

## Highlights



**Prof. Abhay Karandikar**, Department of Electrical Engineering, IIT Bombay appointed as the Director, IIT Kanpur.



**Prof. Monika Katiyar** appointed Head of the Department of Materials Science & Engineering.



**Prof. Amalendu Chandra** appointed Head of the Department of Chemistry.

## New Colleagues



**Prof. Subrahmanyam Saderla**  
Aerospace Engineering



**Prof. Ankush Sharma**  
Electrical Engineering



**Prof. Supratik Banerjee**  
Physics

## Young Faculty Research Fellowship

The Young Faculty Research Fellowship 2018 by the Ministry of Electronics & Information Technology, Government of India is awarded for a period of three years and includes both a monthly fellowship amount and a research grant. The awardees for 2018 are:



**Prof. Rakesh Kumar**  
Aerospace Engineering



**Prof. Raju Kumar Gupta**  
Chemical Engineering



**Prof. Nitin Saxena**  
Computer Science & Engineering



**Prof. Ketan Rajawat**  
Electrical Engineering



**Prof. Arvind Kumar**  
Mechanical Engineering

## From the Director's Desk

**W**are once again at the end of another academic session and in the last two months, we have successfully organized some of the most awaited annual events of our campus. Techkriti, our annual technological fest, saw record participation and the Institute Flower Show had the entire campus coming together for a fun show and fete.

The institute's Women's Cell also organized great initiatives in the past month for gender sensitization. With these events, IIT Kanpur strives to set an example for a zero-tolerance policy towards sexual harassment on campus. Several of our faculty members have won notable awards and recognitions and the SIDBI Innovation and Incubation Centre won the Platinum Award under the "Smart Incubator of the Year" category by India Smart Grid Forum.

For the coming months, we have many exciting things in the pipeline – the start of the new academic session and the Convocation always create a special buzz on campus. But most of all, we look forward to welcoming our new Director, Prof. Abhay Karandikar, and working with him to take IIT Kanpur to greater heights.

**Prof. Manindra Agrawal**  
Officiating Director,  
IIT Kanpur

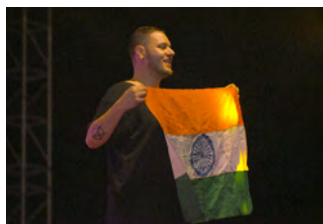
## In Focus

### Techkriti 2018

**T**he 24th edition of Techkriti, the annual inter-collegiate technology and entrepreneurship festival organized by the students of IIT Kanpur, was organized this year from 15th to 18th March 2018. For the inaugural function, veteran Indian director and screenwriter, Mr. Shyam Benegal had been invited as the Chief Guest.

Like previous years, Techkriti hosted competitions across a wide spectrum of fields this year as well. From Technical (Bridge Design and Egg Drop challenge) and Technovation (Social Conquest and Policy Watch) events to Entrepreneurial ones (Best Manager and Pitch Premier), there was something for everyone.

A number of workshops had also been organized on business startups, robotics, design, programming and more. Experts and eminent personalities had also been invited to deliver talks. This year's entertainment performances included a music show by Piyush Mishra and Band, a stand-up comedy performance by Biswa Kalyan Rath, DJ Marnik and a grand finale to the festival by the French DJ, Willy William.





## Alumni News

- Prof. Pushpak Bhattacharyya (MT/CSE/1986), Director, IIT Patna, has been appointed as the chairman of the committee for standardisation in artificial intelligence set up by the Bureau of Indian Standards under the Ministry of Consumer Affairs.
- Air Marshal Raj Karan Singh Shera (MT/EE/1990) takes over as the Air Officer-in-charge Maintenance of the Indian Air Force's (IAF) Maintenance Wing.
- Prof. Vijay K. Dhir (MT/ME/1968), Distinguished Professor of Mechanical and Aerospace Engineering, Henry Samueli School of Engineering and Applied Science, University of California, Los Angeles, has been named as the Faculty Fellow of the Hagler Institute for Advanced Study at Texas A&M University.
- Mr. Namit Jain (BT/CSE/1995) appointed as the Senior Vice-President of Engineering at Qubole.
- Prof. Nitin Kumar Tripathi (MT/CE/1987), Professor and Director, Special Degree Program, Asian Institute of Technology, felicitated by former President Shri. Pranab Mukherjee for his contributions to academics.
- Prof. Jayadev Misra (BT/EE/1969) elected as a member of the National Academy of Engineering for his contributions to the theory and practice of software verification of concurrent systems.
- Prof. Mukul Mani Sharma (BT/CHE/1980) elected as a member of the National Academy of Engineering for his contributions to the science and technology of production using unconventional hydrocarbon reservoirs.
- Prof. Chandramauli Agrawal (BT/ME/1982), UTSA Interim Provost and Vice President for Academic Affairs, has been appointed as the Chancellor of the University of Missouri-Kansas City.

## Faculty News



**Prof. Arun Shukla** (Biological Sciences & Engineering) has been selected as a co-recipient of this years CDRI Award for Excellence in Drug Research in the Life

**Prof. Manabendra Chandra** (Chemistry) has been awarded the Young Faculty Research Fellowship of the Ministry of Electronics and Information Technology,



**Prof. K Muralidhar** (Mechanical Engineering) appointed as Editor-in-Chief of Journal of Flow Visualization & Image Processing

**Prof Jitendra K Bera**, (Chemistry), has been invited to join as an Associate Editor of "Applied Organometallic Chemistry" (AOC, Wiley Interscience).



**Prof. Surender Baswana** (Computer Science & Engineering) has been awarded the Humboldt fellowship for Experienced researchers by the Humboldt Foundation of Germany.

**Prof. Anindya Chatterjee** (Mechanical Engineering) has joined the Editorial Board of International Journal of Mechanical Sciences (IJMS) published by Elsevier.



**Prof. Malay Banerjee**, (Mathematics and Statistics) has been invited to join the editorial board of the journal "Mathematical modelling of natural phenomena" as an associate editor.



**Prof. Sudhanshu Shekhar Singh**, (Materials Science and Engineering) has received the IEI Young Engineers Award 2017-2018 in the Metallurgical & Materials Engineering Discipline. He is also the recipient of the "2017 TMS Structural Materials Division JOM Best Paper Award"



**Prof. T. V. Prabhakar, Prof. Amey Karkare and Prof. Purushottam Kar** (Computer Science & engineering), selected for the award of Best Faculty of the Year in the category of "Evangelizing and Contributing to Spread of Knowledge across several Institutions", "Innovative Application of Technology Tools in Teaching/Learning" and "Authoring Books on Contemporary Subjects" respectively by the Computer Society of India, Mumbai Chapter.

## Research & Development

### Some Recent Projects

- **Prof. Kantesh Balani**, Department of Materials Science & Engineering awarded a project under **Swarnajayanti Fellowship** of Department of Science and Technology. The title of the project is *Hip Joint Replacement System*.
- **Prof. Mukesh Sharma**, Department of Civil Engineering and Centre for Environmental Science & Technology received a project from UP Pollution Control Board. The title of the project is *Air Quality Assessment, Trend Analysis, Emission Inventory and source Apportionment Studies in the Cities of Agra and Kanpur*.
- **Department of Aerospace Engineering** received a major grant under *FIST Programme* of Department of Science and Technology.

### FIRST at IIT Kanpur

The incubation system at IIT Kanpur has grown exponentially over the years. So far, the SIDBI Innovation & Incubation Centre has mentored over 72 startups, out of which 41 companies have already graduated and 35 are still under incubation. These figures are expected to grow in the next few years as the institute's incubation ecosystem also grows. To address this growth and the challenges that come with it, IIT-K has incorporated Foundation for Innovation & Research in Science & Technology (FIRST), a not-for-profit Section 8 company run by a Board of Directors and wholly owned by the institute. The company will function as a facilitation entity on all aspects of innovation and incubation, assisting start-up entrepreneurs, streamlining innovative ideas and leveraging the excellent knowledge base and technology support base available at IIT Kanpur. Mr. Rajarshi Mukhopadhyay, has been appointed as the Chief Operating Officer of FIRST.

# Happenings @ IITK



## Academic News ■ ■ ■ ■ ■

### Circuit Simulation Model by IIT Kanpur Approved as an Industry Standard

IIT Kanpur now has the distinction of being one of the two institutes from across the world to have its Integrated Circuit design simulation software approved as an industry standard model. After years of hard work and fierce competition, IITK emerged as the only institute, apart from Massachusetts Institute of Technology, USA, to have achieved this distinction. The design simulation is part of the work by a team lead by Prof. Yogesh Chauhan, Dept. of Electrical Engineering at IIT Kanpur. It was chosen as an industry standard model by Compact Model Coalition (CMC), an R&D group formed by companies in the semiconductor industry to develop and standardize simulation programs for simulating Integrated Circuits. Prof. Chauhan's team, along with an Australian collaborator, worked on developing their model for close to 5 years and they have been awarded a grant of US\$ 70,000 per year for further research and development by CMC.

The team's model enables companies manufacturing GaN semiconductor devices to test their circuits before actual production. Since the cost of production of GaN devices is extremely high, this software will enable companies to test their circuits before production at a significantly lower cost.



### New Books



**Kishor Chetna**

Dr Sukarma Rani Thareja

### Teacher Training Workshop Under UBA

As part of the Unnat Bharat Abhiyan, IIT Kanpur organized a training workshop for teachers engaged in government schools in the surrounding villages. The five-day workshop was inaugurated on 6th February 2018 by Prof. Manindra Agrawal, Officiating Director, IIT Kanpur.

A total of 40 science teachers from government schools nearby attended the workshop, led by Prof. HC Verma and his team. Prof. Verma trained the teachers in performing simple science experiments that can help students understand complex science easily. After the workshop, student volunteers from IIT Kanpur visited these village schools to help children perform these science experiments. It is also planned that the students will help in setting up a basic science laboratory to be accessed by the school children.



### Game-Changing Helicopter Design

IIT Kanpur has designed possibly the most efficient helicopter in the world, which had the distinguished opportunity of showcasing its ability in front of the Honourable Prime Minister of India on Army Day celebrated on 15th January, 2018. The working of the design, called Vibhram, was also demonstrated in front of the Chief of Army Staff during Army Technology Day on 8th January, 2018 in New Delhi.

Vibhram is an innovative and improved helicopter design, making use of dissimilar coaxial rotors mounted above the body of the helicopter. This concept has been predicted to be 10-20 per cent more efficient than existing helicopter designs like the conventional (single main rotor and tail rotor) and the regular coaxial helicopters. The team behind this design consisted of MTech and PhD students from IIT Kanpur, who were advised by Dr. Abhishek, Department of Aerospace Engineering, IIT Kanpur.



## Students' Corner ■ ■ ■ ■ ■

### Mountaineering Workshop by Satyarup Siddhanta

On 31st March and 1st April, the Adventure Club of IIT Kanpur in collaboration with the Physical Education Section IIT Kanpur organized a talk and workshop with Mr. Satyarup Siddhanta, an Indian mountaineer who recently successfully accomplished the Seven Summits.

On the first day, Mr. Siddhanta delivered a talk in which he narrated his life journey, from being an asthmatic who regularly needed medical attention to climbing the highest peaks in the world. Through his experiences, he stressed that anything is possible once we make up our minds.

On the second day, workshops were held with two groups based on their prior experience of climbing. In these informative workshops, Mr. Siddhanta explained some of the technical skills necessary for climbing.



# Campus Diary



## Around the Campus ■ ■ ■ ■ ■

### Flower Show 2018

The annual Flower Show at the Central Nursery was organized this year on 24th and 25th February, 2018. The Show included a competition on the first day among the campus residents for the best flowers, foliage, cactus and vegetables. On the second day, the Women's Association at IITK organized a fete which included food stalls, fun games, a drawing competition and puppet show for kids.

This year, in the Residence-to-Residence category, the awardees were Mr. Navpreet Singh (1st position), Prof. JG Rao (2nd position) and Prof. J Ramkumar (3rd position). In the category which included Halls of Residence, Visitor's Hostel and Director's Bungalow, Hall 2 was declared the overall winner. The competitions at the Flower Show were judged by retired professors from Chandra Shekhar Azad Agricultural University.



### Women's Cell Activities

Women's Cell at IIT Kanpur organized two events in the month of March to sensitize the community towards gender issues and sexual harassment in the workplace.

On 11th March, the Cell organized a 5-Km run and walk to create awareness about sexual harassment and gender discrimination. The theme of the event was "Don't be a Bystander; Stand against Sexual Harassment". Both the walk and run were flagged off at 6:30 am, and were divided into four categories – Walk (15-30 years and Above 30) and Run (15-30 years and Above 30). In each category, there were separate tallies for men and women. The prizes were distributed by Prof. Manindra Agrawal, Officiating Director, IIT Kanpur. With this event, IIT Kanpur hopes to set an example for a zero-tolerance policy towards sexual harassment and gender discrimination on campus.



On 17th and 18th March, Women's Cell, in association with Techkriti, organized a talk and interaction session with Ms. Flavia Agnes, an Indian women's rights lawyer and co-founder of MAJLIS, a legal resource center for women. In her talk, Agnes traced the development of the women's movement in India and the law pertaining to women's rights. Through her talk, she stressed that India needs to do better when it comes to access to justice for women and also awareness about the law.

### Ek Bharat Shreshtha Bharat: Utkal Divas

On 2nd April 2018, Utkal Parishad, IIT Kanpur celebrated the Foundation Day of the State of Odisha (Utkal Divas) in association with the Department of Culture, Government of Odisha and Ek Bharat Shreshtha Bharat programme of IIT Kanpur, an initiative of MHRD to promote the cultures of the different states of India. Prof. P. Shunmugaraj, Dean of Students Affairs, IIT Kanpur inaugurated the function, which began with dance performances. Famous dance troupe Tribhanga Kalaniketan led by Nritya Guru Shri Vikram Samal accompanied by six other members, presented the famous Odissi and Sambalpuri dance forms. At the end, Prof. Shunmugaraj presented a memento to all the dancers who participated in the cultural event.



## Obituary

The institute offers its condolences to the families and loved ones of the deceased.

- Prof. D. Yadav passed away on 14 January 2018 in Patna. Prof. Yadav served the Institute as Professor and Visiting Professor during 1981-2016.
- Ms. Bharti Sharma, Junior Supritendent, Accounts Department, passed away on 5 February 2018
- Prof. Satish C. Agarwal, ex-professor in the department of Physics, passed away on 12 April 2018.

## From the Album

