



### Highlights

- **Prof. YN Singh**, Electrical Engineering, appointed as the new Dean of Infrastructure and Planning (DOIP).
- **Prof. Surendra Baswana**, Computer Science & Engineering and **Anish Upadhyaya**, Materials Science & Engineering have won the Distinguished Teacher Awards 2017.
- **Prof. SK Mishra**, Civil Engineering, appointed as the Associate Dean for Physical Infrastructure (ADPI).

### Visiting Faculty



**Dr. Raghavendra P Kukillaya**  
Aerospace Engineering



**Dr. Debadatta Mishra**  
Computer Science & Engineering



**Dr. Vipin B**  
Industrial & Management Engineering



**Dr. Chandraprakash Chindam**  
Mechanical Engineering

### In Focus

#### IITK Helping 5 Villages Under Unnat Bharat Abhiyaan

Under Unnat Bharat Abhiyaan, an MHRD scheme to uplift rural India, IIT Kanpur has adopted five surrounding villages - Hridayapur, Baikantpur, Ishwariganj, Pratappur Hari and Saxupurva. The outreach activities, aimed at the overall upliftment of the villages, will focus on cleanliness, computer literacy, harnessing solar energy and using technology for better farming techniques. As part of the plan, students and faculty visited Baikunthpur village for a cleanliness drive where they interacted with the villagers to understand their problems. School children were taught the importance of keeping their surroundings clean and girls were educated about their adolescent health. They also conducted a survey aimed at exploring the needs and interests of the villagers. The results of the survey will be compiled in a report and then analyzed for on-ground work. Most of the villagers have responded enthusiastically to the initiatives from IITK and many have even started their own small-scale campaigns and awareness drives regarding open defecation.

### From the Director's Desk

**A**chievements by our students and scholars are the most satisfying developments to the Institute and its faculty members. In the last two months, a group of students from IITK has made us proud by winning a major prize in an international robotics competition in Japan together with TCS researchers and another team from Aerospace Department has demonstrated successful display of a newly designed UAV by them. The students of NSS recently organized a blood donation camp which got recognition from the Health Minister of Uttar Pradesh. During September, students organized eSummit '17, a 3-day mega entrepreneurial event, where students got to meet and learn from some of the best business minds in the country. The annual sport fest Udghosh was successfully conducted with usual enthusiasm, joy and fervour during October 12-15, 2017. The annual cultural festival Antaragini is currently underway with a variety of events and competitions and participation from across the country.

Like previous years, the Institute will celebrate its Foundation Day on 2<sup>nd</sup> November, 2017 where we will honor selected individuals with 'Institute Fellowship', and alumni with Distinguished Alumnus and Satyendra K Dubey Awards. Each Foundation Day offers an opportunity to review our journey as an Institute, celebrate the success, identify the weakness and create a comprehensive strategy for the future.

Despite challenges faced in terms of inadequacy of infrastructure, financial constraints, faculty shortage and increased competition, the Institute has fared considerably well in the recent past in our core mandate of furthering knowledge in science and technology through dissemination and creation. I may add that accommodation capacity of the Institute for all categories (student, scholar, staff and faculty members) has undergone remarkable enhancement recently and significant increase in space and infrastructure for academic and research activities are very much on the cards.

Despite odds, the Institute continues to add new research equipment and facilities, recruit promising new faculty members and pursue multiples of academic and research initiatives that can place the Institute at a vantage point nationally and globally. Sincere and sustained efforts by our faculty colleagues and research scholars have brought laurels and accolades at regular intervals. Several publications from our young colleagues have recently appeared in the top journals. The Institute is committed to imparting quality education, developing viable technology solutions and pursuing cutting edge research and innovation in all disciplines through individual and collective efforts. We may soon see SIIC to create a new not-for-profit company with the primary objective of mentoring, promoting and marketing new technology initiatives and start up companies from IITK.

In particular, the Institute would like to pursue certain thematic areas with greater emphasis where we have established credentials, core strength and emerging potential not only to create new avenues and knowledge but to translate them into practicable technology to ensure economic and societal growth of the entire country. Our participation in the national initiatives like IMPRINT, UAY, VAJRA, GIAN, Research Park and Institute of National Eminence should be further fortified to realize our ultimate goal of translation of knowledge into technology.

The country is poised for a big change and positive impact. Let us play our role and whole heartedly contribute towards that aspiration in the science and technology domain.

Thank you and Jai Hind!



## Faculty News ■ ■ ■ ■ ■



**Prof. TV Prabhakar** (Computer Science and Engineering) has been selected for the Teaching Innovator Award-2016 of MHRD, New Delhi based on his work on mooKIT, a futuristic teaching technology.



**Prof. Santanu Misra** (Earth Sciences) has been awarded the prestigious Dr. K.R. Gupta Gold Medal by the Council of the Geological Society of India for his outstanding contributions to Earth Science.



**Prof. Kumar Ravi Priya** (Humanities & Social Sciences) has been invited to serve as an Associate Editor of the journal *Psychological Studies* for a period of three years.



**Prof. AK Singh** (Materials Science and Engineering) has been selected for the fellowship of the Indian Institute of Metals.



**Prof. Laxmidhar Behera** (Electrical Engineering) has been elected a fellow of the Indian National Academy of Engineering.



**Prof. Amalendu Chandra** (Chemistry) **Yogesh M. Joshi** (Chemical Engineering), and **Sankar P Rath** (Chemistry) have been elected as fellows of the National Academy of Sciences, India (NASI).



**Prof. Indranil Manna**, Director, has been conferred the D.Sc. degree (Honoris Causa) of the University of Kalyani (WB). He has been recognized for his seminal contributions in the design and development of novel materials.



**Prof. Debopam Das** (Aerospace Engineering) won the title 'Best Professor in Aerodynamics' under the Dewang Mehta National Education Awards in the sub-category: Education Leadership Award.



**Prof. Raju Gupta** (Chemical Engineering) has been invited to join the Advisory Board of the Royal Society of Chemistry journal *Molecular Systems Design & Engineering*.



**Prof. Sandeep Anand** (Electrical Engineering) has been selected for the INAE Young Engineer Award 2017.



**Prof. Vishal Agarwal** and **Rahul Mangal** (Chemical Engineering) have been selected for the Ramanujan Fellowship of DST.



## New Books

### Transport Phenomena in Microfluidic Systems

Written by: Prof. PK Panigrahi



### Eminent Indian Psychologists: 100 Years of Psychology in India

Edited by: Prof. Braj Bhushan



## Research & Development ■ ■ ■ ■ ■

### Some Recent Projects

- Indo-US Science & Technology Forum granted a major project titled *UI-ASSIST: US India Collaborative for smart diStribution System with SStorage*. The lead PI of this project is **Prof. SC Srivastava**.
- Department of Science & Technology sanctioned a project titled *Development of Nano-Bio-Platforms for early Diagnostics Of Chronic Diseases*. The PI of the project is **Prof. Sandip Verma**.
- **Prof. Santanu Misra** awarded a project under Swarnajayanti Fellowship DST 2016. The title of the project is *Dynamics of Subduction Interface and its Implications for Earthquake Generating Frictional Sliding to Volacano Feeding Partial Melting in Convergent Plate Tectonic Boundaries*.
- Tata Consultancy service sanctioned a major fund towards development of *ICME National Hub* at IIT Kanpur. The PI of this project is **Prof. Amarendra K Singh**.

## Alumni News

- **Mr. Sanjeev Sinha** (Director PWC, Japan) has been appointed Advisor for Rs. 98,000 Crores Ahmedabad-Mumbai High Speed Rail, Setting up an India-Japan High-tech Fund.
- **Mr. Ram Sewak Sharma** (MSC/MTH/1977), Chairman of TRAI, has been honoured with the "TelecomLead Leader Award 2017".

## SIIC News

Biotechnology Ignition Grant is a grant-in-aid funding scheme started by Biotechnology Industry Research Assistance Council (BIRAC), a Government of India initiative to promote entrepreneurship in biotechnology. The BIG scheme is currently managed by 5 BIG Partners and IIT Kanpur has recently become the 6th partner. After IIT Delhi and FITT, IITK is the only BIG Partner in North India. As a partner, SIIC IITK will campaign for BIG funding scheme, receive and facilitate critical evaluation of proposals and disburse grant money. The scheme aims to help in commercialization of research discoveries by providing funds in the early stages and as a part of it, BIG grantees will receive up to INR 50 Lakh for up to 18 months.

# Happenings @ IITK



## Academic News ■ ■ ■ ■ ■

### Institute Lecture Series

As part of the Institute Lecture Series, Mr. Biplab Ketan Paul delivered a lecture in IITK on 24<sup>th</sup> August, 2017. Paul is an Ashoka Fellow and the Director of Naireeta Services, an Ahmedabad-based social enterprise. Naireeta Services has developed an innovative rainwater harvesting and management solution, the 'Bhungroo' which Paul and his wife Trupti Jain spent years perfecting. In his talk, Paul talked about this simple rainwater management tool and how it is enabling poor village women to become more self-reliant.

Bhungroo won the Climate Change Mitigation Award from the United Nations Framework Convention on Climate Change (UNFCCC) in 2014.



### Teachers' Day Awards

Every year, IIT Kanpur felicitates two faculty members from across the departments who have been voted by the students as most popular. This year, **Prof. Surendra Baswana**, Department of Computer Science & Engineering and **Prof. Anish Upadhyaya**, Department of Materials Science & Engineering were awarded the **Distinguished Teacher Award for 2017**. A function was held on 5<sup>th</sup> September at which both the faculty members were given a memento and a shawl by Prof. Indranil Manna, Director, and Prof. Manindra Agrawal, Deputy Director, IIT Kanpur.

After the award ceremony, citations were read out for both the awardees, following which they shared their experiences of teaching at IIT Kanpur.



### eSummit

eSummit, the annual entrepreneurial event at IIT Kanpur, was organised from 1<sup>st</sup> to 3<sup>rd</sup> September in association with Syndicate Bank Entrepreneurship Research and Training Centre (SBERTC). The event included a number of workshops, competitions and talks by eminent business icons and budding entrepreneurs. The list of speakers included BVR Mohan Reddy, Founder and Executive Chairman, Cyient; Sandeep Aggarwal, Co-Founder, ShopClues; and Sumit Chowdhury, Founder and CEO, Gaia. A number of workshops were organized, including ones on building a startup, design thinking, ethical hacking and android app development. The competitions included Stock the Stock, a live stock trading competition; Decrypt, a case study competition; Pitch Ur Product and a Business Quiz. The highlight of the event was Upstart, an unconventional startup competition in which participants got a chance to have face-to-face sessions and hone their ideas with mentors.



## Students' Corner ■ ■ ■ ■ ■

### Blood Donation Drive

Raktarpan organized a blood donation camp at individual hostels in IITK on 12<sup>th</sup>, 13<sup>th</sup> and 15<sup>th</sup> August. A total of 406 units of blood was donated. Following the drive, Honorable Mr. Sarnath Singh, Health Minister for Uttar Pradesh, felicitated Raktarpan and IIT Kanpur for being the largest organization, in terms of number of units collected, in Kanpur. Raktarpan is a project run by NSS IIT Kanpur with the objective of solving the problem of blood shortage in India. It acts as a channel between those who need blood and those who are willing to donate it.



### IITK Team at Amazon Robotics Competition

The Amazon Robotics Challenge is a global competition event and this year, in a spectacular show of skill, hard work and determination, students from IIT Kanpur secured the 3<sup>rd</sup> position in the 'Picking' task at the challenge held in Japan in July 2017. IIT Kanpur and TCS jointly put up a team that was selected in the final event under the tag-name IITK-TCS. The competition involved three tasks – Stowing (all objects from a tote had to be placed in designated racks), Picking (robot had to pick designated objects from the racks), and Picking and Stowing (involved a combination of the first two tasks). The IITK-TCS team was led by Prof. Laxmidhar Behera from the Department of Electrical Engineering.



### Udghosh 2017

Udghosh, the annual 4-day sports fest of IIT Kanpur, was held in the campus from 12<sup>th</sup> to 15<sup>th</sup> October. Over 2,500 participants from some of the best higher education institutes in India participated in the festival. A highlight this year were the sporting events organized especially for the differently abled. There were also several informal events like standup comedy by Nitin Gupta and Rahul Subramanian and EDM night by Club Bandit. For the closing ceremony, the Olympic Gold Medallist Abhinav Bindra was the Chief Guest, who later interacted with the students. IIT Kanpur won top spots in several events, including football, basketball (men) and athletics (men).



# Campus Diary



## Around the Campus ■ ■ ■ ■ ■

### Hindustani Vocal Recital at IIT Kanpur

**S**PIC MACAY, IIT Kanpur Chapter organized a Hindustani Vocal Recital by Pandit Ritesh Mishra and Pandit Rajnish Mishra, accompanied by Mr Durjay Bhaumik (tabla) and Mr. Anurag Basu (harmonium) on 30<sup>th</sup> August, 2017.

Pt. Rajnish and Pt. Ritesh are brothers and are the sixth generation of a family of great musicians. Skilled with a rich knowledge of Indian Ragas, the duo render Khayal, Tappa, Tarana Bhajans and other classical forms. They are 'A' grade vocalists of All India Radio and Television. They have been honoured with several prestigious awards including 'Yuva Ratna Award' (1999), "Bhavishya Jyoti Award" (2007), the "Sangeet Natak Akademi's Ustad Bismillah Khan Award" (2008) and the "Sangeet Samridhi Samman" (2010).



### Independence Day Celebration

**I**ITK celebrated India's 71<sup>st</sup> Independence Day on 15<sup>th</sup> August with a flag hoisting ceremony along with some cultural programs. The day's program began with the NCC Cadet parade after which the flag was hoisted by Prof. Indranil Manna, Director, IITK. The National Anthem and the Director's speech were followed by an award ceremony at which a few institute employees were felicitated for their exemplary service.

IITK's annual Hindi magazine *Antas* was also released at the function, following which, students from Campus School, Opportunity School, Kendriya Vidyalaya and IITK, performed short music and dance programs. The celebration was also broadcast on the institute's Community Radio for the benefit of those who could not attend in person.



### Outreach Activities by Vivekananda Samiti

Vivekananda Samiti, in collaboration with Techkriti and Prakriti, organized a cleaning and a cloth distribution drive in the campus on 3<sup>rd</sup> September. The cleaning drive was undertaken at MT section and near the fruit juice shops around Hall 3. Students and campus residents turned up for the drive in large numbers to maintain the clean and green IITK campus. Clothes were distributed amongst 150 workers. The faculty advisor of the Samiti, Prof. DP Mishra, initiated the program. A similar cloth distribution drive was held in collaboration with the Ramakrishna Mission on 23<sup>rd</sup> September during which, brand new trousers and shirts as well were gifted to the SIS security guards in the campus.



## Upcoming Events

- **Institute Day**  
2<sup>nd</sup> November
- **Cyber Security Awareness Talk (CSAW)**  
9<sup>th</sup> - 17<sup>th</sup> November



## Obituary

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



Prof. Shashi Shekhar Mishra (IME) breathed his last on 2<sup>nd</sup> September, 2017. Prof. Mishra joined IITK in 2011 and his area of interest was marketing. He completed his B.Tech in Plastic Technology from HBTI Kanpur and was also a Fellow in Management at IIM Lucknow in 2012.



Shri Vinod Kumar Gupta, Superintendent, NCC IIT Kanpur, breathed his last on 6<sup>th</sup> August, 2017.