mechatronics</td>
</tr>
<tr>
<td>4. 4078</td>
<td>Chaturi Singh</td>
<td>NWTF</td>
</tr>
<tr>
<td>5. 5278</td>
<td>Neeru Chhabra</td>
<td>E.E.</td>
</tr>
<tr>
<td>6. 4318</td>
<td>Amitabha Roy</td>
<td>E E</td>
</tr>
<tr>
<td>7. 4807</td>
<td>Brajesh Chandra</td>
<td>A E (NWTF)</td>
</tr>
<tr>
<td>8. 4056</td>
<td>V. Raghuram</td>
<td>M E</td>
</tr>
<tr>
<td>9. 4777</td>
<td>Rajeev Gupta</td>
<td>AE(NWTF)</td>
</tr>
<tr>
<td>10. 4955</td>
<td>Raghbir Singh Anand</td>
<td>E E</td>
</tr>
<tr>
<td>11. 4921</td>
<td>Aurobinda Chatterjee</td>
<td>M E</td>
</tr>
<tr>
<td>12. 5460</td>
<td>K. N. Narayanan Unni</td>
<td>SAMTEL</td>
</tr>
<tr>
<td>13. 4015</td>
<td>A. L. Bhavsar</td>
<td>CHEM</td>
</tr>
<tr>
<td>14. 4815</td>
<td>K. K. Bajpai</td>
<td>C E</td>
</tr>
<tr>
<td>15. 3780</td>
<td>Sanjay Gupta</td>
<td>ACMS</td>
</tr>
</tbody>
</table>

68 IIT Kanpur
<table>
<thead>
<tr>
<th>No.</th>
<th>Registration No.</th>
<th>Name</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.</td>
<td>5285</td>
<td>Saikat Hira</td>
<td>C C</td>
</tr>
<tr>
<td>17.</td>
<td>4578</td>
<td>Md Aftab Alam</td>
<td>C C</td>
</tr>
<tr>
<td>18.</td>
<td>4821</td>
<td>Brajesh Pande</td>
<td>C C</td>
</tr>
<tr>
<td>19.</td>
<td>4820</td>
<td>Gopesh Tewari</td>
<td>C C</td>
</tr>
<tr>
<td>20.</td>
<td>5019</td>
<td>(Ms) Soma Sengupta</td>
<td>C C</td>
</tr>
<tr>
<td>21.</td>
<td>4721</td>
<td>Md K. Ahmad</td>
<td>C C</td>
</tr>
<tr>
<td>22.</td>
<td>4920</td>
<td>(Ms) Anju Tewari</td>
<td>C C</td>
</tr>
<tr>
<td>23.</td>
<td>3868</td>
<td>K. S. Singh</td>
<td>C C</td>
</tr>
<tr>
<td>24.</td>
<td>4817</td>
<td>Navpreet Singh</td>
<td>C C</td>
</tr>
<tr>
<td>25.</td>
<td>4541</td>
<td>B. M. Shukla</td>
<td>C C</td>
</tr>
<tr>
<td>26.</td>
<td>5312</td>
<td>V. D. Shrivastava</td>
<td>P.K.Kelkar Lib.</td>
</tr>
<tr>
<td>27.</td>
<td>3969</td>
<td>Umed Singh</td>
<td>Kelkar Lib</td>
</tr>
<tr>
<td>28.</td>
<td>3974</td>
<td>Neelam Prasad</td>
<td>Kelkar Lib</td>
</tr>
<tr>
<td>29.</td>
<td>5148</td>
<td>S. K. Vijaianand</td>
<td>Kelkar Lib</td>
</tr>
<tr>
<td>30.</td>
<td>5030</td>
<td>Vipul Mathur</td>
<td>AE</td>
</tr>
</tbody>
</table>
Academic Programmes

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 programmes are:

- to provide the highest level of education in technology and science and to produce competent, creative and imaginative engineers and scientists,
- to promote a spirit of free and objective enquiry in different fields of knowledge,
- to make a significant contribution towards the development of skilled technical manpower, and
- to create an intellectual reservoir to meet the growing demands of the nation.

The programmes are designed to achieve the above goals and also try to inculcate in the student, concepts and intellectual skills, courage and integrity, awareness of and sensitivity to the needs and aspirations of the society.

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. The micro-management of these programmes is carried out by the Senate Undergraduate Committee (SUGC) and the Senate Post-graduate Committee (SPGC), respectively.

Undergraduate Programme

The undergraduate programme is a Bachelor’s programme and consists of the following:

- Bachelor of Technology (B. Tech.) in Aerospace Engineering, Biological Sciences & Bio Engineering, Chemical Engineering, Civil Engineering, Computer Science Engineering, Electrical Engineering, Material Science and Engineering and Mechanical Engineering.
- Bachelor of Science (B.S.) in Physics, Chemistry, Mathematics & Scientific Computing and Economics.
- Master of Science (M.Sc.) in Physics, Chemistry, Mathematics & Scientific Computing and Mathematical Statistics.

The programmes, B.Tech. and B.S., are of four years duration or 8 semesters. The entry to these programmes is through Joint Entrance Examination (JEE). The first 3 semesters of these programmes, consist of the Core Programme that is 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 last 5 semesters consists of the Professional/Departmental courses.

The M.Sc. Programme is a two year programme. The admission to these programmes is through Joint Admission to M.Sc. Programmes (JAM). These programmes have been largely responsible for providing the scientific manpower in Indian research institutes and universities.

**M.Sc.-Ph.D. (Dual Degree)**
The Department of Physics offers an M.Sc.-Ph. D. dual degree program. The admission is through an interview, in addition to the candidates having qualified in JAM.

In this programme, a student shall be considered to be in the UG stream during the first four semesters, or until all the prescribed courses of the first four semesters are completed. If a student, after being shifted to the Ph.D. part of the programme, is not able to clear the Comprehensive Examination, then he/she, may be permitted, depending on the merits of the case, to change his/her programme to the M. Sc. (two-year) programme, subject to a minimum residence requirement of 6 semesters.

**Postgraduate Programme**
The postgraduate programme is intended to prepare students to enter their profession 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 in 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**
IIT Kanpur has **M. Tech. Programmes** in all the Engineering Branches, mentioned above. In addition, there are M. Tech. Programmes in the interdisciplinary areas, such as, Nuclear Engineering, Laser Technology, Environmental Engineering, Materials Science,
and Industrial and Management Engineering. The M. Tech. students are chosen through interview, in addition to their having a qualifying mark in GATE, an all-India examination.

**MBA and MDES Programme**
The programmes, Master of Business Administration and Master of Design, are mainly interdisciplinary in nature. The selection of students is again through interview, in addition to their having qualified in CAT Examination 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 four interdisciplinary programmes, namely, Materials Science, Nuclear Engineering & Technology, Photonics Science & Engineering (earlier known as Laser Technology Programme) & Design Programme. The Ph.D. programmes also exist in Chemistry, Mathematics & Statistics, Physics, Economics, English, Philosophy, Psychology and Sociology.

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

**D.I.I.T. Programme**
The Institute has a D.I.I.T. programme in Video Communications Systems. The duration of the programme is one year. The D.I.I.T. 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, Nanomaterials 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 in 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) is formed in order to monitor the curriculum continually. The Committee solicits a report at the beginning of every semester 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. Based on the feedbacks of the subcommittees, the committee discusses the matter with the department and reviews the syllabus and/or teaching methodologies, if required.

**Environmental Science and Environmental Engineering**

The Scope of Environmental Science and Environmental Engineering are 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 needs to 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 warning, 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 across 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 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 endeavour. The courses prepared at IIT Kanpur, are being transmitted through the educational TV Channel, Eklavya on regular basis. These courses have earned appreciation form a wide range of learners.
Research and Development

During the year, the Institute has witnessed significant growth in its Research and Development activities. The number of externally funded ongoing projects has reached 588 with a sanctioned amount of Rs. 314 crores. During 2012-2013, the Institute got sanctions for 119 sponsored projects worth Rs. 54 crores and 101 consultancy projects of value Rs. 11 crores. Some of the major grants sanctioned by various agencies during the year are DST Rs. 7 crores, SERB Rs. 7 crores, ARDB Rs. 4 crores, DRDO Rs. 6 crores, DAE Rs. 2 crores, UGC Rs. 1 crore and DBT Rs. 1 crore. Some of the major industries which have funded projects are Unilever, HUDCO, CEAT, Intel, Power Grid Corporation of India, BHEL, and GE. At the international level, organizations like Samsung, Boeing, the Finnish Meteorological Institute, Finland have funded our research. A list of major projects is given at the end of the report.

The Institute and consumer goods company Unilever signed a wide ranging partnership agreement to collaborate on several cutting edge research projects in the areas of materials science and engineering. Overall, during the year, the Institute signed around 110 MoUs/agreements with various sponsors and research institutions.

During the year, twelve technologies developed at the Institute were licensed for commercialization while we filed eighteen national patents including two design patents. Three patents were granted and our earnings from intellectual property are US$ 86,400.

Twenty-two companies are currently being incubated at SIDBI Innovation and Incubation Centre (SIIC) while twenty-one have graduated. SIIC has successfully incubated eight Bio-Tech Companies with two more in the pipeline. BIRAC has sanctioned Rs. 833.716 lacs to SIIC under its Bio-incubator Scheme. SIIC plans to establish the Bio-incubator as per the timeline laid down under the scheme in the next one year.

Following technologies developed at the Institute have been recognized and launched at the national level:

A novel **Zero Discharge Toilet System** has been developed in the Department of Civil Engineering. The toilet system eliminates use of fresh water for flushing and converts human excreta into manure and fertilizer. Over 300 such toilets were deployed in Maha Kumbh 2013 at Allahabad which served approximately one million users. Housing and Urban Development Corporation (HUDCO) facilitated this initiative under their Corporate Social Responsibility program.
An **Autonomous Mini-Helicopter model** was displayed in Bangalore at AERO India 2013. It weighs only a few kilograms and incorporates most of the functions of a real life helicopter and achieves autonomous control in hover and forward flight. This project serves as a platform to test innovative ideas in the design, development, ground/flight testing of autonomous flying vehicles. A laboratory focusing on the fundamentals of design, manufacturing, and testing of systems and sub systems has been created to assist the development and testing of the mini helicopter. An agreement was also signed with HAL Bangalore for the development of autonomous mini helicopter.

With the growing popularity of Massively Open Online Courses (MOOCs), the problem of automating components of education is the need of the hour. We are developing Intelligent Tutoring Systems to aid online classrooms as well as traditional classrooms. Automated tutoring systems are being developed for topics such as Periodic Table, Limits, Trigonometry, Natural Deduction, Visual Sequences to name a few. These tutoring systems can help instructors in creating sample solutions to assignment problems and new problems along with their solutions and can automatically generate variants of given seed problems with similar difficulty level. The project is being done in collaboration with Microsoft Research, and was recently showcased at Techfest 2013, Microsoft Research, Redmond, USA.

The contributions of Prof. A K Ghosh (AE) towards the successful flight of a supersonic (Mach=3.5) 214 mm PINAKA Mk-II artillery rocket weighing 300 Kg was commended by the Director, ARDE (DRDO). After the first round of rockets failed, modifications were incorporated on the basis of Prof. Ghosh’s recommendation latter, and all the rockets exhibited majestic flight.

A new DC power supply has been designed by BSNL-IITK Telecom Centre of Excellence at IIT Kanpur for rural telecom exchanges. It works with one, two or three phase grid input and obviates the need for operating diesel generators during partial grid failure. The product will result in savings in operational cost and an environment friendly telecom exchange. It was showcased in Delhi at India Telecom 2012.

**Major projects sanctioned**

In a recent high level meeting with DRDO, the Institute has expressed its desire to embark upon mega projects which can lead to the development of challenging products which are challenging and which are required by the country's defence or by society, in general.

DRDO has sanctioned two major projects as part of its nano-photonics program, with a funding of Rs. 309 lakhs. One project targets the development of miniaturized optical
devices to function as sources and detectors based on the concept of photonic crystals. The other project concerns the development of large area micro and nano structured meta-materials for visible and infra-red frequencies with a view to developing selective absorbers, detectors and shields.

**Flexible Printed Integrated Disposable Electronics (Flexipride)**

An Indo-German project-FLEXIPRIDE (Flexible Printed Integrated Disposable Electronics)-has been initiated with one academic Institute and one industrial partner from each country to develop circuits on flexible substrates on which electronic components such as displays, solar cells and transistors can be printed. The main thrust of the project is to improve and integrate components to produce multifunctional system applications such as electronic seals. As a part of the project various printing techniques such as ink-jet and gravure will be used to port ink-based applications from one platform to another. The project spans over three years at a cost of Rs. 4 crores among all the partners.

**Unraveling the Role of Glucose Metabolism in Neurodegenerative Disorders**

DBT has sanctioned a project on unraveling the role of Glycogen metabolism in neurodegenerative disorders. Glycogen is the principle storage form of energy in all cell types except the neurons which store either no or negligible amount of glycogen. Intriguingly, neurons in the patients with Alzheimer’s disease, Parkinson’s disease, Amyotrophic lateral sclerosis or Lafora disease are known to have increased glycogen content, although the significance of the glycogen accumulation in the neurodegeneration is not understood. The outcome of the project is likely to unravel the commonality in the pathological process of diverse set of neurodegenerative disorders and may help to explain the possible role of glycogen metabolism in neurodegenerative disorders.

**Experimental Investigations of HCCI/PCCI Combustion in a Single Cylinder Research Engine Using Biodiesel**

A project for research and demonstration of the concept of Homogeneous Charge Compression Ignition (HCCI) and Partially Premixed Charge Compression Ignition (PCCI) combustion in Single Cylinder Engine using diesel and biodiesel as test fuels has been sanctioned by DST. It is a three year project with a budgetary allocation of Rs 1.58 crores and Tata Motors, Pune, as the industrial partner. The objective of the project is to develop HCCI/PCCI concept with biodiesel and development of biodiesel PCCI combustion system as an ultra clean combustion system. This advanced combustion
seeks to decrease the rate of consumption of conventional fuel-stock and reduce the high pollutant level in exhaust, simultaneously.

**Creating an International Program for Sustainable Infrastructure Development under Obama-Singh 21st Century Knowledge Initiative (OSI) Grant**

The Obama Singh scheme is an Indo-US initiative that aims to form partnerships between US institutions and institutions of higher learning in India. IIT Kanpur partnered with Virginia Tech and was one of the four Indian led partnerships to be funded in the first year of the scheme to create an international program for Sustainable Infrastructure Development. The project with a total funding of Rupees 122.808 lakhs over a three year period seeks to (1) conduct research in areas related to the development, maintenance, and monitoring of infrastructure (2) apply geospatial techniques to infrastructure monitoring (3) develop curriculum in educational institutions and (4) conduct an awareness and sensitization program towards the need for comprehensive planning, development, and maintenance of infrastructure among practicing engineers (5) and contribute to greater mutual understanding among faculty at both the institutions through exchange of scholars, joint publications, and collaborative research.

**State-of-the-art Photovoltaic Field Performance Test Station**

The Station has been established under the DST sponsored Indo-UK project Stability and Performance of Photovoltaics. A 50 KWp solar power station having five PV technologies has been created. The power station is unique and first of its kind in the country hosting five PV technologies; mono-crystalline silicon, multi-crystalline silicon, amorphous silicon thin film, copper-indium-gallium-selenide (CIGS) thin film and high concentration high efficiency triple Junction solar cells in two different configurations, i.e., fixed angle and 2D tracker at 5 KWp levels. An online monitoring system for comprehensive field performance evaluation of various PV system parameters and ambient conditions has been designed. The test station also provides an R&D platform to faculty, research engineers and students of the institute associated with the Solar Energy Research Enclave (SERE). Besides providing opportunity for R&D in PV technologies, the enclave acts as a demonstrator of solar based technologies. The enclave is self sufficient in its electricity needs through 5 KWp battery supported solar panels and is also feeding about 200 units/day to the IITK electricity grid.

**Infrastructure Development**

Keeping in view the requirements of the campus community, the institute has embarked upon a major exercise to enhance the infrastructure in the campus. Some of the new facilities that are being planned are a Convention Centre including a Senate
Hall, a new Sports' Complex, Vivekananda Youth Centre, TeQIP Nodal Centre, Engineering Core Laboratory, Administrative Block and faculty apartments. As a part of this exercise, some of the existing low usage footprints like Workshop and Aerospace buildings will be converted to multistoreyed buildings.

- **Facilities under CARE scheme** During the year, the Institute has procured the following facilities under its CARE scheme: Anechoic Acoustic Chamber, Femtosecond Transient Absorption Spectrometer, Laser Micro-pattern Generator, Femtosecond Laser based Beam Delivery and Scanning System, Large area nano/micro depth profiling by AFM, Facility for transgenesis of multiple model organisms and a large scale centrifugation facility.

- Under the FIST scheme of DST, the Department of Chemistry received a total budget of Rs. 465.00 lakhs and procured several new facilities including Mass Spectrometer, Computer Cluster, Fluorimeter, GA-DSC, Atomic Force Microscopy, Resonance Raman Spectrometer, etc.

- Other facilities established in the Institute during this year are Interferometric technique for fracture analysis in thin films; Buckling characterization in heterogeneous and FGM beams; Single-Crystal and Powder X-ray Diffraction Facility; RF and Microwave characterization lab; Transducers and instrumentation virtual laboratory; Brain computer interface laboratory; Acoustic and vibration data acquisition facility; Facility for measuring the impact strength of nuclear grade concrete; Surface and Tribology Laboratory; High Temperature Fuel Cell Laboratory; Full scale corrosion labs with potentiostat, in-house built salt fog test machine and other test facilities; Oxidation test facility like in-house developed DTA/TGA and Netszch DSC-TGA (upto 1500C); A virtual laboratory on oscillations and phenomena experiments in mechanics; Vibrating sample magnetometer and heat capacity set up for measurements in the temperature range 2K-400K and in magnetic field up to 14 Teslan (added as a part of PPMS); Helium reliquifier for PPMS; E-beam lithigraphy set up.

**Patents filed by the faculty during the financial year 2012-2013**

- A method of measuring BMP signaling using BMP responsive reported cell line.
- A hybrid ink formulation and a method for preparing the same.
- Ball Mill.
- Vein Visualization Device.
- New processing technique of photolithography to make defect free organic light emitting diode display.
- A Versatile tube-well hand pump with energy harvested water filtration.
• A method for tumoroid generation using 3-D chitosan-gelatin scaffolds for anti-
cancer drug screening.
• A nanotextured surface immobilized structure-modified enzyme biocatalyst.
• Flight Planning for Airborne data acquisition.
• Finishing Apparatus.
• Identification of Vascular Deformation.
• System and Method for Nanofinishing of a workpiece.
• Millimetre level measuring ruler for fully/partially visually impaired.
• Polymers blended rheological abrasive medium.
• Affordable In-house Modular Planetarium.
• Process for Generation of a Nano-Wrinkled Substrate and its Applications thereof.
• A biodegradable smoke filter material.
• Novel Fly Tumor Model and Methods of Screening Drugs Thereon.
• Analod Maximum Power Point Tracker for Solar Photovoltaic.
• Surface Functionalization unit.
• Electrolyte-Insulator-Semiconductor based microfluidic immunosensor.

**Patents filed through Intellectual Ventures during the financial year 2012-2013**

• Measurement of submicron focused charged particles beams using a current flux grating: spider probe.
• Bi-Metal Nanoadsorbents and Methods for their preparation and use.
• Systems and methods for dry processing fabrication of binary masks with arbitrary shapes for ultra-violet laser micromachining.
• Multiple Criteria Decision Analysis.
• Polymeric nanocomposites and methods for their preparation and use.
• Metamaterial Structures for Q-Switching in Lasers.
• A Green process for fabrication of Binary Masks with Isolated features for Micromachining and Photolithography.
• Fabrication of organic thin film transistor using single drops of organic of hybrid insulator, conductor and semiconductor materials.
• A Current-induced channel organic thin film transistor.
• Multielement focused ion beam system using an intense microwave plasma.
• Microbes based printing for fabrication of electronic devices.
• A Four terminal Gate-Controlled Thin Film Organic Thyristo.

**Design Patent:**
• Interactive Board Game
• Hand Pump
Memorandum of Understanding:

During the year 2012-13, 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. German Institute for Economic Research, Germany for Consortium agreement for follow up work of a research project.
2. Council of Scientific and Industrial Research, Lucknow for release of grant under the OSDD Chem initiative to Non CSIR Institutes.
5. National Academy of Sciences, USA to work towards stated research objectives
8. Department of Biotechnology, New Delhi for project titled Targeted, multifunctional Nanomaterials-loaded polymer capsules.
9. Department of Biotechnology, New Delhi for project titled Understanding basic self assembly mechanism and characteristic of protein aggregation for nonmaterial applications.
10. BARC, Mumbai, IIT Guwahati, IIT Hyderabad, BRNS for project titled Development of a general purpose CFD solver over a hybrid unstructured grid.
11. The Finnish Meteorological Institute, Finland For establishment of a joint project which includes studies of air pollutants, capacity building support, facilitation of information exchange, guidelines for climate change mitigation analysis.
14. University of Petroleum and Energy Studies (UPES) for transfer of money to execute the project sanctioned under Indo-Korean bilateral program.
During the year 2012-13, Memoranda of Understanding have also been signed with many companies such as:

1. Unilever Industries Ltd., Bangalore for Sponsored Research.
2. Indian Oil Corporation Limited, Faridabad to collaborate for promotion of education, research and innovation in downstream petroleum research projects.
3. M/S Urbane Industries, Chennai for the Project titled Wide spread deployment of the Zero Discharge Toilet system in rural and urban areas.
5. Samsung India Software Operations Pvt Ltd, Bangalore for project titled Structural stabilities, spectrum and optical properties of core and core-shell nanoclusters using molecular tailoring approach (MTA).
6. Crompton Greaves Limited, Mumbai for R&D agreement to undertake and jointly work on projects in the area of Power Systems, Industrial Systems.
7. Minda Industries Ltd., Delhi for a feasibility analysis of goals.
8. CEAT Limited, Mumbai for project titled Tyre Noise Reduction Technology Development Initiative.
10. ETI Dynamics, UK to organize an international conference/symposium as a follow-up to the International Workshop.
11. Invention Development Management Company, LLC, USA for Fabrication, testing and characterization of two 200 micron spider probes.
14. Intel Corporation, USA for project titled a deductive Verification Tool for low level software.
15. Electrohms Private Limited, Bangalore for technology transfer: Sensor device for measurement of electrical potential difference between two points in an electrical circuit with no common potential between the said electrical circuit and the output terminals of the device.
17. Sahasra Electronics Private Ltd., Noida for Participation in R&D of organic light emitting diode based solid state lighting and passive matrix displays.
19. Unilever Industries Private Ltd., Bangalore for Umbrella Consultancy Agreement
20. GE India Technology Centre private Limited, Bangalore for Consultancy agreement wide area monitoring systems.
21. WESEE, New Delhi for Consultancy on optimization of higher layer network management modules.
22. Bharat Heavy Electrical Ltd., Bhopal for work entitled complete environmental management inclusive of assessment and remediation at BHEL, Bhopal.
23. Housing and Urban Development Corporation Ltd., Allahabad for HUDCO CSR activities for installation of pre-fabricates Zero discharge toilet systems at Kumbh mela.
26. Indo-French Centre for the Promotion of Advanced Research, for project titled Reversals of a large scale file on a turbulent background.
27. Rotary Wing Research and Development Centre, HAL for Technology Cooperation Initiative.
28. WESEE, Ministry of Defence, GoI for Consultancy on ‘Feasibility study and waveform design of spread spectrum based physical layer for advanced data link’.
30. The Boeing Company, USA for RFID and Intelligent Condition based monitoring of air compressors and motors research.
32. Sahajanand Technologies Pvt Ltd., Surat to execute the design of the diamond colorimeter project.
33. Unilever Industries Pvt. Ltd., Bangalore to carry out the Project titled ‘Correlate qualitative tactile feel of substrates with quantitative, measurable parameters’.
34. Unilever Industries Pvt. Ltd., Bangalore to carry out the Project titled ‘Developing a connection between formulation rheology and long-term stability’.
35. Department of Environment, GoI and Delhi Pollution Control Board, Delhi for conducting the Project titled ‘Comprehensive study on air pollution and greenhouse gases in Delhi’.
36. Power Grid Corporation of India Ltd, Gurgaon to design and design verification, operation in the areas of HVDC, FACTS, protective Relays, PMUs etc. using RTDS and other simulation and/or design tools in order to enhance the performance of the Grid.
37. Intel Technology India Pvt Ltd., Bangalore for Heterogeneous advanced cache and memory architectures for emerging applications and systems.

38. Unilever Industries Pvt. Ltd., Bangalore to carry out the Project titled Study of adhesion of soot and soils on metals and derive a correlation between extent of adhesion of carbon and polymerized soil with aluminum and steel substrate.

A list of major sponsored and consultancy projects sanctioned during the financial year 2012-13 is provided below.

Sponsored Projects:

A. National Projects:

1. AN INNOVATION IN DISTRACTION OSTEOGENESIS FOR MANDIBULAR REGENERATION USING A REFINED TRANSPORT DISTRACTER, Funded by DST, Total Cost Rs. 1473000.

2. MULTI-SCALE DAMAGE MODELING, TESTING AND ANALYSIS FOR LIFE PREDICTION OF FIBROUS COMPOSITE STRUCTURES, Funded by ARDB, Total Cost Rs. 17748000.

3. DESIGN OF COMPOSITE STRUCTURES: METHODOLOGIES AND CRITERIA, Funded by ARDB, Total Cost Rs. 6560000.

4. CHARACTERIZATION AND MODELING OF UNCERTAINTIES IN COMPOSITES, Funded by ARDB, Total Cost Rs. 5300000.

5. UNDERSTANDING NANOPARTICLE INTERNALIZATION BY MAMMALIAN CELLS, Funded by DST, Total Cost Rs. 9242600.

6. LOCK-IN-THERMOGRAPHY FOR SOLAR CELL AND MODULE CHARACTERIZATION, Funded by DST, Total Cost Rs. 2440600.

7. QUANTUM CHEMICAL INVESTIGATION ON EXPLICIT HYDRATION OF MOLECULAR SYSTEMS, Funded by DST, Total Cost Rs. 3528080.

8. MOTION AND INTERACTIONS OF DOMAINS IN FLUID LIPID MEMBRANES, Funded by DST, Total Cost Rs. 2436000.

9. HOUSING AND URBAN DEVELOPMENT CORPORATION LTD. CHAIR, Funded by HUDCO, Total Cost Rs. 6000000.

10. FLEXIBLE PRINTED INTEGRATED DISPOSABLE ELECTRONICS (FLEXIPRIDE), Funded by IGSTC, Total Cost Rs. 10725000.

11. ALGORITHMS FOR DATA STREAM PROCESSING, Funded by DST, Total Cost Rs. 975120.

12. REDUCTION OF CHROMIUM TOXICITY USING NANOPARTICLES: LABORATORY AND FIELD SCALE STUDY, Funded by MOEF, Total Cost Rs. 2816080.
13. DEVELOPMENT OF A LOW COST PIV SYSTEM, Funded by BARC, Total Cost Rs. 4810000.
14. DEVELOPMENT AND DEMONSTRATION OF NANO-SIZED TIO2-BASED PHOTO CATALYTIC OXIDATION TECHNOLOGY FOR CONTROLLING VOLATILE ORGANIC COMPOUND (VOCs) AT SOURCE AND IN SITU AMBIENT AIR, Funded by MOEF, Total Cost Rs. 6078000.
15. SAFETY CODE MODIFICATION, VALIDATION AND SAFETY ANALYSIS OF INDIAN TEST BLANKET MODULE FOR ITER, Funded by IPR, Total Cost Rs. 2304000.
16. PLASMA SPRAYED NANO-CERIA-ALUMINA COMPOSITE COATINGS FOR CATALYTIC CONVERSION OF COMBUSTION GASES, Funded by ONRG, Total Cost Rs. 2144878.
17. DEVELOPMENT OF BRAZING ALLOYS AND TECHNIQUES FOR TI-BASED ALLOYS, Funded by STC, Total Cost Rs. 1495200.
18. ROLE OF PARTICLE SIZE OF YTTRIA STABILIZED ZIRCONICA ON THE WEAR RESISTANCE OF THE PLASMA SPRAYED ALUMINIUM OXIDE COATINGS, Funded by STC, Total Cost Rs. 1358400.
19. SATELLITE FORMATION-KEEPING CONTROL, Funded by STC, Total Cost Rs. 2157600.
20. TOTAL VARIATION AND COMPRESSION SENSING FOR L1 REGULARIZATION BASED IMAGE/VIDEO RESTORATION, Funded by STC, Total Cost Rs. 1467600.
21. EXCIMER LASER MICROMACHINING FOR MHMIC, Funded by STC, Total Cost Rs. 3453600.
22. CREATION OF HETEROGENEOUS PINNING IN IRON PNICTIDES AND CUPRATE SUPERCONDUCTORS BY INTRODUCING NANOPATTERNED PINS, Funded by DST, Total Cost Rs. 257000.
23. ORGANIC FUNCTIONAL MATERIALS WITH A RATIONAL DESIGN OF MOLECULAR BUILDING BLOCKS, Funded by SERB, Total Cost Rs. 8282000.
24. DEVELOPMENT OF A COMMON RAIL INJECTION SYSTEM FOR A CONSTANT SPEED COMPRESSION IGNITION ENGINE, Funded by CSIR, Total Cost Rs. 1468000.
25. LASER IGNITION OF NATURAL GAS FUELLED SINGLE CYLINDER ENGINE, Funded by SERB, Total Cost Rs. 3800000.
26. SELF ASSEMBLY OF TWO DIMENSIONAL COLLOIDAL CRYSTALS IN LANGMUIR MONOLAYERS AT THE AIR WATER INTERFACE, Funded by DST, Total Cost Rs. 2310000.
27. UNDERSTANDING PLANT NEMATODE INTERACTION: IDENTIFICATION OF PLANT AND NEMATODE GENES INVOLVED IN DISEASE DEVELOPMENT, Funded by ICAR, Total Cost Rs. 6341280.
28. MECHANISTIC INVESTIGATION OF PLANT GROWTH STIMULATION BY WATER SOLUBLE CARBON NANOTUBES, Funded by SERB, Total Cost Rs. 2000000.
29. DESIGN AND SYNTHESIS OF FUNCTIONALIZED PEPTIDE SCAFFOLDS FOR PROTEIN PRENYLTRANSFERASES INHIBITION: POTENTIAL CANCER CHEMOTHERAPEUTICS, Funded by SERB, Total Cost Rs. 2690000.
30. SYNTHETIC JET ACTUATOR FOR DRAG REDUCTION OF UNDERWATER VEHICLES, Funded by NRB, Total Cost Rs. 4910000.
31. UTILIZATION OF WASTED GROUNDNUT SHELL FOR THE DEVELOPMENT OF NATURAL POLYMERIC COMPOSITES AND THEIR MECHANICAL PROPERTIES, DRILLING AND TRIBOLOGICAL STUDIES, Funded by DST, Total Cost Rs. 412000.
32. DEVELOPMENT OF A 3-D PARALLELIZED COMPRESSIBLE FVM CODE FOR SIMULATION OF MULTISPECIES NON REACTING FLOWS IN GAS TURBINE COMBUSTOR, Funded by AERB, Total Cost Rs. 1200800.
33. COMMERCIAL PROTOTYPE DEVELOPMENT AND TESTING OF RURAL POWER PLANT WITH VMC, Funded by BITCOE, Total Cost Rs. 1125000.
34. SYNTHESIS OF HIGHLY SUBSTITUTED INDOLE DERIVATIVES, Funded by CDRI, Total Cost Rs. 550000.
35. PHYSICO-CHEMICAL CHARACTERIZATION OF NANO PARTICLE EMANATING FROM DIESEL ENGINES (MINERAL DIESEL AND B20 FUELED) AND THEIR CONTROL USING DIESEL OXIDATION CATALYSTS, Funded by SERB, Total Cost Rs. 4100000.
36. GENERATION OF TOOLS TO FACILITATE THE STUDY OF VISUAL PATHWAY DEVELOPMENT IN EMBRYONIC CHICKEN, Funded by CSIR, Total Cost Rs. 1400000.
37. STATICS AND DYNAMICS OF MICRO DROPLETS FORMED ON TEXTURED SURFACES DURING CONDENSATION, Funded by BRNS, Total Cost Rs. 2500000.
38. PREVENTION OF ANTIBIOTIC RESISTANT BACTERIAL BIOFILM FORMATION BY USING LYITIC BACTERIOPHAGES ON A TOPOGRAPHICALLY PATTERNED SUBSTRATE, Funded by SERB, Total Cost Rs. 2500000.
39. DESIGN OF A LAYERED 3-D COMPOSITE SCAFFOLD FOR AETICULAR CARTILAGE TISSUE ENGINEERING, Funded by SERB, Total Cost Rs. 4661000.
40. DYNAMICS AND PHASE BEHAVIOUR OF ANISOTROPIC SOFT MATERIALS, Funded by DAE, Total Cost Rs. 9996400.
41. MODEL BASED TOMOGRAPHIC SUBSURFACE SOIL CHARACTERIZATION, Funded by STC, Total Cost Rs. 968400.
42. METAMATERIALS AND PLASMONIC STRUCTURED MATERIALS FOR CONTROLLING RADIATION, Funded by DRDO, Total Cost Rs. 28100000.
43. PHOTONIC CRYSTAL BASED DEVICES FOR LIGHT CONTROL, Funded by DRDO, Total Cost Rs. 29800000.
44. FEMTOSECOND STUDY OF METAL COMPLEXES, GREEN FLUOROSCENT PROTEIN AND RELATED MOLECULES, Funded by SERB, Total Cost Rs. 10140400.
45. CREATING A INTERNATIONAL PROGRAM FOR SUSTAINABLE INFRASTRUCTURE DEVELOPMENT UNDER OBAMA-SINGH 21ST CENTURY KNOWLEDGE INITIATIVE (OSI) GRANT, Funded by UGC, Total Cost Rs. 12280800.
46. AAKASH LAB, Funded by MHRD, Total Cost Rs. 7500000.
47. DEVELOPMENT OF VIDEO AND ANIMATED SCENARIOS FOR SJT AS PART OF DE-NOVO SELECTION SYSTEM FOR SELECTION OF OFFICERS FOR THE INDIAN ARMED FORCES UNDER SUB PROGRAMME-I, Funded by DIPR, Total Cost Rs. 1123200.
48. A NOVEL EFFICIENCY MICRO-SCALE GENE TRANSFECTION SYSTEM USING NANOENERGETIC MATERIALS, Funded by SERB, Total Cost Rs. 3011490.
49. A NOVEL BIOSENSOR FOR RAPID AND SENSITIVE DETECTION OF MICRO-ORGANISMS IN FOOD AND WATER SAMPLES USING NOVEL NONMATERIAL, Funded by DBT, Total Cost Rs. 4441900.
50. WIND TUNNEL TEST ON RLV-TD-FADS, Funded by VSSC, Total Cost Rs. 997000.
51. DEVELOPMENT OF A HIGH VOLUME IMPACTION BASED PM2.5 SAMPLER, Funded by BRNS, Total Cost Rs. 2374100.
52. WIND TUNNEL TEST ON PSLV-XL, Funded by VSSC, Total Cost Rs. 1372000.
53. FLOOD DISASTER AND MANAGEMENT INDIAN SCENARIO, Funded by BSDMA, Total Cost Rs. 94300.
54. INVESTIGATION OF SLIP-LENGTH OF NEWTONIAN FLUIDS FROM DEWETTING DYNAMICS IN TRIANGULAR GROOVES, Funded by SERB, Total Cost Rs. 2244000.
55. MULTI-LAYER MULTI-PERMITTIVITY DIELECTRIC ANTENNA FOR WIDEBAND APPLICATIONS, Funded by SERB, Total Cost Rs. 4126300.
56. INTERFACE STRENGTH CHARACTERIZATION OF THIN FILM USING LASER INDUCED STRESS WAVES, Funded by ARDB, Total Cost Rs. 2651800.
57. SYNTHESIS AND CHARACTERIZATION OF CELLULOSE CLAY NANOCOMPOSITES, Funded by SERB, Total Cost Rs. 3517500.
58. UNRAVELING THE ROLE OF GLUCOSE METABOLISM IN NEURODEGENERATIVE DISORDERS, Funded by DBT, Total Cost Rs. 5848000.
59. HIGH LIFT AERODYNAMICS PROJECT YEAR-4, Funded by BOEING, Total Cost Rs. 2435643.
60. DEVELOPMENT AND ANALYSIS OF NOVEL INHIBITORS AGAINST M.TUBERCULOSIS GLMU, Funded by OSDDU, Total Cost Rs. 3832000.
61. WATER QUALITY SURVEILLANCE AND SUPPORTIVE SUPERVISION IN DRINKING WATER SECTOR IN UP, Funded by UNICEF, Total Cost Rs. 1555000.
62. SPATIO-TEMPORAL FACE RECOGNITION USING KEY-FRAMES IN VIDEO FOR SURVEILLANCE, Funded by BRNS, Total Cost Rs. 2136300.
63. CNT REINFORCED COMPOSITES FOR STRUCTURAL APPLICATIONS, Funded by STC, Total Cost Rs. 5899000.
64. ORGANIZING A WORKSHOP OF THE INSTITUTE/ COLLEGES, Funded by MHRD, Total Cost Rs. 200000.
65. LOW SPEED WIND TUNNEL TESTING OF PDV MISSILE AT HIGH ANGLES OF ATTACK, Funded by DRDL, Total Cost Rs. 1955000.
66. DEVELOPMENT OF NB-BASED HIGH STRENGTH ULTRAFINE IN-SITU COMPOSITES FOR HIGH TEMPERATURE APPLICATION, Funded by BRNS, Total Cost Rs. 5016000.
67. INDIA-UK ADVANCED TECHNOLOGY CENTRE (IUATC) PHASE II, Funded by DST, Total Cost Rs. 3124000.
68. INDIA-UK ADVANCED TECHNOLOGY CENTRE (IU-ATC PHASE 2) OF EXCELLENCE IN NEXT GENERATION NETWORKS SYSTEMS AND SERVICES, Funded by DST, Total Cost Rs. 5769000.
69. ROLE OF SHAPE IN DAMPING OF METALLIC COMPONENTS, Funded by SERB, Total Cost Rs. 600000.
70. J.C.BOSE FELLOWSHIP, Funded by SERB, Total Cost Rs. 6625000.
71. INDIA-UK ADVANCED TECHNOLOGY CENTRE (IU-ATC PHASE 2) OF EXCELLENCE IN NEXT GENERATION NETWORKS SYSTEMS AND SERVICES, Funded by DST, Total Cost Rs. 1281000.
72. INDIA-UK ADVANCED TECHNOLOGY CENTRE (IU-ATC PHASE 2) OF EXCELLENCE IN NEXT GENERATION NETWORKS SYSTEMS AND SERVICES, Funded by DST.
73. DEVELOPMENT OF NEW GENERATION PALLADIUM CATALYZED COUPLING REACTIONS USING TRIARYLBISMUTHS AND THEIR APPLICATIONS TO ORGANIC SYNTHESIS, Funded by CSIR, Total Cost Rs. 1800000.
74. VIBRATION MITIGATION OF POWER PLANT CHIMNEYS: ANALYTICAL AND WIND TUNNEL STUDY, Funded by TCE, Total Cost Rs. 1820232.
75. COMPLEX BIOINSPIRED SYSTEMS, Funded by DAE, Total Cost Rs. 1000000.
76. SYNTHESIS OF MARINE BIOACTIVE PEPTIDES/ BIOMOLECULES AND THEIR ANALOGS, Funded by MOES, Total Cost Rs. 4496000.
77. RAMANUJAN FELLOWSHIP, Funded by SERB, Total Cost Rs. 2800000.
78. DESIGN, SYNTHESIS AND INVESTIGATIONS OF NOVEL SUPERCONDUCTING AND MAGNETIC MATERIALS, Funded by CSIR, Total Cost Rs. 4292000.
79. FABRICATION OF MICROCHANNELS WITH NANOFINISH ON SS304, Funded by BARC, Total Cost Rs. 4376350.
80. OPTIMAL STRATEGIES FOR RELIABLE SERVICE IN MIMO-OFDM MULTIUSER CELLULAR BROADCAST SYSTEMS, Funded by IITCOE, Total Cost Rs. 600000.
81. DEVELOPMENT OF MODIFIED IBXS WITH ENHANCED REACTIVITY AND CHIRAL IBXS FOR ASYMMETRIC SYNTHESIS, Funded by CSIR, Total Cost Rs. 2200000.
82. HYBRID SOURCES FOR POWERING BASE STATIONS: A FEASIBILITY STUDY, Funded by BITCOE, Total Cost Rs. 585000.
83. TESTING AND TRAJECTORY ANALYSIS OF DFDR, Funded by HAL, Total Cost Rs. 625000.
84. PHOTORESPONSIVE METAL-ORGANIC FRAMEWORKS (MOFS) BASED ON DE NOVO DESIGN OF ORGANIC MOLECULAR BUILDING BLOCKS (MBBS), Funded by DAE, Total Cost Rs. 2452500.
85. DEVELOPMENT OF HIGH STRENGTH IN-SITU NANOCOMPOSITE FOR AEROSPACE AND DEFENSE APPLICATIONS, Funded by INSA, Total Cost Rs. 500000.
86. DESIGN AND SYNTHESIS OF NEW MOLECULES FOR THE DETECTION OF CHEMICAL WARFARE AGENTS AND FOR THE REACTIVATION OF ENZYMES INHIBITED BY ORGANOPHOSPHONATES, Funded by ER&IPR, Total Cost Rs. 2550000.
87. HYBRID CONVERTER TOPOLOGIES FOR A DC BASED POWER DISTRIBUTION, Funded by SERB, Total Cost Rs. 1872000.
88. RAILWAY TECHNOLOGY CELL (MECHANICAL), Funded by RDSO, Total Cost Rs. 2885496.
89. DEVELOPMENT OF THERMAL HYDRAULICS MODEL AND COUPLING OF 3D KINETICS CODE, Funded by AERB, Total Cost Rs. 1967740.
90. INTER DIFFUSION BETWEEN THERMAL BARRIER COATING & BOND COATS: GROWTH KINETICS OF THERMALLY GROWN OXIDES, Funded by GE, Total Cost Rs. 1100000.
91. INSPIRE FACULTY FELLOWSHIP: QUANTUM TRANSPORT AND MANY BODY PHYSICS IN LOW DIMENSIONAL SYSTEMS, Funded by DST, Total Cost Rs. 3500000.
92. FEASIBILITY ANALYSIS FOR FLAW DETECTION IN ROTORS USING ACOUSTIC IMPEDANCE APPROACH, Funded by DAE, Total Cost Rs. 2292200.
93. GEO-TECHNICAL ENGINEERING WITH REFRENCE TO FORMATION, Funded by RDSO, Total Cost Rs. 2581347.
94. Delineating the link between Connexins and toll like receptors in delayed diabetic wound healing, Funded by DST, Total Cost Rs. 1900000.
95. An independent stair climbing wheel chair (Manual) for up/down climbing, Funded by DST, Total Cost Rs. 4923312.
97. Understanding the self assembly behaviour of amphiphilic molecules on surfaces, Funded by SERB, Total Cost Rs. 5494400.
98. Performance evaluation and robust design optimization of shape memory alloy based isolation system, Funded by SERB, Total Cost Rs. 1764000.
99. Exhibition cum scientific display on the occasion of Kumbh-2013, Funded by MOEF, Total Cost Rs. 400000.
100. Installation of zero discharge toilet system (ZDTS) at Kumbh 2013, Allahabad, Funded by HUDCO, Total Cost Rs. 6545000.
101. Intelligent devices and smart actuators, Funded by CMERI, Total Cost Rs. 2174000.
102. Experimental investigations of HCCI/PCCI combustion in a single cylinder research engine using biodiesel, Funded by DST, Total Cost Rs. 15748000.
103. Development of fluidic thrust vectoring capability for aura high aspect ration fixed nozzle, Funded by ADA, Total Cost Rs. 3840000.
104. Modelling relative impact of aerosol and LULC changes on regional climate of Ganga basin, Funded by DST, Total Cost Rs. 4080400.
105. Reversals of a large scale field on a turbulent background, Funded by IFCPAR, Total Cost Rs. 1417000.
106. Development of personalised and performance based e-learning tool for existing e-resources, Funded by DEITY, Total Cost Rs. 3000000.
107. Bio-incubator facility at SIDBI innovation & incubation centre, Funded by BIRAC, Total Cost Rs. 8837160.
108. Phase-II expanded proposal on design of active flexible and re-configurable parabolic antenna using SMA based smart actuators, Funded by STC, Total Cost Rs. 2161000.
109. EFFECTS OF HEAT TREATMENT ON THE MECHANICALLY PROCESSED RUSSIAN GRADE 12X21H5T DUPLEX-STEEL, Funded by STC, Total Cost Rs. 1456000.
110. TRUST INFORMATION PRIVACY AND SYSTEM SECURITY IN ERP PROJECTS, Funded by RCI, Total Cost Rs. 876000.
111. INDOOR: HYDROLOGIC SENSITIVITY TO CRYOSPHERE-AEROSOL INTERACTION IN MOUNTAIN PROCESSES (HYCAMP), Funded by DST, Total Cost Rs. 3849760.
112. EXPERIMENTAL DATA GENERATION ON A FLYING WING CONFIGURATION FOR VALIDATION OF INDIGENEOUS CFD CODES, Funded by ARDB, Total Cost Rs. 3474000.
113. FRACTURE INTRANSVERSELY LAYERED AND GRADED PLATES UNDER STATIC AND DYNAMIC LOADING, Funded by ARDB, Total Cost Rs. 1613000.
114. AERODYNAMIC SHAPE OPTIMIZATION FOR UNSTEADY FLOWS, Funded by ARDB, Total Cost Rs. 1851000.
115. LOCALIZED SUBSURFACE MODIFICATION USING LOW ENERGY MULTIPLE ION BEAMLETS FOR TAILORING ELECTRICAL AND OPTICAL PROPERTIES OF MATERIALS AT MICRON SCALES, Funded by SERB, Total Cost Rs. 3566000.
116. HELICENES AND THEIR IMPORTANCE AS APPLIED TO BIOLOGICAL ACTIVITY, Funded by CDRI, Total Cost Rs. 550000.

B. International Projects:

1. SUSTAINABLE MANAGEMENT OF THE GANGA RIVER BASIN THROUGH SCIENTIFIC INNOVATION, Funded by UKIERI, Total Cost Rs. 1591606.
2. PRECIPITATION IN ALUMINIUM ALLOYS FOR ELEVATED TEMPERATURE STRENGTH, Funded by GMMOTO, Total Cost Rs. 1090584.
3. DEVELOPING LOW CARBON CITIES IN INDIA: FOCUS ON URBAN INFRASTRUCTURES, CLIMATE RISKS & VULNERABILITY, Funded by USAID, Total Cost Rs. 6479510.

Consultancy Projects:

A. National Projects:

1. GROUND PENETRATING RADAR (GPR) INVESTIGATION ON WELL FOUNDATION OF BRIDGE OVER YAMUNA RIVER NEAR SHERGARH, DISTRICT-MATHURA, Funded by PWD, Total Cost Rs. 1483838.
2. WIND TUNNEL MODEL STUDY FOR NCDT PRAYAGRAJ TPS, Funded by Paharpur Cooling Towers, Total Cost Rs. 2696640.
3. WIND TUNNEL STUDY OF CHIMNEY FOR SKS TPS, Funded by Cethar Constructions, Total Cost Rs. 1220098.
4. WIND TUNNEL STUDY OF CHIMNEY FOR KRISHNAPATNAM TPS, Funded by BGR Energy Systems, Total Cost Rs. 1323600.
5. WIND TUNNEL STUDY OF CHIMNEY FOR HALDIA TPS, Funded by Bharat Forge, Total Cost Rs. 764379.
6. LOW SPEED WIND TUNNEL TEST ON HELINA MISSLIE, Funded by DRDL, Total Cost Rs. 1320000.
7. EVALUATION OF IN-SITU CONCRETE OF PRE-STRESSED CONCRETE SILO, Funded by Prism Cement, Total Cost Rs. 898880.
8. CARBON CAPTURE AND STORAGE, Funded by Siva Ventures, Total Cost Rs. 150000.
9. ANALYSIS OF COMBUSTION PRODUCTS FROM BURNING OF INCENSE, Funded by Damodar Threads Ltd, Total Cost Rs. 20000.
10. WIND TUNNEL STUDY OF NDCT FOR JAYPEE NIGRIE SUPER TPP MP, Funded by Gammon India Ltd, Total Cost Rs. 463260.
11. WIND TUNNEL STUDY OF NDCT FOR GMR CHATTISGARH, RAIGARH, Funded by Gammon India Ltd, Total Cost Rs. 463260.
12. HIGH SPEED WIND TUNNEL TESTING OF 120MM FSAPDS MK-II AMMUNITION, Funded by ARDE, Total Cost Rs. 868000.
13. WIND TUNNEL MODEL STUDY OF CHIMNEY FOR TUTICORIN TPS, Funded by Ind Bharat Power Ltd, Total Cost Rs. 1179780.
14. CONSULTANCY FOR RAISING OF ASH DYKES AT STPS, SARNI, Funded by MPPGCL, Total Cost Rs. 344688.
15. HYDRAULIC MODEL STUDIES OF THE PIPRA GHAT BRIDGE PROPOSED ON RIVER RAPTI IN BALRAMPUR, Funded by PWD, Total Cost Rs. 1654500.
16. DEVELOPING TECHNOLOGY FOR MOTION CORRECTION DURING LASER SCANNING, Funded by DRDO, Total Cost Rs. 2274938.
17. ANALYSIS FOR GUN BARREL AND BULGE PROBLEM, Funded by Ordnance Factory, Total Cost Rs. 776800.
18. SITE VISIT TO SAURASHTRA CEMENTS LIMITED, RANAVAV, GUJARAT REGARDING INITIATION OF A CONSULTING PROJECT ON MASONRY CEMENT & READY-MIX MORTAR, Funded by Saurashtra Cements, Total Cost Rs. 112360.
19. EXPERT OPINION ON I-SBR TECHNOLOGY, Funded by Delhi Jal Board, Total Cost Rs. 544946.
20. DEVELOPMENT OF ENGINEERING CURRICULUM, Funded by Limitless Education Foundation, Total Cost Rs. 600000.
21. CONSULTANCY ON ACADEMIC PROCESSES, Funded by Limitless Education Foundation, Total Cost Rs. 127405.
22. WIND TUNNEL STUDY OF CHIMNEY FOR SINGRAULI, Funded by Gammon India Ltd, Total Cost Rs. 489732.
23. FEASIBILITY STUDY TO RUN THE STATE TUBEWELLS IN UP BY USING SCADA, Funded by Irrigation, Total Cost Rs. 137875.
24. PROTECTIVE ENVIRONMENT IN SCHOOLS: A STUDY OF SONBHADRA, MIRZAPUR, JAUNPUR AND MORADABAD, Funded by WIZMIN Management Consultant, Total Cost Rs. 25000.
25. AGGREGATE JOB MIX FORMULA, Funded by IRCON International, Total Cost Rs. 59000.
26. WIND TUNNEL MODEL STUDY OF GAIL INDIA COMPLEX, Funded by Specialities Aluminium Grills, Total Cost Rs. 1797760.
27. APPROACHES TO RURAL DEVELOPMENT, Funded by WIZMIN Management Consultant, Total Cost Rs. 150000.
28. PROTECTIVE ENVIRONMENT IN SCHOOLS, Funded by WIZMIN Management Consultant, Total Cost Rs. 25000.
29. WIND TUNNEL STUDY OF NCDT FOR 2 X 685 MW GMR, CHATTISGARH, Funded by Gammon India Ltd, Total Cost Rs. 1080940.
30. WIND TUNNEL STUDY OF CHIMNEY FOR 4X600 MW OP JINDAL TPP, Funded by Gammon India Ltd, Total Cost Rs. 1125060.
31. WIND TUNNEL STUDY OF NDCT FOR 4X600 MW OP JINDAL TPP, Funded by Gammon India Ltd, Total Cost Rs. 2625140.
32. WIND TUNNEL STUDY OF CHIMNEY FOR GMR TPP AT CHATTISGARH, Funded by Gammon India Ltd, Total Cost Rs. 849310.
33. STRUCTURAL STABILITIES, SPECTRAL AND OPTICAL PROPERTIES OF CORE AND SHELL NANOCORE CLUSTERS USING MOLECULAR TAILORING APPROACH (MTA), Funded by Samsung, Total Cost Rs. 561800.
34. NON-LINEAR MODELING, SIMULATION AND INSTRUMENTATION THROUGH FLIGHT TRIAL DATA ACQUISITION AND DATA ANALYSIS AND TRIAL OF 2000 CUM AEROSTAT, Funded by ADRDE, Total Cost Rs. 8708000.
35. WIND TUNNEL STUDY OF WBL PANTOGRAPH AT NWTF IIT KANPUR, Funded by Schunk Metal and Carbon, Total Cost Rs. 308990.
36. WIND TUNNEL STUDY OF TWENTY SIDED HIGH MAST STANDARD, Funded by Valmont Structures, Total Cost Rs. 533710.
37. WIND TUNNEL STUDY OF CHIMNEY FOR SINGRAULI, Funded by Gammon India Ltd, Total Cost Rs. 833868.
38. PEER REVIEW OF 14-STOREYED BUILDINGS AT CUTTAK, Funded by Dion Infratech, Total Cost Rs. 180000.
39. WIND TUNNEL STUDY OF NDCT FOR KRISHNAPATNAM SUPER CRITICAL TPP, NELLORE, Funded by BGR Energy Systems, Total Cost Rs. 1654500.
40. ASSESSMENT OF THE ONLINE SERVICES UNDER MISSION MODE PROGRAMME OF COMMERCIAL TAXES DEPARTMENT OF UP, Funded by National Information Centre Services, Total Cost Rs. 1094500.

41. CONSULTANCY REGARDING 8 LANING OF LOHIA PATH AT LUCKNOW, Funded by PWD, Total Cost Rs. 30000.

42. CONSULTANCY FOR STRENGTHENING OF EOT CRANE STRUCTURE (CLINKER YARD) TO MINIMIZE THE VIBRATIONS AT THE JK CEMENT WORKS, NIMBAHERA RAJASTHAN, Funded by JK Cement, Total Cost Rs. 1334275.

43. WIND TUNNEL STUDY OF CHIMNEY FOR 2X660 MW TPS AT BANKA, Funded by Simple Infrastructures, Total Cost Rs. 1235960.

44. WIND TUNNEL STUDY OF CHIMNEY OF BSEB, BARAUNI TPS, Funded by BHEL, Total Cost Rs. 1213300.

45. SKIN REPLICAS, Funded by UNILEVER, Total Cost Rs. 2809000.

46. LIDAR DATA SPECIFICATION AND ACCURACY METHODOLOGY, Funded by NGRI, Total Cost Rs. 331813.

47. PEER REVIEW OF STRUCTURAL DESIGN AND RETROFIT OPTIONS FOR 1200 BED NEW CIVIL HOSPITAL, AHMEDABAD, Funded by PIU, Total Cost Rs. 4044960.

48. WIND TUNNEL STUDY OF CHIMNEY FOR CUDDALORE AT NWTF, IIT KANPUR, Funded by L&T, Total Cost Rs. 1061802.

49. GPR SURVEY AT SUBHASH PARK, DELHI, Funded by ASI, Total Cost Rs. 1404500.

50. DESIGN & ANALYSIS OF TRUMPETS, Funded by MINDA, Total Cost Rs. 386238.

51. AUDIT FOR IPV6 READINESS IN CVC, Funded by BITCOE, Total Cost Rs. 74157.

52. WIND TUNNEL STUDY OF CHIMNEY FOR LALITPUR, Funded by Simple Infrastructures, Total Cost Rs. 1323600.

53. WIND TUNNEL STUDY OF KRESCENT HOMES RESIDENTIAL AT NOIDA, Funded by Jaiprakash Associates, Total Cost Rs. 2217030.

54. WIND TUNNEL STUDY OF NDCT & CHIMNEY FOR NELLORE TPS, Funded by Nagarjun Construction Company, Total Cost Rs. 2921360.

55. MODEL DESIGN, DATA ANALYSIS AND REPORTING FOR L&T VISA POWER TPS AT CHATTISGARH, Funded by L&T, Total Cost Rs. 404496.

56. GENERATING 3D CITY MODEL FOR REQUIREMENT OF ANURAG, Funded by ANURAG, Total Cost Rs. 873745.

57. IMPROVING AGRICULTURE PRODUCTIVITY THROUGH INFORMATION SYSTEM, Funded by Swiss KFH-DC, Total Cost Rs. 921827.
59. VILLAGE LEVEL DEVELOPMENT STUDIES SOUTH ASIA-VDSA, Funded by ICRISAT, Total Cost Rs. 750000.
60. BSNL MOBILE CELLULAR NETWORK OPTIMIZATION, Funded by BITCOE, Total Cost Rs. 988768.
61. PERFORMANCE OF ACCESS POINTS AND SHIELDED CHAMBER, Funded by Air Tight Networks, Total Cost Rs. 200000.
62. SIMULATION OF CONSTANT V/F CONTROL OF INDUCTION MOTOR DRIVE, Funded by Lohia Sterlinger Limited, Total Cost Rs. 276000.
63. OPTIMIZATION OF MELTING PARAMETERS FOR THE SYNTHESIS OF AB5 TYPE BINARY ALLOYS, Funded by Thermax, Total Cost Rs. 101124.
64. TYRE NOISE REDUCTION INITIATIVE, Funded by CEAT, Total Cost Rs. 1601130.
65. RHEOLOGY OF SURFACTANT PASTE, Funded by UNILEVER, Total Cost Rs. 1123600.
66. STUDIES ON VOLTAGE STABILITY AND SMALL SIGNAL OSCILLATION MONITORING OF POWER SYSTEMS, Funded by GE, Total Cost Rs. 1039330.
67. WIND TUNNEL STUDY OF CHIMNEY FOR SIKKA TPS, Funded by BHEL, Total Cost Rs. 1213300.
68. DEVELOPMENT OF MASONRY CEMENT & READY-MIX MORTAR, Funded by Saurashtra Cements Ltd, Total Cost Rs. 1123600.
69. TECHNOLOGY AND MANAGEMENT ROADMAP FOR UPSRTC CENTRAL WORKSHOP, Funded by UPSRTC, Total Cost Rs. 3623610.
70. EVALUATION OF DESIGN PARAMETERS FOR BRICK MASONRY, Funded by IITG, Total Cost Rs. 280900.
71. RETROFITTING OF TRAUMA CENTER OF CIVIL HOSPITAL, AHMEDABAD, Funded by PIU, Total Cost Rs. 3370800.
72. SITE VISIT TO LOHIA PATH LUCKNOW, Funded by PWD, Total Cost Rs. 25000.
73. ASSESSMENT OF ENVIRONMENTAL FLOWS FOR KUMBH 2013 AT ALLAHABAD, Funded by WWF, Total Cost Rs. 867690.
74. STUDY OF MEDIUM VOLTAGE UPS TOPOLOGIES, Funded by GE Global Research, Total Cost Rs. 442418.
75. TOPOGRAPHICAL MAPPING AND HYDRAULIC DESIGN, Funded by NTPC, Total Cost Rs. 1123600.
76. REPORT ON NAPHTHA PRODUCED AS BYE-PRODUCT OF THE MAIN PRODUCT LPG, Funded by GAIL, Total Cost Rs. 250000.
77. APPROVAL OF POLE & TOWER DRAWING, Funded by JPC, Total Cost Rs. 46415.
78. EVALUATION OF BUILDING USING REINFORCED CONCRETE BLOCKS (RCB), Funded by Sahara Prime City Ltd, Total Cost Rs. 898880.
<table>
<thead>
<tr>
<th>No.</th>
<th>Title of Project</th>
<th>Funded by</th>
<th>Total Cost (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>79</td>
<td>OPTIMIZATION OF HIGHER LAYER NETWORK MANAGEMENT, Funded by WESEE</td>
<td></td>
<td>400283</td>
</tr>
<tr>
<td>80</td>
<td>A STUDY FOR THE SELF SUSTAINABILITY OF A WATER BODY PROPOSED IN THE JANESWAR MISHRA LUCKNOW PARK</td>
<td>LDA</td>
<td>724426</td>
</tr>
<tr>
<td>81</td>
<td>SITE VISIT IN CONNECTION WITH SUBSOIL INVESTIGATION AT YOJANA NO.3 KANPUR</td>
<td>UPAV</td>
<td>16143</td>
</tr>
<tr>
<td>82</td>
<td>WIND INDUCED STRUCTURAL RESPONSES &amp; CLADDING PRESSURES OF HIGH-RISE (145M) RESIDENTIAL INTER CONNECTED TOWERS</td>
<td>IREO</td>
<td>2449448</td>
</tr>
<tr>
<td>83</td>
<td>CONSULTANCY FOR CAPACITY VERIFICATION TESTS ON POT CUM PTFE BEARINGS OF CHAMBAL BRIDGE, DHOLPUR</td>
<td>PNC</td>
<td>449440</td>
</tr>
<tr>
<td>84</td>
<td>WIND TUNNEL STUDY ON A RIGID MODEL OF NDCT FOR 1X500 MW BHEL/DVC BOKARO, JHARKHAND</td>
<td>PAHarpur Cooling Towers</td>
<td>1123600</td>
</tr>
<tr>
<td>85</td>
<td>SITE VISIT FOR SUBSOIL INVESTIGATION ON RAPTI MAIN CANAL (KM 75-126) AT BASTI</td>
<td>RNNM</td>
<td>14537</td>
</tr>
<tr>
<td>86</td>
<td>CLARIFICATION ON NATIONAL BUILDING CODE OF INDIA</td>
<td>Mukesh &amp; Associates</td>
<td>28090</td>
</tr>
<tr>
<td>87</td>
<td>CONSULTANCY FOR VETTING OF ESTIMATED COST FOR THE CONSTRUCTION OF PROPOSED HOSPITAL BUILDING OF CANTMENT BOARD</td>
<td>CB</td>
<td>54073</td>
</tr>
<tr>
<td>88</td>
<td>CONCRETE MIX DESIGN STUDIES</td>
<td></td>
<td>1500000</td>
</tr>
<tr>
<td>89</td>
<td>FEASIBILITY STUDY FOR RIVERFRONT DEVELOPMENT ALONG THE BANK OF RIVER GANGA IN KANPUR</td>
<td>KDA</td>
<td>1467703</td>
</tr>
<tr>
<td>90</td>
<td>HYDRAULIC MODEL STUDY OF THE PROPOSED EMBANKMENT PARALLEL TO THE EXISTING RIGHT EMBANKMENT UPSTREAM OF THE GANGA BARRAGE IN KANPUR</td>
<td>UPIRRI</td>
<td>1685400</td>
</tr>
<tr>
<td>91</td>
<td>STUDY OF PAVEMENT DISTRESS ON STATE HIGHWAY NO-13 A FROM KM 312-320</td>
<td>PWD</td>
<td>30000</td>
</tr>
<tr>
<td>92</td>
<td>AIR QUALITY MODELLING OF 355 MW POWER PLANT</td>
<td>Green Circle Inc</td>
<td>157304</td>
</tr>
<tr>
<td>93</td>
<td>ANALYSIS FOR RAISING OF ASH DYKE NO.7</td>
<td>BALCO</td>
<td>421350</td>
</tr>
</tbody>
</table>

B. International Projects:

1. DATA FOR JETS AND SPRAYS IN CROSS FLOW, Funded by P&W, Total Cost Rs. 3634165.
2. A DEDUCTIVE VERIFICATION TOOL FOR LOW LEVEL SOFTWARE, Funded by INTEL, Total Cost Rs. 19000.
3. FABRICATION OF TWO SPIDER PROBES FOR MEASUREMENT OF ION BEAMS AND CHARACTERIZATION, Funded by IDMC, Total Cost Rs. 72500.
4. ATMOSPHERIC BROWN CLOUDS (ABC), Funded by RRCAP, Total Cost Rs. 267526.
5. DESIGN OF A SOLAR STILL FOR WATER SOFTENING, Funded by ANGLO, Total Cost Rs. 560000.
6. PARAMETER ESTIMATION THROUGH INFILTRATION EXPERIMENTS AND ELECTRICAL RESISTIVITY MEASUREMENTS, Funded by HGS, Total Cost Rs. 274575.
7. SUPERMACROPOROUS HYBRID POLYMERICs FOR EFFICIENT REMOVAL OF ENDOCRINE DISRUPTORS AND OTHER WATER POLLUTANTS, Funded by SAMSUNG, Total Cost Rs. 6875000.
Alumni Association Activities

Major Activities

1. Reunions

i. Golden Jubilee Reunion Batch-of-1962

The Golden Jubilee Reunion of the Batch-of-‘62 was held from November 23 to 25, 2012. All alumni who entered the Institute in 1962 and graduated in 1967 were invited. Around 50 alumni of the third batch visited the Institute along with their family members. The reunion was inaugurated by Director, Prof. Indranil Manna. The Deans, HODs and faculty members also interacted with the alumni. They had earlier donated funds for the creation of Park ’67 and they erected an iron plate engraved with the names of all donors.

ii. Silver Jubilee Reunion Class-of-1988

The Silver Jubilee Reunion of the class-of-‘88 was held from December 27-29, 2012. Around 75 alumni with their family members visited the Institute on this occasion. They had a formal meeting at Outreach Auditorium with the Deputy Director Prof S. C. Srivastava, former Dean Resource Planning and Generation, Prof. Manindra Agrawal and Secretary, Alumni Association, Prof. Sudhir Misra. They also interacted with faculty, students and staff, visited their respective departments and other facilities like new SAC. The batch had created a souvenir book, of their era. The batch had gave a donation of one crore to their alma mater and donated around 15 lakhs to the Alumni Association also.

iii. 35th Year Reunion Class-of-1978

The 35th Year Reunion of the Class-of-78 was held from January 4-6, 2013. Around 30 alumni with their family members visited the Institute on this occasion. Deputy Director, Prof. S. C. Srivastava welcomed the alumni, Prof. Sudhir Misra, Dean of Resource, Planning and Generation, Prof. Manindra Agrawal joined the Deputy Director in extending a warm welcome to them.

iv. Golden Jubilee Reunion Batch-of-1963

Golden Jubilee Reunion Batch-of-63 was held from March 8-10, 2013 at IIT Kanpur. All the graduates of the Class-of-67, all those who entered in 1963 had been invited. They had brought out a ‘63 Batch Book, “The Frontier Batch: Early days of Kanpur” which
was unveiled in the flyer of Visitor’s Hostel by Prof. Anandakrishnan, Chairman, IIT Kanpur BOG, who had joined as a faculty member in 1963.

2. Nostalgia

The farewell function of the graduating batch of 2012 was held on May 3, 2012. The former Director, Prof. S. G. Dhande, Secretary of Alumni Association, Prof. Sudhir Misra and Treasurer of Alumni Association, Prof. Mukesh Sharma addressed the gathering of students. Prof. Misra read out a message from Prof. Ashok Gupta, the President, Alumni Association, Prof Manindra Agrawal, DRPG, Prof A. K. Ghosh, DOSA and Mr. Abhay Jain, President Student Gymkhana also addressed the outgoing students. All of them wished the students very best for their careers. A video film of the achievements of the graduating students was played on the occasion. All the attendees enjoyed Hi-Tea after the function.

3. Distinguished Alumnus Award, 2012-13

The Distinguished Alumnus Awards (DAA) are given to alumni for their exemplary achievements in their area of work. It is the highest award conferred by the Indian Institute of Technology Kanpur upon its alumni. From among a total of 64 nominations that were considered for the DAA the following are the recipients of these awards for this year.

i. Distinguished Alumnus Award (2012-13)

Dr. Kamal K Sharma (BT/CHE/69), Managing Director, Lupin Limited, Mumbai for Outstanding Managerial Career and contributions to the pharmaceutical industry.
Mr. Bhadersh K Shah (BT/MSE/75), Executive Director, Ahmedabad Induction Alloys (AIA) Engineering Ltd for excellence in Entrepreneurship.
Prof. Keshav Pingali (BT/EE/78), W.A.'Tex' Moncrief Chair of Grid and Distributed Computing and Professor, Computer Science, University of Texas, Austin for his outstanding and seminal Contributions in the field of Computer Science and Engineering
Prof. Sumant Nigam (MSC5/PHY/79), Professor of Atmospheric & Oceanic Sciences, University of Maryland for his outstanding contributions and academic achievements in the area of atmospheric and ocean sciences.
Mr. Naveen Tewari (BT/ME/00), CEO and Founder, InMobi Inc., for his excellence in Entrepreneurship.
Mr. Amit Gupta (BT/EE/00), Co-Founder & VP of Revenue & Operations, InMobi Inc., for his excellence in Entrepreneurship.
Mr. Abhay Singhal (BT/EE/01), Co-founder, VP of Global Sales & MD EMEA, InMobi Inc., for his excellence in Entrepreneurship.

4. Satyendra K Dubey Memorial Award, 2012-13

Satyendra K Dubey (SKD) Memorial Award, instituted in the memory of Mr. Satyendra K. Dubey (BT/CE/1994/IITK) is given for exemplary service and displaying highest professional integrity for upholding human values to an alumnus from any of the IITs. Out of 44 nominations that were considered for Satyendra K Dubey Award, the following is the recipient for this year.

Prof. Trilochan Sastry (BT/IITD/80), Professor of Quantitative Methods & Information Systems, Indian Institute of Management Bangalore for his contributions to bringing about transparency in public life.

5. Chapter activities during 2010-12

i Chapter formation guidelines
The Board of the Alumni Association with the help from Mr Anurag Goel has drafted Chapter formation guidelines, which are acting as pivotal point in activating the chapters and giving them accreditation.

The chapters of Jamshedpur, Chandigarh and Bhubaneswar were successfully launched under this process. The Jamshedpur Chapter also got accreditation and had organized the first chapter get-to-gather on 16th March, 2013. The formation of Gurgaon - Faridabad Chapter is also underway.

ii Chapter Activities
Chapter activities give alumni an opportunity to reconnect, network, and get inspired from the accomplishments of fellow alumni. At the same time, participants get to enjoy great food, games and music. The following chapters had their meeting.

- **Outer Delhi Chapter:** The Outer Delhi Chapter had organized a Felicitation Function of the elected members of the Board of Directors, Alumni Association, IIT Kanpur on Sunday, April 1, 2012 at Vishwakarma Pratham, Faridabad. It had also organized an enlightening and interesting National Seminar on "Innovating with Global Perspective" on Saturday, 3rd November, 2012 at Babu Banarsi Das Institute of Technology. Many distinguished IITK alumni attended this meet.

- **Lucknow Chapter:** Lucknow Chapter had its meet on July 29, 2012 at MB club Lucknow. Around 50 alumni along with their family members had attended this meet. Prof Kripa Shanker, and Prof Sudhir Misra, graced the occasion.
• **Kanpur Chapter:** Mr Yadupati Singania (BT/CE/75) MD and CEO, J K White Cement Ltd. hosted a get-together and dinner for the Kanpur based alumni on October 20, 2012 at Kamal Retreat, Kanpur. Many alumni from the Kanpur region as well as the faculty members of IIT Kanpur attended the meet.

• **Silicon Valley Chapter:** The West Coast Silicon Valley chapter of Alumni Association IIT Kanpur, in association with IIT Kanpur Foundation, hosted its 10th "Annual Leadership Award Banquet Event" on 16th June 2012 at the Computer History Museum in Mountain View, CA, to provide peer recognition to IITK alumni who have demonstrated leadership and with stellar achievements. The former Director, Prof. Sanjay Dhande, the DRPG, Prof. Manindra Agarwal, President IITKAA, Dr. Ashok Gupta and the Secretary IITKAA, Prof. Sudhir Misra graced the event. They presented the "Institute Fellow Award", "Distinguished Alumnus Awards", as well as the "Alumni Leadership Awards".

• **Pune Chapter:** The Pune Chapter of the Alumni Association had a dinner meet on February 2, 2013. The former Director, Prof. Dhande was felicitated and was the chief guest. About 80 Alumni along with their families attended.

6. Alumni Newsletters

Alumni Newsletter, a Newsletter, published in-house by the Alumni Association office has released 6 issues of newsletters during the financial year.

7. Souvenir shop

The alumni Association office has been running a souvenir shop in the premises of Outreach Building, which have grown in terms of the number, quality, and the revenue it generated from the souvenir shop. Looking at the overwhelming response received for the souvenir shop, the alumni association has signed a formal memorandum of understanding with Kansas Manufacturing Private Limited who has been running the shop for the past two and a half year.

8. PAN IIT

The PanIIT Global Conference 2012 was held in Kolkata from December 7-9, 2012. Alumni Association, IIT Kanpur had contributed extensively for the success of this PAN IIT Global conference, right from disseminating information, frequently requesting alumni to register, setting up of stall in the pavilion for showcasing the services being provided to IITK alumni and distributing souvenirs to the delegates who had come from all parts of world. The IITKAA BOD members Prof. Sudhir Misra, Mr. Salil Dave,
Mr. Dharam Vir and Prof Manindra Agarwal along with the staff members from the Alumni Association and the DRPG offices attended the meet.

9. Alumni Database
Alumni Association has made significant progress in enhancing the coverage of Alumni Membership in the Database and updating their contact information. More than 900 members who graduated in 2012 were added into database. The AA office had kept in touch with the graduating batch through emails and posters, informing them about the procedure and benefits of becoming its Life Members. Memorabilia such as Bags, Coffee mugs, Departmental Group photographs of students and faculty members along with Photoframe were gifted to all new members who joined the Association. There are about 17,000 registered members. There are more than 21,000 alumni who are connected either through email-ids or postal address.

10. Auditing
The Auditing of the accounts for the financial year 2011-2012 has been done by M/s Sanjeev Bhargava and Associates. The Balance Sheet has been prepared and the returns have been filed with the Income Tax Dept. as per the law of the land.

II New Initiatives
1. Alumni Networking:
   i. Convention 2013

A Convention of Alumni Association IIT Kanpur was organized on Sunday 3rd March 2013 at IIT Delhi. The Convention was designed to be a common platform where IITK alumni (with families) from all over the world will be able to get together to network and explore how Alumni Association can be more vibrant, relevant and useful for the alumni, IIT Kanpur and the nation. The convention is being organized by Alumni Association IIT Kanpur Outer Delhi Chapter on behalf of the Alumni Association IIT Kanpur.

Nearly 800 alumni including many Distinguished Alumnus Awardees, Padma Awardees, Directors and former Directors of IITs, Board members, Alumni Association and alumni who are leading functionaries in government, public, private and corporate sectors and distinguished in their own fields attended the programme. They met with the current and former faculty members and shared their feelings of their alma mater. DRPG had extended travel support to the retired faculty attending the convention. Dr. D. Subbarao (IITKgp/69, and IITK/71), the RBI Governor was the Chief Guest.
The highlight of the programme was the Felicitation of 2012 Padma Awardees and Past Distinguished Alumnus Awardees. The IIT K alumni who were honored with Padma Bhushan, Prof. Sanjay G Dhande, Prof. Manindra Agrawal and Prof. VijayRaghavan were felicitated. Prof. Rakesh Agrawal, Mr. Sudhir Vyas and Dr. D Subbarao who were awarded with DAAs in the past but were not able to attend the award ceremonies then were also felicitated. They were honored with the awards carrying citations, silver plaque and silk sashes. Prof. Sudhir Misra readout the citations and the awardees gave their acceptance speed.

ii. Mobile Application

The IIT Kanpur Mobile Application was launched in December 2012 during the PAN IIT in Kolkata. This is available on iOS and Android platforms. Using this novel application, the members of AA will be able to access and search alumni directory, carry out a local search - search alumni around any location, read the latest news from IITK, connect with institute events, link with Social networking sites - Twitter, Facebook and LinkedIn, update their profiles. Finally, donations to the Institute or Alumni Association can also be made from this mobile application. IIT Kanpur becomes perhaps the first institute in India to launch such an application for its alumni and the facility will be extended to faculty and students.

iii. Website development

Mr Salil Dave, the Vice President of the Alumni Association has taken up the charge of revamping the Alumni Association website, Mr Santosh Khare from Unsocial Inc has taken up as the Project Manager for the new website. The AA Office is coordinating with Unsocial Inc. and Computer Centre for all technical and managerial concerns. The aim is to make the IITK Alumni website alumni-centric, user-friendly to search and motivate alumni to regularly visit the site.

iv. Tea with faculty

To promote greater interaction among the faculty and the students, representatives of Student Gymkhana and other student bodies of the institute, had a tea session with some faculty members in CCD.

v. Distinguished Alumni Awards ceremony in USA

The Distinguished Alumnus Award ceremony for the year 2011-12 was held on June 16, 2012 in the Bay Area, USA to give away awards and to provide more visibility to Alumni Association activities. The recipients were Mr. Sunil Singhal (BT/CHE/71),
Prof. Rakesh Agarwal (BT/CHE/75), Mr Vasdev Chanchlani (MT/IME/76) and Prof. Jayathi Y Murthy (BT/ME/79). The Distinguished Alumnus Award Shri Sunil Singhal and Shri Vasdev Chanchlani collected the award in person. Prof. Sanjay G. Dhande, Prof. Manindra Agrawal and some functionaries of the Alumni Association were present.

2. Financial:

i. IIT Kanpur Foundation and Alumni Association connection

IIT Kanpur Foundation meeting was held on the morning of June 16, 2012. The President, Alumni Association, Prof. Ashok Gupta and the Secretary, AA, Prof. Sudhir Misra attended as a special invitees and briefed the Foundation about the financial position of the AA and mentioned that the funds available are grossly inadequate to carry out even the basic activities such as salaries of AA staff, chapter development, etc. It was agreed, that the Foundation would include ‘AA activities’ as one of the items for which funds from the US alumnus are raised.

ii. Fund Raising for the Alumni Association Activities

To better serve alumni, the AA needs more funds and Alumni Association has initiated its own fund raising drive from 2012 onwards. Initially, the following four heads have been proposed and more activities will be added in due course:

- **Chapter development and growth** – a corpus, the interest of which enables travel, and other expenses for initiating and nurturing chapters of the AA.

- **Student Alumni Interaction programme** – corpus, the interest of which will help in strengthening the different activities related to Student Alumni Interaction including the Student Alumni Interaction day, Student Alumni carrier awareness programme and the student Placement Office.

- **Strengthening Alumni Association** – for the general activities of the AA office.

- **Social Initiatives** - The Alumni Association is registered an 80 G registration with the Income Tax department. The donors donating to Alumni Association will get 50% income tax exemption from the taxable income under section 80G of Income Tax. We have already received a positive response from our alumni in terms of AA has received few lakhs from fund rising activity this financial year.
3. Amendments to Constitution and By-laws

The IITKAA constitution and the by-laws are being revised by a committee consisting of Mr Dharam Vir, Prof Kripa Shanker, Mr Anil Srivastava and Prof Y. N. Singh. Initial work has been completed and the new constitution has placed for wider circulation and comments.

4. E-magazine

The first issue of Alumni E-Magazine VOICES has been released. This magazine is to act as a catalyst to keep our bonds with alma mater strong irrespective of location and vocation. Alumni can use this platform to share and enjoy heritage and happenings in IITK and beyond. Special acknowledgment has to be made of the efforts made by Mr Arun Srivatava (BT/EE/72) for the support shown in this regard.

III. Board of Directors, Alumni Association, IIT Kanpur

The present Board of Directors (BOD) of IITKAA was elected under the constitution of the Alumni Association, by a global electorate of alumni on March 18, 2012. The following members constitute the BOD, Alumni Association for the year 2012 – 2014.

i. Board of Directors

- **Elected Members**
  1. President: Ashok Kumar Gupta (BT/ME/72)
  2. Vice President -1: Sashi Kumar Singhania (BT/ME/67)
  3. Vice President -2: Salil Dave (BT/EE/86)
  4. Secretary: Sudhir Misra (BT/CE/81)
  5. Treasurer: Mukesh Sharma (MT/CE/81)
  6. Member-1: Ajay Kumar Shukla (BT/MME/95)
  7. Member 2: Saurabh Sharma (MT/NET/10)
  8. Member-3: Dharam Vir (MSC2/PHY/71)
  9. Member-4: Mr. Nikhil Padhye (MT(DUAL)/ME/10) (nominated)

- **The Director, IIT Kanpur is also the Patron of the Association.**

- **Ex-Officio / Nominated Members**
  1. A distinguished alumnus/alumna: Mr. David B K Thomas (BT/ME/77)
  2. President/Nominee of IITK Foundation or an equivalent body: Dr. Ram B Misra (BT/ME/68)
  3. Past-President: Mr Rakesh Pandey (has resigned from the Board)
  4. Past-Secretary: Prof. Kripa Shanker (MT/ME/72),
5. Nominee of the Patron: Prof. Prabhat Munshi (BT/CSE/86), Dean Resource Planning and Generation

- **Permanent Invitee**
  Mr. Mustan Abdulhusein Tambawala (BT/CHE/74)
  Mr. Anurag Goel (BT/ME/71)

**ii Board Meetings**
There have been regular meetings of this BOD using teleconferencing; 10 such meetings have taken place to discuss various issues.

**iii AGBM**
The Annual General Body Meeting of Alumni Association, IIT Kanpur was held on March 3, 2013 during Alumni Convocation at IIT Delhi. It was attended by 37 members including Prof Ashok Gupta, President; Prof Sudhir Misra, Secretary; Prof Mukesh Sharma, Treasurer; Mr. Dharam Vir, Member; Prof. Kripa Shanker, Past Secretary, Prof Manindra Agrawal, Member. Prof. Sudhir Misra, presented the Annual Report. Balance Sheet for the Financial year that ended on 31st March 2012 was presented by Prof. Mukesh Sharma, Treasurer and was duly approved by the General Body. Amendments to the Alumni Association constitution were discussed. Prof. Ashok Gupta, President, informed about the new initiatives taken up by the Board and answered various queries from the attendees.
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 programs. 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

During the period under report the P. K. Kelkar Library received 2963 volumes of books out of which 214 volumes were received as Grátis, 13 annual reports and 11 Technical Reports. The total expenditure on books was Rs.1,53,91,864/-

PERIODICALS UNIT

Subscription to Periodicals and Binding: The periodicals expenditure for 2012-13 was Rs. 10,47,62,199/- Apart from it, Rs. 24,22,639/- was also paid for SAGE Journals after taking the prior approval from the competent authority. The library subscribed 1998 current periodicals and 476 e-books for the period under report. Out of these journals, 192 are print, 741 are print + online, 1052 only online, 11 databases and 02 CDs. The library added 2755 bound volumes of periodicals and 999 damaged books were bound during the FY year. The library continued its focus on the acquisition of electronic and print products. The archival volumes of 38 journals were procured and previously procured all the volumes were maintained.

NEW RESOURCES ADDED

<table>
<thead>
<tr>
<th>SL.NO</th>
<th>NAME OF THE JOURNAL</th>
<th>NO. OF RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chemical Society Reviews</td>
<td>01</td>
</tr>
<tr>
<td></td>
<td>Journal of Solid State Science and Technology</td>
<td>01</td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------------</td>
<td>----</td>
</tr>
<tr>
<td>3</td>
<td>Electrochemistry Letters</td>
<td>01</td>
</tr>
<tr>
<td>4</td>
<td>Solid State Letters</td>
<td>01</td>
</tr>
<tr>
<td>5</td>
<td>Journal of Modern Crafts</td>
<td>01</td>
</tr>
<tr>
<td>6</td>
<td>Dialectica</td>
<td>01</td>
</tr>
<tr>
<td>7</td>
<td>Impact Assessment and Project Appraisal</td>
<td>01</td>
</tr>
<tr>
<td>8</td>
<td>Journal of European Economic Association</td>
<td>01</td>
</tr>
<tr>
<td>9</td>
<td>Journal of Economic History</td>
<td>01</td>
</tr>
<tr>
<td>10</td>
<td>Survey Review</td>
<td>01</td>
</tr>
<tr>
<td>11</td>
<td>Journal of Geophysical Research Atmospheres</td>
<td>01</td>
</tr>
<tr>
<td>12</td>
<td>Reviews of Geophysics</td>
<td>01</td>
</tr>
<tr>
<td>13</td>
<td>Journal of Climate</td>
<td>01</td>
</tr>
<tr>
<td>14</td>
<td>Proceedings of the National Academy of Sciences</td>
<td>01</td>
</tr>
<tr>
<td>15</td>
<td>Small</td>
<td>01</td>
</tr>
<tr>
<td>16</td>
<td>Journal of Hydrometeorology</td>
<td>01</td>
</tr>
<tr>
<td>17</td>
<td>Monthly Weather Review</td>
<td>01</td>
</tr>
<tr>
<td>18</td>
<td>American Journal of Homeopathic Medicine</td>
<td>01</td>
</tr>
<tr>
<td>19</td>
<td>Journal of Alternative and Complementry Medicine</td>
<td>01</td>
</tr>
<tr>
<td>20</td>
<td>Laser Physics</td>
<td>01</td>
</tr>
<tr>
<td>21</td>
<td>Laser Physics Letters</td>
<td>01</td>
</tr>
</tbody>
</table>

**E-Books and Backfiles**

<table>
<thead>
<tr>
<th></th>
<th>Blackwell Reference Online (E-Books)</th>
<th>476</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td>Institute of Physics Backfile (Year 1999-2008)</td>
<td>38</td>
</tr>
</tbody>
</table>

**E-resources through INDEST-AICTE**

As a core member of INDEST-AICTE Consortium, IITK academic community continued to access electronic versions more than 10000 + full-text journals on different publishers and database platform.

**TECHNICAL PROCESSING UNIT**

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 every Monday. These were also released on library OPAC. The unit processed 7248 new and old books in 2012-13.
CIRCULATION

During the year 2012-2013, 23183 publications were circulated for home study. A large number of books and journals from reference, textbooks (37788) and general collection areas were also consulted by users within the Library.

COMPUTER AIDED REFERENCE SERVICE UNIT (CARS)

Document Delivery Services and 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 2012-13, ILL requests for 187 articles/chapters/books were received and document delivery made to outside institutions whereas IITK users’ requests for 40 articles/chapters/books were sent to other libraries.

Consulting facility of the library was extended to 1336 for external users including programme participants of various courses/programmes organized by the Institute. Library conducted 4 official tours for various colleges and universities of India. 151 CD-ROM/DVDs were added to its collection.

LIBRARY AUTOMATION

Library has already installed and implemented LibSys LSPremia, a web centric integrated library management software package. During the period several problem solving sessions were organized in consultation with the Libsys Ltd. Now all housekeeping operations are running through LibSys. Some of the advanced customizations are in the pipeline with the LibSys.

DIGITAL LIBRARY INITIATIVES

The following digital library initiatives continued: This year 191 theses were added and the repository of Electronic Theses and Dissertations (ETD) online submission has reached 12676 whereas Institutional Repository (IR) for digitization of Faculty/Academic Staff Publications has 9341 for Bibliographic data and 5353 for full Text.

SEMINARS/ CONFERENCES/ MEETINGS CHAIRED/ ATTENDED/ VISITS ABROAD
1. Attended the Meeting of the National Steering Committee of INDEST-AICTE Consortium of MHRD, GOI on 30 April 2012 at IIT, New Delhi, Dr. V. D. Shrivastava, Librarian.

2. Was the external examiner for Ph.D in Library and Information Science at Makhanlal Sukhadia University, Udaipur on 1st May 2012, Dr V D Shrivastava, Librarian.

3. Attended the Meeting as Member of Price Negotiation Committee of INDEST-AICTE Consortium of MHRD, GOI on 22nd June 2012, New Delhi, Dr. V. D. Shrivastava, Librarian.

4. Attended the Meeting as Member of Resource Finalization Committee of National Library and Information Services for Infrastructure for Scholarly Content (N- LIST) MHRD, GOI, New Delhi on 22nd June 2012, Dr. V. D. Shrivastava, Librarian.

5. Attended the Meeting as Member of National Steering Committee of INDEST and National Library and Information Services for Infrastructure for Scholarly Content (N-LIST) MHRD, GOI, New Delhi on 25th July 2012, Dr. V. D. Shrivastava, Librarian.

6. Attended the Meeting as Member of Purchase Finalization Committee of INDEST and UGC-INFONET, IIT, New Delhi on 25th July 2012, Dr. V. D. Shrivastava, Librarian.

7. Attended the Interface Meeting for the post of Director, INFLIBNET Centre, Ahmedabad at UGC, New Delhi on 25th August 2012, Dr V. D. Shrivastava, Librarian.

8. Attended the IEEE Annual Advisory Council Conference as International Advisory Council Member at Westin Times Square in New York City, USA during 22-28 October 2012, Dr V. D. Shrivastava, Librarian.

9. Attended the Meeting as Member of Purchase Finalization Committee of INDEST-AICTE Consortium at IIT, New Delhi on 21 December 2012, Dr. V. D. Shrivastava, Librarian.

10. Attended the Library Committee Meeting of National Academy of Sciences, India, Allahabad on 26th December 2012 at NASI, Allahabad, Dr V. D. Shrivastava, Librarian.
11. Attended the Meeting as Member of Purchase Finalization Committee of INDEST-AICTE Consortium at IIT, New Delhi on 15th February 2013, Dr. V. D. Shrivastava, Librarian.


**Computer Center**

Computer Centre at IIT Kanpur is a central facility that caters to the computing needs of the faculty, staff and students for their research, development and teaching. It also manages Internet and campus local network and wireless infrastructure. It provides several services like e-mail and web access. It currently supports more than 10000 users. Computer Centre has been upgrading its computing, mail, network, Internet, PC lab and overall infrastructural facilities in a major way over past few years. In 2012-13, significant upgradation took place in the areas of servers, PC labs, software, mail, network and Internet. The newly constructed Data Centre’s are nearing commissioning after final testing and inspection.

For the High Performance Computing (HPC) facility, orders have been placed for adding 96 more compute nodes to augment the existing 373 node HP cluster. The number of users of the HPC facility has increased significantly over the past one year. On the PC lab front, the Facility Management Services for the computer labs in New core labs and IME/ME Autocad lab has been handed over to Wipro Infotech Ltd. All lab bookings, maintenance of software on PCs and overall coordination is now done by Wipro Infotech Ltd.

On the software side, several general purpose and HPC application software have been either renewed or procured afresh. New software such as Maple 17, FactSage, Bentley Microstation, and Adobe Acrobat Pro have been deployed. The list of some of the key software that has been renewed includes: Matlab, Parallel Numerical Algorithms Group (NAG), Mathematica, SPSS, Origin, BeCN, COMSOL, Accelrys, MedeAVASP, AMBER, Tecplot, Turbomole, Gaussian, Ansys, Fluent etc. The webservers have been upgraded to latest version of RHEL.

Currently, the Centre handles more than 10000 e-mail users of the institute. It also provided e-mail and web facilities to a large number of conferences, symposia and workshops that took place in the campus in 2012-13. Support for sending/receiving mails on mobile phones has been added for Linux platform. A significant expansion of the campus local area network (LAN) and wireless network also took place over the past one year to cover the new buildings and residential areas. The total number of
internet access points now stands at more than 18000. Network backbone switch has been upgraded to 2 TBPS from the earlier switching speed of 720 GBPS.

In addition to the above upgradations in compute servers and PC labs, a modern Data Centre with state-of-the-art precision air conditioning and fire safety features has been completed and is nearing commissioning after final testing and inspection in 2012-13. Once the operation of this new Data Centre is started, Computer Centre will be in a position to house substantially bigger HPC and other servers of the Institute and PIs.

**Centre 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 2012-2013**

1. **QIP Students**
   (a) M.Tech Candidates admitted 07
   (b) Ph.D. Candidates admitted 02

2. **Book-Writing Projects**
   (a) Book-writing projects continued – 35
   (b) Book-writing projects approved – 05
   (c) Book-writing projects completed – 05

3. **Short term courses conducted under QIP** – 10
4. **Short term self-financed courses conducted** – 26
5. **Workshops/ Conferences/ Seminars conducted** – 16
6. **New Courses Developed by CDTE:**
   (I) Communication Course for PG Students: a Ten lectures Course on Effective Communication was conducted by CDTE. Two batches of PG Students 25 per batch took it.
   (II) Com 200, a semester long Course on English Communication was designed by CDTE. CDTE also coordinated its teaching in 2012-2013 Ist Semesters. The Course has now been transferred to the institute.
Centre for Creative Writing and Publication

An evening of dramatic performance and discussion was organized on Wednesday, 13 February 2013, at 6:00 pm in the Outreach Auditorium. Ms. Laxmi Chandrashekar, an internationally acclaimed theatre artiste, performed her solo-play, “Just a Woman”. Scripted by Ms. Chandrashekar herself, “Just a Woman” has been performed more than 150 times to major acclaim across cities in India and abroad. The play talks about women in a man's world, where the playwright has blended in the stories of seven women from mythology such as Gandhari, Sita, and Draupadi to the contemporary real-life characters such as Roop Kanwar and Bhanwari Devi. It is about how each of these women, irrespective of their status, fought the injustice meted out to them in their own way, be it child marriage, rape, dowry death, widowhood, sexual repression, lack of freedom, or loss of identity. The play ends with the story of Bhanwari Devi, with the narrator asking the audience, “If an illiterate woman can fight the injustice, why can't we” Ms. Chandrashekar held a discussion on the play and related gender issues with members of the audience after the performance.

Staff Training Unit

As per the prevailing practice, workshop/ training/ induction programme etc. are organized by the Administration Section. Administration Section after approval of the Competent Authority had conducted the following workshop/ training programme during the year 2012-2013.

Workshop on ‘Contract Labour through Outsourcing’

The Institute organized a workshop on Contract Labour through Outsourcing on 21.04.2012 in conjunction with the ISTM, DoPT, Govt. of India. Shri S N Singh, Ex-official, ISTM was the guest faculty for the workshop. 47 staff members including officials of the Institute and 10 officials from various IITs attended the workshop.

Workshop on ‘E-Procurement’

The Institute organized a workshop on E-Procurement on 14.07.2012 in conjunction with the ISTM, DoPT, Govt. of India. Shri K S Samarendra Nath, Joint Director, ISTM was the guest faculty for the workshop. 47 staff members including officials of the Institute and 03 officials from various IISERs and IIT attended the above said workshop.
Induction Programme

The Institute organized an Induction Programme for newcomers on 15 – 16 March 2013. 56 staff members attended the above said programme. The aforesaid Induction course has been designed to impart the knowledge of functioning of all Departments/Sections/Units of this Institute.

SC/ST and OBC Cell

The cell consists of Prof. B. Mazhari (Deptt. of Electrical Engineering), Liaison Officer (w.e.f. August 16, 2011) and Shri RR Dohare, Assistant Registrar, Recruitment Section, in addition to their normal duties. Prof. B. Mazhari is available on Phone No. 2597924 and Shri Dohare 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.

The Modified Assured Career Progression Scheme (MACPS) is in operation at present.

Concessions/Relaxations:

(a) For Regular employees of IITs who are educationally qualified and otherwise eligible, 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;

(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- AC-II rail fare (Rajdhani Exp. also) / Chair car in Shatabdi Exp., for Group-B- AC-III rail fare (Rajdhani Exp. also) / Chair car in Shatabdi Exp. and for Group-C-2\textsuperscript{nd} class sleeper rail fare];

(d) Experience requirement is relax able at the discretion of competent authority.

Employment notification etc.:

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

<table>
<thead>
<tr>
<th>Advt. No.</th>
<th>Name of Post(s)</th>
<th>Pay Band with Grade Pay</th>
<th>No. of Vacancies</th>
<th>Total</th>
<th>Published in</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/2012 [Internal]</td>
<td>Deputy Registrar</td>
<td>PB-3; GP: Rs.7600</td>
<td>- - 01 01</td>
<td>02</td>
<td>Institute’s Notice Board</td>
</tr>
<tr>
<td>5/2012</td>
<td>Deputy Registrar</td>
<td>PB-3; GP: Rs.7600</td>
<td>- - - 02</td>
<td>02</td>
<td>All Editions of Dainik Jagran (Nai Rahein), Times of India(Ascent), University News &amp; Employment News</td>
</tr>
<tr>
<td></td>
<td>Medical Officer</td>
<td>PB-3; GP: Rs.5400</td>
<td>01 - 01 02</td>
<td>04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Assistant Physical Education Officer</td>
<td>PB-3; GP: Rs.5400</td>
<td>- - 01 -</td>
<td>01</td>
<td></td>
</tr>
</tbody>
</table>
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 Committee meetings held through Recruitment Section is given below:

<table>
<thead>
<tr>
<th>Date</th>
<th>Position</th>
<th>Grade</th>
<th>Total</th>
<th>Selection Committee Meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/2012</td>
<td>Registrar</td>
<td>PB-4; GP: Rs.10000</td>
<td>04</td>
<td>23</td>
</tr>
<tr>
<td>7/2012</td>
<td>Finance Officer</td>
<td>PB-4; GP: Rs.10000</td>
<td>08</td>
<td>36+03*</td>
</tr>
<tr>
<td>8/2012</td>
<td>Assistant Executive Engineer</td>
<td>PB-3; GP: Rs.5400</td>
<td>12+01*</td>
<td>23</td>
</tr>
<tr>
<td>Assistant Engineers</td>
<td>PB-2; GP: Rs.4600</td>
<td>12+02*</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>Junior Engineers</td>
<td>PB-2; GP: Rs.4200</td>
<td>36+03*</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>1/2013</td>
<td>Assistant Security Officer</td>
<td>PB-2; GP: Rs.4200</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td>Junior Superintendent</td>
<td>-</td>
<td>01</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>Jr. Technical Supdt.</td>
<td>PB-2; GP: Rs.4200</td>
<td>01</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>Jr. Technical Supdt.</td>
<td>-</td>
<td>01</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>Jr. Technical Supdt.</td>
<td>-</td>
<td>01*</td>
<td>01*</td>
<td></td>
</tr>
<tr>
<td>Jr. Technical Supdt.</td>
<td>-</td>
<td>01</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>Jr. Technical Supdt.</td>
<td>-</td>
<td>02</td>
<td>02</td>
<td></td>
</tr>
<tr>
<td>Jr. Technical Supdt.</td>
<td>-</td>
<td>01</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>Jr. Technical Supdt.</td>
<td>-</td>
<td>01</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>Assistant Coach</td>
<td>PB-1; GP: Rs.2000</td>
<td>01</td>
<td>02</td>
<td></td>
</tr>
<tr>
<td>Junior Assistants</td>
<td>-</td>
<td>01</td>
<td>02</td>
<td></td>
</tr>
<tr>
<td>2/2013</td>
<td>Safety Officer</td>
<td>PB-3; GP: Rs.5400</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td>Medical Officers</td>
<td>-</td>
<td>02</td>
<td>03</td>
<td></td>
</tr>
<tr>
<td>Security Officer</td>
<td>-</td>
<td>01</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>3/2013</td>
<td>Registrar</td>
<td>PB-4; GP: Rs.10000</td>
<td>04</td>
<td>23</td>
</tr>
</tbody>
</table>

Total 04 08 12+01* 12+02* 36+03* * PH Candidates
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 ordinary/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:

<table>
<thead>
<tr>
<th>Type of house</th>
<th>Houses allotted to</th>
<th>SC/ST</th>
<th>As per Reservation</th>
<th>As per Seniority</th>
<th>GE</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type-IA</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Type-1B</td>
<td>-</td>
<td>02</td>
<td>02</td>
<td>04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type-I</td>
<td>-</td>
<td>03</td>
<td>38</td>
<td>41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type-II</td>
<td>-</td>
<td>02</td>
<td>38</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type-III</td>
<td>-</td>
<td>-</td>
<td>34</td>
<td>34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type-IV</td>
<td>-</td>
<td>01</td>
<td>16</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Apartment</td>
<td>-</td>
<td>-</td>
<td>47</td>
<td>47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type – V</td>
<td>No reservation</td>
<td>03</td>
<td>03</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. There is no reservation in the quarters of Type –V (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:

<table>
<thead>
<tr>
<th>Area(s)</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appointments</td>
<td></td>
<td></td>
<td></td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Retirement</td>
<td></td>
<td></td>
<td></td>
<td>09</td>
<td>09</td>
</tr>
<tr>
<td>Deaths</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resignation</td>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Resignation (Technical)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Termination</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V/Retirement</td>
<td></td>
<td></td>
<td></td>
<td>03</td>
<td>03</td>
</tr>
<tr>
<td>Compulsory Retirement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dismissal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Term Over</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>44</td>
<td>44</td>
</tr>
</tbody>
</table>

B: Non-Academic:

<table>
<thead>
<tr>
<th>Area(s)</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appointments</td>
<td>08</td>
<td>03</td>
<td>19</td>
<td>33</td>
<td>63</td>
</tr>
<tr>
<td>Retirement</td>
<td>07</td>
<td>-</td>
<td></td>
<td>32</td>
<td>39</td>
</tr>
<tr>
<td>Deaths</td>
<td>-</td>
<td>-</td>
<td></td>
<td>02</td>
<td>02</td>
</tr>
<tr>
<td>Resignation</td>
<td>-</td>
<td>01</td>
<td>02</td>
<td>01</td>
<td>04</td>
</tr>
<tr>
<td>V/Retirement</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C/Retirement</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Financial up-gradation under MACPS during 2012-2013

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Grade Pay From</th>
<th>Grade Pay To</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7600</td>
<td>8700</td>
<td>01</td>
<td>-</td>
<td>-</td>
<td>01</td>
<td>02</td>
</tr>
<tr>
<td>2</td>
<td>6600</td>
<td>7600</td>
<td>01</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>01</td>
</tr>
<tr>
<td>3</td>
<td>5400</td>
<td>6600</td>
<td>01</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>01</td>
</tr>
<tr>
<td>4</td>
<td>4800</td>
<td>5400</td>
<td>01</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>01</td>
</tr>
<tr>
<td>5</td>
<td>4600</td>
<td>4800</td>
<td>02</td>
<td>-</td>
<td>-</td>
<td>01</td>
<td>03</td>
</tr>
<tr>
<td>6</td>
<td>4200</td>
<td>4600</td>
<td>04</td>
<td>-</td>
<td>01</td>
<td>03</td>
<td>08</td>
</tr>
<tr>
<td>7</td>
<td>2800</td>
<td>4200</td>
<td>-</td>
<td>02</td>
<td>01</td>
<td>-</td>
<td>03</td>
</tr>
<tr>
<td>8</td>
<td>2400</td>
<td>2800</td>
<td>01</td>
<td>-</td>
<td>-</td>
<td>01</td>
<td>02</td>
</tr>
<tr>
<td>9</td>
<td>2000</td>
<td>2400</td>
<td>-</td>
<td>-</td>
<td>02</td>
<td>01</td>
<td>03</td>
</tr>
<tr>
<td>10</td>
<td>1900</td>
<td>2000</td>
<td>02</td>
<td>-</td>
<td>12</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>1800</td>
<td>1900</td>
<td>-</td>
<td>-</td>
<td>02</td>
<td>03</td>
<td>05</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>02</td>
<td>06</td>
<td>23</td>
<td>44</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 01.04.2013:

<table>
<thead>
<tr>
<th>Recruited through DOFA Office</th>
<th>Academic</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching</td>
<td>02</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>346</td>
<td>348</td>
</tr>
<tr>
<td>Non-Teaching</td>
<td>02</td>
<td>-</td>
<td>01</td>
<td>-</td>
<td>27</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>04</td>
<td>-</td>
<td>01</td>
<td>-</td>
<td>373</td>
<td>378</td>
</tr>
</tbody>
</table>
### B. Existing Strength of Non-Academic Staff as on 01.04.2013

#### Recruited through Recruitment Section

<table>
<thead>
<tr>
<th>Group</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>06</td>
<td>17.14</td>
<td>01</td>
<td>2.85</td>
<td>04</td>
</tr>
<tr>
<td>B</td>
<td>57</td>
<td>21.11</td>
<td>10</td>
<td>3.70</td>
<td>30</td>
</tr>
<tr>
<td>C</td>
<td>36</td>
<td>20.45</td>
<td>02</td>
<td>1.13</td>
<td>39</td>
</tr>
<tr>
<td>D</td>
<td>28</td>
<td>28.28</td>
<td>0</td>
<td>0.00</td>
<td>09</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>127</strong></td>
<td><strong>21.89</strong></td>
<td><strong>13</strong></td>
<td><strong>2.24</strong></td>
<td><strong>82</strong></td>
</tr>
</tbody>
</table>

* Cleaners, not counted towards reservation

### The detailed summary of existing strength of non-academic staff as on 01.04.2013 and representation of SC/ST/OBC

<table>
<thead>
<tr>
<th>Group/Stream/Mode</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANR</td>
<td>02</td>
<td>11.76</td>
<td>01</td>
<td>5.88</td>
<td>02</td>
</tr>
<tr>
<td>ANU</td>
<td>02</td>
<td>22.22</td>
<td>0</td>
<td>0.00</td>
<td>01</td>
</tr>
<tr>
<td>A</td>
<td>06</td>
<td>17.14</td>
<td>01</td>
<td>2.85</td>
<td>04</td>
</tr>
<tr>
<td>B</td>
<td>57</td>
<td>21.11</td>
<td>10</td>
<td>3.70</td>
<td>30</td>
</tr>
<tr>
<td>C</td>
<td>36</td>
<td>20.45</td>
<td>02</td>
<td>1.13</td>
<td>39</td>
</tr>
<tr>
<td>D</td>
<td>28</td>
<td>28.28</td>
<td>0</td>
<td>0.00</td>
<td>09</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>127</strong></td>
<td><strong>21.89</strong></td>
<td><strong>13</strong></td>
<td><strong>2.24</strong></td>
<td><strong>82</strong></td>
</tr>
</tbody>
</table>

* Cleaners, not counted towards reservation
C. Existing Strength of Account-II Employees as on 01.04.2013:

Recruited Through DORD Office

<table>
<thead>
<tr>
<th>Group</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>01</td>
<td>-</td>
<td>01</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td>C</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>D</td>
<td>02</td>
<td>01</td>
<td>03</td>
<td>05</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>03</td>
<td>01</td>
<td>04</td>
<td>24</td>
<td>32</td>
</tr>
</tbody>
</table>

D. Existing Strength of Mess Employees as on 01.04.2013:

Recruited through COW Office

<table>
<thead>
<tr>
<th>Group</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>-</td>
<td>-</td>
<td>01</td>
<td>01</td>
<td>02</td>
</tr>
<tr>
<td>C</td>
<td>-</td>
<td>-</td>
<td>01</td>
<td>02</td>
<td>03</td>
</tr>
<tr>
<td>D</td>
<td>13</td>
<td>-</td>
<td>14</td>
<td>34</td>
<td>61</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>-</td>
<td>16</td>
<td>37</td>
<td>66</td>
</tr>
</tbody>
</table>

The data as available for showing the representation of SCs/ STs/ OBCs/ PH related to the new students admitted in the year 2012-13 in various programmes/ disciplines at the Institute is given below:

<table>
<thead>
<tr>
<th>Programmes</th>
<th>Registration Data in the 2012-13 - 1st Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SC</td>
</tr>
<tr>
<td>B.Tech</td>
<td></td>
</tr>
<tr>
<td>AE</td>
<td>06</td>
</tr>
<tr>
<td>BSBE</td>
<td>06</td>
</tr>
<tr>
<td>ChE</td>
<td>11</td>
</tr>
<tr>
<td>CE</td>
<td>16</td>
</tr>
<tr>
<td>CSE</td>
<td>14</td>
</tr>
<tr>
<td>EE</td>
<td>20</td>
</tr>
<tr>
<td>ME</td>
<td>15</td>
</tr>
<tr>
<td>MSE</td>
<td>14</td>
</tr>
<tr>
<td>TOTAL</td>
<td>102</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>M.Sc. (5 yrs)/ BS (4 Yrs)</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry</td>
<td>04</td>
<td>02</td>
<td>05</td>
<td>14</td>
<td>25</td>
</tr>
<tr>
<td>Economics</td>
<td>06</td>
<td>05</td>
<td>10</td>
<td>20</td>
<td>41</td>
</tr>
</tbody>
</table>
### Mathematics & Scientific Comp

<table>
<thead>
<tr>
<th></th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics</td>
<td>06</td>
<td>06</td>
<td>13</td>
<td>24</td>
<td>49</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>14</td>
<td>36</td>
<td>72</td>
<td>141</td>
</tr>
</tbody>
</table>

### M.Sc.-PhD (Dual Degree)

<table>
<thead>
<tr>
<th></th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics</td>
<td>01</td>
<td>01</td>
<td>04</td>
<td>07</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>01</td>
<td>01</td>
<td>04</td>
<td>07</td>
<td>13</td>
</tr>
</tbody>
</table>

### M.Sc. (2 yrs)

<table>
<thead>
<tr>
<th></th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry</td>
<td>06</td>
<td>-</td>
<td>11</td>
<td>21</td>
<td>38</td>
</tr>
<tr>
<td>Mathematics</td>
<td>06</td>
<td>03</td>
<td>13</td>
<td>17</td>
<td>39</td>
</tr>
<tr>
<td>Statistics</td>
<td>03</td>
<td>-</td>
<td>02</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Physics</td>
<td>05</td>
<td>-</td>
<td>09</td>
<td>23</td>
<td>33</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>03</td>
<td>35</td>
<td>57</td>
<td>115</td>
</tr>
</tbody>
</table>

**Registration Data of M. Tech. / MBA / VLFM / M. Des. Students of 2012-13 - 1st Semester**

<table>
<thead>
<tr>
<th>Dept.</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE</td>
<td>10</td>
<td>02</td>
<td>19</td>
<td>38</td>
<td>69</td>
</tr>
<tr>
<td>CHE</td>
<td>07</td>
<td>08</td>
<td>19</td>
<td>18</td>
<td>52</td>
</tr>
<tr>
<td>CE</td>
<td>11</td>
<td>02</td>
<td>14</td>
<td>62</td>
<td>89</td>
</tr>
<tr>
<td>EE</td>
<td>14</td>
<td>01</td>
<td>59</td>
<td>129</td>
<td>203</td>
</tr>
<tr>
<td>ME</td>
<td>16</td>
<td>-</td>
<td>31</td>
<td>68</td>
<td>115</td>
</tr>
<tr>
<td>MSE</td>
<td>12</td>
<td>05</td>
<td>08</td>
<td>15</td>
<td>40</td>
</tr>
<tr>
<td>CSE</td>
<td>04</td>
<td>-</td>
<td>10</td>
<td>78</td>
<td>92</td>
</tr>
<tr>
<td>MSP</td>
<td>02</td>
<td>-</td>
<td>06</td>
<td>16</td>
<td>24</td>
</tr>
<tr>
<td>IME</td>
<td>03</td>
<td>-</td>
<td>06</td>
<td>21</td>
<td>30</td>
</tr>
<tr>
<td>MBA</td>
<td>18</td>
<td>01</td>
<td>24</td>
<td>58</td>
<td>101</td>
</tr>
<tr>
<td>VLFM</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>NET</td>
<td>-</td>
<td>-</td>
<td>01</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>LT</td>
<td>-</td>
<td>-</td>
<td>02</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>EEM</td>
<td>05</td>
<td>01</td>
<td>08</td>
<td>26</td>
<td>40</td>
</tr>
<tr>
<td>BSBE</td>
<td>02</td>
<td>-</td>
<td>04</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>DES</td>
<td>09</td>
<td>02</td>
<td>04</td>
<td>17</td>
<td>32</td>
</tr>
<tr>
<td>TOTAL</td>
<td>113</td>
<td>22</td>
<td>215</td>
<td>624</td>
<td>974</td>
</tr>
</tbody>
</table>
### Registration Data of Ph D students of 2012-13- 1st Semester

<table>
<thead>
<tr>
<th>Dept.</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE</td>
<td>05</td>
<td>-</td>
<td>12</td>
<td>20</td>
<td>37</td>
</tr>
<tr>
<td>CHE</td>
<td>15</td>
<td>-</td>
<td>17</td>
<td>49</td>
<td>81</td>
</tr>
<tr>
<td>CE</td>
<td>03</td>
<td>-</td>
<td>11</td>
<td>60</td>
<td>74</td>
</tr>
<tr>
<td>EE</td>
<td>04</td>
<td>-</td>
<td>19</td>
<td>77</td>
<td>126</td>
</tr>
<tr>
<td>ME</td>
<td>12</td>
<td>01</td>
<td>20</td>
<td>77</td>
<td>110</td>
</tr>
<tr>
<td>MSE</td>
<td>08</td>
<td>01</td>
<td>08</td>
<td>51</td>
<td>68</td>
</tr>
<tr>
<td>CHM</td>
<td>11</td>
<td>02</td>
<td>36</td>
<td>161</td>
<td>210</td>
</tr>
<tr>
<td>MATH &amp; STAT</td>
<td>04</td>
<td>-</td>
<td>07</td>
<td>37</td>
<td>48</td>
</tr>
<tr>
<td>PHY</td>
<td>09</td>
<td>03</td>
<td>18</td>
<td>42</td>
<td>72</td>
</tr>
<tr>
<td>PHY M.Sc.-Ph.D.(Dual)</td>
<td>02</td>
<td>-</td>
<td>04</td>
<td>28</td>
<td>34</td>
</tr>
<tr>
<td>HSS</td>
<td>02</td>
<td>01</td>
<td>06</td>
<td>35</td>
<td>44</td>
</tr>
<tr>
<td>CSE</td>
<td>01</td>
<td>-</td>
<td>-</td>
<td>25</td>
<td>26</td>
</tr>
<tr>
<td>MSP</td>
<td>01</td>
<td>-</td>
<td>04</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>IME</td>
<td>03</td>
<td>-</td>
<td>-</td>
<td>20</td>
<td>23</td>
</tr>
<tr>
<td>NET</td>
<td>-</td>
<td>-</td>
<td>02</td>
<td>07</td>
<td>09</td>
</tr>
<tr>
<td>LTP</td>
<td>-</td>
<td>-</td>
<td>01</td>
<td>-</td>
<td>01</td>
</tr>
<tr>
<td>BSBE</td>
<td>05</td>
<td>-</td>
<td>07</td>
<td>60</td>
<td>72</td>
</tr>
<tr>
<td>DES</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>02</td>
<td>02</td>
</tr>
<tr>
<td>TOTAL</td>
<td>85</td>
<td>08</td>
<td>172</td>
<td>795</td>
<td>1060</td>
</tr>
</tbody>
</table>

### Registration Data of PG Students in 2012-13- 1st Semester

<table>
<thead>
<tr>
<th>PhD</th>
<th>Dept.</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE</td>
<td>-</td>
<td>-</td>
<td>08</td>
<td>-</td>
<td>08</td>
<td></td>
</tr>
<tr>
<td>CHE</td>
<td>01</td>
<td>-</td>
<td>06</td>
<td>02</td>
<td>09</td>
<td></td>
</tr>
<tr>
<td>CE</td>
<td>-</td>
<td>-</td>
<td>06</td>
<td>07</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>EE</td>
<td>01</td>
<td>-</td>
<td>03</td>
<td>17</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>ME</td>
<td>06</td>
<td>-</td>
<td>08</td>
<td>21</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>MSE</td>
<td>02</td>
<td>-</td>
<td>05</td>
<td>07</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>CHM</td>
<td>-</td>
<td>-</td>
<td>09</td>
<td>13</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>MATH &amp; STAT</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>05</td>
<td>05</td>
<td></td>
</tr>
<tr>
<td>PHY</td>
<td>-</td>
<td>01</td>
<td>03</td>
<td>07</td>
<td>07</td>
<td></td>
</tr>
<tr>
<td>PHY M.Sc.-Ph.D.(Dual)</td>
<td>-</td>
<td>-</td>
<td>03</td>
<td>04</td>
<td>07</td>
<td></td>
</tr>
<tr>
<td>HSS</td>
<td>-</td>
<td>-</td>
<td>03</td>
<td>04</td>
<td>07</td>
<td></td>
</tr>
<tr>
<td>CSE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>-</td>
<td>-</td>
<td>02</td>
<td>02</td>
<td>04</td>
<td></td>
</tr>
<tr>
<td>IME</td>
<td>02</td>
<td>-</td>
<td>-</td>
<td>03</td>
<td>05</td>
<td></td>
</tr>
<tr>
<td>NET</td>
<td>-</td>
<td>-</td>
<td>01</td>
<td>01</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>LTP</td>
<td>-</td>
<td>-</td>
<td>01</td>
<td>-</td>
<td>01</td>
<td></td>
</tr>
</tbody>
</table>
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 its own office which is equipped with three computers with bilingual software for smooth and efficient working. It is managed by Deputy Registrar & Liaison Officer (Hindi), two Junior Technical Superintendent (Translation) and one Dy. Project Manager. The Rajbhasha Prakoshtha doing its all possible efforts in creating awareness of Hindi among the Institute employees. Sansthan Rajbhasha Karyanvayan Samiti which was constituted by the Director, monitors and provides guidelines to the Rajbhasha Prakoshtha in its planning performance and activities. The said Committee holds meetings for promoting the atmosphere of Rajbhasha in the Institute throughout the year. In view of disseminate Rajbhasha Hindi in the Institute, Rajbhasha Prakoshtha performs various activities like organization of Hindi Diwas, Hindi fortnight, Hindi workshops/seminars/Kavi Sammelan, etc.

Quarterly newsletter SAJAG and half yearly Hindi Magazine "Antas" are published in Hindi. The press release and invitation cards of the Institute Programs are made & issued bilingually. All periodical reports are sent to the Ministry and the Nagar Rajbhasha Karyanvayan Samiti timely.

In compliance with the directives of Official Language Department, Ministry for Home Affairs, Hindi fortnight was observed by conducting various competitions in the month of September 2012 along with grand Hindi Diwas samaroh held on 25th September 2012, in which winners of the various competitions were honored by presenting Hindi literary/grammatical books. On the occasion of Hindi Diwas samaroh, fifteen employees of the Institute also honored who are working in Official Language (Hindi) in their Department/Section.

Rajbhasha Prakoshtha is dedicated for the upliftment of Hindi in the Institute. Prakoshtha is always ready to co-ordinate with each and every Department/Section of the Institute in implementing the orders and directives received time to time from Department of Official Language, Ministry for Home Affairs and Ministry for Human Resources & Development, Govt. of India.
Media Technology Centre

The Media Technology Centre is an attempt to encourage and cultivate a sense of appreciation and explores the skills involved in the new media for creative expressions. Centre aims to provide a meaningful platform for the students of the Indian Institute of Technology Kanpur to foster their creative potentials and merge it with their gradual process of acquiring and exchanging knowledge with technology based education at the Institute.

NPTEL Phase II
One of the major ongoing projects of the centre involves faculty across the Institute in production of quality video/web based courseware to generate resources and aids for supporting the engineering, sciences and technology based education that can reach out to the larger Education system through various communication media. The Ministry of Human Resource and Development is supporting the initiative under the auspices of National Program on Technology Enhanced Learning (NPTEL). In the long term, Media Technology Centre aims to create a digital portal as an archive of supportive materials to serve educational purposes and research references in the field of Engineering, Science and Technology, Humanities and Management studies as well as in the relevant areas of National Heritage and Culture. The relevant information / knowledge can be disseminated using this facility and utilize for classroom teaching, student references and research aid. NPTEL has proposed to provide open course materials for engineering and science students and teachers freely through the internet. Out of 600 courses in phase-II, 165 courses are being developed by IIT Kanpur. Of these 165, 100 courses are already complete. NPTEL courses are taken to the teachers through workshops that are organised by the Media Technology Centre.

Institute Website
A dedicated web team with seven members in the Media Technology Centre is developing a new website of the Institute with better features in the graphic interface and usability matters. The aim of the project was to appropriately organize the information and work towards creating a good visual branding for the Institute through its website.

90.4 FM Community Radio Station
It has been a sincere effort of IIT K Community Radio, since its inception in September 2010, to unite the community within the campus, with the communities outside. This is an initiative by IIT Kanpur to focus on social and educational issues for the development of rural and semi urban areas. As a non-profit, non-commercial setup the focus of IIT community radio is to engage the campus community along with the students, to educate the rural areas by generating interest through our programs on
agriculture, health and hygiene, education and counseling and providing information on courses run in the neighbouring areas, women related issues, moral values through story narration and giving a platform to local people for personality development.

As far as possible we try to engage the campus community, students and faculty members in programme production and reach out to them through mails and regular radio announcements. The programs are informative, entertaining and interesting to the community within and outside the campus.

Beginning of the year 2012, saw the launch of our website, internet radio and an online archive of our recorded data. This has immensely helped us in gaining popularity, increasing listenership, bringing in more transparency and effectively engaging the community.

As a large agricultural community outside expressed a desire to directly interact with the experts, we introduced a live phone-in facility in October 2012, where experts from the field of health, counseling and agriculture, answer queries and problems of the people.

Besides this through a DST project titled 'Radio Mathematics' we are developing a series of 90 episodes on mathematics for students of classes IX to XII.

A work shop of 15 days was organized by the students Radio club IIT Kanpur and the Radio Station, where lectures were given and students were taught content building and radio presentation, by eminent radio personalities.

**Design Programme and HSS**

Student of the Communication Design in the Design Program have an academic relevance to the resources of the centre. Students continue to exhibit their ample creative talents by producing social ad campaigns, documentary films, radio jingles and various web applications exploiting the varied domains of media arts. Besides, there are undergraduate students of HSS Level 1 and 2 courses who utilize the resources to work on the video assignments.

**Revamping of the Production Studios and Editing facilities:**

We have adopted a multiple-camera mode of production for shooting our programs. It is typically a three camera set up employed on the set that simultaneously record a scene. Generally, the two outer cameras shoot close shots on the set at any given time, while the central camera shoots a wider master shot to capture the overall action. In this way, multiple shots are obtained in a single take without having to start and stop the action. The live audio and video feed from the cameras of the production floor are send to the production control room that ensures mixing and switching of the multiple footage at the original, highest-quality through the Video Switchers and Audio Mixers
and recorded on HD Recorders. The digitized video and audio data is then imported to hard disks from the digital tapes through these recorders. Once on disk they are edited on a computer using wide range of software. Compared to the linear method of tape-to-tape editing, the non-linear editing offers a flexibility of film editing, with random access on the source material and easy project organization. The non-linear editing platforms provide numerous options and effect for assembling video clips, audio tracks, graphics and other source material into a presentable package. Once this process is over the edit footage is recorded back to tape or disk and delivered to the clients. The recordings of video lectures created under the auspicious of NPTEL are now being converted into a streaming format for the benefit of students of the institute and the process of conversion shall be over in the next three months.

Committed manpower and resources of the Media Technology Center round the year is involved in providing its support in various academic and non-academic events.

Institute Archives Unit

Following a formal approval for setting up archives for the institute in the Boards meeting held on August 25, 2007, an Archives Unit was set up vide Office Order no. DIR/IITK/2012/27 dated March 26, 2012. The unit is presently set up in room nos. 330, 331, 332 on the third floor of the Faculty Building. A committee has been set up vide Office Order no. DIR/IITK/2012/24 dated March 20, 2012. It will provide overall guidance and support with policy matters of the unit. Members of the committee are as follows:

Prof S C Srivastava, Dy Director                      Chairman
Prof A K Mittal, Dept of IME                         Advisor, Member
Prof D Sanghi, DOAA                                 Member
Dr V D Srivastava, Librarian                       Member
Dr R K Sachan, Actg. Registrar                      Member

Dr. Neelam Prasad, Assistant Librarian, is designated Officer-in-charge of the unit. She will be responsible for day-to-day functioning of the unit. The officer-in-charge and other staff members of the unit will reports to the advisor for functional and administrative purposes. An announcement on the Archives Unit, detailing the purpose and functions of the unit, committee members and contact person, is posted on the IIT Kanpur website.

Work of collecting material started with personal files from Dean of Faculty (DOFA) Affairs’ Office. Some papers, photos, CDs and files were transferred from the History project to the unit.
A meeting of the Archives Committee was held on Jan 07, 2013 where decision was taken regarding preservation of following documents from the files received from DOFA office: (i) Initial bio-date (ii) Appointment letter (iii) Subsequent promotions (iv) Major awards.

The unit has initiated the process of preserving the requisite documents along with arranging other materials received from the History project. The unit has also procured an overhead scanner to requisite documents.
Finance

The Ministry of Human Resources & Development (MHRD) released Rs. 16965.00 lakh as Non-Plan Grant and Rs. 16380.00 lakh as Normal Plan Grant in the financial year 2012-2013.

NON-PLAN
Total receipts under Non-Plan during the financial year 2012-2013 from Ministry of Human Resources & Development, Government of India were Rs. 16965.00 lakh. The Internal Receipts of Institute were Rs. 4130.65 lakh. Balance of Rs. 1323.36 lakh towards Pension and Pensionary Benefits will be utilized in FY 2013-2014 for the same purpose.

Total Non Plan expenditure during the financial year 2012-2013 therefore comes out to Rs. 19772.29 lakh.

NORMAL PLAN
A total receipts under Normal Plan during the financial year 2012-2013 were Rs. 16892.82 lakh, out of which Rs. 16380.00 lakh was received under Plan from the MHRD, Government of India, and Rs. 512.82 lakh were Internal Receipts.

Total expenditure under Normal Plan was Rs. 16892.82 lakh. This expenditure included Rs. 7610.80 lakh on Building & Works and Central AC Facility; Rs. 5730.19 lakh on Non-Consumable purchases including Equipment, Furniture & Fixtures etc.; Rs. 551.83 lakh on Library Books, and Periodicals & Journals and Rs. 3000.00 lakh on Recurring Expenditure including expenditure on Scholarships and Periodicals & Journals.

INCOME AND EXPENDITURE FOR THE YEAR 2012-2013 UNDER MAJOR HEADS

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Particulars</th>
<th>Income (Rs. in lakh)</th>
<th>Expenditure (Rs. in lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Non- Plan</td>
<td>19772.29</td>
<td>19772.29</td>
</tr>
<tr>
<td>2</td>
<td>Normal Plan</td>
<td>16892.82</td>
<td>16892.82</td>
</tr>
<tr>
<td>3</td>
<td>JEE</td>
<td>337.42</td>
<td>188.97</td>
</tr>
<tr>
<td></td>
<td>(Non Plan)*</td>
<td></td>
<td>(Non Plan)*</td>
</tr>
<tr>
<td>4</td>
<td>GATE</td>
<td>736.14</td>
<td>287.78</td>
</tr>
<tr>
<td></td>
<td>(Non Plan)*</td>
<td></td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>(Plan)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>JAM</td>
<td>22.79</td>
<td>38.37</td>
</tr>
<tr>
<td></td>
<td>(Non Plan)*</td>
<td></td>
<td>(Non Plan)*</td>
</tr>
<tr>
<td>6</td>
<td>Research &amp; Development</td>
<td>1921.17</td>
<td>976.32</td>
</tr>
<tr>
<td></td>
<td>(Non Plan)*</td>
<td></td>
<td>42.26</td>
</tr>
<tr>
<td></td>
<td>(Plan)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The year 2012-13 has witnessed significant growth in financial resource of the institute. The total Grant-in-aid received during the financial year from MHRD, Govt. of India, under non-plan was 169.65 crore and under Plan 163.80 crore.

The year was good for fund raising as well. The Institute received 4.54 crores from 701 donations made by 538 donors (334 donors from India and 204 donors from abroad). A total of 310 donors (169 donors from India and 141 donors from abroad) contributed 54.94 lakhs under the Annual Gift Programme. Donations received under AGP have been utilized for providing travel support to the students for attending international conferences, cash award for publication of their research papers in reputed journals, support to community services and other activities encouraging excellence in the Institute.

Class of 1988 has contributed Rs 1,11,20,790.00 (Rs. one crore eleven lakhs twenty thousand and seven hundred ninety) during their Silver Jubilee Reunion towards naming of squash court, Community outreach activities, Noida campus, alumni association, merit cum means scholarship, mess workers’ pension fund, tinkering lab, various student activities and center for development of soft skills.

Mr. Anil Kumar Singh (BT/AE/1970) has donated for Kunwar Devendra Pratap Singh & Kunwarani Krishna Kumari Memorial Award and Mr. Puneet Prakash (MSC5/MTH/1992) has donated for Shailja Srivastava Award.
Several donors have instituted new scholarships during the financial year 2012-13. Arpita Mahila Mandal, Azad Nagar, Kanpur has instituted two scholarships named as “Arpita Mahila Mandal Scholarship” to provide financial assistance to two poorest girl students during the full degree program. Mr. Rangarajan Vellamore R, BTech from Mechanical Engineering (1990) has instituted Sri R & R Chari Scholarship. Mr. Anupam Saronwala, BTech from Electrical Engineering (1980) has instituted Dr. K.C. Saronwala Memorial Scholarship. Mr. Rajeev Chopra (BTech Metallurgy 1985) and Sandeep Chopra (BTech, Electrical 1993) has donated to institute four annual scholarships namely Ram Parkash Chopra Memorial Scholarship. Mr. Satya P. Chauhan (B.Tech/ChE/1968) has instituted Shri Ranbir and Shrimati Mahadevi Chauhan Scholarship. Mr. Santosh Mehra (BT/EE/1966) & Mrs. Anita Mehra, donors of "Anita and Santosh Mehra Scholarship" instituted in 2010 have instituted four more scholarships and all the four scholarships will be named under "Anita and Santosh Mehra Scholarship”.

Mrs. Asha Jadeja wife of late Rajeev Motwani (BT/CSE/1983) has donated US$ 181,868 towards the Rajeev Motwani Building for CSE department. Mrs. Jadeja has committed to donate 50% cost of Rajeev Motwani building which is presently under construction. Mr. Jagjeet Singh Bindra has donated US$ 20,000 towards Mr. & Mrs. Gian Singh Bindra Chair. Mr. Kamlesh Dwivedi has donated US$ 40,000 towards Pandit Girish Ranjan & Sushama Rani Pathak Chair.

SURGE 2012 program was conducted during summer 2012 which saw student participation of 95 members from 122 Institutes, and faculty participation of 72 members from IIT Kanpur as mentors. The selection of student participants was very competitive as 2600 applications were received from various institutions in the country, which gives a clear indication of its increasing popularity.

The Institute encourages research by providing travel support to students and rewarding students for publishing research papers in high quality journals. Institute provided travel support of Rs 68 lakh to 155 students for attending international conferences, and cash awards of Rs 18.20 Lakh to 147 students for publication of their research papers in reputed ISI Web Journals during the financial year 2012-13.

Rs. 1.59 crores/- from endowment fund a/c was reimbursed for New Faculty Fellowships during F.Y. 2012-2013.

The institute is working on an ambitious plan for raising substantial resources to increase the research and development activities on campus and hopes to launch new initiatives in the year 2013-14.

The following expenditure was made from Endowment Fund Account towards support of major activities of the Institute during the FY2012-13.
### 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, 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-1 to Hall-5 & Hall-7, Hall-10, Hall-11 is under construction and two for girls (GH) and a multistoried tower for Girls is also under construction with total capacities of 4000 and 484 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-Yrs.) 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 volleyball.
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 SBRA;s 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:

<table>
<thead>
<tr>
<th>Loan</th>
<th>Short Term</th>
<th>Long Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Term/Long Term</td>
<td>52</td>
<td>4</td>
</tr>
</tbody>
</table>

Student's Benefit Fund (SBF) also provides scholarships of the value of Rs. 1500/- per month to the needy students. Total 59 students were provided scholarships from the SBF during the year 2012-13.

### 3. 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 incomes of their parents do not exceed Rs. 4,50,000.00 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 2012-13.


<table>
<thead>
<tr>
<th>Undergraduate Scholarships</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
</tr>
<tr>
<td>MCM @ Rs. 1000/- p.m. with Freeship</td>
<td>187</td>
</tr>
<tr>
<td>Freeship</td>
<td>30</td>
</tr>
<tr>
<td>Free Basic mess plus Pocket Allowance @ Rs.250/- p.m.</td>
<td>97</td>
</tr>
<tr>
<td>Ram Prakash Chopra Scholarship</td>
<td>---</td>
</tr>
<tr>
<td>R and R. Chari Scholarship</td>
<td>---</td>
</tr>
<tr>
<td>Indra Dhanush Award</td>
<td>---</td>
</tr>
<tr>
<td>BGM Kumar Foundation</td>
<td>---</td>
</tr>
<tr>
<td>Bhuwan and Indira Joshi</td>
<td>1</td>
</tr>
<tr>
<td>Bishambar Gupta &amp; Anguri Gupta</td>
<td>---</td>
</tr>
<tr>
<td>Balasubramaniam &amp; Visalakshi</td>
<td>---</td>
</tr>
<tr>
<td>Biswanath Jha Memorial</td>
<td>1</td>
</tr>
<tr>
<td>Dr. Gurcharan Singh Kainth</td>
<td>---</td>
</tr>
<tr>
<td>Guru Ji Ghasit Ram</td>
<td>1</td>
</tr>
<tr>
<td>Harish and Sushila Chandra</td>
<td>1</td>
</tr>
<tr>
<td>Vinay Kapoor Memorial Scholarhsip</td>
<td>1</td>
</tr>
<tr>
<td>Khem Chandra Yadav</td>
<td>1</td>
</tr>
<tr>
<td>Sudarshan Kasturia Memorial Scholarship</td>
<td>1</td>
</tr>
<tr>
<td>Kunta Jha</td>
<td>1</td>
</tr>
<tr>
<td>Mahesh &amp; Shashi Chandra</td>
<td>1</td>
</tr>
<tr>
<td>Prof. Girdhar Gopal Shukla Scholarship</td>
<td>---</td>
</tr>
<tr>
<td>Neta Ji Balwan Singh</td>
<td>1</td>
</tr>
<tr>
<td>Nita Goyal and Ashish Gupta</td>
<td>1</td>
</tr>
<tr>
<td>Dr. K. C. Saronwala Scholarship</td>
<td>1</td>
</tr>
<tr>
<td>Padma Kapoor Memorial Scholarship</td>
<td>1</td>
</tr>
<tr>
<td>Prof. Netarlal Kapur</td>
<td>---</td>
</tr>
<tr>
<td>Scholarship</td>
<td>Year</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Steel Scholarship</td>
<td>---</td>
</tr>
<tr>
<td>Sarpanch Salik Ram Katiyar</td>
<td>1</td>
</tr>
<tr>
<td>Shiv Kumari Shukla</td>
<td>1</td>
</tr>
<tr>
<td>Shiv Prakash and Dayawanti Sharma</td>
<td>1</td>
</tr>
<tr>
<td>Shri D.P. Shukla</td>
<td>1</td>
</tr>
<tr>
<td>Smt. Jagat Kaur Memorial</td>
<td>1</td>
</tr>
<tr>
<td>Sri Jamuna Prasad and Basanti Gupta</td>
<td>1</td>
</tr>
<tr>
<td>Sri Temasek@iitk</td>
<td>1</td>
</tr>
<tr>
<td>Tapan Kumar and Swapna Bandhyopadgay</td>
<td>1</td>
</tr>
<tr>
<td>Yasodha Yadav</td>
<td>1</td>
</tr>
<tr>
<td>Yogendra Nath and Sushma Gupta</td>
<td>1</td>
</tr>
<tr>
<td>Shri Shankar Lal Shrimati Prema Debi</td>
<td>1</td>
</tr>
<tr>
<td>Tarun Sondhi Memorial Scholarship</td>
<td>1</td>
</tr>
<tr>
<td>Kemchand Memorial Scholarship</td>
<td>---</td>
</tr>
<tr>
<td>Dr. M. Anantawamy and Mrs. Vijayalakshmi Rau</td>
<td>---</td>
</tr>
<tr>
<td>Shri Bihari Lal Srivastava and smt. Nalini Srivastava Memorial Scholarship</td>
<td>---</td>
</tr>
<tr>
<td>Pushpa Garg</td>
<td>1</td>
</tr>
<tr>
<td>Aviation Development Award</td>
<td>---</td>
</tr>
<tr>
<td>Dr. D.R. Bhagat Scholarship</td>
<td>---</td>
</tr>
<tr>
<td>Anil and Reshma Nigam Scholarship</td>
<td>---</td>
</tr>
<tr>
<td>Pratima Ghosh Memorial</td>
<td>1</td>
</tr>
<tr>
<td>Ramesh Chandra Yadav</td>
<td>---</td>
</tr>
<tr>
<td>ACC Fellowship</td>
<td>2</td>
</tr>
<tr>
<td>Shanti &amp; Ram Kishore sahaj</td>
<td>---</td>
</tr>
<tr>
<td>Smt. Padmavathy &amp; Prof. R. Sankar</td>
<td>---</td>
</tr>
</tbody>
</table>

Scholarships from outside agencies

TABLE-I (B): Scholarships for B. Tech. / B. Tech.-M. Tech. (Dual degree)/ M. Sc. (Integrated) M. Sc. (02Year) & M.Sc.-Ph.D. (Dual Degree) for the year 2012-13

<table>
<thead>
<tr>
<th>Undergraduate Scholarships</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
</tr>
<tr>
<td>Post Matric Scholarship</td>
<td>---</td>
</tr>
<tr>
<td>NTS Scholarships</td>
<td>---</td>
</tr>
<tr>
<td>Inspire in 2012-13 1st Semester</td>
<td>77</td>
</tr>
<tr>
<td>Inspire in 2012-13 2nd Semester</td>
<td>51</td>
</tr>
<tr>
<td>TODAI Scholarship</td>
<td>02</td>
</tr>
<tr>
<td>O.P. Jindal Scholarship</td>
<td>---</td>
</tr>
<tr>
<td>State Scholarship</td>
<td>---</td>
</tr>
</tbody>
</table>
All the SC/ST category students get tuition fee waiver irrespective of their parents’ income. Concession of free messing (basic menu only) plus pocket allowance of Rs. 250/- per month is provided to SC/ST category students whose parents’ income do not exceed Rs. 4,50,000/- per annum, in the previous financial year.

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 2012-13. In addition, top 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 (2012-13)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Awards and Prizes</th>
<th>B. Tech./ M. Sc. (Intg.)/Dual degree</th>
<th>M. Sc. (2-Year)/ Dual degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>President Gold Medal</td>
<td>1</td>
<td>---</td>
</tr>
<tr>
<td>2</td>
<td>Directors Gold Medal</td>
<td>1</td>
<td>---</td>
</tr>
<tr>
<td>3</td>
<td>General Proficiency Medal</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Proficiency Medal</td>
<td>27</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Cadence Gold Medal</td>
<td>01 (M.Tech)</td>
<td>---</td>
</tr>
<tr>
<td>6</td>
<td>Cadence Silver Medal</td>
<td>1</td>
<td>---</td>
</tr>
<tr>
<td>7</td>
<td>Prof. Adidam S. R. Sai Memorial Gold Medal</td>
<td>01 (M.Tech.)</td>
<td>---</td>
</tr>
<tr>
<td>8</td>
<td>Prof. Adidam Sri Ranga Sai Memorial Medal</td>
<td>1</td>
<td>---</td>
</tr>
<tr>
<td>9</td>
<td>Ratan Swarup Memorial Prize</td>
<td>1</td>
<td>---</td>
</tr>
<tr>
<td>10</td>
<td>Banco Foundation Prize (ME)</td>
<td>1</td>
<td>---</td>
</tr>
<tr>
<td>11</td>
<td>Dr. Shanker Dayal Sharma Medal</td>
<td>01 (M.Tech.)</td>
<td>---</td>
</tr>
<tr>
<td>12</td>
<td>Prof. Vijay Mahajan Gold Medal</td>
<td>01 (MBA)</td>
<td>---</td>
</tr>
<tr>
<td>13</td>
<td>Batra Gold Medal</td>
<td>1</td>
<td>---</td>
</tr>
<tr>
<td>No.</td>
<td>Award Name</td>
<td>Category</td>
<td>Level</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------------------</td>
<td>----------</td>
<td>-------</td>
</tr>
<tr>
<td>14</td>
<td>IEEE/Pedes’96 Award</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Bhagwani Devi Maheshwari Gold Medal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Prof. Bal Deva Upadhyaya Memorial Gold Medal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Mars G. Fontana Prize (MME)</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>Sangeeta Pradhan Memorial Medal</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td>Best Software Award</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>Binay Kumar Sinha Award</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>21</td>
<td>Kunwar Devendra Pratap Singh &amp; Kunwarani Krishna Kumari Memorial Award</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>Dr. S. D. Bokil Memorial Medal</td>
<td></td>
<td>01 (M.Tech.)</td>
</tr>
<tr>
<td>23</td>
<td>Mehta M.Tech. Gold Medal</td>
<td></td>
<td>02 (M.Tech.)</td>
</tr>
<tr>
<td>24</td>
<td>IITK Excellence Award for Leadership</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>25</td>
<td>IITK Excellence Award for Art &amp; Cultural</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>26</td>
<td>IITK Excellence Award in Community Services</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>27</td>
<td>Suman Gupta Gold Medal</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>28</td>
<td>Bogineni Chenchu Rama Naidu Gold Medal</td>
<td></td>
<td>01 (M.Tech.)</td>
</tr>
<tr>
<td>29</td>
<td>S. N. Mittal Gold Medal</td>
<td></td>
<td>01 (M.Tech.)</td>
</tr>
<tr>
<td>30</td>
<td>Gopal Das Bhandari Memorial Distinguished Teacher Award</td>
<td></td>
<td>01 (Faculty)</td>
</tr>
<tr>
<td>31</td>
<td>Notional Prizes (UG)</td>
<td></td>
<td>201</td>
</tr>
<tr>
<td>32</td>
<td>Notional Prizes (PG)</td>
<td></td>
<td>66</td>
</tr>
<tr>
<td>33</td>
<td>N. Balakrishnan Award</td>
<td></td>
<td>---</td>
</tr>
<tr>
<td>34</td>
<td>Prof. J. N. Kapur Prizes</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>35</td>
<td>Smt. P. K. Subbulakshmi Memorial Award</td>
<td></td>
<td>01 (M.Tech.)</td>
</tr>
<tr>
<td>36</td>
<td>Gargi, Kritika &amp; Maitreyi Awards</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>37</td>
<td>Sridhar Memorial Prize (EE)</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>38</td>
<td>Ajai Agarwal Memorial Prize</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>39</td>
<td>Dr. Sangeeta Goel Memorial Award</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>40</td>
<td>O. P. Bajaj Memorial Award</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>41</td>
<td>Amit Saxena Memorial Award</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>42</td>
<td>Dr. R. C. Srivastava Memorial Scholarship</td>
<td></td>
<td>---</td>
</tr>
<tr>
<td>43</td>
<td>Jayesh Memorial Award</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>44</td>
<td>Dr. V. Rajaraman Scholarship</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

**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. 18000/- for first two years and (b) Rs. 20,000/- for subsequent years. The amount of
assistantship or fellowship for Ph. D. students in Sciences and Humanities & Social Science is (a) Rs. 16000/- per month for the first two years of their programmes and (b) Rs. 18000/- per month for subsequent years.

**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**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Items of Expenditure</th>
<th>Ph. D.</th>
<th>M. Tech.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Thesis Preparation Aid</td>
<td>3,000.00</td>
<td>750.00</td>
</tr>
</tbody>
</table>

**4. 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 Counseling 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. 4,50,000/- 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.

**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 focused towards the holistic development of their mind and body. The year 2012-2013 also saw a very active calendar in the form of various games, cultural events, films and
media and science and technology. The students are also involved in various activities towards the development of society and social well being.

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.

The year became a benchmark for the future generation as it celebrated the Golden Jubilee of students’ gymkhana. With the pioneering event having Ex-President of India, Dr. A P J Abdul Kalam as the guest of honour, the student community was thrilled for the upcoming days. With the view of providing better infrastructure in a sustained and wise manner of capital usage, the whole year was dedicated to event/activities/developments which will provide a boost to the upcoming years and set new trends. With the purchase of Electronics voting machines, cricket ball throwing machine, projectors for auditorium and many more the aim has been nicely achieved. A plethora of workshops and new forms of arts and skills were imparted like horse riding, archery, mime and health happiness. First even duathlon of IIT Kanpur also became a part of the golden jubilee year. The infrastructural development is clearly visible in the SAC area.

The year saw the development of the new student activity centre which provides the basic infrastructure for all the activities of the students. It was also positive to see new food avenues like food court in new SAC and CCD lounge in academic area.

A variety of activities are pursued by various clubs coming under the broad ambit of the councils of the Gymkhana.

Prayas, where students teach children coming from socially disadvantaged and economically deprived backgrounds, organized various health camps for the benefit of students and also provided study kits for them. Vivekanand samiti carried its name to even greater heights with the celebration of 150th year anniversary of swamy vivekanad. The environmental inclination shown by students was clearly visible by event like celebration of earth day and creation of a symbolic structure of solar tree. Students took the initiative of helping the society by having a cell dedicated towards conducting blood donation and making a network for providing immediate help to those in need of blood.
The multifaceted culture of IIT Kanpur has blossomed over the years and the exuberant participation, volunteerism, outstanding creativity and progressively constructive actions of students has resulted in new benchmarks of excellence. We have seen improvement both in number of participants and quality of performance in various events organized last year starting with Fresher’s Night, Impressions, Dance Extravaganza, Dramatics Eve, Musical Extravaganza, regular activities of Fine Arts Club, Quiz Club and Literary Society. The year culminated with a series of marvellous displays in the successfully organized Galaxy, the inter hall cultural competition. The students also continued the tradition of bring laurels in prestigious national level inter-college cultural competitions like Antaragni, Rendezvous, Mood Indigo, Nihilanth and Desh Raag. We are also in the process of completely soundproofing the music room and getting a recording studio of our own.

Films & Media Council (FMC) aims to provide high quality entertainment to the students through various extra-curricular activities throughout the year such as photography, videography, print and video journalism, etc. A film festival was organized as a part of Gymkhana Golden Jubilee celebrations in which famous actors and directors like Sudhir Mishra, Atul Tiwari and Unni Vijayan were invited to share their experiences and provide insights in the field of film making. Many workshops were conducted throughout the year covering almost every dimension under Films and Media council. Film making and documentation workshop by Mr. Nitin Chandra, Radio Jockeying workshop by six RJs from Radio Mirchi 98.3 FM to impart communication skills, voice modulation, script writing etc. to campus community, photography workshop by Mr. Bobby Roy (famous automobile photographer), animation workshop by MAAC institute which help students generate 3D models of various buildings of our campus are some examples of learning imparted to the students.

Since its inception Science and Technology Council, IIT Kanpur has been striving towards providing the platform to encourage the future scientists, engineers and techno-entrepreneurs of this nation. Today, the council has attained a maturity where it can accomplish things never imagined before-Be it the first student planetarium, the installation of the first ever Tinkering Lab, the first supercomputing event, the first Inter-IIT Technical Meet: JUGAAD, or the council's greatest ever external glory, be it at Techfest, IIT Bombay or at Texas, SAE Aerodesign. But more than that 2012-13 was surely a landmark year for the council in terms of redifining its vision: "I invent the future".

The Institute witnessed stiff inter-hall competition in the form of Galaxy, Takneek, Spectrum, Inferno and green Opus, inter- hall Cultural, Science & Technology, Films & Media, Sports and energy championships respectively. Fresher inferno tournament also
had been organized to find some new talent from the incoming batch. 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 talents and to give them a reason and a motivation, strong enough, to come out of their rooms and participate in group activities.

The Games and Sports Council, IIT Kanpur directed its efforts of to ensure that each and every person chooses a sport irrespective of the fact whether he/she is a part of the institute team or not. An atmosphere where playing in the evening is an integral part of each person’s schedule. The diverse activities organized during the year aimed at broadening the outreach of ‘sporting activities’ among various segments of campus community. Some of the initiatives taken by the Games and Sports Council were one Week One Sport, horse Riding Workshop, tour de Force (5km run), archery Workshop, shooting workshop, institute Pool Tournament, boxing Workshop and Girls Aquatics Day. The unique activities introduced, will bear great value addition and connect with many who have yet stayed away from pre-existing sporting activities.

Our team had a wonderful performance at the Inter-IIT sports meet held at IIT Roorkee this year from the 17th to 24th December. The contingent as a whole stood up to the occasion helping us improve our standing as compared to last year. It was a splendid display of sportsmanship and there were a lot of intensely competed matches where we managed to emerge victorious. The summarized results are as follows:

Gold - Athletics
Silver - Squash boys’ team
  Table Tennis boys’ team
  Badminton girls’ team
  Volleyball girls’ team
Bronze - Tennis boys’ team
  Swimming boys’ team
  Basketball girls’ team
  Table Tennis girls’ team
  Swimming boys’ team

It was for the first time in the history of Inter-IIT that we won the athletics overall championship. We stood 4th in the race for General Championship boys with a total of 47.16 points trailing behind the third by 7 points. In the General Championship for girls too we stood 4th trailing behind the third by a mere 0.76 points.
The overriding objective of the large-scale events of the Institute such as Antaragni (the cultural festival), Techkriti (the technical and entrepreneurship festival) and Udghosh (the sports festival) is to infuse a sense of richness and purpose in the lives of students. All these social, cultural and sporting activities play a crucial role in the transformation of a student into a complete human being. These festivals have seen vastly improved participation levels, both from within the Institute and also from students from other national and international institutions.

Techkriti 2013, the annual technical and entrepreneurial festival of IIT Kanpur (14th to 17th March, 2013) witnessed a plethora of events ranging from Robotics, electronics, aeromodelling etc and also some of the very inspirational talks from leading personalities in the field of technology and entrepreneurship. For the first time in the history of IIT Kanpur we had some international teams visiting the campus and participating in the events. Techkriti witnessed talks by likes of Michael J Foreman (Nasa Astronaut), Dr R. Chidambaram (scientific advisor to Government of India), Dr John Mather (Nobel Laureate in Physics) and others. Various national and international exhibitions were invited and for the first time an Inter IIT techmeet, Jugaad, was also organized. Among the other major highlights about 2,000 people participated in the Guinness world record attempt of mass Rubik Cube solving.

UDGHOSH’12, Annual sports festival IIT Kanpur, offered a platform for students from all over India to showcase their talent and compete with the best upcoming sport persons in the country in a highly charged and competitive ambience with highly equipped sports facilities. The festival witnessed a plethora of events from Motivational Talks, Gymnastic Shows and Sport Quizzes to various sports events like Athletics, Cricket, Football, Hockey, Volleyball, Basketball, Badminton, Tennis, Table Tennis, Weightlifting and Cycling Events. A torch run followed by stunning performances by Yogi’s Angels(International Acrobats Group), Vipul Garg(Stand up Comedian) and Simon Juggler stole the show. The most eye catching were Marathon-run for a cause with the motto of “THINK POSITIVE, STOP AIDS” and motivational talks by Mrs. Seema Antil and Mrs. Deepa Malik.

Antaragni 2012 saw increased involvement from the student community, both in organisation and participation. New incentives such as internships and workshops under the ‘Dream On’ campaign augmented the prize money and attracted quality participants from outside. There was a focus on reviving the intellectual aspect of the festival with events like ‘Antaragni Leadership Initiative’, ‘India Inspired’ (panel discussion) and ‘Director’s Cut’ (sessions with movie directors). The festival had an international flavour and hosted artists from 6 different countries. Organizationally, the festival team comprised of about 1200 students and was conducted without any major incident. A number of deals were signed with prominent companies, media houses,
embassies and cultural organizations. A new technical initiative was the use of LED screens in professional shows

**Counselling Service**
The Student Counselling Service is an active wing of our students. The activities include organizing the orientation programme for UG and 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 alike.

**PHYSICAL EDUCATION ACTIVITIES**

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
6. Aerobics (To be Introduced this year)
7. Skating (To be Introduced this year)

All the 1st year students admitted in the B. Tech. /BS 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.

**GAMES AND SPORTS**

Under the Games and Sports stream, a student has an option to choose one of the following sports disciplines: Athletics, Basketball, Badminton, Cricket, Foot ball, Hockey, Squash, Swimming, Tennis, Table Tennis, Volleyball and weight-lifting. The institute has excellent facilities for these disciplines. Besides the responsibility of running the PE courses, Physical Education Section is responsible to supervise and provide Games & Sports facilities to all registered students of the institute and also to organize various games and sports tournaments and meets. The PE section is also
responsible for preparing institute teams to participate in various sports tournaments. The outstanding players (students) have an opportunity to represent the institute team in various sports meets/festivals, such as, Inter IIT Sports Meet and District level tournaments. To encourage the participation in the Games and Sports, meritorious players are awarded prizes and medals at the Annual function of the Student Gymkhana. The achievements of the meritorious players are also considered for some institute awards and sports scholarships are also given to the best sports persons.

NATIONAL CADET CORPS (NCC)

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.

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 non-formal 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, are conducted during both the semesters as part of PE 101 & PE 102 Courses. 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. Counseling is also provided to students for solving their personal physical, mental and emotional problems through yoga.

TAE-KWON-DO

Classes of Tae-Kwon-Do to train students under the CPA activities are conducted during both the semesters as part of PE 101 & PE 102 Course.

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.

AEROBICS

Aerobics which is a form of rhythmic physical exercise with stretching and strength training is taught to the students by a certified instructor in one of the streams of PE courses for improving the main elements of fitness: flexibility, strength, endurance and cardio-vascular fitness. The institute has a well equipped indoor aerobics hall.

SKATING

Skating, a fascinating sport is one of the streams in the PE courses. The students are going to be taught this sport by a qualified instructor. The students would be taught the basic skills initially and later introduced to the higher levels. The students in this stream will have an opportunity to join the Skating Hockey Team. A proper skating hockey rink with flood lights is under construction in the institute.
GYMNASIUMS

The institute has two gymnasiums equipped with the latest cardio and strength equipment. A professional gym trainer has been employed for motivating the users, setting goals, providing feedbacks and measuring the users strength and weakness with fitness assessments. The membership for the gym is open to all the campus residents on payment of a nominal fee. The exact rates for these facilities are fixed and notified by the Sports & Physical Education Committee (SPEC).

Contact No.

PHYSICAL EDUCATION SECTION: 4705 & 4703
NEW INDOOR SPORTS COMPLEX: 4541
OLD INDOOR SPORTS COMPLEX: 4299
SWIMMING POOL: 4662

6. FACULTY INCHARGES OF STUDENTS’ AFFAIRS

Dean, Students Affairs       Dr. A. K. Ghosh
Head, Counseling Service    Dr. Mukesh Sharma
Chairman, Council of Wardens Dr. M. K. Ghorai
Vice-Chairman, Council of    Dr. Sanjeev Garg
Wardens

Counsellors, Students’ Gymkhana

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Counsellor</td>
<td>Dr. A. K. Ghosh</td>
</tr>
<tr>
<td>Cultural Counsellor</td>
<td>Dr. Satyaki Roy</td>
</tr>
<tr>
<td>Games Counsellor</td>
<td>Dr. B. V. Phani</td>
</tr>
<tr>
<td>Films Counsellor</td>
<td>Dr. Satyaki Roy</td>
</tr>
<tr>
<td>Science &amp; Technology Counsellor</td>
<td>Dr. Anurag Gupta</td>
</tr>
<tr>
<td>Treasurer</td>
<td>Dr. A. V. R. Sarma</td>
</tr>
<tr>
<td>Chairman Students Benefit Fund</td>
<td>Dr. Mukesh Sharma</td>
</tr>
<tr>
<td>Chairman Students' Placement Committee</td>
<td>Dr. Vimal Kumar</td>
</tr>
<tr>
<td>Chairman SPEC</td>
<td>Dr. N. R. Patra</td>
</tr>
<tr>
<td>Faculty Advisor, NSS</td>
<td>Dr. H. C. Verma</td>
</tr>
<tr>
<td>Chairman, Swimming Pool Management Committee</td>
<td>Dr. Shunmugaraj</td>
</tr>
<tr>
<td>Faculty Advisor, Yoga</td>
<td>Dr. S. C. Misra</td>
</tr>
<tr>
<td>Faculty Advisor, Tae-kwon-do</td>
<td>Dr. T. Ravichandran</td>
</tr>
</tbody>
</table>
7. WARDENS

<table>
<thead>
<tr>
<th>HALL OF RESIDENCE No. I</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Sudeep Bhattacharjee, Warden I/C</td>
<td></td>
</tr>
<tr>
<td>Dr. Krishnacharya, Warden</td>
<td></td>
</tr>
<tr>
<td>Dr. M. Jaleel Akhtar, Warden</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HALL OF RESIDENCE No. II</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Somesh K Mathur, Warden I/C</td>
<td></td>
</tr>
<tr>
<td>Dr. Debajyoti Paul, Warden</td>
<td></td>
</tr>
<tr>
<td>Dr. Anurag Gupta, Warden</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HALL OF RESIDENCE No. III</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. M. K. Harbola, Warden I/C</td>
<td></td>
</tr>
<tr>
<td>Dr. Vimal Kumar, Warden</td>
<td></td>
</tr>
<tr>
<td>Dr. Tarun Gupta, Warden</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HALL OF RESIDENCE No. IV</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Anish Upadhyaya, Warden I/C</td>
<td></td>
</tr>
<tr>
<td>Dr. Deepu Philip, Warden</td>
<td></td>
</tr>
<tr>
<td>Dr. Kantesh Balani, Warden</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HALL OF RESIDENCE No. V</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Vineet Sahu, Warden I/C</td>
<td></td>
</tr>
<tr>
<td>Dr. Pradeep Kumar, Warden</td>
<td></td>
</tr>
<tr>
<td>Dr. Sivakumar, Warden</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HALL OF RESIDENCE No. VII</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Kamal K. Kar, Warden I/C</td>
<td></td>
</tr>
<tr>
<td>Dr. Saikat Chakrabarti, Warden</td>
<td></td>
</tr>
<tr>
<td>Dr. Shaktipada Ghorai, Warden</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HALL OF RESIDENCE No. VIII</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. D. Bahuguna, Warden I/C</td>
<td></td>
</tr>
<tr>
<td>Dr. Priyanka Ghosh, Warden</td>
<td></td>
</tr>
<tr>
<td>Dr. Javed Malik, Warden</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HALL OF RESIDENCE No. IX</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Malay K Das, Warden I/C</td>
<td></td>
</tr>
<tr>
<td>Dr. Ashok De, Warden</td>
<td></td>
</tr>
<tr>
<td>Dr. P. M. Mohite, Warden</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HALL OF RESIDENCE No. X</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. J. Ramkumar, Warden I/C</td>
<td></td>
</tr>
<tr>
<td>Dr. Vaibhav Kr. Srivastava, Warden</td>
<td></td>
</tr>
<tr>
<td>Dr. Ashwani K. Thakur, Warden</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HALL OF RESIDENCE No. XI</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Satyaki Ray, Warden I/C</td>
<td></td>
</tr>
</tbody>
</table>
8. 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. Abhay Jain upto (Feb. 2013) and Mr. Himanshu Pandey(from March 2013)

Chairman, Students Senate
Mr. Ankit Bhutani (upto Feb. 2013) and Mr. V Srinivasa (from 2013)

General Secretary (Cultural)
Ms. Sonal Kumari (upto Feb. 2013) and Mr. Rishav Garg (from March 2013)

General Secretary (Games)
Mr. Yuvraj Dhillon (upto Feb. 2013) and Mr. Anant G Mundra (from March 2013)

General Secretary (Films)
Mr. Yashovardhan Bhagat (upto Feb. 2013) and Mr. Sohil Banshal (from March 2012)

General Secretary (Science & Technology)
Mr. Subhojit Ghosh (upto Feb. 2013) and Mr. Rudra Pratap Singh (from March 2013).
Introduction

Students' Placement Office (SPO) continues its role as facilitator and counsellor for placements and placement preparation to all students registered with the Office. There is an advisory Students’ Placement Committee headed by a Chairman. The Placement Committee comprises a Faculty Representative from each Department and Programme. The SPO staff is assisted by a team of student volunteers. During the initial months the major task of these volunteers is to contact companies and organise the Pre-placement Talks (PPTs). Once the Placements start this team along with other volunteers take care of logistics, hospitality, etc.

This year 914 students registered for placements. A four tier team of 100 students lead by four Overall Placement Coordinators and two Head Preparations took the lead in calling companies and helping students prepare. Placements started on 1st December. 21 companies visited the campus on the first day and hired 126 students. Till date 78% of the registered students have got jobs through SPO. Around 200 companies including 50 new companies took part in the recruitment process this year. Core placement suffered due to the change in recruitment policy of PSUs. As per a Madras High Court ruling, they are now not hiring direct from campus. Amongst the various programmes, the Dual Degree had the highest percentage of placement at 98%, followed by M.Sc.(I) at 92%, MBA at 90%, B.Tech. at 80%, M.Tech. at 70%, M.Des at 62% and M.Sc. (2yr) at 49%.
Mitsubishi Heavy Industries, Britannia, Rocket Fuel, Times Internet, Philips and LinkedIn were some of the first timer recruiters. Several companies revisited the campus after a gap of few years. There was an increase of companies in the IT sector, Analytics and FMCG. Tower Research gave the highest domestic package this year at 46 Lakhs per annum while the average for the batch is approximately 7.32 LPA. LinkedIn, Facebook, Google, Microsoft, Mitsubishi Heavy Industries, Schlumberger, Rocket Fuel, were some companies that offered overseas profiles. Highest overseas package was USD 1, 40,000 (INR 77, 00,000 per annum) offered by Rocket Fuel. Amongst the recruiters, Reliance made 28 offers which was the highest intake by a company. EXL Services, Schlumberger, Mitsubishi Heavy Industries, Flipkart, Fractal Analytics, Mirosoft also recruited in good numbers.
Placement Preparation

Preparation for final placements focused on Resume Writing, Aptitude Tests, and Mock GD and Interviews. Professionals like Seniors on Call, ProAvenues and Amcat conducted some of these sessions. Students were provided with Question Banks which were compiled with inputs from faculty. Core technical tests were conducted. A preparation portal has been developed to record interview experiences of students hired by visiting companies. Alumni working in different sectors were invited to share their experiences and also provide students an insight into the professional world.

Internships

2012-13 saw an increase in the number of Pre-Placement Offers (PPOs) given to students after their internship. A total of 46 students got PPOs which is 15% more than the previous year. This year SPO facilitated internship of 264 pre-final year students. It is expected that the number of PPO will increase next year.
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
- Estate Management
- Sanitation and upkeep
- Horticulture Development & Maintenance
- Furniture repairs
- Roads

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

<table>
<thead>
<tr>
<th>SI. No.</th>
<th>Unit</th>
<th>Responsibility</th>
<th>Unit-in-charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Civil Division-I</td>
<td>Maintenance, up-gradation and development works, Water supply, furniture, roads.</td>
<td>Executive Engineer</td>
</tr>
<tr>
<td>2</td>
<td>Civil Division-II</td>
<td>Maintenance &amp; development works</td>
<td>Executive Engineer</td>
</tr>
<tr>
<td>3</td>
<td>Electrical &amp; Air-conditioning</td>
<td>Electrical maintenance Domestic/Central AC maintenance</td>
<td>Superintending Engineer</td>
</tr>
<tr>
<td></td>
<td>Division</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Horticulture</td>
<td>Development &amp; maintenance</td>
<td>Superintending Engineer</td>
</tr>
<tr>
<td>5</td>
<td>Sanitation Unit</td>
<td>House Keeping of various building</td>
<td>Superintending Engineer</td>
</tr>
</tbody>
</table>

The following works completed during 2012-2013

<table>
<thead>
<tr>
<th>SI. No.</th>
<th>Name of Work</th>
<th>Plinth Area (In Sqm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Construction of Multistoried Residential Flats (Block A &amp; B)</td>
<td>12362</td>
</tr>
</tbody>
</table>
The following works are under execution:-

<table>
<thead>
<tr>
<th>SI. No.</th>
<th>Name of Work</th>
<th>Plinth Area (In Sqm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Construction of Hall of Residence for Boys No. XI</td>
<td>15876</td>
</tr>
<tr>
<td>2</td>
<td>Construction of new Hall of Residence for Girls (Phase-I)</td>
<td>6311</td>
</tr>
<tr>
<td>3</td>
<td>Construction of Rajeev Motwani Building.</td>
<td>3510</td>
</tr>
<tr>
<td>4</td>
<td>Extension of Research Associate Hostel</td>
<td>13455</td>
</tr>
<tr>
<td>5</td>
<td>Construction of Microscope facility</td>
<td>1030</td>
</tr>
<tr>
<td>6</td>
<td>Construction of lecture Halls.</td>
<td>3750</td>
</tr>
<tr>
<td>7</td>
<td>Extension Centre of NOIDA.</td>
<td>4310</td>
</tr>
</tbody>
</table>

The following works are under planning:

<table>
<thead>
<tr>
<th>SI. No.</th>
<th>Name of Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Construction of Hall of Residence for Girls (Phase-II).</td>
</tr>
<tr>
<td>2</td>
<td>Construction of Hall of Residence for Boys No. XII.</td>
</tr>
<tr>
<td>3</td>
<td>Construction of Research Complex.</td>
</tr>
<tr>
<td>4</td>
<td>Construction of Faculty Club.</td>
</tr>
</tbody>
</table>

STORES & PURCHASE SECTION

The Stores 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 2012-2013 the Purchase Section placed 1158 orders valued Rs. 86,26,08,074=00 which includes import order numbering 270 costing Rs. 51,03,67,461=00 and indigenous order numbering 888 Costing 35,22,40,613=00. The purchase orders and their values under various categories are as follows:
### Annual Report 2012-2013

#### Central Stores

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 19 personnel.

The stores 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.

This Section also started reconditioning of wooden & steel furniture. During The Financial year 2012-2013 we have reconditioned different type of furniture and issued to various departments. The details of reconditioned furniture are as follows. (1) Chair 223 nos (2) Office Table 146 nos (3) Almira 36 nos (4) Racks 9 nos (5) Filling Cabinet & Misc. items 17 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

---

<table>
<thead>
<tr>
<th>Category</th>
<th>No. of P.O.</th>
<th>Amount (in Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Import :-</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A) Institute fund</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumable</td>
<td>13</td>
<td>19,25,437</td>
</tr>
<tr>
<td>Non consumable</td>
<td>75</td>
<td>35,80,59,157</td>
</tr>
<tr>
<td>(B) Project fund</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumable</td>
<td>59</td>
<td>1,19,57,820</td>
</tr>
<tr>
<td>Non consumable</td>
<td>123</td>
<td>13,84,25,047</td>
</tr>
<tr>
<td><strong>Total Import (A&amp;B)</strong></td>
<td>270</td>
<td><strong>51,03,67,461</strong></td>
</tr>
<tr>
<td>(C) Indigenous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institute fund</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumable</td>
<td>150</td>
<td>1,41,81,586</td>
</tr>
<tr>
<td>Non consumable</td>
<td>329</td>
<td>18,52,17,022</td>
</tr>
<tr>
<td>(D) Project fund</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumable</td>
<td>157</td>
<td>1,69,66,476</td>
</tr>
<tr>
<td>Non consumable</td>
<td>252</td>
<td>1,35,87,529</td>
</tr>
<tr>
<td><strong>Total Indigenous (C&amp;D)</strong></td>
<td>888</td>
<td><strong>35,22,40,613</strong></td>
</tr>
<tr>
<td><strong>Total Value</strong></td>
<td>1158</td>
<td><strong>86,26,08,074</strong></td>
</tr>
</tbody>
</table>
Automation Division and each & every function of Store & Purchase has been automated. 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 fifteen thousand. Being a residential campus with 1289 houses (including 213 SBRA and ACES Quarters) 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, shopping complexes and similar other facilities, which are required for day-to-day living.

The estate office is entrusted with various kinds of activities including house allotment, commercial shop management, eviction of unauthorized occupants, realization of license fee and electric/water charges from shopkeepers & house allottees, estate management and civic amenities.

The Institute has various types of residential accommodation, i.e. Type-1A, IB, I, II, III, IV, Faculty Apartment & V for Faculty members, Scientists, Research Engineers, Group-A Officers and other staff members of this Institute. We have mainly five shopping complexes at various locations, one of which is in the heart of campus called as main shopping complex, the others are at Type-II complex, at security crossing, at new SAC and at Type-I area consisting of various kinds of shops, which fulfill the basic needs of the residents.

Besides the above shopping complexes, we have 11 hostels for students’ accommodation out of which nine are for boys and two are for girls. Every hostel has shop like which mainly fulfills the immediate needs of students.

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

There was no decent canteen/lounge facility available in the campus for faculty and officers and their guests. They were to go at staff canteen alongwith their guests. 1968
batch donated 50% cost of the lounge (Rupees 25.00 lakhs) for creating a decent lounge facility in the campus, known as "Lounge - 68" and rest of the money was added by the Institute. The Lounge - 68 is now to be operational by M/s. Cafe Coffee Day.

Besides, the estate office is also managing different types of activities related to the estate successfully and cautiously by way of taking precautions to solve various types of problems. During the financial year 2012-13, the office has realized about Rs.98,42,328/- (Ninty Eight Lakh Forty Two Thousand Three Hundred Twenty Eight Only) from the different sources (it is notable that the tendering process of unserviceable materials has already shifted to central stores from August 2009.)

The breakup of the above amount is as follows:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Particulars</th>
<th>Amount in Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-</td>
<td>Amount collected through temporary houses allotment and temporary stalls at Shop C</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Rent From Temporary House allotment</td>
<td>24100</td>
</tr>
<tr>
<td>B</td>
<td>Electricity Charges of Temporary House Allotment</td>
<td>9700</td>
</tr>
<tr>
<td>C</td>
<td>Rent From Temporary Stall</td>
<td>50500</td>
</tr>
<tr>
<td>D</td>
<td>Electricity Charges of Temporary Stall</td>
<td>21800</td>
</tr>
<tr>
<td>E</td>
<td>Lawn Booking</td>
<td>3500</td>
</tr>
<tr>
<td>F</td>
<td>Community Centre Type-II FF rooms</td>
<td>68778</td>
</tr>
<tr>
<td>2-</td>
<td>Amount collected towards rent and electricity charges for Shops, Canteen &amp; Non Instt. Employee Houses</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Charges for electricity</td>
<td>5096523</td>
</tr>
<tr>
<td>B</td>
<td>Rent for Shops, Canteen and House to Non-Institute employees &amp; Administrative charges for delayed payment of L.E.</td>
<td>3039418</td>
</tr>
<tr>
<td>3-</td>
<td>Tender Process</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Sale of Tender forms (Rs.9,700/-) + VAT (Rs.485/-)</td>
<td>10185</td>
</tr>
<tr>
<td>B</td>
<td>Auction of Old and Irresperably damaged article of Scrap of ESA</td>
<td>35072</td>
</tr>
<tr>
<td>C</td>
<td>Sale of Amla (Rs.2,247/-), Oxidation (Rs.12,000/-) Mango (Rs.16,786/-) &amp; Beri Fruits (Rs.3,005/-)</td>
<td>34038</td>
</tr>
<tr>
<td>D</td>
<td>Amount from Raddi &amp; Kabad contractor (Rs. 71,300/-)</td>
<td>71300</td>
</tr>
</tbody>
</table>
### CAMPUS SCHOOL

Marching slowly but steadily towards the goals set in the previous academic session we tried hard to develop the school as a social space because conceptual development is a continuous process of deepening and acquiring new layers of meaningful perceptions.

The new entrants of K.G., Class I and other classes were given a warm reception and the new session started on Wednesday, 4 April, 2012. A parent orientation programme was held in the school. Continuous Comprehensive Evaluation (CCE) was introduced and Report Cards incorporating the CCE pattern were introduced. A well balanced Curriculum and Evaluation System was framed and continuous evaluation of identified aspects of students growth spread over the entire span of the academic session, diagnosis of learning gaps, use of corrective measures, retesting and feedback of evidence to teachers and students for their self evaluation was implemented.

To inculcate good reading habits in the children, the concept of class room library was re-emphasized. Specially designed wooden cabinets were installed in one section of each grade to store books related to each grade. Books were circulated amongst the students and were encouraged to read extensively. Books worth Rs.10,000/- were purchased from the Endowment Fund.

Creative programme of arts with music, dance, craft, clay modeling, dramatics were introduced. A detailed list of Intra School Competitions is attached for ready reference. Various days like Carpenter’s day, Mother’s day, Yellow & Red day, and Gardener’s day were celebrated with the children. To develop life skills various activities like tying

---

**4- Amount collected towards Panel Charges, Eviction, Retirement, Death & Resignation**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Licence Fee + Water Charges</td>
<td>383895</td>
</tr>
<tr>
<td>B</td>
<td>Electricity Charges</td>
<td>316609</td>
</tr>
<tr>
<td>C</td>
<td>Damage Charges of Divider (Rs. 6,250/-) + Misc. Charges (900/-)</td>
<td>7150</td>
</tr>
</tbody>
</table>

**5- Amount collected through issue of Mobile Passes & Collection of amount at Cycle Stand, IIT/K**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Amount collected at Cycle Stand</td>
<td>438380</td>
</tr>
<tr>
<td>B</td>
<td>Charges for Entry passes, Rickshaw pullers, Supplier and vendor</td>
<td>168080</td>
</tr>
<tr>
<td>C</td>
<td>Amount of shopkeeper passes</td>
<td>63300</td>
</tr>
</tbody>
</table>

**Grand Total** 9842328
of the shoe lace, buttoning & unbuttoning of the shirt, combing of the hair were also undertaken. To make the concept of right and left clear to the children red and yellow coloured ribbons were tied on the right & left wrist respectively.

Field trips to Nursery, Air Strip, Design Labs, Health Centre, Bank, Post Office were undertaken to give the children firsthand knowledge of their working.

Deep Shikha – a cultural fiesta and display of art & craft work was organized on Nov. 10th 2012. The event was inaugurated by Director IIT Kanpur, Prof. Indranil Manna. The august gathering of Prof. S. C. Srivastava, Prof. A.K. Ghosh, Prof. Dheeraj Shanghi, Institutes Nominee Prof. Anish Upadhyaya, members of the CS Governing Board were collectively appreciative of the effort put in by the teachers and the students of Campus School. Besides this Independence Day, Republic Day, Teachers Day and festivals such as Dusshera, Diwali, Christmas, Eid were celebrated with great enthusiasm.

For the first time the students of Campus School participated in the Inter school Collage making Competition held at Sir Padampat Singhania Education Centre on 24th Nov. 2012 where 44 different CBSE and ISC schools of the city participated. Paint a Stamp Competition was organized by the Indian Postal Services Dept.at G.P.O, Bara Churaha on 26th Nov. 2013. The students of Campus School made their presence felt and the result of the same is still awaited.

For the first time the children of Campus School were also exposed to the International English and Science Olympiad. A total of 5 Gold, 5 Silver and 5 Bronze medals were rewarded in Maths Olympiad. Rahul Yadav Cl I, Jonathan Paul Cl II, Prachi Singh Cl III, Gargi Ghorai Cl IV and Nitya Gupta Cl V qualified for the Second Round. A total of 5 Gold, 3 Silver and 3 Bronze medals were bagged in the English Olympiad. The students won laurels for the school by securing good positions both nationally and internationally. The medals, certificates and individual performance report was given to the children in a special assembly by Prof. Sanjay Mittal, Aerospace Engineering Dept. IIT Kanpur.

The academic session was a very eventful one as there was a change in the governance set up of Campus School. A governing board was set up with the Director IIT Kanpur as its Chairman. The School Governing Board comprises of Prof. Anish Upadhyaya as Institute Nominee to Campus School Governing Board, Dean of Resources and Alumni, Dean R&D, two Parent representatives and one teachers representative. Financial Sub Committee headed by Deputy Director and Academic Sub Committee headed by Prof A. Upadhyaya were constituted to regulate the fee structure, admission policy, school timings, academic calendar and salary structure/designation of the teachers.
Suggestions of both the Committees have been incorporated in formulating the new set of guide lines for the school.

Various steps were taken for proper maintenance of the school. Halogens, lamp shades, lights were installed at various places like entrance gate, school lawn and the corridors. Adequate illumination has been specially provided in the front lawn for the Badminton Court. Store room for tools and extension of the Computer Room has also been done. 10 Monitors, 2 Scanners and 1 Printer has been procured under the up gradation of the existing Computer Lab. Internet connectivity has been provided at various points like dance room, library, English lab, K.G. Activity room so that the children can have access to it.

In a special PTM organized in the month of February, 2013 activities done throughout the year were displayed in the form of Quasi Open House. Intra Section games were held at regular intervals throughout the year. Farewell to the outgoing Class V was also given. Final Prize Distribution along with the Report Cards for the session were given on Saturday, March 30th 2013. Principal KV, IIT Kanpur was the Chief Guest for the day.

All the existing Project Employees applied afresh for the 21 posts advertised for the designation of Asst. Project Manager. The existing strength of the Campus School staff is: 5 permanent teachers, 21 project employees; supporting staff: permanent 8 and 4 on work assignment mode. The present strength of the school is nearly 400 students with admissions still taking place. The most encouraging development is the faith shown by the community in the school.

I would like to sum up by thanking the immense support & guidance rendered to us by our Chairman Prof. Manna, the Institute Nominee Prof. A. Upadhayaya, members of the Governing Board, Prof. S. C. Srivastava D. Director and Mr. K. Tiwari, Principal KV IIT Kanpur. I would also like to acknowledge the support received from Dean R&D and DORA.

We at Campus School will strive for-Education, as a planned endeavour, at personal level on a small or institutional level, on a large scale, aims at making children capable of becoming active, responsible, productive, and caring member of society. They are made familiar with the various practices of the community by imparting the relevant skills and ideas. Ideally, education is supposed to encourage the student to analyse and evaluate and their experiences to doubt, to question to investigate – in other words, to be inquisitive and to think independently.
HEALTH CENTRE

Health Centre has 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 13 Medical Officers and a Medical Advisor of the Institute.

The details of the Health Centre services provided for the period with effect from 01.04.2012 to 31.3.2013 are as follows:

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Particulars</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.</td>
<td>Number of patients treated in OPD</td>
<td>68105</td>
</tr>
<tr>
<td>02.</td>
<td>Number of students treated</td>
<td>22594</td>
</tr>
<tr>
<td>03.</td>
<td>Number of patients manually registered</td>
<td>2012</td>
</tr>
<tr>
<td>04.</td>
<td>Number of patients treated in Indoor</td>
<td>900</td>
</tr>
<tr>
<td>05.</td>
<td>Number of patients treated in Homeopathy including students</td>
<td>9011</td>
</tr>
<tr>
<td>06.</td>
<td>Number of patients treated in Physiotherapy</td>
<td>7013</td>
</tr>
<tr>
<td>07.</td>
<td>Number of Plastering</td>
<td>54</td>
</tr>
<tr>
<td>08.</td>
<td>Number of Surgical Dressing</td>
<td>5913</td>
</tr>
<tr>
<td>09.</td>
<td>Number of Injections</td>
<td>33402</td>
</tr>
<tr>
<td>10.</td>
<td>Number of Tetvac</td>
<td>1315</td>
</tr>
<tr>
<td>11.</td>
<td>Number of babies attended in Well Baby Clinic</td>
<td>551</td>
</tr>
<tr>
<td>12.</td>
<td>Number of X-Ray done</td>
<td>2071</td>
</tr>
<tr>
<td>13.</td>
<td>Number of babies attended-National Pulse Polio Programme</td>
<td>66</td>
</tr>
<tr>
<td>14.</td>
<td>Number of Anti Rabies Injections</td>
<td>292</td>
</tr>
<tr>
<td>15.</td>
<td>Numbers of ECG done</td>
<td>370</td>
</tr>
</tbody>
</table>

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 on the campus and in Chittaranjan Park Colony, New Delhi also for the benefit of the Institute’s Visitors.
Allied Facilities are:

- Visiting Faculty Apartment at IIT Kanpur
- Visitors’ Hostel Extension
- Outreach 69 & 80 Building, IIT Kanpur
- Main Auditorium
- VH Service Apartment at 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.

1. **Accommodation:** Visitors’ Hostel has been equipped with fully furnished 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.

Visitors’ Hostel Extension has 44 guest rooms in which 16 are AC (with LCD and Cable connections) and 28 are standard rooms, which can accommodate 88 guests on twin sharing basis. Kitchen facility is also open only for breakfast at VH Extension

2. **Dining Facility:** Visitors’ Hostel provides dining facilities to in-house guests of Visitors’ Hostel, VH Extension, Visiting Faculty Apartment and for important 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.

3. **Conferencing Facilities:** A. Pioneer Batch Continuing Education Center:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of Facility</th>
<th>Max-Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VH Lounge ( round table)</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
<td>PBCEC Lawns</td>
<td>250</td>
</tr>
<tr>
<td>3</td>
<td>PBCEC Conference Room (U shaped)</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>PBCEC Small Class Room</td>
<td>36</td>
</tr>
<tr>
<td>5</td>
<td>PBCEC Big Class Room</td>
<td>65</td>
</tr>
<tr>
<td>6</td>
<td>PBCEC Committee Room</td>
<td>11</td>
</tr>
</tbody>
</table>
B. Outreach 69 & 80

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of Facility</th>
<th>Max-Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Auditorium</td>
<td>210</td>
</tr>
<tr>
<td>2</td>
<td>Seminar Room</td>
<td>40</td>
</tr>
<tr>
<td>3</td>
<td>Video-Conferencing Room</td>
<td>30</td>
</tr>
</tbody>
</table>

C. Main Auditorium

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of Facility</th>
<th>Max-Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Main Auditorium</td>
<td>1250</td>
</tr>
</tbody>
</table>

4. Additional Facilities:

- Centralized booking system for all facilities at VH and Allied Services through a common requisition form. 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.
- All the Deluxe AC rooms have a PC.
- All the rooms, Meeting Lounge, PBCEC and Dining Hall have Wi-fi connectivity.
- 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 enabled internet services through their laptop.
- All the rooms have cable connections with Color Television Set.
- All the deluxe rooms have a small pantry and a small refrigerator.
- Intimation of confirmation of bookings through e-mail.
- For detailed information, website of Visitors’ hostel can be accessed at http://www.iitk.ac.in/vh.

Management of day-to-day hospitality service has been outsourced to a private agency. An increase in facilities, 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.
Publication and Outreach Activities

Books

Aerospace Engineering

5. Guest Edited a special issue of Journal of Fluids and Structures for the IUTAM Symposium, Bluff Body Flows (Blubof2011) held at IIT Kanpur in December 2011 (Prof. Sanjay Mittal)

Books Translated into Chinese Language: (Prof. Ashish Tiwari)


Books Adoption (Prof Ashish Tiwari)

The following book was adopted for course work in Fall 2012 at the Department of Mechanical Engineering, Ohio State University, USA: (Prof. Ashish Tiwari)


The following two books were adopted for graduate level course at US Army Armament Research, Development and Engineering Center (ARDEC), Picatinny, NJ, in March 2013:


**E Book Downloads (Prof. Ashish Tiwari)**
The following book was among top 25% to be downloaded in e-book format from SpringerLink in the year 2011-12: (Prof. Ashish Tiwari)


**Biological Sciences and Bio-engineering**

**Chemical Engineering**

15. Transition-metal catalyzed C-C bond formation using organobismuth compounds
   Shimada, S. and Rao, M. L. N. Topics in Current Chemistry 2012, 311, 199-228 (Publisher: Springer Verlag)


   Invited Review Article: “Spatiotemporal control with Femtosecond Laser Pulses”, *Advances in Chemical Physics* (in progress)

20. NPTEL course: “Mathematics for Chemistry”, completed (Prof. Madhav)

21. ICT course: “Chemical Kinetics and Molecular Reaction Dynamics”, in progress (Prof. Madhav).

22. PRESENTLY WRITING A BOOK AT POSTGRADUATE LEVEL. DISCUSSIONS ON FOUR DIFFERENT ISSUES COMPLETED. DISCUSSION ON FIFTH ISSUE CURRENTLY IN PROGRESS. TWO MORE ISSUES OF MUCH RELEVANCE YET TO BE COVERED (Prof. Veerendra Yadav).
Civil Engineering


Computer Science and Engineering


Electrical Engineering


29. Rajesh M. Hegde, Multi modal signal processing and delivery systems for intelligent human computer communication, Directions, Vol. 11, No.1, pp.68–83, June 2010 (Prof. Rajesh M. Hegde)


32. Introduction to Electronics, in progress (Prof. Alok Dutta)
33. “Power Electronics- An Undergraduate Text,” in progress (Prof. P. Sensarma)
34. NPTEL-II Course on “Semiconductor Devices for Optical Communications” (Prof. Utpal Das)
38. Dielectric Resonator in progress (Prof. Animesh Biswas)
40. Power system analysis. (Prof. Saikat Chakrabarti)
41. Synchrophasor applications in power systems. (Prof. Saikat Chakrabarti)
42. Development of NPTEL - Web based course on Video Signal Processing in progress. (Prof. Sumana Gupta)
43. EE629 Digital Switching – lectures recording completed for NPTEL. (Prof. Y. N. Singh)
44. EE646 Optical Networks and Switching – lecture recording in progress for NPTEL. (Prof. Y. N. Singh)
45. Health Monitoring of Rotating Machines (In Progress) (Prof. Nishchal K. Verma)

**Humanities and Social Sciences**

47. Book manuscript *Freedom to Read, Freedom to Write: Literary Censorship in India* is complete and with Orient Blackswan. The book is getting ready for publication. (Prof. Mini Chandran)
48. Edited along with Dr. Suchitra Mathur an anthology of essays on translation, *Mapping Textual Travels: The Practice and Theory of Translation in India*. The manuscript is complete and getting ready for publication by Routledge India. This also has my essay, “ In the Marketplace: Publication of Translations in India”. (Prof. Mini Chandran)
49. Translation of Malayalam book *Kozhinja Ilakal* by Joseph Mundasserry for Cosmo Books, Thrissur is in progress. *(Prof. Mini Chandran)*

50. On causal and constructive modeling of belief revision with cambridge scholars publishers   (Due date November 30, 2013). *(Prof. A. V. Ravishankar Sarma)*

51. NPTEL: Video course on Introduction to logic (Due Date: October 31) *(Prof. A. V. Ravishankar Sarma)*

52. NPTEL: Web Course on Philosophy of science (Yet to be finished). *(Prof. A. V. Ravishankar Sarma)*

53. Book in progress: *Distributive Justice in India – A social-psychological perspective.* (Publisher yet to be decided- most likely, Springer). *(Prof. Lilavati Krishnan)*


55. NPTEL Phase II course on Introductory Sociology/ reviewed. *(Prof. A. K. Sharma)*

56. NPTEL Phase II course on Exploring Human Values: Visions of Happiness and Perfect Society/ completed. *(Prof. A. K. Sharma)*


58. A contribution on “Livelihood” as part of the WWF-India and HSCB study on “Living Ganga Programme for E-Flows Assessment” (Project No. WWF-I/HSS/20090085 & 86) has been published as a Report “Assessment of Environmental Flows for the Upper Ganga Basin“ by the WWF-India, 2012. (Jay O’ Keeffe et al.) *(Prof. P. Murali Prasad)*


62. Creating two courses on ‘Ethics’ in web and video mode for NPTEL, MHRD, GoI. *(Prof. Vineet Sahu)*

**Industrial and Management Engineering**

63. Services Marketing, Published by Pearson India , 8th Edition,in Editorial process *(Prof. Jayant Chatterjee)*


69. Enterprise Resource Planning: A Managerial Perspective, Pearson Education, 2013 (Prof. (Ms) Veena Bansal)

70. Text book for a graduate level course on ERP (in progress) (Prof. (Ms) Veena Bansal)

Materials Science and Engineering


73. "Introduction to Nanotechnology" Kantesh Balani, Anandh Subramaniam, Arvind Agarwal Cengage learning, New Delhi (in progress). (Prof. Anandh Subramaniam)

74. NPTEL Course Development: Web and Video course on Electroceramics (Prof. Ashish Garg)


77. Deepak, Vikram Verma, Monica Katiyar, Fabrication of Microelectronic Devices in "Micromanufacturing Processes", CRC press (Taylor and Francis) (Prof. (Ms) Monica Katiyar)

78. Development of Microstructures and Textures by cross rolling in Comprehensive Materials Processing Technology 2014 (Prof. Nilesh Prakash Gurao)

79. NPTEL Course on “Stereology” – In-Progress (Prof. Sandeep Sangal)

Mathematics and Statistics

80. Lecture notes on Discrete Mathematics (under NPTEL – II). (Prof. Arbind k. Lal)

81. Monograph : Vector Optimization : A View through Variational Analysysis. The work is jointly in progress. Co-authored with Prof. Christiane Tammer (Germany) and Prof. Marius Durea (Romania). The work is expected to be finished by October 2014. Contract has been signed with Springer. (Prof. Joydeep Dutta)


84. About to complete a NPTEL course on Probability & Distributions. A book based on this course is in progress. (Prof. (Ms.) Nandini Nilakantan)

85. A book on ALGEBRA is in progress. (Prof. G. Santhanam)

86. Book writing in progress: A book on the topic “Calculus of Single and Several Variables” is in progress. (Prof. P. Shunmugaraj)


Mechanical Engineering


91. NPTEL web course on introduction to plasticity/in progress (Prof. Anurag Gupta)


93. Book: Compliant Mechanisms (in progress) (Prof. Anupam Saxena)

94. Pipe Inspection Robots for SHM [Structural Health Monitoring], jointly with Prof. Harutoshi Ogai, IPS Waseda University, the composition is in progress and is expected to be over by 2014. (Prof. Bishakh Bhattacharya)

95. Books on “Mathematics for Engineers” and “Mechanics for Engineers” are in Progress. (Prof. Basant Lal Sharma)


99. Book Chapter: Hydrogen generation via photoelectrochemical water splitting of water: in progress, jointly with Dr. P. Mukherjee, Texas A&M

100. A Book on FEM is under Progress (Prof. N. N. Kishore)

101. NPTEL Courses deployed (Prof. Nachiketa Tiwari)
   o Acoustics (video course)
   o Fundamentals of Composites (web course)
   o Composites (web course)
   o Smart Materials, Adaptive Structures, and Intelligent Mechanical Systems (codeveloped with Bishak Bhattacharya)

103. Plasticity: Fundamentals and Applications, Co-Author: U.S. Dixit, ME Dept, IIT Guwahati, To be Published by CRC Press, Taylor and Francis Group, Florida, USA/ In Progress, likely to be published in March 2014. (Prof. P. M. Dixit)


106. Shantanu Bhattacharya 2013 NPTEL Lectures on Microfluidic systems and design (Under preparation) NPTEL, IIT Kanpur (Prof. Shantanu Bhattacharya)

107. Shantanu Bhattacharya 2013 NPTEL Lectures on Microsystems Fabrication by using Advanced Manufacturing processes (under review) NPTEL, IIT Kanpur (Prof. Shantanu Bhattacharya)


109. A book on Theory of Turbomachinery is under progress. (Prof. Subrata Sarkar)

110. “Micromanufacturing Processes” (Edited), Taylor and Francis (USA) (October, 2012) (I have contributed four chapters in this book). (Prof. V. K Jain)


Physics

116. I am writing a book that will be published from Cambridge University Press, UK. The agreement is already signed. The manuscript will be submitted before 31st May, 2014. (Prof. Amit Dutta)

117. “Molecular Machines” (a book) (draft prepared; negotiations with international publishers in progress). (Prof. Debashish Chowdhury)

118. Learning Physics from Traditional Indian Stories, produced by Shiksha Sopan (Prof. H. C. Verma)


Web-based courses for Sakshat + PPTs

120. Introductory Mechanics (Prof. Mahendra Kumar Verma) Nonlinear Dynamics (Prof. Mahendra Kumar Verma) Animations for mechanics (with Prof. Gaurav Dar, BITS Pilani at Goa) (Prof. Mahendra Kumar Verma)

121. Introduction to the Universe (in progress) (Prof. Pankaj Jain)

122. Book:/ Electronic Structure of Materials/ in progress/ (Published in August 2013) (Prof. R. Prasad)

123. Compact plasma and focused ion beams, Sudeep Bhattacharjee 2013 CRC Press - Francis and Taylor, LLC, USA In press (To appear in December, 2013) (Prof. Sudeep Bhattacharjee)


128. NPTEL Lecture on Laser Physics is in progress. (Prof. Harshawardhan Wanare)
129. Our research results are published in international journals and also on cond-mat arXiv. (Prof. Zakir Hossain)

Materials Science Program
Laser Technology Program
Design Program

Book chapters

Aerospace Engineering
Biological Sciences and Bio-engineering
Chemical Engineering

Chemistry

3. A book chapter on SC-SC Transformations in Metal Organic Frameworks in progress (Prof. P. K Bharadwaj) (Prof. Rajesh M. Hegde)

Civil Engineering


Computer Science and Engineering

5. In progress: Chapter on Text mining for biology applications (Prof. H. C. Karnick)
7. Manish Bajpai, P Munshi, P Gupta, B Pandey, Climate change and Tomography, Knowledge Systems of Societies for Adaptation and Mitigation of Impacts of

**Electrical Engineering**

9. Rajesh M. Hegde, Multi modal signal processing and delivery systems for intelligent human computer communication, Directions, Vol. 11, No.1, pp.68–83, June 2010

**Humanities and Social Sciences**


**Industrial and Management Engineering**


**Materials Science and Engineering**


**Mathematics and Statistics**

28. Book Chapter in Progress: Convergence of slices, geometric aspects in Banach spaces and proximinality, (To be published by Springer; the chapter is being revised). (Prof. P. Shunmugaraj)
Mechanical Engineering


Physics
Materials Science Program
Laser Technology Program
Design Program

JOURNAL PAPERS

Aerospace Engineering


32. **Contact of a Rigid Cylindrical Punch with an Adhesive Elastic Layer**
33. A generalized adaptive finite element analysis of laminated plates

34. Micromechanics based ply level material degradation model for unidirectional composites

35. Micromechanics based diffuse damage model for unidirectional composites
   *Composite Structures, Volume 96, February 2013, Pages 419-432* V. Murari, C.S. Upadhyay


41. (Paper presented at the 15th Annual CFD Symposium at the IISc Bangalore. The title of the paper is "DSMC Simulation of Shock-Boundary Layer Interaction in High Speed Rarefied Gas Flows using Heterogeneous Computing".

42. Murugan T, S. De, C. L. Dora and Debopam Das 2012 online 2011 Numerical simulation and PIV study of compressible vortex ring evolution Shock Waves Vol.22, Number 1, 69-83,


47. K Ashok & Debopam Das 2013 Instability of unsteady annular pipe flow JFM Accepted by all referees revised version submitted
48. Dora, C. L., Murugan, T., De, S., and Das, D 2013 Mechanism of Counter Rotating Vortex Rings formation ahead of a compressible vortex ring JFM-two reviewers have accepted – under revision
64. Nikhil Kumar, Anant Diwakar, Sandeep Kumar Attree, Sanjay Mittal, 'A method to carry out shape optimization with large number of design variables', accepted for publication in, *International Journal for Numerical Methods in Fluids*, (2012).


Biological Sciences and Bio-engineering


82. Anna Sarnowska, Anna Jablonska, Marcin Jurga, Maria Dainiak, Lukasz Strojek, Katarzyna Drela, Kathleen Wright, Anuj Tripathi, Ashok Kumar, Hans Jungvid, Barbara Lukomska, Nico Forraz, Colin McGuckin, Krystyna Domanska-Janik. (2013). Encapsulation of mesenchymal stem cells by bio-scaffolds protects cell survival and


119. Authors: Sandeep Gupta, Reshma Maurya, Monika Saxena and Jonaki Sen. Title: Defining structural homology between the mammalian and avian hippocampus through conserved gene expression patterns observed in the chick embryo. **Journal: Developmental Biology, Volume 366, Issue 2, pages 125-141 (15 June 2012).**


121. K. Pushpa, G. Anil Kumar, and K. Subramaniam 2013. PUF-8 and TCER-1 are essential for normal levels of several mRNAs in the C. elegans germline. *Development* 140: 1312-1320.


126. **Proteomic Evaluation of Antioxidant Activities of NAP Peptide in Rat Brain Cortex Exposed to Chronic Hypobaric Hypoxia** Narendra Kumar Sharma, Niroj Kumar Sethy, Mainak Das, Kalpana Bhargava Journal of Proteins & Proteomics. 2012, 3(3) 217-228

127. Singh S, Singh PK, Bhadauriya P, and Ganesh S* (2012) Lafora disease E3 ubiquitin ligase malin is recruited to the processing bodies and regulates the microRNA-mediated gene silencing process via the decapping enzyme Dcp1a. RNA Biology 9: 1440-1449


130. Singh PK, Singh S, and Ganesh S* (2013) Activation of serum/glucocorticoid-induced kinase 1 (SGK1) underlie increased glycogen levels, mTOR activation and autophagy defects in Lafora disease. Submitted to "Molecular Biology of the Cell"


**Chemical Engineering**


136. N. Tiwari, A. Awasthi and J. M. Davis; Linear stability analysis of thin liquid film flow over a heterogeneously heated substrate; Submitted to Physics of Fluids


155. Rehman T., M. Jaipal, and A. Chatterjee, A cluster expansion model for predicting activation barrier of atomic processes, J. Computational Physics, 2013, 243, 244-259.


215. N. Tiwari, A. Awasthi and J. M. Davis; Linear stability analysis of thin liquid film flow over a heterogeneously heated substrate; Submitted to Physics of Fluids


242. Title: Manipulation of instabilities in core-annular flows using a deformable solid layer  
Author(s): Gaurav; Shankar, V. Source: Physics of Fluids Volume: 25 Issue: 1 Published: JAN 2013 Article Number: 014014

243. Title: Suppression of purely elastic instabilities in the torsional flow of a polymeric liquids by a soft solid layer  
Authors: R. Neelamegam; V. Shankar Physics of Fluids, Revised manuscript under review (submitted, March 2013).

**Chemistry**

244. Temperature Controlled, Reversible Syn-Anti Conformational Switching in a Ethane-bridged Co (II) bisporphyrin: Effects of Inter-macroyclic Interactions and Axial Coordinations  
S. Dey, S. P. Rath* *Dalton Trans*. **2013**, 42, 0000. *in press*

245. Synthesis, Structure and Properties of a Series of Chiral Tweezers consisting of an Achiral Zn(II)bisporphyrin Host and Chiral Diamine Guest: Induction and Rationalization of Supramolecular Chirality  

246. Highly enhanced optical activity of Zn(II) bisporphyrin tweezer with extended chiral ligands due to well-matched host-guest system  


249. Effect of Heme-Heme Interactions and Modulation of Metal Spins by Counter Anions in a Series of Diiron(III)-μ-hydroxo Bisporphyrins: Unusual Stabilization of Two Different Spins in a Single Molecular Framework  

250. Formation of exo-exo, exo-endo and tweezer conformation induced by axial ligand in a Zn(II) bisporphyrin: Synthesis, structure and properties  
A. Chaudhary, Sk. A Ikbal, S Brahma, S. P. Rath* *Polyhedron* **2013**, 52, 761. (Invited article in a special issue dedicated to Prof. Alfred Werner on the occasion of 100th anniversary of the Nobel Prize in Chemistry).


263. Synthesis of γ-Oxo γ-Aryl and γ-Aryl α-Amino Acids from Aromatic Aldehydes and Serine, Synthesis 2013, 45, 1997-2002


267. Photochromism of novel chromenes constrained to be part of [2.2]paracyclophane: remarkable ‘phane’ effects on the colored o-quinonoid intermediates Moorthy, J. N.; Mandal, S.; Kumar, A. New J. Chem. 2013, 37, 82. Selected as a HOT article and also featured as ‘Inside Cover Page’


275. Prosenjit Daw, Tapas Ghatak, Henri Doucet, and Jitendra K. Bera Cyclometalations on Imidazo[1,2-a] [1,8]-naphthyridine Framework Organometallics, 2013, 32, 4306.


296. **Pd-catalyzed chemoselective threefold cross-coupling of triarylbismuths with benzylic bromides** Maddali L. N. Rao and Ritesh J. Dhanorkar *RSC Advances* 2013, 13, 6794-6798


317. An efficient synthetic route to carbocyclic enamionitriles via Lewis acid catalysed domino-ring-opening-cyclisation (DROC) of donor–acceptor cyclopropanes with
malononitrile; Manas K. Ghorai, Ranadeep Talukdar and Deo Prakash Tiwari; Chem. Commun., 2013, 49, 8205.


349. Synthesis of Coordination Polymers with \(d^{10}\) Metal Ions and a New Linear Ligand: X-ray Structural and Luminescence Studies, M. Ahmad and P. K. Bharadwaj, Polyhedron (Special Issue on Alfred Werner), (2013), 52, 1145.


381. Synthesis of One- and Two-Dimensional Coordination Polymers Containing OrganotinMacrocycles. Reactions of (n-Bu3Sn)2O with Pyridine Dicarboxylic Acids. Structure-Directing Role of the Ancillary 4,4 'Bipyridine Ligand V.
Chandrasekhar, C. Mohapatra, R. J. Butcher *Crystal Growth and Design*, 2012, 12, 3285-95


387. Pyridyloxycyclophosphazenes and carbophosphazenes: Inorganic ring-supported coordination platforms V. Chandrasekhar, R. Suriya Narayanan *Chimia*, 2013, 67, 64-70

388. Syntheses, structures, and magnetic properties of a family of heterometallic heptanuclear \([\text{Cu}_5\text{Ln}_2]\) (\(\text{Ln} = \text{Y(III)}, \text{Lu(III)}, \text{Dy(III)}, \text{Ho(III)}, \text{Er(III)}, \) and \(\text{Yb(III)}\)) complexes: Observation of SMM behavior for the Dy(III) and Ho(III) analogues V. Chandrasekhar, A. Dey, S. Das, M. Rouzières, R. Clé rac *Inorg. Chem.* 2013, 52, 2588-98

389. Telluroxane-supported coordination ligands: Synthetic and structural aspects V. Chandrasekhar, A. Kumar, M. D. Pandey, R. K. Metre *Polyhedron (Special Alfred Werner Issue)* 2013, 52, 1362-68


Civil Engineering


447. Rawal, A., S.N. Tripathi et al., 2013, Quantifying the importance of galactic cosmic rays in cloud microphysical processes, Journal of Atmospheric and Solar-Terrestrial Physics, 102, 243-251.


Deposition on Terrestrial Bodies, *Environmental Science and Pollution Research* (submitted)


512. Ashwin Kumar, Deepchandra Srivastava, Manish Agrawal, Anubha Goel*. (2013), Snapshot of PM load evaluated at major intersections in an urban location, India (Submitted).

513. Deepchandra Srivastava, Anubha Goel*, Ashwin Kumar. (2013), Source apportionment of PM by using Metal as source marker and evaluation of metal toxicity at major intersections for Kanpur city, India (manuscript under preparation).


**Computer Science and Engineering**


519. **Retargeting GCC: Do We Reinvent the Wheel Every Time?**, Saravana Perumal P and Amey Karkare, The Second Asia-Pacific Programming Languages and Compilers Workshop (APPLC), Shenzhen, China, Feb 2013.


566. Saiful Islam, Ekram Khan, Phalguni Gupta, Enhanced Steganographic Capacity using Morphing Technique, Neurocomputing Journal (Accepted, 2013)


Conference on Network and Service Management (CNSM), Las Vegas, October 2012.


609. M. S. Ramaiah and Amitabha Mukerjee, The Baby at One Month: Visuo-motor discovery in the infant robot (full paper), ICRA 2013 Workshop on Bootstrapping
Structural Knowledge from Sensory-motor, Experience, Karlsruhe, Germany, May 6, 2013

[Note on the conferences: COLING and AAAI are the top conferences in NLP and AI respectively; Annual CogSci Conference is the top conference in Cognitive Science; IEEE VR is among the top conferences in Graphics and Robotics]


**Electrical Engineering**


669. “Effect of electric field and temperature variability on spin dephasing in SiGe nanowires,” Bhupehs Bishnoi, Akshay salumath, Sabiq Chisti, Ashwini Verma and Bahniman Ghosh, accepted in the 9th Spanish Conference on Electron Devices, Valladolid, Spain (February 12-14, 2013)


683. Sequential change detection using estimators of entropy & divergence rate DR Juvvadi, RK Bansal -2013 Proceedings of National Conference on Communications, IIT Delhi (on IEEE Xplore)

684. Robust dual cumulative sum algorithm for cooperative spectrum sensing S Kadam, G Sharma, RK Bansal - 2013 Proceedings of National Conference on Communications, IIT Delhi (on IEEE Xplore)


722. Vaibhav Gandhi, Girijesh Prasad, Damien Coyle, Laxmidhar Behera, Thomas Martin McGinnity, Quantum Neural Network Based EEG Filtering for a Brain Computer Interface, IEEE Trans Neural Networks and Learning Systems, Accepted 2013


726. Felix Orlando, Ashish Dutta, Anupam Saxena, Laxmidhar Behera and T Shibata, Manipulability Analysis of Human Thumb, Index and Middle Finger in Cooperative 3D Rotational


729. M J Akhtar, N K Tiwari, J Devi, M Mahmoud, G Link and M Thumm 2013 Determination of effective constitutive properties of metal powders at 2.45 GHz for microwave processing applications Accepted for publication in FREQUENZ” Journal of RF Engineering and Telecommunications, Germany.

730. S Awasthi, A Biswas, and M J Akhtar 2013 A CAD model of triple-bandpass filter implemented with metamaterial mushroom structure Accepted for publication in International Journal of RF and Microwave Computer Aided Engineering

731. S Awasthi, A Biswas and M.J.Akhtar 2013 Dual Stopband Filters using Metamaterial Hexagonal Mushroom Resonator Accepted for Publication in Microwave Optical Technology Letters.


739. Charge Trapping and transport in epoxy resin and polythelene, Supriyo Das and Nandini Gupta, submitted to International Transactions on Electrical Energy Systems

740. Interfacial charge behavior at dielectric dielectric interfaces, Supriyo Das and Nandini Gupta, submitted to IEEE Transactions on DEIS.


765. Rakesh Agarwal, V. Prasad, Sumana Gupta, "A Color Video Compression Technique using Key Frames and a Low Complexity Color Transfer”, paper

766. M. Satish, Sumana Gupta,” Design and application of a New Multiscale Multidirectional Non-subsampled Filter Bank”, Paper presentation in the 8th International Conference on SIGNAL IMAGE TECHNOLOGY & INTERNET BASED SYSTEMS (SITIS), November 25-29, 2012, SORRENTO - Naples, Italy


768. RajuRanjan, Sumana Gupta et.al. “Sparsity Based Segmentation in Hybrid Color Space”, accepted for oral presentation in National Conference in Communications (NCC), IIT-Delhi, February 2013.


786. Anurag Singh, Rahul Kumar, Y N Singh, "Effects of Inoculation based on Structural Centrality on Rumor Dynamics in Social Networks," Computing and
(Workshop on computation social networks, CSoNet 2013, June 22, 2013)


**Humanities and Social Sciences**


825. “English Language Premium in a Globalizing Economy: Evidence from a Policy Experiment in India” (with Shilpi Kapur), under review

826. “Mother’s Autonomy and Child Welfare - A New Measure and Some New Evidence” (with Prabal De),

827. "Transfer Behaviour in Migrant Sending Communities" (with Susan Steiner and Bakhrom Mirkasimov) ZA Discussion Paper Number DP7406, under review


829. Bayesian Quantile Regression for Ordinal Models, submitted to Bayesian Analysis.


831. Fiction as Faith: Philip Roth’s Testament in Exit Ghost. Philip Roth Studies 9.2 (Fall 2013). [Forthcoming]


835. “The Fugitive Reader: Reading the Adhyatmaramayanam down the Ages” accepted for publication in South Asian Review.


839. CULTURAL DIGITAL ARCHIVES – RESEARCH IN VISUAL ETHNOGRAPHY FOCUSING ON MARKETS OF KANPUR, International Symposium on Culture, Art and Literature (ISCAL2013), Bangkok, Thailand, 06-08 November 2013
844. STYLISTIC ANALYSIS OF SPACE IN INDIAN FOLK PAINTING, Shatarupa Thakurta Roy Amarendra Kumar Das ICoRD’13, 4th International Conference on Research into Design, January 7---9, 2013, Chennai, India [ICoRD’13, Global Product Development Series: Lecture Notes in Mechanical Engineering Chakrabarti, Amresh; Prakash, Raghu V. (Eds.)2013, XXIV, 1448 p. 689 illus. In 2 volumes, Springer]
845. Myths and Facts of Indian Folk Painting, Shatarupa Thakurta Roy Amarendra Kumar Das International Symposium on Culture, Art and Literature (ISCAL2013) November 6---8, 2013, Bangkok, Thailand [International Journal of Business and Information (IJBI, ISSN: 1728--8673) International Journal of Business and Information (IJBI), special issue out of the presented papers in the Conference]


**Industrial and Management Engineering**


863. Submitted (in July 2013) the following paper to “Journal of the Operational research society” A game theoretic approach to the airline revenue sharing problem


871. Reliability Based Portfolio Optimization with Conditional Value at Risk (CVaR): Raghu Nandan Sengupta and Siddharth Sahoo; Quantitative Finance, 2013, 13, 1637-1651.


Materials Science and Engineering


917. V. Kumar, A. Gupta, D. Lahiri, Kantesh Balani, “Serrated Yielding During Nanoindentation of Thermomechanically Processed Novel Mg-9Li-7Al-15n and Mg-9Li-


931. K. N. Kulkarni and A. A. Luo; “Interdiffusion and Phase Growth Kinetics in Magnesium-Aluminum Binary System”; Journal of Phase Equilibria and Diffusion; Vol. 34; 2013; 104-115


935. T. Ashokkumar, A.Rajadurai and Gouthama 2013 Mechanism of Reduction in Grain and Particle sizes of Nix- Fe100x Nanopowder’, Materials and Manufacturing Processes, 28 (2013), pp 1–6,


965. K. Shravan Kumar and Krishanu Biswas; “Effect of thiourea on grain refinement and defect structure of the pulsed electrodeposited nanocrystalline copper”, Surface Coatings and Technology, 214, 2013, 8-18


1012. Self-assembled polystyrene monolayer for aluminum surface patterning (in-progress)

1013. Synthesis of Pyrite through chemical-bath deposition and sulfurization (in-progress)

1014. “Microstructural Evolution during cold and hot rolling of stainless steel 316L”, Nitin Kr. Sharma, Shashank Shekhar, Submitted in IUMRS Conference-2013, Beijing (peer-reviewed)


Mathematics and Statistics


1019. On the magic space of locally finite graphs. Ars Combinatorica, 104 (2012), 41-64 (with Prof B Bhattacharjya).

1020. On algebraic connectivity of graphs with at most two points of articulation in each block. Linear and Multilinear Algebra, 60, no. 4, 415-432 (with Prof R B Bapat and Prof S Pati).


1049. Cubic B-spline collocation method for numerical solution of generalized Black-Scholes equation, Mathematical and Computer Modelling, Vol.55, no.3-4, pp. 1483-1505, 2012 (with Lokpati Tripathi and Alpesh Kumar)
1050. A Robust Non-uniform B-spline Collocation Method for Solving Generalized Black-Scholes Equation, Accepted for publication in IMA J. Numerical Analysis (with Lokpati Tripathi)

1051. A posteriori Error Analysis for Defect Correction Method for Two Parameter Singular Perturbation Problems, Accepted for publication in Journal of Applied Mathematics and Computing (with Anuradha Jha)


1072. Sharp upper bound and a comparison theorem for the first non-zero Steklov eigenvalue, Raveendran Binoy and G Santhanam (Submitted for publication).


1089. Effect of thermal distortion of slider and asperities: with a special reference to load generation in parallel sliders, Presented at the 67th ANNUAL MEETING OF THE STLE, St. Louis, Missouri, USA, May 06-11, 2012.

1090. Thermal and Roughness Effects in a Tilted Pad Slider Bearing Considering Heat Conduction Through the Pad and Slider, Proceedings of the National Academy of Sciences, India (Section - A), 2012 Available on line: http://www.springer.com/home?SGWID=0-0-1003-0-0&aqId=2360050&download=1&checkval=8123d76f84633dc35c6caca1ee42873b2


Porous Medium under the influence of Soret and Dufour Effect” Journal of Porous Media. 15(9); pp. 877-890.


1102. ANSHU SRIVASTAVA, SANTOSH K YADAV, VIBHOR V BORKAR, ABHISHEK YADAV, SURENDRA K YACHHA, MICHAEL A THOMAS, RAM K S RATHORE, CHANDRA M PANDEY, RAKESH K GUPTA, Serial evaluation of children with acute liver failure with advanced MR imaging, serum proinflammatory cytokines, thiamine and cognition assessment. Journal of pediatric gastroenterology and nutrition. 05/2012; · 2.18 Impact Factor
1103. AWASTHI R, RATHORE RK, SONI P, SAHOOP P, AWASTHI A, HUSAIN N, 
BEHARI S, SINGH RK, PANDEY CM, GUPTA RK. Discriminant analysis to 
classify glioma grading using dynamic contrast-enhanced MRI and 

1104. LOKENDRA K. BAILYAN, PRAVIR DUTT and R.K.S. RATHORE, Least Squares h-
p Spectral Element Methods for Elliptic Eigenvalue Problems. Applied Math and 

1105. R K GUPTA, R AWASTHI, R K GARG, N KUMAR, P K GUPTA, A K SINGH, P 
SAHOOP, V K PALIWal, K N PRAvAD, C M PANEy, R K S RATHORE. 
Individual differences in trait anxiety are associated with white matter tract 
integrity in fornix and uncinate fasciculus: Preliminary evidence from a DTI based 
ahead of print])

1106. RICHA TRIVEDI, AHMAD RAZA KHAN, POONAM RANA, SEENU HARIDAS, 
B S HEMANTH KUMAR, KAILASH MANDA, RAM K S RATHORE, RAJENDRA 
P TRIPATHI, SUBASH KHUSHU. Radiation-induced early changes in the brain 
and behavior: Serial diffusion tensor imaging and behavioral evaluation after 
graded doses of radiation. Journal of neuroscience research. 05/2012;

RATHORE., An exploratory study into the role of dynamic contrast-enhanced 
(DCE) MRI metrics as predictors of response in head and neck cancers, Clinical 
Radiology (2012), doi:10.1016/j.crad.2012.03.005

1108. SHILPI MODI, RICHA TRIVEDI, KAVITA SINGH, PAWAN KUMAR, RAM K S 
RATHORE, RAJENDRA P TRIPATHI, SUBASH KHUSHU, Individual differences in 
trait anxiety re associated with white matter tract integrity in fornix and 
uncinate fasciculus: Preliminary evidence from a DTI based tractography study. 
(Institute of Nuclear Medicine and Allied Sciences (INMAS), Lucknow Road, 
Timarpur, Delhi, India.) Behavioural brain research (impact factor: 3.22). 10/2012; 
DOI:10.1016/j.bbr.2012.10.007

1109. YOGITA RAI, SAURABH CHATURVEDI, VIMAL KUMAR PALIWAL, PUNEET 
GOYAL, ANKITA CHOURASIA, RAM KISHORE SINGH RATHORE, ABHISHEK 
YADAV, CHANDRA MANI PANDEY, RAKESH SHYAM LALLA, RAVINDRA 
KUMAR GARG, RAKESH KUMAR GUPTA, DTI correlates of cognition in term 
children with spastic diplegic cerebral palsy, European Journal of Paediatric 
Neurology (2012), http://dx.doi.org/10.1016/j.ejpn.2012.11.005 Eur J Paediatr 
[Epub ahead of print]

1110. GUPTA RK, AWASTHI R, GARG RK, KUMAR N, GUPTA PK, SINGH AK, 
SAHOOP P, PALIWAL VK, PRAvAD KN, PANEy CM, RATHORE RK. T1-
Weighted Dynamic Contrast- Enhanced MR Evaluation of Different Stages of

1111. BHASWATI ROY, RAKESH K GUPTA, ANDREW A MAUDSLEY, RISHI AWASTHI, SULAIMAN SHERIFF, MENG GU, NUZHAT HUSAIN, SUDIPTA MOHAKUD, SANJAY BEHARI, CHANDRA M PANDEY, RAM K S RATHORE, DANIEL M SPIELMAN, JEFFRY R ALGER, Utility of multiparametric 3-T MRI for glioma characterization. Neuroradiology 02/2013; DOI:10.1007/s00234- 013-1145- x · 2.82 Impact Factor


Mechanical Engineering


1136. 10. Avinash Kumar Agarwal*, Tarun Gupta, Neelabh Dixit, Pravesh Chandra Shukla, “Assessment of Toxic Potential of Primary and Secondary Particulates/ Aerosols from Biodiesel Vis-à-Vis Mineral Diesel Fuelled Engine” Accepted for publication in Inhalation Toxicology, March, 2013. (ISSN # 0895-8378)


1141. Avinash Kumar Agarwal, Vipul Chaudhury, Anuj Agarwal, Pravesh Chandra Shukla, “Comparative Study of Macroscopic Spray Parameters and Fuel Atomization Behaviour of Straight Vegetable Oils (Jatropha), its Biodiesel and


1194. Transmission of Visual Data in Pipes using Sonic Methods, Oorath Rahul, and Nachiketa Tiwari, Internoise 2013

1195. Inter-relationships between Stop Consonants in Devanagari Alphabet, Kushagra Singh, and Nachiketa Tiwari, Delhi Acoustics Conference, 2013


1219. Three dimensional finite element investigations into the effects of thickness and notch radius on the fracture toughness of polycarbonate Author(s): Kattekola, Brunda; Ranjan, Abhishek, Basu, Sumit


1221. Finite Element studies on indentation size effect using a higher order strain gradient theory Author(s): Guha, Suman; Sangal, Sandeep; Basu, Sumit Source: INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES Volume: Issue: Pages: 863.DOI: 10.1016/j.ijsolstr.2012.10.017 Published:MAR 15 2013

1222. Title: Determination of complex stress intensity factor for a crack in a bimaterial interface using digital image correlation Author(s): Desai, Chaitanya K.; Basu, Sumit; Parameswaran, Venkitnarayanan Source: OPTICS AND LASERS IN ENGINEERING Volume: 50 Issue: 10 Pages: 1423-1430 DOI: 10.1016/j.optlaseng.2012.05.003 Published: OCT 2012

1223. Title: numerical study on the effect of aggregate gradation on mechanical response of asphalt mix Author(s): Singh, Ashok; Das, Animesh; Basu, Sumit Source: KSCE JOURNAL OF CIVIL ENGINEERING Volume: 16 Issue: 4 Pages: 594-600 DOI: 10.1007/s12205-012-1391-1 Published: MAY 2012


1225. Title: Critical Evaluation of a Constitutive Model for Glassy Polycarbonate Authors: Kattekola, Brunda, Desai, Chaitanya, Venkitnarayanan, P, Basu, Sumit Source: Accepted in EXPERIMENTAL MECHANICS

1226. Title: A quantitative method for characterising dispersion in nanocomposites Author(s): Patel, RR, Gupta, Nandini, Basu, Sumit Source: Accepted in JOURNAL OF NANOSTRUCTURED POLYMERS AND NANOCOMPOSITES

1227. Title: Numerical investigations of flat punch molding using a higher order strain gradient theory. Author(s): Guha, Suman; Sangal, Sandeep; Basu, Sumit Source: Accepted in INTERNATIONAL JOURNAL OF MATERIALS FORMING
1228. Title: On the fracture of small samples under higher order strain gradient plasticity
   Author(s): Guha, Suman, Sangal, Sandeep; Basu, Sumit  Source: Submitted to the
   INTERNATIONAL JOURNAL OF FRACTURE

1229. Title: Controlling the Sub-Molecular Motions to Increase the Glass Transition
   Temperature of Polymers  Author(s): Sudharsan, K; Nair, N; Basu, Sumit Source:  
   Submitted to CHEMICAL PHYSICS LETTERS

1230. Title: A review of higher order strain gradient theories of plasticity: Origins, 
   thermodynamics and onnections with dislocation mechanics. Author(s): Guha, 
   Suman; Sangal, Sandeep; Basu, Sumit Source: Submitted to SADHANA

1231. Title: Investigations into the origins of plastic flow and strain hardening in 
   amorphous glassy polymers Author(s): Raina, Jatin; Basu, Sumit Source: 
   Submitted to INTERNATIONAL JOURNAL OF PLASTICITY

1232. Title: Extraction of unique interface traction separation law for PMMA/PU  
   adhesive joint Author(s): Desai, Chaitanya, Venkitanarayanan, P; Basu, Sumit 
   Source: Submitted to INTERNATIONAL JOURNAL OF SOLIDS AND 
   STRUCTURES

1233. Rajeev Kumar Singh, Rishi kant, Mohammad Asfer, Bishakh Bhattacharya, 
   Pradipta K. Panigrahi & Shantanu Bhattacharya 2012 Passive vibration damping 
   using polymer pads with micro-channel arrays Journal of Microelectromechanical Systems, 
   2012, DOI: 10.1109/JMEMS.2013.2241392

1234. Rishi Kant, Himanshu Singh, Monalisha Nayak, Shantanu Bhattacharya 2012 
   Optimization of design and characterization of a novel micro-pumping system  
   (Citations = 01)

1235. Rajeev Kumar Singh, Ankur Gupta, Shantanu Bhattacharya 2013 Fabrication of 
   solenoidal micro-valve in polydimethylsiloxane using 3D soft lithography 

1236. Himanshu Singh, Monalisha Nayak, Rishikant, Rajeev Kr. Singh, Deepak Singh, R. 
   Gurunath, Shantanu Bhattacharya Integrated Dielectrophoretic preconcentration, 
   sorting and q-PCR based identification of microorganisms in a single silicon 
   microchip Under Review (Nature Scientific Reports)

1237. Avinash Kumar , Ankur Gupta , Rishi Kant , Syed Nadeem Akhtar , Nachiketa 
   Tiwari , J. Ramkumar , Shantanu Bhattacharya 2013 Optimization of LASER 
   machining process for the preparation of photo masks and its application to Micro-
   systems fabrication Accepted in Journal of Micro/Nano Lithography and 
   MOEMS, 2013, in Press

1238. Ankur Gupta, Shashank Shekhar Pandey, Monalisha Nayak, Shantanu 
   Bhattacharya 2013 Hydrogen sensing based on nanoporous silica-embedded ultra 
   dense ZnO nanobundles Under Review in RSC Advances
1239. Vinay Patel, Shantanu Bhattacharya High-Performance Nanothermite Composites based on Aloe Vera-Directed CuO Nanorods Under review (Applied materials and interfaces)


1248. Yemei Liu, Keldren X. Z. Loy, Christina Lim and S. K. Sinha, Pre-polishing the metal counterface of metal-UHMWPE wear pair with filler filled UHMWPE composites to generate counterface changes to have an effective reduction in pure UHMWPE wear, Tribology Letters (accepted).


1250. Yemei Liu and S. K. Sinha, Mechanical and tribological properties of PEEK particle-filled UHMWPE composites: The role of counterface morphology change


1305. S. Paik, S. S. Gupta, R. C. Batra, Buckling mode localization in composite laminates, 17th International Conference on Composite Structures, University of Porto, Portugal.

**Physics**


1319. An Effective Quantum Parameter for Strongly Correlated Metallic Ferromagnets

1320. Onset and Melting of Local Orbital Order

1321. Exact Eigenstates Analysis of Finite Frequency Conductivity in Graphene

1322. Magnon Self Energy in the Correlated Ferromagnetic Kondo Lattice Model: Spin- Charge Coupling Effects on Magnon Excitations in Manganites

1323. Orbital-Ordering-Induced Stabilization of the (pi,0) Ordered Magnetic State in a Minimal Two-Band Model for Iron Pnictides


1333. Influence of Ca ions on surfactant directed nucleation and growth of nano structured iron oxides and their magnetic properties M. Mohapatra1*, D. Behera1, S. Layek2, S. Anand1, H.C. Verma2 and B. K. Mishra, Crystal Growth & Design, 12, 18 (2012)


1342. "Geodesic flows and their deformations in Bertrand spacetimes”, To be published in the Proceedings of 13th Marcel Grossmann Meeting in Stolkholm (August 2012)


After June 2013:


1359. Direction dependence of the power spectrum and its effect on the Cosmic Microwave Background Radiation, JCAP, 1304, 007 (2013)


1361. Polarization Alignment in JVAS/CLASS flat spectrum radio surveys, IJMPD 22, 1350080 (2013)

1362. Cosmological implication of unimodular gravity, JCAP 11, 003 (2012)


1364. Other papers published by my PhD students (not including my authorship)


1380. Compositional Dependence of Structural Parameters, Polyhedral Distortion and Magnetic Properties of Gallium Ferrite,
1387. Sanchit K. Singh, Sameer Khandekar, Dheeraj Pratap and S. Anantha Ramakrishna, Wetting dynamics and evaporation of sessile droplets on nano-porous alumina surfaces, Colloids and Surfaces A: Physicochemical and Engineering


1394. Prasanta Mandal, Prince Gupta, Amitabh Nandi and S.A. Ramakrishna, Surface enhanced fluorescence and imaging with plasmon nearfields in gold corrugated gratings, J. Nanophoton. 6, 063527 (2012)


1400. Anomalous local magnetic field distribution and strong pinning in CaFe$_{1.94}$Co$_{0.06}$As$_2$ single crystals. Pabitra Mandal, Gorky Shaw, S. S. Banerjee*, Neeraj Kumar, S. K. Dhar and A. Thamizhavel. Euro Phys. Lett. 100, 47002 (2012).


1407. D. Sahu, S. Pandey, J. Aneja, and S. Bhattacharjee 28 December 2012 Negative ion rich plasmas in continuous and pulsed wave modes in a minimum-B magnetic field Physics of Plasmas, **19**, 123517 (2012)


1414. Work distribution for a Brownian particle subjected to an oscillatory drive, Bappa Saha and Sutapa Mukherji (submitted to Journal of Statistical Physics)

1431. Bio-organism detection in one-dimensional photonic crystals using electromagnetically induced transparency Jolly Jose and Harshawardhan Wanare


1433. **Enhanced photon density wave propagation in random amplifying media** Lalruatfela, Harshawardhan Wanare and S.A. Ramakrishna Accepted for publication in Optics Letters

1434. **Harnessing superpositions atomic systems** A. Kani and Harshawardhan Wanare Submitted to Physical Review Letters


1436. **Beam splitting, switching and steering using nanorods in photonic cross waveguides** Ranjeet Dwivedi and Harshawardhan Wanare under preparation for submission to Optics Letters


1448. Santosh K. Sahoo, H. Bakhru, Sumit Kumar, D. Misra, Colin A. Wolden, **Y. N. Mohapatra** and D. C. Agrawal, *Carrier Transport Mechanisms in Metal-Insulator–Metal Au/Ba0.8Sr0.2TiO3/ ZrO2/ Ba0.8Sr0.2TiO3/Pt Thin Film Heterostructures*, MRS Proceedings / Volume 1507 / 2013

1449. Santosh K. Sahoo, H. Bakhru, Sumit Kumar, D. Misra, Colin A. Wolden, **Y. N. Mohapatra** and D. C. Agrawal, *Field Dependent Carrier Transport Mechanisms in Metal-Insulator–Metal Devices with Ba0.8Sr0.2TiO3/ ZrO2 Heterostructured Thin Films as the Dielectric*, MRS Proceedings / Volume 1547 / 2013


1455. SK Firoz Islam and Tarun Kanti Ghosh, In-plane electric field effect on a spinorbit coupled two-dimensional electron system in presence of magnetic field, *Journal of Applied Physics* 113, 183710 (2013)


### RESEARCH PAPERS PUBLISHED IN CONFERENCE PROCEEDINGS (AS A FULL PAPER) (REFEREED CONFERENCES)

#### Aerospace Engineering

7. Bano A, Mohite PM, Kumar A. Buckling of laminated plates with cutout using higher order theory. 4th International Congress on Computational Mechanics and Simulations, Hyderabad, 2012, India.


20. Pradeep Kumar, Ashoke De and Debopam Das, Determination of flow field due to clap and fling motion of a rigid flapping wing using LBM simulation. ICIUS-2013, Jaipur, September 2013

21. Joydeep Bhowmik, Saurav Kumar Ghosh and Debopam Das, Effects of aspect ratio of a twisted flapping wing on aerodynamic force generation. ICIUS-2013, Jaipur, September 2013
29. Joydeep Bhowmik, Saurav Kumar Ghosh and Debopam Das 'Aerodynamics of an ornithopter- An experimental study', ICIUS, Singapore, October 2012

**Biological Sciences and Bio-engineering**


**Chemical Engineering**


13. On a structurist framework of belief revision, Conference on perspectives of structuralism, Munich, Germany, 2012

Chemistry


2. The carbon-Ferrier rearrangement: an approach towards the synthesis of C-glycosides


6. HClO₄·SiO₂ mediated improved isomerisation of glycidic esters to -hydroxy-unsaturated esters: Application in the formal synthesis of (R)-Baclofen and β-phenyl GABA analogues

7. Aza-Claisen rearrangement on 2-C-hydroxymethyl glycals as a versatile strategy towards synthesis of isofagomine and related biologically important iminosugars Y.


**Civil Engineering**


Health Care and Environment (KAVAASTHA), Department of Microbiology and Biotechnology, Jnanabharathi Campus, Bangalore.


34. S. Basu, V. Vasudevan (2013), Effect of Bicycle Friendly Roadway Infrastructure on Bicycling Activities, Accepted for presentation at the Conference of Transportation Research Group of India (CTRG), Agra, India.
35. P. Singh, V. Vasudevan (2013), Development of Panel Models on Traffic Fatalities for Regions with Limited Data, Accepted for presentation at the Conference of Transportation Research Group of India (CTRG), Agra, India.

Computer Science and Engineering

2. Saiful Islam and Phalguni Gupta, Revisiting Least Two Significant Bits Steganography, 8th International Conference on Intelligent Information Processing (ICIIP2013), Seul, Korea, April 1-3, 2013
10. Amit Bendale, Aditya Nigam, Surya Prakash, Phalgun Gupta, Iris Segmentation using Improved Hough Transform, 8th International Conference on Intelligent Computing, Huangshan, China, July 2012

**Electrical Engineering**


27. Mohan M Trivedi and Rajesh M Hegde, Enabling Multimodal Pervasive Computing Systems for Agriculture and Transportation Applications (White Paper), VANET and Intelligent Transportation, Indo-US Workshop on Pervasive Communications and Computing Collaboration (PC3) , IIT Delhi, New Delhi, India.


35. Ramya R, Rajesh M Hegde, and Hema A Murthy, " Significance of group delay based acoustic features in the linguistic search space for robust speech


52. Mahesh Kumar, SN Singh and SC Srivastava, Design and Control of Smart DC Microgrid for Integration of Renewable Energy Sources, IEEE PES General meeting 2012, San Diego, California, USA, July 22-26, 2012 (Panel paper).


Papers Accepted


58. Kanna Bhaskar and SN Singh, Improved RNN and AWNN Based Wind Power Forecasting using Meteorological Inputs, 1st Annual International conference on


63. Sachin Kumar Jain, S. Chakrabarti and S. N. Singh, Review of Load Frequency Control Methods, Part-I: Introduction, Pre-deregulation Scenario, First International Conference on Control, Automation, Robotics and Embedded systems (CARE-2013), December 16-18, Jabalpur, India.

64. Sachin Kumar Jain, S. Chakrabarti and S. N. Singh, Review of Load Frequency Control Methods, Part-II: Post-deregulation Scenario and Case Studies, First International Conference on Control, Automation, Robotics and Embedded systems (CARE-2013), December 16-18, Jabalpur, India.


85. Amrita Mishra, Gayathri R and Aditya K. Jagannatham, "Optimal Random Parameter EM Based Kalman Filter (REKF) for Fast Fading MIMO Channel Estimation", Accepted to be presented at ATNAC 2013, the Australasian Telecommunication Networks and Applications Conference to be held from 20-22 November 2013, Christchurch, New Zealand.

88. Naveen K. D. Venkategowda, Nitin Tandon, Aditya K. Jagannatham, "Cooperative Multi-Cell Beamforming for MIMO Unicast/ Multicast Broadband H.264 Scalable Video Networks", In proceedings of 2013 IEEE International Conference on Multimedia and Expo (ICME 2013), to be held in San Jose, California, USA.

89. Ram Manohar Kudupudi, Aditya K. Jagannatham, "Robust Blurred Image Recovery Using Minimax and Semi-Definite Programming Approaches", In proceedings of 2013 IEEE International Conference on Multimedia and Expo (ICME 2013), to be held in San Jose, California, USA.


100. Raghvendra Kumar Chaudhary, H. B. Baskey, K. V. Srivastava, A. Biswas, "Wideband Two-layer Rectangular Dielectric Resonator Antenna with (Zr0.8Sn0.2)TiO2-Epoxy Composite System", *IEEE Applied Electromagnetics conference (AEMC) and Indian Antenna Week (IAW)*, Dec. 18 - 22, 2011, Kolkata, India.


103. Seema Awasthi, Animesh Biswas and Jaleel Akhtar, “Compact bandstop filter using triangular metamaterial mushroom resonators” *Asia Pasific Microwave Conference*, Kaohsiung, Taiwan, 4-7 December 2012.

104. Akhilesh Mohan and Animesh Biswas, “Synthesis of asymmetrical Quadruple-band Bandpass Filters” *Asia Pasific Microwave Conference*, Kaohsiung, Taiwan, 4-7 December 2012.


126. Sparsity Based Segmentation in Hybrid Color Space Raju Ranjan, Rajesh Bhatt, Sumana Gupta and K S Venkatesh 19th National Conference on Communications (NCC-2013) February 15-17, 2013, IIT Delhi, India.


132. Multipoint image destabilization using disparity map
Saumik Bhattacharya, Sumana Gupta and K S Venkatesh 2nd Michael Faraday IET India Summit, November 17th, 2013, Kolkata, India.

133. Edge Feature Tracking using Intersection Points as Stable Visual Landmarks

134. Multistereo System Design

135. Theory, Representation and Techniques for Silhouette Metrology

136. Semi-Interactive Region Segmentation Based on Sparse Representation

137. Flutter Shutter Based Motion Deblurring in Complex Scenes

138. Self Localization with Edge Detection in 3D Space
http://www.joig.org/index.php?m=content&c=index&a=show&catid=31&id=42

139. High Accuracy Silhouette Based Reconstruction with Conventional Optics
http://www.joig.org/index.php?m=content&c=index&a=show&catid=32&id=44

140. Facial Expression Recognition with Regional Features Using Local Binary Patterns
Anima Majumder, Laxmidhar Behera, Venkatesh K Subramanian CAIP (1) 2013: 556-563

141. Emotion Recognition from Geometric Facial Features using Self Organizing Map

142. Vipul Arora and Laxmidhar Behera, Discriminative PLCA Based Polyphonic Source Identification, 21st European Signal Processing Conference, 9-13 Sept 2013

143. Vipul Arora and Laxmidhar Behera, Semi-supervised Polyphonic Source Identification using PLCA based Graph Clustering, 14th International Society for Music Information Retrieval Conference, 4-8 Nov, 2013, Brazil
146. Amir Hussain, Avanish Kumar and Laxmidhar Behera, Sliding mode control of a buck converter for maximum power point tracking of a solar panel. IEEE Multi Conference on Systems and Control, Aug 28-30, 2013, Hyderabad
152. B.N. Abhijith and M. J. Akhtar, 2013 Design of antipodal vivaldi antenna for microwave imaging applications Proceedings, IEEE Indian Antenna Week 2013, June 3-7, 2013, Aurangabad, India,


160. Space charge accumulation in Epoxy Resin and Polyethylene, Supriyo Das and Nandini Gupta, 10th International Conference on Properties and Applications of Dielectric Materials, July 2012, Bangalore India.


214. Soumava Mukherjee, Kumar Vaibhav Srivastava and Animesh Biswas, “Implementation of Dual-Frequency Longitudinal Slot Array Antenna on Substrate
Integrated Waveguide at X-Band” accepted for presentation in 43th European Microwave Conference (EuMC), Nuremberg, Germany Oct 6 to Oct 11, 2013.


238. Sachin Kadam, Robust Dual Cumulative Sum Algorithm for Cooperative Spectrum Sensing, Govind Sharma, co-supervisor Dr. R. K. Bansal.

239. Raghvendra K, Path Diversity Scheme in OFDM Receives by increasing the Sampling rate by Integer and Fractional Numbers.

240. Prabhat kumar, Subspace Based Direction of Arrival Estimation for Large Size Active Phased Array Radars.

**Humanities and Social Sciences**


20. Paper entitled Tracing Back the ‘Psychosocial’ in WHO’s Definition of Health: A Critique of Quantitative Studies of Health in Social Sciences, Tenth Annual Conference of the Indian Association of Social Sciences and Health (IASSH), held at Department of Social Medicine and Community Health, Jawaharlal Nehru University, 21-23 November 2012 (jointly with Kumar Ravi Priya).

21. Paper entitled Health Professional’s constructions of women’s health during midlife transition: a study in Kanpur Nagar, Tenth Annual Conference of the Indian Association of Social Sciences and Health (IASSH), held at Department of Social Medicine and Community Health, Jawaharlal Nehru University, 21-23 November 2012 (jointly with Vibha Dikshit).

22. Paper entitled Palliative Health care in Kerala: An Exploration into the Perspectives of the Patients, Poster presentation in the Tenth Annual Conference of the Indian
Association of Social Sciences and Health (IASSH), held at Department of Social Medicine and Community Health, Jawaharlal Nehru University, 21-23 November 2012 (jointly with T.Shukkoor).


Industrial and Management Engineering


10. Reliability Based Portfolio Optimization for Extreme Value Asset Returns under Asymmetric Loss Functions, Raghu Nandan Sengupta and Siddharth Sahoo, 9th International Conference on Computational Management Science, Imperial College London, UK, 18th – 20th April 2012.


Finance Area


Entrepreneurship Area (Prof. B. V. Phani)


Materials Science and Engineering

1. Deepa Singh, Ashish Garg and Deepak, Cooling rate controlled microstructure evolution and reduced coercivity in P(VDF-TrFE) devices for memory applications, Accepted in Organic Electronics (2013)


3. Tapendu Mandal, Ashish Garg and Deepak, Thin Film Transistors Fabricated by Evaporating Pentacene under Electric Field, Accepted in Journal of Applied Physics (2013)


22. Gouthama (Invited talk) 2012 TEM studies on the microstructural changes during thermo-mechanical cycling of NiTi shape memory wire samples National Seminar on
‘Design and Development of materials for advanced technologies BHU, January 2012, Varanasi


34. Saumen Mandal and Monica Katiyar, “Effect of solvent and substrate on microstructure development of drop casted and spin coated 6, 13-bis (Triisopropyl-silylethynyl) pentacene”, 5th International Symposium on Flexible Organic Electronics (ISFOE12), July 2-5, 2012, Thessaloniki, Greece.


**Mathematics and Statistics**


10. Debasis Kundu, “Analysis of Partially Complete Time and Type of Failure Time Data”, Presented at the Kuwait University, April, 2013.
11. "On least absolute deviation estimator of one dimensional chirp model", (jointly with Ananya Lahiri & Debasis Kundu), Statistics.
15. B.V.Rathish Kumar & Vivek Sangwan, “ A uniformly convergence analysis of three step Taylor Galerkin FE monotone iterative DDS for SPPPDEs”, MAFELAP-2013, 10-14, June, 2013 at Brunel University, London Communicated:

**Mechanical Engineering**

2. Numerical and experimental studies of the grain morphological transitions and macrosegregation in the sedimentation cone of an industrial steel ingot, N. Leriche, A. Kumar, H. Combeau, M. Zaloznik, J. Demurger, J. Wendenbaum, C.A. Gandin,


16. Earthenware water filter – a double edged sustainable design concept for India, Aravind Shanmuga Sundaram M and Bishakh Bhattacharya, *ICORD – 13*

17. Aquatic Multi-Robot System for Lake Cleaning, Pranay Agarwal and Bishakh Bhattacharya, *CLAWAR-2013*

18. Active Shape Control of Parabolic Antenna Systems Using Shape Memory Alloy (SMA), Praveen Kumar D, B. S Munjal and Bishakh Bhattacharya, *ICIUS – 2013*


Symposium on Flexible Automation ISFA2012 June 18-20, 2012, St. Louis, Missouri, USA.


44. Title: Coiled Carbon Nanotube (CCNT) grown on Carbon Fiber / Polypyrrole composite electrode for supercapacitors Authors: Jayesh Cherusseri, Raghunandan Sharma, Kamal K Kar Reference: December 3-4, 2012, Dept. of Physics, Karunya University, Coimbatore, Tamil Nadu. National Conference on Nanomaterials 2012 (NCN 2012)


48. Title: Carbon Based Materials (Graphene, Carbon nanotube, Carbon Composites): The New Outlook as Thermoelectric Materials Authors: Chhatrasal Gayner and Kamal K. Kar Reference: November 1-3, 2012, Bhabha Atomic Research Centre,
Annual Report 2012-2013

Mumbai, Maharashtra, National Conference on Carbon Materials 2012 (CCM12), pp. 53, Year: 2012


Physics


7. A Study of Generalized Parton Distributions For the Proton in AdS/QCD, D. Chakrabarti and C. Mondal; to be published in the conference proceedings of NTSE-2013 held in May, 2013, Ames, USA.


21. Amruth C, Ashish, Swati Yadav, Shweta¹, Basanagouda B.P., and Y.N. Mohapatra *All Inkjet Printed Organic Capacitor on Plastic Substrate* 9th International Conference on Organic Electronics (ICOE-2013), Grenoble, France

Materials Science Program
Laser Technology Program
Design Program
PAPERS PRESENTED IN SEMINARS/CONFERENCE/WORKSHOPS/SYMPOSIA (SUBMITTED)

Aerospace Engineering


Biological Sciences and Bio-engineering

6. Effect of recession height on the visible structure of turbulent CNG inverse diffusion flame”11thThe 11th International Conference on Fluid Control,Measurements, and Visualization (FLUCOME), National Taiwan Ocean University, Taiwan, 24-27 May 2011.
12. Mahesh S. and D. P. Mishra,

**Chemical Engineering**

Electrochemical characterization of sulfonated poly(phenylene oxide)/poly(vinyl alcohol) composite membrane

**Chemistry**

1. A lecture entitled “Chemistry of C-2 Substituted Glycals en route to Some Glycosidase Inhibitors” was delivered in “CRSI Mid year meeting Symposium” at CDRI, Lucknow on July 21, 2012.
2. Delivered two lectures at “Sikkim Government College, Tedong, Gangtok,” on April 12, and April 13, 2013 (i) Selected reagents for transformations addressing selectivity in organic synthesis and (ii) “Carbohydrates: Much more than mere source of energy” in a Science Academies’ workshop titled “Modern Trends in Chemistry” sponsored by the Academies of Sciences, India”.

**Civil Engineering**

**Computer Science and Engineering**

1. Rajeev Rathore, Surya Prakash, Phalguni Gupta, Efficient Human Recognition System using Ear and Profile Face, Proceedings of IEEE International Conference on
Biometrics Theory: Applications and Systems (BTAS), Washington DC, USA, September-October, 2013


3. Manish Bajpai, P Gupta, P Munshi, Multi-core CPU based three-dimensional image reconstruction for limited view tomography, The 7th world congress on industrial process tomography, Karkov, Poland, 2013


5. Rajesh R Pillai, Vandana Dixit Kaushik, Phalguni Gupta, An Efficient Natural Image Deblurring Algorithm, 9th International Conference on Intelligent Computing, Nanning, China, July 2013


7. Aditya Nigam, Anvesh T and Phalguni Gupta, Iris Classification Based on its Quality, 9th International Conference on Intelligent Computing, Nanning, China, July 2013


Electrical Engineering


3. S. Das and U. Das, "Pixel isolation and dark current reduction in Type-II InAs/GaSb superlattice photodiodes by femto-second laser annealing", assigned the number 423682, The Scientific World Journal, special issue on "Narrow-Gap Semiconductors and Low-Dimensional Structures for Optoelectronic Applications"

5. H.B. Baskey, M. J. Akhtar and T.C. Shami 2013 Measurement of permittivity and permeability of thin dielectric and composite sheets placed at the center of a rectangular waveguide To be Submitted


10. Mukesh Kumar Singh, Govind Sharma and Naren Naik, "Joint optimization of SINR and power allocation to relays in cluster-based wireless sensor networks".

11. Ashish Vyas, Rishabh Maheshwari, Pradeep Kumar, and Naren Naik, "Dual antenna array for radiolocation of RCIED trigger".


**Humanities and Social Sciences**


5. Dynamic Emergence of Property Rights from Anarchy (Submitted)

6. Product Cycle and Wage Inequality (Submitted)


8. Caregiving experiences of family members of relatives with paranoid schizophrenia: Abio-psychosocial approach, International Conference on Schizophrenia, organized by SCARF, Chennai, 21st - 23rd September, 2012 (jointly with B. Banerjee)

9. Socio-cultural structuring of health beliefs: Implications for health behaviour and clinical practice. Tenth Conference of Indian Association for Social Sciences and Health on Health, Regional Disparities and Social Development, organized by Centre of Social Medicine and Community Health, School of Social Sciences, Jawaharlal Nehru University, New Delhi, 21 - 23 November, 2012 (jointly with B. Banerjee)

10. Illness perception: Narratives and social representations. 4th Global Conference: Storytelling Global reflections on narrative, organized by the Inter-Disciplinary.Net, U.K, 21 - 24 May, 2013, Prague, Czech Republic (The paper was part of a panel titled, 'In sickness and in health: Individual/community dynamics in Indian cultural narratives' that was jointly proposed along with two other colleagues)

11. Rane, M. & Bhushan, B. Exploring the effect of imagery on visual identity: An eye-tracking study

**Industrial and Management Engineering**

1. Reliability in Portfolio Optimization using Uncertain Estimates: Raghu Nandan Sengupta, Rachit Seth, Akshit Awasthi and Peter Winker; OMEGA, (Under 1st stage of re-work after 1st review).


Materials Science and Engineering

2. Deepa Singh, Deepak Gupta and Ashish Garg, Interface Morphology Driven Control of Electrical Properties of PVDF-TrFE and PMMA Blend M-I-M Capacitors
3. Tapendu Mandal, B.K. Mishra and Ashish Garg and D. Chaira, Optimization of process variables for the mechanosynthesis of nanocrystalline hydroxyapatite
11. Development and Investigation of Agarose Bioplastic as a Drug-delivery Vehicle (September, 2013)
12. Enhancing Beta-Phase of Poly (Vinylidene Fluoride) by Filler Addition: Comparison Between Cellulose, Nanotubes and Clay (October 2013)

Mathematics and Statistics

1. Completely bounded $\Lambda_p$-sets that are not Sidon (with K.E. Hare) submitted
2. M.K. Panda, S. Ghorai; Penetrative phototactic bioconvection in an isotropic scattering suspension; (submitted)
3. A. Ganguly, D. Kundu and Sharmishtha Mitra. “Bayesian Analysis of Simple Step-Stress Model under Weibull Lifetimes”;


8. Chaos in Dynamics of a family of Transcendental Meromorphic Functions (with M. Sajid), Submitted.

**Mechanical Engineering**


Physics

2. D. Chowdhury “Centenary of "Researches on irritability of plants" by Jagadis Chandra Bose". Current Science (Current Science Association, in collaboration with Indian Academy of Sciences), SUBMITTED (2013).
6. Dynamics of electrically polarized magnetic monopoles in spin ice.

Materials Science Program
Laser Technology Program
Design Program

INVITED TALKS DELIVERED

Aerospace Engineering

Biological Sciences and Bio-engineering


Chemical Engineering
Chemistry

1. Department of Organic Chemistry, IISc Bangalore, April 26, 2012
2. School of Chemistry, University of Hyderabad, Hyderabad (July 31, 2012)
3. Department of Chemistry, IIT Kharagpur, Kharagpur (December 21, 2012)
4. Institute Colloquium at Department of Chemistry and Earth Sciences, Heidelberg University, Germany on July 1, 2013.
5. Institute of Chemistry and Biochemistry, Freie Universität, Berlin, Germany on June 03, 2013.
8. Institut für Anorganische Chemie, Georg-August-Universität Göttingen Tammanstrasse 4, Göttingen, Germany on April 23, 2013
10. Institut für Anorganische Chemie, Karlsruher Institut für Technologie, Germany on February 04, 2013.
11. Department of Chemistry and Earth Sciences, Heidelberg University, Germany on January 08, 2013.

Civil Engineering
Computer Science and Engineering

Electrical Engineering


**Humanities and Social Sciences**

**Industrial and Management Engineering**

**Materials Science and Engineering**


**Mathematics and Statistics**

**Mechanical Engineering**

1. Lecture 1: INTRODUCTION TO INVERSE METHODS; Lecture 2: APPLICATIONS OF INVERSE TECHNIQUES, presented at the Department of Mechanical Engineering, IIT Roorkee, 2nd July 2012.
2. EXTRACTING DATA FROM IMAGE SEQUENCES USING INVERSE TECHNIQUES, Plenary Lecture at the National Workshop on Image Processing Applications in Industry, Medicine, and Aerospace, organized by DRDL Hyderabad held at the Research and Innovation Center, IITM research Park during 28-29 December 2012.
3. MODELING METHANE PRODUCTION FROM A HYDRATE RESERVOIR VIA SIMULTANEOUS DEPRESSURIZATION AND CO2 SEQUESTRATION, Keynote Lecture at the Gas Hydrates Symposium held at National Institute of Oceanography, Goa on 18th January 2013
4. IMAGING UNSTEADY THREE DIMENSIONAL FLUID FLOW AND TRANSPORT PHENOMENA, Plenary lecture at the National Laser Symposium-21 held at BARC Mumbai during 6-8 February 2013.
5. OPTICAL MEASUREMENT TECHNIQUES IN THERMAL SCIENCES, Invited Lecture delivered at BR Ambedkar NIT-Jalandhar, 22nd April 2013.
6. FUNDAMENTALS AND MODELING OF DROPWISE CONDENSATION, three Invited Lectures delivered at IIT Roorkee, 24th June 2013.
7. HEAT CONDUCTION FUNDAMENTALS, ten Invited Lectures delivered at SVNIT Surat, 1-2 July 2013.
8. **CASE STUDIES IN EXPERIMENTAL FLUID MECHANICS AND HEAT TRANSFER; CARRYING OUT LITERATURE SURVEY AND PROBLEM DEFINITION IN RESEARCH**, Lectures delivered in the NSFMPF-sponsored workshop on Research Methodology, held at NMMIT Allahabad during 27-28 September 2013.


---

### Physics


Materials Science Program
Laser Technology Program
Design Program

OTHER ACTIVITIES (PROFESSIONAL VISITS TO UNIVERSITIES/RESEARCH ORGANIZATIONS/INDUSTRIES)

Aerospace Engineering
Biological Sciences and Bio-engineering
Chemical Engineering
Chemistry
Civil Engineering
Computer Science and Engineering
Electrical Engineering
Humanities and Social Sciences
Industrial and Management Engineering
Materials Science and Engineering
Mathematics and Statistics
Mechanical Engineering
Physics
Materials Science Program
Laser Technology Program
Design Program

CONTINUING EDUCATION ACTIVITIES

Aerospace Engineering
Biological Sciences and Bio-engineering
Chemical Engineering
Chemistry

Civil Engineering


**Computer Science and Engineering**

1. **Problem Generation and Solution Generation for Natural Deduction** presented at Microsoft Research Redmond Lab Open House, June 18, 2013.


**Electrical Engineering**

**Humanities and Social Sciences**

**Industrial and Management Engineering**

**Materials Science and Engineering**

**Mathematics and Statistics**

**Mechanical Engineering**

**Physics**

**Materials Science Program**

**Laser Technology Program**

**Design Program**