

### January 2016

Link: www.iitb.ac.in/en/activities/campus-diary

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

### **Celebration of Republic Day at IIT Bombay**



Prof. D.V. Khakhar, Director, IIT Bombay hoisting National Flag and addressing the gathering during Republic Day celebration.

IIT Bombay celebrated the 67<sup>th</sup> Republic Day of the nation on January 26, 2016. It was on this day in the year 1950 that the constitution of India came into effect, thereby, cementing India's status as a sovereign socialist secular democratic republic. Keeping up with tradition, the Director, Prof. Devang Khakhar hoisted the national flag during the ceremony held at the Gymkhana Grounds. Earlier in the day, students of Campus School and Kendriya Vidyalaya carried out a march past. This year, even the security team at IIT Bombay participated in the march past. As a part of the Republic Day celebrations, awards and cash prizes were distributed to meritorious members of the staff, students of IIT Bombay, Campus School, Kendriya Vidyalaya and KG School.



The list of the winners is given below:

### Award and Meritorious Certificates to IIT Bombay Staff Members

Shri H. B. Mali, *Sr. Helper, Mathematics Department* Shri M. D. Rokade, *Jr. Watchman, Security Section* Shri R. S. Yadav, *Jr. Watchman, Security Section* Shri P. P. Ghodke, *Jr. Watchman, Security Section* Shri M. R. M. Verma, *Watchman, Security Section*  Shri J. C. Keyravan, *Jr. Watchman, Security Section* Shri S. S. Shinde, *Jr. Watchman, Security Section* Shri Pramod Zore, *Jr. Watchman, Security Section* Shri M. P. Jadhav, *Security Inspector, Security Section* Shri M. A. Mhatre, *Jr. Watchman, Security Section* 

LOWER KG STUDENTS

### Winners of Essay Writing Competition held during Vigilance Awareness Week (October 26-31, 2015)

#### a) STUDENTS CATEGORY :

First Prize (Rs. 10,000)	:	Mr. Anuragh Nagaich (M.Tech., CSRE)
Second Prize (Rs. 7,000)	:	Mr. Atharva S. Kelkar (DD, CE)
Third Prize (Rs.4,000)	:	Mr. Dileesh P.W. (PhD, ME)
Honorable Mention (Rs.2000)	:	Mr. Sagat Shaunik <i>(M.Phil, HSS)</i>
Honorable Mention (Rs.2000)	:	Mr. Karan Taneja <i>(DD, EE)</i>
Honorable Mention (Rs.2000)	:	Mr. Devanand (PhD, IEOR)
b) FACULTY & STAFF CATEGORY	<u>′</u> :	
First Drize (De. 10.000)		Ma Lathika Dag ( Ir Sundt MEMS)

First Prize (Rs. 10,000)	:	Ms. Lathika Das (Jr. Supdt. MEMS)
Second Prize (Rs. 7,000)	:	Ms. Madhu (Executive Officer, PPR Section)
Third Prize (Rs.4,000)	:	Prof. R.S. Pant (Professor, Aerospace Deptt.)

### Meritorious Certificate for representing IIT Bombay:

**a) Ms. Apeksha Fernandis** (*Daughter of Prof. B.G. Fernandis, Dept. of Electrical Engg.*) She represented Maharashtra State at the 32<sup>nd</sup> Sub-Junior National Aquatics Championships held at Pune in July 2015 and won Bronze medal. She has also won Best Swimming Technique award in Breaststroke under 10 years category in the nation.

#### b) Mr. Ashwin Kanhere (3<sup>rd</sup> year, B.Tech.)

He has won five gold medals in different categories (50 m Breaststroke, 100 m Breaststroke, 200m Breaststroke 4 x 100 freerelay, 4 x 100m Medley relay) at the 31<sup>st</sup> Inter IIT Aquatics Meet held at IIT Madras.

### Winners of Drawing Competition (K.G. School Students)

### UPPER KG STUDENTS

First Prize	:	Ms.Sishakha Rajaraman	First Prize	:	Ms.Tanvi Srivastava
Second Prize	:	Ms. Neeraja Nandgaonkar	Second Prize	:	Ms. Urmi Chakraborty
Third Prize	:	Ms. Veedhi Ahluwalia	Third Prize	:	Ms. Lasya Reddy Manne
Consolation Prize	:	Mst. Shuban Dey	Consolation Prize	:	Ms. Devanshi Dharade

### Winners of Drawing Competition (Aman Day Care Centre)

Group I : ( Std 1 - Std 2) Topic: Nature	Group II: (Std III-Std IV) Topic: My Family & Nature
Ms. Swapna Gaura Nayak - <i>2nd std</i>	Mr. Sagar Nandu Chaudari - <i>3rd Std</i>
Mr. Tejram Rathiram Adivasi - 2nd std	Ms. Chandini Mujibul Sheikh - 3rd Std

Group III: (Std 5 - Std 8) Topic: Save Earth

Mr. Vijay Gaura Nayak - 7th std

### Winners of Drawing Competition (IIT CAMPUS SCHOOL)

### GROUP I (include Class I and II)

First Prize	:	Ms. Vaibhavi Tarkesh Lometepatil (IInd std.)
Second Prize	:	Ms. Vaishali Bhailal Solanki <i>(Ist std.)</i>
Third Prize	:	Ms. Rutiksha Dayanand Jinde (Ist std.)
Consolation Prize	:	Ms. Avantika Ganesh Bhamble (IInd std.)



### GROUP II (include Class III, IV and V)

First Prize	:	Ms. Shravani Ashok Patil (Vth std.)
Second Prize	:	Ms. Namita Naresh Wankhade (IIIrd std.)
Third Prize	:	Mst. Amar Niranjan Panda. (Vth std.)
Consolation Prize	:	Ms. Kashish Hasmukh Solanki (IVth std.)

### GROUP III (include Class VI, VII & VIII)

:	Ms. Sejal Hasmukh Solanki (VIIIth std.)
:	Ms. Deepa Rajendra Rawat (VIIth std.)
:	Ms. Rutuja Dilip Patil (VIIth std.)
:	Ms. Kalpana Premkumar Thapa (VIIIth std.)
	:

### GROUP IV (Include Class IX, X, and XI)

First Prize	:	Ms. Sheetal Prakash Jangale (XIth std.)
Second Prize	:	Mst. Bhalchandra Pramod Jadhav (XIth std.)
Third Prize	:	Mst. Ritesh Sanjay Manjrekar (IXth std.)
Consolation Prize	:	Mst. Jignesh Dilipkumar Solanki (Xth std.)

# Certificates awarded to the Campus School students in appreciation of the work done for the School Project on 'Eco-effeciency' using solar energy, which has won the first position at the District level under the guidance of Shri Ashish R. Patil, T. G. Teacher (Science) of IIT Campus School.

Ms. Shruti Thorat (Student, Std. VIth std.) Mst. Vishnu Patil (Student, Std. VIth std.)

### Certificates to the winners of Drawing Competition (KV Powai School)

### GROUP I (include Class I and II)

First Prize	:	Ms. Ishana Mukherjee (IInd std.)
Second Prize	:	Ms. Tanisha (IInd std.)
Third Prize	:	Ms. Harita P. Kolgaonkar (IInd std.)
Consolation Prize	:	Ms. Prishaa Rupani <i>(Ist std.)</i>

### GROUP II (include Class III, IV and V)

First Prize	:	Ms. Arshiya (Vth std.)
Second Prize	:	Mst. Ujjesha Tiwari (Vth std.)
Third Prize	:	Ms. Deetya V. Mudaliar (IVth std.)
Consolation Prize	:	Ms. Suyesha (IIIrd std.)

### GROUP III (include Class VI, VII & VIII)

First Prize	:	Ms. Ritika Chandel (VIIIth std.)
Second Prize	:	Ms. Chhavi Kowe (VIIth std.)
Third Prize	:	Master Aiman Md. Islam (VIIIth std.)
Consolation Prize	:	Ms. Suhani Solanki (VIIth std.)

### GROUP IV (Include Class IX, X, and XI)

First Prize	:	Master Oshin Mishra (XIth std.)
Second Prize	:	Master Krushal S. (IXth std.)
Third Prize	:	Ms. Netrali T. (IXth std.)
Consolation Prize	:	Master Vaibhav K. (IXth std.)

### Certificates to winners and SGFI Participants (KV IIT School Students)

### BOYS

Master Aaryan Bhosale (VIIth std.)	: received 3 gold, 1 silver and 2 bronze medals in Swimming
Master Pritesh Chavan (VIIth std.)	: received 2 silver and 3 bronze medals in Swimming
Master Satvik (IXth std.)	: received 2 Gold medals for Diving
Master Rochishnu Rawool (XIth std.)	: received 1 Silver and 1 Bronze medal in Swimming
Master Abhishek K. (XIth std.)	: received 1 gold medal in Athletics
Master Aryan Meshram (IVth std.)	: He has won one gold medal at the National Level, held at Gulmarg
(J & K). He has also been the younges	t Indian team member at the Asian open championship held in Manila



Philippines and holds a Unique World Record for continuous 24 hrs skating at Belgaum, Karnataka .— for Ice Skating.

### GIRLS

Ms. Maitriyani Bhosale (IXth std.) Ms. Amisha (IXth std.) Ms. Saugandhika Kale(VIIIth std.) Ms. Susmita Kamble (VIIth std.)

- : received 3 gold, and 2 bronze medals in swimming
  : received 1 gold, 1 silver and 2 bronze medals in swimming
  : received 1 Silver and 3 Bronze medals in swimming
  : received 1 Silver and 4 Bronze medals in Archery
- WINNERS OF RASTRAPATI AWARD

Master Ankush Sharma (XIIth std.) Ms. Manali Rane (XIth std.) Master Hrishikesh Sawant (XIIth std.) Ms. Gayatri Shinde (XIth std.)

### WINNERS OF NATIONAL CHILDREN'S SCIENCE CONGRESS 2015

Ms. Avantika Bardan (IXth std.) Ms. Vaishnavi N. (IXth std.) Master Navneet Lal (IXth std.)

:	received	1	gold	medal
:	received	1	gold	medal
•	received	1	aold	medal

### IIT Bombay delegation visits Bangladesh to promote DAAD Scholarships



Prof. Devang V. Khakhar, Director, Prof. Narayan Rangaraj, Dean (AP), Prof. Rajiv Dusane, Dean (IR) along with the representatives from DAAD in Dhaka

In an endeavour towards creating better awareness on educational opportunities available at the Indian Institute of Technology Bombay (IIT Bombay) for students at post-graduation and doctoral levels and forging collaborative relationships with higher educational institutions in Bangladesh, a team of senior officials from IIT Bombay and representatives from DAAD (German Academic Exchange Service) visited Bangladesh during January 10-14, 2016.

The IIT Bombay delegation included Prof. Devang V. Khakhar, Director, Prof. Narayan Rangaraj, Dean (Academic Programme), and Prof. Rajiv Dusane, Dean (International Relations), The High Commission of India in Dhaka organized an interactive session on January 11, 2016, for the students of Bangladesh. This was an unique opportunity for the students to meet and get their queries answered from IIT Bombay officials on academic programmes, infrastructural facilities, accommodation and financial aid available for the students.

Speaking on the occasion Prof. Devang V. Khakhar said, "When we make connections with countries which are somewhat similar, then comes a lot of motivation to work on similar, programmes and research. India and Bangladesh should work together because we have similar kinds of problems and hence working together would be an advantage."

This year 20 engineering students from Bangladesh will be coming to IIT Bombay for completing their post-graduate and post-doctoral programmes. DAAD will be supporting their studies, while IIT Bombay in addition, will provide Teaching Assistantships (TA) to those selected for the Ph.D. programmes besides providing them campus accommodation and other facilities. Currently there are two students from Bangladesh pursuing Ph.D. at the Institute.





E- Summit 2015- Where Innovation Transcends Business

15,000 attendees, 500+ startups, 80+ events and 100+ speakers, clearly *the Entrepreneurship Summit 2016 of IIT Bombay* was a great success. The two day annual event held during January 30- 31, 2016 was a perfect meeting ground for industry experts, business leaders, investors, entrepreneurs and of course, students, many of whom are aspiring entrepreneurs. It's was also the first ever event of its kind to receive patronage from the 'Make in India' initiative, as well as UNESCO.

### Some of the highlights of the e-summit this year were:

**Eureka** : Asia's Largest B-plan competition- Eureka finals were held during the summit. The smart helmet designed by a bunch of engineering graduates bagged the first prize.

The Ten minute million Challenge: The second edition of 'The Ten minute million Challenge' witnessed 4 start ups walking away with investments worth 15 lakh while presenting their ideas in 10 minutes. The start-ups which got funding this year are Bangalore-based Strike, a mobile-first email productivity platform for Gmail; Chennai-based Maaxmarket, which creates personalized contents for businesses thus claiming to increase their sales; Gurgaon-based Gamooz, which claims to be amongst India's very few start-ups that deal with augmented reality and Mumbai-based Soundsurround that claims to have re-invented concert music by building a system that connects up to thousands of wearable speakers to give a rich experience.

**Teen Tycoons:** 'A new event this year at E-summit, 'Teen tycoons', saw two school students winning Rs 30,000 each for their innovative business ideas. **Innovation Conclave:** Top innovators of India showcased their success stories, strategies and products at the Innovation Conclave in 15-minute long interactions. Anil Gupta, Founder, National Innovation Foundation and Ramesh Raskar, Head - MIT Media Labs, with over 50 patents in his name, were among those who talked about their ideas and how they made it happen.

**Business Conclave:** There was a meet-up in four sectors: HR, Marketing, Tech and Finance, which had talks by pioneers in each field, followed by closed networking sessions.

**Workshops and Competitions:** Workshops were held for participants. Other attractions included the Job and Internship Fair which was open to all college students, Start-up Expo and Lean Start-up workshops. The summit also showcased various entrepreneurship ecosystems, their unique features and their success stories. A range of competitions designed to test skills needed to be successful entrepreneurs was tested at E-Summit. The competitions included Crowd Pitch, Ideablaze, national BizQuiz, Investor's Hat, Pitch Please, IPL Auction, Apocalypse Management, Case Study, Investors' Portfolio, M&A, Hackathon. The total prizes for the competitions was over Rs. 4.5 lakh.

Lectures, Seminars, Panel Discussions: The twoday event hosted eminent speakers such as Harsh Mariwala, Founder-Marico, Kanwal Rekhi, Managing Director - Inventus Cap, start-up success leaders such as Sachin Bansal, Founder- Flipkart, Kunar Shah, Founder & CEO - Freecharge, and many others interacting with young minds as part of Lectures, Seminars and Panel Discussions.

**Conclusion:** All in all, the Summit was a great success and saw participation from more than seven countries.



### The Faculty Alumni Network (FAN) & Distinguished Alumni Meet (DAM)



FAN and DAM Meet at Goa.

The FAN and DAM meet was held in Goa during January 16-17, 2016. Annual Distinguished Alumni Meet is an initiative that brings together IITB's distinguished alumni who have contributed and have been acknowledged for their distinguished services to the society at large. The meet is held annually to plan the strategic growth of the institution in the future years. This event is preceded by Faculty Alumni Network India Symposium where established and early stage researchers in certain identified research areas meet the IITB alumni from the

industry. This symposium is to explore young researchers' profiles to be considered for IITB faculty positions. The symposium also explores possibilities of future association and to facilitate the problem solving measures with up to date research in the areas such as affordable energy solutions, water and sanitation and affordable health care.

### Ph.D. Consortium 2015

Shailesh J. Mehta School of Management for the first time organized a Ph.D consortium during November 30-December 1, 2015 on the theme "Management in the 21st Century". The consortium was inaugurated by Prof. P.M. Mujumdar, Deputy Director (Finance and External Affairs) IIT Bombay and inaugural address was delivered by Prof. Ramadhar Singh, Distinguished Professor, IIM Bangalore. Twenty nine Ph.D Scholars from India and abroad presented their papers during the consortium in the areas of Economics and Finance; Information System & Technology Management; International Business; Marketing; Operations Management; Organizational Behavior and HRM; Quantitative Techniques and Decision Science; and Strategic Management. Distinguished speakers from both Academia and Industry shared their thoughts with the young scholars during the consortium. The distinguished scholars from Academia included Prof. Pradip Khandwalla, Former Director, IIM Ahmedabad; Prof. M.R. Rao, Former Director, IIM Bangalore and Former Dean, ISB Hyderabad; and Prof. Rajan Saxena,



Ph.D Consortium 2015

Former Director, IIM Indore and present Vice-Chancellor, NMIMS. The experts from the industry included Mr. Mukesh Kothari, Director – Technology, Deloitte Consulting and Mr. Neeraj Jain, Senior Director, Deloitte India. Overall the consortium was a very enriching experience for the participating young researchers and the School plans to continue organizing such consortium as annual event in future as well.

### Screening of the movie, "India Awakes"

The movie "India Awakes" produced by Mr. Bob Chittester, was screened in the institute on January 6, 2016. The screening was followed by an interactive session with the producer himself. The film has already been premiered at the Indian Embassy on August 13, 2015 and an abbreviated version has also been screened at the Global Business Forum which was held in Goa in October last year. Bob Chittester is an award winning movie producer and heads the "Free to Choose Organization" which was founded by Nobel Laureate Milton Friedman. Bob's movies are screened by the Public Broadcasting System (PBS) and National Geographic mostly in major markets: New York, DC, Chicago, LA, SFO, Denver and Houston. Bob's movies have also been telecast by National Geographic. His next movie is being planned on Innovation and Entrepreneurship and IIT Bombay is working with him to garner support and focus on work being done at the institute. His philosophy and movies are very much aligned with WHEELS initiative and one can safely assume that his movies will help IIT Bombay draw global attention towards its own programs.



### **Research in Focus**

### **Jaggery Making: Process Improvements**



Jaggery making is typically a rural and smallscale enterprise owned and manned by farmers. Studies clearly indicate that one of the areas that needs considerable improvement is the energy efficiency of the process. A research group headed by Prof. NG Shah of CTARA and Prof S.M. Mahajani of Chemical Engineering Department, IIT Bombay set out to find out ways for maximising energy efficiency of jaggery units and making them more cost effective, labour friendly and environment friendly. The project was funded by Rajiv Gandhi Science and Technology Commission, Maharashtra (India). Primary data was collected from 300+ jaggery making units in Kolhapur district and the entire process was evaluated so that an alternative process solutions are developed.

The R and D work is in the stage of field leveltesting and the various improved processimprovements are delinated as below:

Technology : Improvements in Jaggery Processing and Product Improvements based on the study

### Three alternatives in "Process Development & Tech-transfers" achieved :

 Modified pan that converts from Batch to Continuous Mode : Installed at the commercial unit (1Ton/day) at the site of Jaggery unit holder in Warnanagar.

### Benefits:

- Labour friendliness
- Cost of the modified pan : Rs 1 lakh/-(The intervention pays back in one season (5 months) : cost saved through labour saving).
- Further dissemination is planned in next jaggery making season
- Demonstrated a process of Efficient Combustion saving Bagasse. Saved baggase briquetted and sold
- A Novel process pilot plant (100 Kg / 8 hr) installed at TKEIT, Warnanagar. Patent is filed through IRCC. Further Dissemination through: Regional Jaggery Research Centre, Kolhapur (ICAR-New Delhi) by conducting "Training Programmes" for Jaggery unit holders using the Novel Process developed will be considered.

# Campus diary

### Institute Colloquium / Lectures & Seminars



**Prof. Jonathan Agar,** Professor of Science and Technology Studies, University College London, United Kingdom, delivered an Institute Colloquium on the topic *"What are the big themes of the history of twentieth century science?"* on January 7, 2016.

### Mini Colloquium

Prof. C. Y. Chang, National Chiao Tung University, Taiwan, Prof. Hiroshi Iwai, Tokyo Institute of Technology, Japan, Prof. Edward Yi Chang, National Chiao Tung University, Taiwan, talked on different aspects of "Nano-scale Devices" on January 12, 2016.

### Departmental Lectures

### Department of Humanities and Social Sciences

**Dr. Kishore Dhavala**, Basque Center for Climate Change, Bilbao, Spain, gave a talk in a seminar on "Can COP21-Paris pledges avert severe climate change? An analysis with integrated assessment frame work" on January 8, 2016.

**Dr. Ashwini Deo,** Yale University, USA, gave a talk on *"The Semantic and Pragmatic Underpinnings of Grammaticalization Paths"* on January 14, 2016.

**Prof. Pushpinder Syal,** Panjab University, Chandigarh, gave a talk on *"Sign and Image in Communication"* on January 18, 2016.



**Dr. Pervez Hoodbhoy,** Distinguished Professor of Physics and Mathematics and Head, Physics Department, Forman Christian College, Qaid-e-Azam University, delivered an Institute Colloquium on the topic *"Is The Scientific Method Outdated?"* on January 12, 2016.

**Dr. Manjari Chakrabarty,** Visva-Bharati, Shantiniketan, gave a talk on *"Why should a pencil or a paperclip matter to philosophy?"* on January 27, 2016.

### Department of Metallurgical Engineering and Materials Science

**Prof Rudolf Holze,** Technical University Chemnitz, Germany, gave a talk in a seminar on the topic "Intrinsically Conducting Polymers in Electrochemical Energy Technology: Trends and Progress" on January 25, 2016.

### Department of Mechanical Engineering

Shri Rajiv Malhotra, Indian-American best-selling author and intellectual, Founder of Infinity Foundation, Princeton, New Jersey, gave a talk on *"Geo-Politics and The study of Indian Civilization"* on January 27, 2016.

### Centre for Technology Alternative in Rural Areas (CTARA)

**Prof. Alok Bhargava**, University of Maryland, School of Public Policy, College Park, USA, gave a talk on the topic *"Diet quality, child health and food policies in developing countries"* on January 5, 2016.



**Prof. Anuj Dawar**, Professor of Logic and Algorithms, University of Cambridge, UK, delivered an Institute Colloquium on the topic *"Abstraction, Complexity and Symmetry in Computation"* on January 25, 2016.

**Dr. Anil N. Netravali,** Jean and Douglas McLean Professor in Fiber Science and Apparel Design, Department of Fiber Science & Apparel Design, Cornell University, USA, gave a talk in a seminar on the topic "Green Materials and Processes: From Advanced Composites to Nanofilters and from Wound Healing to Hair Styling" on January 11, 2016.

### **Climate Studies**

**Prof. Raghu Murtugudde,** Faculty, Department of Atmospheric and Oceanic Science/Earth System Science Interdisciplinary Center of University of Maryland & Visiting Faculty, IDP in Climate Studies, IIT Bombay gave a series of lectures on the topic *"Introduction to Atmospheric and Oceanic Circulations"* during January 4 – 8, 2016.

### Computer Science and Engineering

**Prof. Rohit Parikh,** City University, New York, gave a talk on the topic *"Group Knowledge, Communication and Behavior"* on January 20, 2016.

**Prof. Richard Voyles**, Purdue University, gave a talk on the topic *"Disaster Robotics: Robotic Intervention for High-Consequence Events"* on January 27, 2016. **Prof. Jennifer Widom**, Stanford University, gave a talk on the topic *"Three Favorite Results"* on January 25, 2016.

### Conference / Invited Lectures

### Asian Pacific Corrosion Control Conference

The Department of Metallurgical **Engineering and Materials** Science, organized the 17th Asian Pacific Corrosion Control Conference (APCCC-17) during January 27-30, 2016 at the Institute. The conference witnessed exciting technical sessions blended with cultural programmes. The conference started with four workshops of interest to industry; academia and R&D on the first day followed by the technical paper presentation by participants on the second day. A focused symposia on some current topics of interest was also organized during the event.

### Talks and Lectures

A talk by Mr. Martin Zoltick, Patent attorney, working with Rothwell, Figg, Ernst & Manbeck, P.C, was organized by Dean R & D office on the topic of "Patent Protection for Software-Related Technology and Open Source Software Licensing" on January 14, 2016. The objective of the talk was to provide an insight on the question whether software should be accorded stronger protection through patenting.

### Research Scholars Forum

Punnya Rajendran, Ph.D scholar, Department of Humanities and Social Sciences, presented a paper titled *"The product and the fragment: Engendering Molly Crabapple's 'Work' of Art"* at "Product, production, productivity": A Women Studies' Symposium in School of Humanities and Social Sciences, Nanyang Technological University, Singapore, during December 11- 12, 2015.

### Awards and Distinctions

**Prof. K.V. Venkatesh,** Department of Chemical Engineering, has been elected as Fellow of the Indian Academy of Sciences, Bangalore.

**Prof. Parinda Vasa,** Department of Physics, has been elected as a Member of the Indian National Young Academy of Science (INYAS), for the period 2016-2021.

### Prof. Pushpak Bhattacharyya,

Department of Computer Science and Engineering (currently the Director of Indian Institute of Technology Patna) has been appointed as President of the Association of Computational Linguistics (ACL).

**Prof. R.B. Sunoj**, Department of Chemistry, has been appointed as a Fellow of the Royal Society of Chemistry under "Leaders in the Field" scheme for his outstanding contributions to computational methods in chemical reactions.

### Prof. K.P. Kaliappan,

Department of Chemistry, has been elected as a Fellow of the Indian Academy of Sciences, Bangalore.

**Prof Ramesh Singh,** Department of Mechanical Engineering, has been selected to receive the Swarnjayanti Fellowship for a period of five years.

### Prof. Shivaram

Kalyanakrishnan, Department of Computer Science and Engineering, has been chosen as one of 'AI's 10 to Watch' Young Scientists.

### Prof. Deepankar Choudhury,

Department of Civil Engineering, has been invited to join the Editorial Board of one of the oldest and prestigious journals in Geotechnical Engg., "Canadian Geotechnical Journal" published by NRC Canada. **Prof. Amiya Kumar Pani,** Department of Mathematics, has been felicitated by Mr. Rajnath Singh, Home Minister, Govt. of India for his outstanding contributions to industrial and applied mathematics during the silver jubilee conference of the Indian Society for Industrial and Applied Mathematics held at Sharda University, Greater Noida, during 29-31 January, 2016.

**Prof. Sourav Pal,** Department of Chemistry, has an unique achievement to his name. Two of his papers has found its place in the list of most popular (most read) articles of Journal of Chemical Physics 2015. One of them is under Atoms, Molecules and clusters and the other in the section of Theoretical Methods and Algorithms.



**Prof. Nina Sabnani,** Department of Industrial Design Centre, was invited as a Speaker at the Jaipur Literature Festival 2016 to speak on the Kaavad Tradition along with the storyteller Mr.Kojaram Rav on January 21, 2016.

### Prof. Rajkumar S. Pant,

Department of Aerospace Engineering, joined the School of Mechanical and Aerospace Engineering at Nanyang Technological University, Singapore as a Visiting Professor for a year on December 14, 2015. He is on lien from IIT Bombay.

# Presentations/participation in conferences/workshops

**Dr. Sanjeeva Srivastava**, Department of Bioscience and Bioengineering was the convener of the Targeted Proteomics Workshop and International Symposium (TPWIS-2015) from December 10 - 14, 2015 followed by GIAN proteomics course from December 10 - 19, 2015. In total, 7 parallel events were conducted at IIT Bombay during December 10 - 19, 2015 with over 700 participants. As a result, this event has been featured as a pioneer event in the area of proteomics from all around the world and has been highlighted as one of the highest forum for proteomics globally by the Human Proteome Organization (HUPO). This brings India at the forefront of Proteomics alongside other global leaders in the world.



Targeted Proteomics Workshop and International Symposium

### **Publications**

Prof. Sanjeeva Srivastava, Department of Bioscience and Bioengineering, Özdemir, V,

Dove, E.S., Gürsoy, U.K., Sardas, S., Yildirim, A., Yilmaz, S.G., Ömer Barlas, I., Güngör, K., and Mete, A, published a paper, K., Mete, A., and Srivastava, S. published a paper "Personalized medicine beyond genomics: alternative futures in big dataproteomics, environtome and the social proteome" in J. Neural Transm. Vienna Austria in December 2015.

Prof. Sanjeeva Srivastava, Department of Bioscience and Bioengineering, Sahu, A.K, Dhoot, S, Singh, A, Sawant, S.S, Nandakumar, N, Talathi-Desai, S, Garud, M, Pagare, Nair, S., Chaturvedi, and Murli Krishna C, published a paper titled "Oral cancer screening: serum Raman spectroscopic approach." in J. Biomed. Opt. 20, 115006 in Nov **Prof. Bahadur D**, Department of Metallurgical Engineering and Materials Science. Paper titled "A pH-responsive folate conjugated magnetic nanoparticle for targeted chemo-thermal therapy and MRI diagnosis', has been published on the cover of *Dalton Transactions, An International Journal of inorganic chemistry Published by.* 

The paper has also been mentioned in an article titled "Nonoparticles ferry anticaca drug", published in the Nature India Section of the NPG. The article is reproduced below for your convenience:

## Nanoparticles ferry anticancer drug

Researchers have synthesized pH-sensitive, folic-acidconjugated magnetic nanoparticles that can efficiently deliver the anticancer drug doxorubicin to target cancer cells. These nanoparticles are also capable of killing cancer cells by generating heat when an external magnetic field is applied. Furthermore, they are useful as contrast agents for magnetic

resonance imaging and hence could potentially be used for both cancer diagnosis and anticancer therapies. The folic-acidconjugated magnetic nanoparticles permeated the membranes of cervical cancer cells more efficiently than normal cells. The nanoparticles released more doxorubicin at low pH levels than at the higher pH levels that prevail in physiological environments. This suggests that undesired drug release from the nanoparticles can be restricted. Additionally, The doxorubicin-modified nanoparticles generated heat under AC magnetic field, and killed cancer cells almost more than 90%. The combination of doxorubicin and heat shrank the nuclei and damaged the DNA of the cancer cells, triggering their controlled death.

"Besides enhancing therapeutic efficacy, the modified nanoparticles could protect anticancer drugs from degradation by enzymes in the bloodstream," says lead researcher Dhirendra Bahadur.

(This article was originally published in the Nature India section of NPG)

**January 2016** 

2015



### **Appointments**

### Dr. Prasad V. Mandade,



Department of Chemical Engineering, has been appointed as Post Doctoral Fellow on January 4, 2016.

Dr. Manoj Rao, Tata Centre for



Technology and Design, has been appointed as Post Doctoral Fellow on January 7, 2016.

Dr. Bodhayan Roy, Department of



Computer Science and Engineering, has been appointed as Post Doctoral Fellow on January 12, 2016.

### Dr. Prerna Sharma, has been



appointed as Post Doctoral Fellow in Wadhwani Research Centre for Bioengineering on January 21, 2016.

#### Dr. V. Karthik, Department of



Chemistry, has been appointed as Post Doctoral Fellow on January 28, 2016.

#### Dr. Bodhisatwa Hazra,



Department of Earth Science, has been appointed as Post Doctoral Fellow on January 29, 2016

### NOTIFICATION

- 1. **Prof. Krishna P Kaliappan**, Department of Chemistry, has been appointed as Head of the Department w.e.f. January 20, 2016.
- 2. **Prof. N. Venkataramani,** Department of Metallurgical Engineering & Materials Science has been appointed as Head of the Department w.e.f. January 1, 2016.
- 3. **Prof. Varsha Apte,** Department of Computer Science & Engineering has been appointed as Head Computer Centre, w.e.f. January 18, 2016.

## Retirements on January 31, 2016

Shri P. Viswas, Sr. Tech. Supdt,



Department of Mathematics, retired after 35 years of service.

### Shri Rajendra P. Singh, Security



Inspector, Security Section, retired after 35 years of service.

### Shri Ramnath K. Kori, Mechanic



Assistant, Department of Mechanical Engineering, retired after 40 years of service.

### Shri Gundu M. Supal, Watchman



(SG), Security Section, retired after 36 years of service.

### Shri Prakash V. Surve, Helper



(SG), Electrical Maintenance Division, retired after 35 years of service.

#### Ms. Ashwini E. Ghosalkar,



Jr.Attdt, Central Library, retired after 3 years of service Campus diary

CE	CEP courses scheduled during March 2015				
No	o. Course Title	Course Coordinator / Department	Duration		
1	Elements in Chemical Engineering (RCCE-13)	Prof. R.K. Malik, Department of Chemical Engineering	March 3-10, 2016 (8 days)		
2	Energy Efficiency and Management	Prof. Rangan Banerjee, Department of Energy Science & Engineering	March 8-9, 2016 (2 days)		
3	New Product Development	Prof. V. Bapat Industrial Design Centre	March 10 - 30, 2016 (21 dyas)		
4	Combustion and Emission in IC Engine	Prof. Sreedhara Sheshadri Department of Mechanical Engineering	March 11-12, 2016 (2 days)		
5	Fast Bus Transfer Schemes	Prof. A.M. Kulkarni Department of Electrical Engineering	March 11-12, 2016 (2 days)		
6	Corrosion Protection by Paint Coatings, Inspection and Quality Control	Prof. A.S. Khanna Department of Metallurgical Engineering & Materials Science	March 14-18, 2016 (5 days)		



Photo Credit : Mr. Batu Kamble Hospital, IIT Bombay

# campus diary

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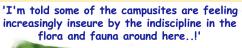
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(email : campusdiary@iitb.ac.in)

### salt'n pepper by Dr. Arun Inamdar





January 2015

BOOK POST