Indian Institute of Technology Kanpur

IITK Chronicle

IITK Newsletter || Volume 1, Issue 3, May 2017

Highlights

- **Prof. Utpal Das** (EE) appointed as the Chairman GATE/JAM 2018. Subsequently, **Prof. Partha Chakrabarty** (CE) and **Prof. K Srihari** (CHM) appointed as the Vice Chairman of GATE/JAM 2018.
- **Prof. Yogesh M Joshi** (Info Cell), and **Mr. K K Tiwari**, Registrar, appointed as the spokespersons of the institute.
- **Prof. Shikha Dixit** appointed as the Head of the Department of Humanities and Social Sciences.
- **Prof. Joydeep Dutta** appointed as the Head of the newly formed Department of Economic Sciences.
- **Prof. Achla M Raina** appointed as the Head of the IDP Cognitive Science.

Chair Professors

Prof. Subramaniam Ganesh (BSBE)
P.K. Kelkar Chair (Kushal Sacheti Chair)

Prof. Jayant Kumar Singh (CHE)
Mr. and Mrs. Gian Singh Bindra Chair

Prof. Javed N Malik (ES)
Professor B.B. Lal Chair

Prof. Sankar Prasad Rath (CHM)
Jagdeo Narain Gupta &
Smt Murti Devi Gupta Chair

Prof. Shalabh (MATH)
Pandit Girish Ranjan &
Sushama Rani Pathak Chair

Prof. Janakarajan Ramkumar (ME)
Ram Tiwari Chair

Prof. Sameer Khandekar (ME)
Sir M. Visvesvaraya Chair

Prof. Subrata Sarkar (ME)
HAL Chair

Prof. Sudeep Bhattacharjee (PHY)
Sanjay and Rachna Pradhan Chair

Prof. Satyajit Banerjee (PHY)
Poonam and Prabhu Goel Chair

Congratulations!

From the Director's Desk

Summer is upon us. For some it is vacation but for a large majority it is time to catch up, rejuvenate and prepare for the next cycle. In the last two months, **a lot of impactful changes, collaborations and projects have been initiated**. The most significant among them was the formation of **new Economic Sciences Department at IITK**. I am delighted to say, we are the first IIT to acknowledge the importance and need for and establish a separate Economic Sciences Department with active support from the allied disciplines of Industrial Management, Statistics, Computer Science, etc.

While impressive collaborations like the one between **UP100, the Uttar Pradesh government's emergency service**, and IITK for logistic and technological help were happening on the academic front, our students, staff and faculty came together for cleaning up a large area in the campus under **Swachch Bharat mission**. Going beyond the call of duty is what sets the IITK community apart from others.

In the coming months, we are looking forward to hosting the first International **Conference on Materials Engineering, 2017 (ICME)** in collaboration with Indian Institute of metals. And of course, the most important academic function, **the Convocation** will be held on 15-16 June 2017.

Here's wishing good luck to the teams involved. Let's have a great show!

Indranil Manna
Director, IIT Kanpur

In Focus

Department of Economic Sciences Established at IITK

On 6th May 2017, IIT Kanpur announced the establishment of a Department of Economic Sciences, the first such department in the entire IIT system. The idea for a separate department was initiated almost one and half years ago during which the proposal went through several reviews and was finally approved by the Senate on 6th April 2017.

Economics was introduced in IIT Kanpur as a part of undergraduate technical education and has been integral part of the Department of Humanities and Social Sciences (HSS) since then. The Ph.D program in Economics was introduced in 1974. The five-year Integrated M.Sc. program was introduced in 2005 which was transformed into a four-year B.S. and a one-year M.S. in Economics. Apart from the current Ph.D and B.S.-M.S. programs, the newly-formed department plans to launch a unique 2-year M.S. program and an integrated M.S.-Ph.D program in Economic Sciences along with interdisciplinary training in the field.

The department will focus on modern mainstream Economics as well as the use of technology to work on socio-economic issues. Tie-ups with other national and international universities and the development of research programs in specialized areas will be the other focus areas for the department. The faculty are already engaged in conducting workshops, conferences and seminars; various other academic activities are also being planned in the coming months.

The department will be headed by Prof. Joydeep Dutta and will consist of 13 faculty members.

Faculty Members of Economic Sciences Department

News @ IITK

Faculty News

Workshop on Intellectual Property

A half-day intensive workshop on "Intellectual Property: A Strategic Enabler for Translational Research and Development" was jointly organized by the INAE Local Kanpur Chapter and SIIC, especially for young faculty colleagues, ISPIRE fellows and postdocs. Dr. D. Bandopadhyaya, CEO of Fil-o-Noe Mentors Pvt. Limited, conducted all the sessions including a wide spectrum of topics.

New Books

Wireless Networking & Mobile Data Management
Written by: Prof. R K Ghosh

Innovation, Incubation and Entrepreneurship
Case Studies from IIT kanpur
Edited by: Prof. B V Phani and Prof. Sameer Khandekar

Sweat Behind the Success
Written by: Ms. Reema Mittal

Prof. Sanjay Mittal (AE) selected for the Dr. A.P.J. Abdul Kalam HPC Award for the year 2017.

Prof. M. Saravanan (BSBE) selected for the Innovative Young Biotechnologist Award (IYBA) for the year 2016.

Prof. Sandeep Verma (CHM) selected for the National Prize for Research on 'Interfaces between Chemistry and Biology'.

Prof. Sandeep Shukla (CSE) invited as an expert member for the sub-groups on Cyber Security and Mobile Banking Security by RBI Standing Committee.

Prof. Bishakh Bhattacharya, (ME) has joined the *ISSS Journal of Micro and Smart Systems* as an Associate Editor.

Prof. Santanu Misra (ES) received the Sera Ajeyo Samman for the year 2017.

Recipients of the Young Faculty Research Fellowships 2017

Prof. Abhishek
Aerospace Engineering
Prof. Bushra Ateeq
Biological Sc & Bioengineering
Prof. Arun K. Shukla
Biological Sc & Bioengineering
Prof. Naveen Tiwari
Chemical Engineering
Prof. Basker Sundararaju
Chemistry
Prof. Prishati Raychowdhury
Civil Engineering
Prof. Kumar Vaibhav Srivastava
Electrical Engineering
Prof. Debayan Pakrashi
Economic Sciences
Prof. Sameer Chavan
Mathematics & Statistics
Prof. Anurag Gupta
Mechanical Engineering
Prof. Amit Agrawal
Physics

Congratulations!

Alumni News

- **Dr. K. M. Abraham** (MT/IME/1989) has been honored for excellence in civil services by the National Campaign for People's Right to Information.
- **Dr. Ambuj Tewari** (BT/CSE/2002) has been selected for the Sloan Research Fellowship 2017 in Computer Science category by the Alfred P. Sloan Foundation.
- **Mr. Amit Agarwal** (BT/CSE/1995) has been appointed as the new senior vice president (SVP) of Amazon's India operations.
- **Dr. Ankur Gupta** (PhD/ME/2015) has been honored with the ISEES Young Scientist Award for his outstanding contributions in the fields of Energy, Environment, Sustainability and Combustion.
- **Dr. Arindam Bose** (BT/CHE/1975) has been selected as a member of The National Academy of Engineering, USA.
- **Prof. Jagdish Narayan** (BT/MME/1969) has been selected as a member of The National Academy of Engineering, USA.

Research & Development

Some Recent Projects

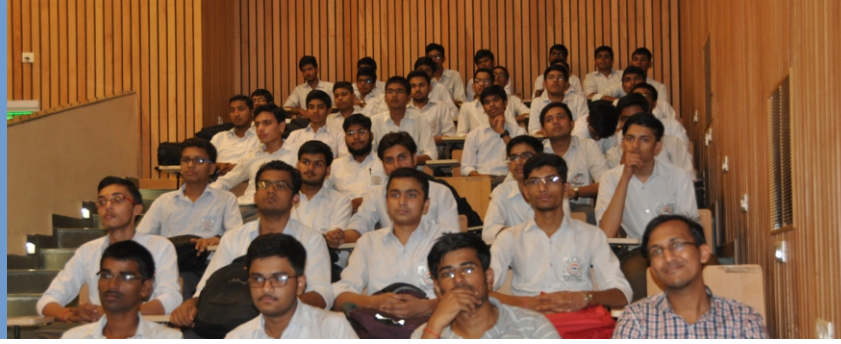
- The Science & Engineering Research Board has approved a major project titled *National Interdisciplinary Center for Cyber Security and Cyber Defense of Critical Infrastructures*. The PI of this project is Prof. M Agrawal, and the Co-PI is Prof. Sandeep Shukla, Computer Sciences & Engineering.
- The Wellcome trust/DBT India Alliance has awarded Prof. Jayandharan G Rao (Biological Sciences & Bioengineering) a project titled *Development of a Highly Efficient and Immunologically INERT ADENOASSOCIATED Virus Based Vector System for Retinal GENE Therapy*.
- The Ministry of Textiles has granted a major fund to IIT Kanpur for setting up a Focus Incubation Center (Technical Textile). Prof. Deepu Philip (Industrial Management & Engineering) is the PI of this project. Professors Mainak Das and Shatarupa Thakurta Roy are the Co-PIs.

SIIC News

IITK has granted Rs. 25 lakh to a Kanpur-based startup called Eezy Naukari. The company helps rural youth in finding gainful employment in cities through a local job guide called Naukari Mitra and a mobile app, where companies, looking for manpower, can register. Currently, the company is working in over 500 villages in four states.

IEX-IITK Energy Analytics Lab (EAL), a CSR initiative by Indian Energy Exchange Ltd. was inaugurated on 26th April 2017. This is an industry-supported academic initiative, primarily to build a power market database and to develop learning and visualizing tools for the same.

Happenings @ IITK



Academic News

School Visit to the BSBE Department

Nine class XII students of Lakshmipat Singhania Academy of Kolkata, along with their Biology teacher Mrs Pronita Gupta, visited the Department of Biological Sciences and Bioengineering at IIT Kanpur from 16th to 18th May 2017. The objective of this outreach program was to expose these young students to the world of biological science research. The students conducted several basic molecular biology experiments and were also introduced to embryology of fruit flies, chicks and mice. PhD students from the laboratories of Dr. Jonaki Sen and Dr. Amitabha Bandyopadhyay engaged the students in all these activities.

IIT Kanpur Tie-Up with UP100

UP100, the Uttar Pradesh Police Department's Emergency Service, has sought technological help from IIT Kanpur and the two will soon be signing an MoU. Some of the areas where cooperation from IITK has been sought are analytics on the UP100 call, dispatch and action data for understanding of crime patterns in the state and cyber security. The MoU is currently under preparation at IITK and once signed will enable easier cooperation, data exchange as well as faculty and PhD student visits from the institute to the state-of-the-art UP100 facility in Lucknow.

Technology Day Celebration

On 11th May 2017, IIT Kanpur celebrated the National Technology Day with a series of invited lectures and an exhibition of the innovations from the institute. The theme of the event was 'From Tinkering to Technology' and the Chief Guest for the occasion was Dr. Shailesh Nayak, Distinguished Scientist, Earth System Science Organisation, Ministry of Earth Sciences. Dr. Nayak also delivered a short talk on 'Innovations in Earth Sciences: Challenges and Opportunities'. The other talks included ones on 'Unmanned Aerial Vehicles' by Prof. A K Ghosh, on 'Cyber Security' by Prof Sandeep Shukla and on 'Bio-inspired Bioengineering' by Prof. Animangsu Ghatak. This year, the celebration was organized keeping in mind young children and all the talks were delivered in a simple manner. Students from schools in Kanpur city had also been invited to attend the talks.

Upcoming Events

- Indian Institute of Metals (Kanpur Chapter) and IIT Kanpur are organizing the first International Conference on Materials Engineering (ICME 2017) during 2nd - 4th June 2017 at IIT Kanpur.
- 50th Convocation (Convocation-2017) will be held on 15th June for undergraduate students and on 16th June for postgraduate students.

Students' Corner

Irilla Task Lamp

Vimal Chandru, a student of the Masters in Product Design program at IITK, has designed an innovative lamp with a modern and minimalistic look. Unlike a traditional lamp, the Irilla Task Lamp has done away with an on/off switch and instead has a 'twist to illuminate' mechanism. A user can control the intensity of the illumination through the aperture mechanism inspired by the human eye. An open aperture will give maximum illumination, which will get more focused and finer as the aperture size is decreased. The lamp is made from anodised aluminium metal with a matte finish.
Vimal C won a Bronze Medal under the Lighting Category at the A'Design Award & Competition for his innovative design. He worked on this project under the guidance of Prof Ramkumar J, Department of Mechanical Engineering and Design Program.

Another Win for IITK Football Team!

The IITK football team was declared the runner-up in the 2016-17 Senior Level District Kanpur Football League Championship. The team got an opportunity to interact with national-level coaches and develop their fundamental skills and drills at the AFC"C" licence course for football coaches, held from 27th March to 8th April 2017. The course was held at IITK, in collaboration with the Uttar Pradesh Football Association and approximately 30 coaches from all over India participated in it.

Campus Diary

Around the Campus

Junior Chess Championship

The Women's Association of IIT Kanpur organized a Junior Chess Championship on 14th May 2017. The championship was conducted in three categories – Under 10, Under 12 and Under 16. Open for all the campus kids, the championship was a great way for chess enthusiasts to show off their skills and was also an opportunity for young beginners to watch and learn.

The championship was inaugurated by Prof. A R Harish, Dean of Student Affairs, and had 30 participants in total. The winners were Kabeer Chavan in the Under 10 category, Ishita Garg in the Under 12 and Sanskar Singhania in the Under 16 category.

Campus Clean-up by Parivartan-IITK

Parivartan-IITK is a community-based initiative that aims at cleaning up the IIT Kanpur campus. Inspired by Parivartan, a citizen initiative started by an IITK alumnus Anil Gupta, working on the same lines in Kanpur city, Parivartan-IITK was started in May, 2017. A number of sub-groups on waste segregation, technology evaluation for waste management, evaluation of campus waste management practices, communication, *nukkad natak* and water management are working under Parivartan-IITK at the moment.

The first activity undertaken by the group was the cleaning of a wooded area in the campus which had been littered with plastic and other waste, mostly left behind by contractors. Undertaken on 6th May 2017, this drive resulted in the removal of almost one tractor trolley full of waste. A makeover for this area, without disturbing its pristine beauty, has been planned as the next activity by the group.

Contact: Prof. Rajiv Shekhar (vidtan@iitk.ac.in, 9919889320)

Green Ambassadors of IITK

WA has actively started working towards the theme 'Clean and Green Campus' by organizing plantation drives, promoting shopping bags made of recyclable material and encouraging residents to segregate waste. To encourage children on campus to know more about their environment, WA conducted an online activity named "Green Ambassadors of IITK". Kids were asked to identify a tree around them, get more information about it and submit a small write-up. In another activity, children were encouraged to spot an environmental problem on campus and come up with their own solutions. Both of these activities were open for children between the ages of 9 and 18 years.

An award ceremony for the winners was held on 29th April at which Prof. Bharat Lohani, Chairperson, Green Cell, IIT Kanpur was the Chief Guest. At the ceremony, the students selected as Green Ambassadors also shared their thoughts. The winners were: Adrish, Anish, Ardra, Bipasana, Mridul, Sanchit, Shakthi Mukesh, Ritesh, Sharadiya, Sujal, Vaishnavi and Vibhor.

Those interested in joining the Go Green Initiatives of WA, please write to: rutagiitk@gmail.com

Obituary

The Institute would like to offer its condolences to the family and loved ones of the deceased.

- **Prof. Sudipta Dutta**
  Mathematics & Statistics
  Year of Joining: 2007
- **Ms. Abhilasha Singh,**
  Research Scholar,
  Mechanical Engineering
- **Prof. Harry Huskey**
  (19/01/1916 - 09/04/2017)
  Prof. Huskey was a part of the KIAP team which set up the IITK Computer Center and procured its first IBM 1620.

In memory of Prof. Sudipta Dutta

Prof. Sudipta Dutta was born on 29th August 1976. He did his B.Stat. (1997), M.Stat. (1999) at Indian Statistical Institute (ISI), Kolkata. After his Ph.D. at ISI Kolkata and a post-doctoral stint at the Department of Mathematics, Ben Gurion University of the Negev, Beer-Sheva Campus, Israel, he joined IIT Kanpur as Assistant Professor in July, 2007, and became a Professor in 2016.

Prof. Dutta's research interests included Banach space theory, Operator spaces and Abstract harmonic analysis. He was quite well-known in his area and in a span of less than 15 years, he published around 25 articles, all in premier journals. A variety of topics were taught by him as elective courses and his teaching was much appreciated by the students of the department. He was awarded the Indo-U.S. Science and Technology Fellowship in 2008-09, and the P K Kelkar Young Research Fellowship of IIT Kanpur.

He will be remembered for the impact that he leaves behind in his tragically short life.

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