

October - November - December 2019

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INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

## IIT Bombay Alumni Pledge Rs. 26.26 cr on Alumni Day

- \* Two alumni members were presented with Distinguished Service Awards
- \* Three alumni members were presented with Chapter Service Awards
- \* Regular Giving Programme launched by Institute Director Prof. Subhasis Chaudhuri
- \* The Silver Jubilee Batch of 1994 pledged Rs. 12.14 crores towards the Legacy project



The Golden Jubilee Batch (Class of 1969) has pledged about Rs. 13.07 crores towards the Legacy Project



The Decennial Batch (Class of 2009-10) pledged a sum of Rs. 1.05 crore this year

The Indian Institute of Technology Bombay (IIT Bombay) celebrated its Alumni Day on December 22, 2019. The function started with a warm welcome by **Prof. Suhas Joshi**, Dean (Alumni & Corporate Relations), IIT Bombay. **Prof. Chaudhuri** gave the visiting alumni an overview of the Institute and its growth over the years.

In his address, **Prof. Chaudhuri** informed how the Institute is growing from strength to strength. "Today, IIT Bombay is the leading academic institution in the field of research and development. IIT Bombay alumni have made significant contributions towards the growth of the Institute. Our aspiration is to see IIT Bombay among the top ranks of technical universities in the world and we need continued support from our alumni to realize this dream," he said.

As a part of the function, **Distinguished Service Awards** were bestowed on two alumni this year, who besides being achievers in their own chosen domains, have contributed in a notable and sustained manner to the progress of the Institute. The award, instituted in the year 1999, consists of a certificate, memento and an uttaria. This year, the award was conferred on **Mr. Aaloke Surie (B.Tech. (Hons), 1970)** and **Ms. Rekha Koita (B.Tech., 1992)**.

The **Chapter Service Awards**, instituted during the Diamond Jubilee year celebrations was conferred on **Dr. Sushil Bhatia (B.Tech., 1966)**, **Mr. Madhusudan Reddy M (Msc., 1974)** and **Mr. Sanjay Dhall (B.Tech., 1985)**. The award is conferred on select alumni who have contributed in a very notable and sustained manner to the progress of the Chapter and also to the progress of the Institute. It consists of a certificate, memento and an uttaria.

**The Silver Jubilee Batch (class of 1994) has pledged a sum of Rs. 12.14 crores towards the Legacy project.** A Legacy Project is a project adopted by the batch celebrating its Silver Jubilee anniversary, for the betterment of the Institute and of the people associated with it, as a way of giving back to the alma mater and to leave behind a lasting legacy and remembrance of their silver jubilee reunion.

The batch of 1994 has raised a record amount of pledges for the Legacy project. They would be looking at deploying these funds in a number of projects largely related to the student well being, including scholarship programs for deserving students, upgradation of study facilities across the hostels, supporting the ongoing institute efforts for student counseling, amongst other things.



*Recipients of the Distinguished Services and Chapter Services Award Mr. Aaloke Surie (B.Tech. (Hons) 1970), Ms. Rekha Koita (B.Tech., 1992) and Dr. Sushil Bhatia (B.Tech., 1966) with Prof. Subhasis Chaudhuri, Director, IIT Bombay along with other Institute functionaries during Alumination Day*

## Launch of Regular Giving Programme

by Prof. Subhasis Chaudhuri



*Institute Director Prof. Subhasis Chaudhuri and Prof. Suhas Joshi, Dean (Alumni & Corporate Relations) launch Regular Giving Programme*

Mr. Arun Joshi from Golden Jubilee Batch (class of 1969) announced the Golden Jubilee Legacy gift to their Alma Mater. **The Golden Jubilee Batch (class of 1969) has pledged about Rs.13.07 crores towards the legacy project.** Mr. Rajan Wadhera from the Class of 1979 also spoke during the Alumni Day function. Mr. Parasvil Patel from the class of 2009-10 announced the Legacy Project gift. **The Decennial Batch (class of 2009-10) has pledged about Rs.1.05 crores.**

On the day, the respective batches of alumni have pledged a total of Rs. 26.26 crores for the Institute.

On the occasion, **Regular Giving Programme** was also launched by Prof. Subhasis Chaudhuri, Director, IIT Bombay.

A large number of alumni members and their family members participated in the Alumni Day celebrations this year.

## Magic At Mood Indigo 2019

The 49th Mood Indigo, the annual cultural festival of IIT Bombay, was held during December 26 - 29, 2019. Spread over four days, the annual extravaganza saw participants across the world display their talents in a range of competitions including music, dance, design, drama, concerts and more. Themed on '**A Ballad of Ecstacy**', the fest had multiple events to keep the audience engaged.

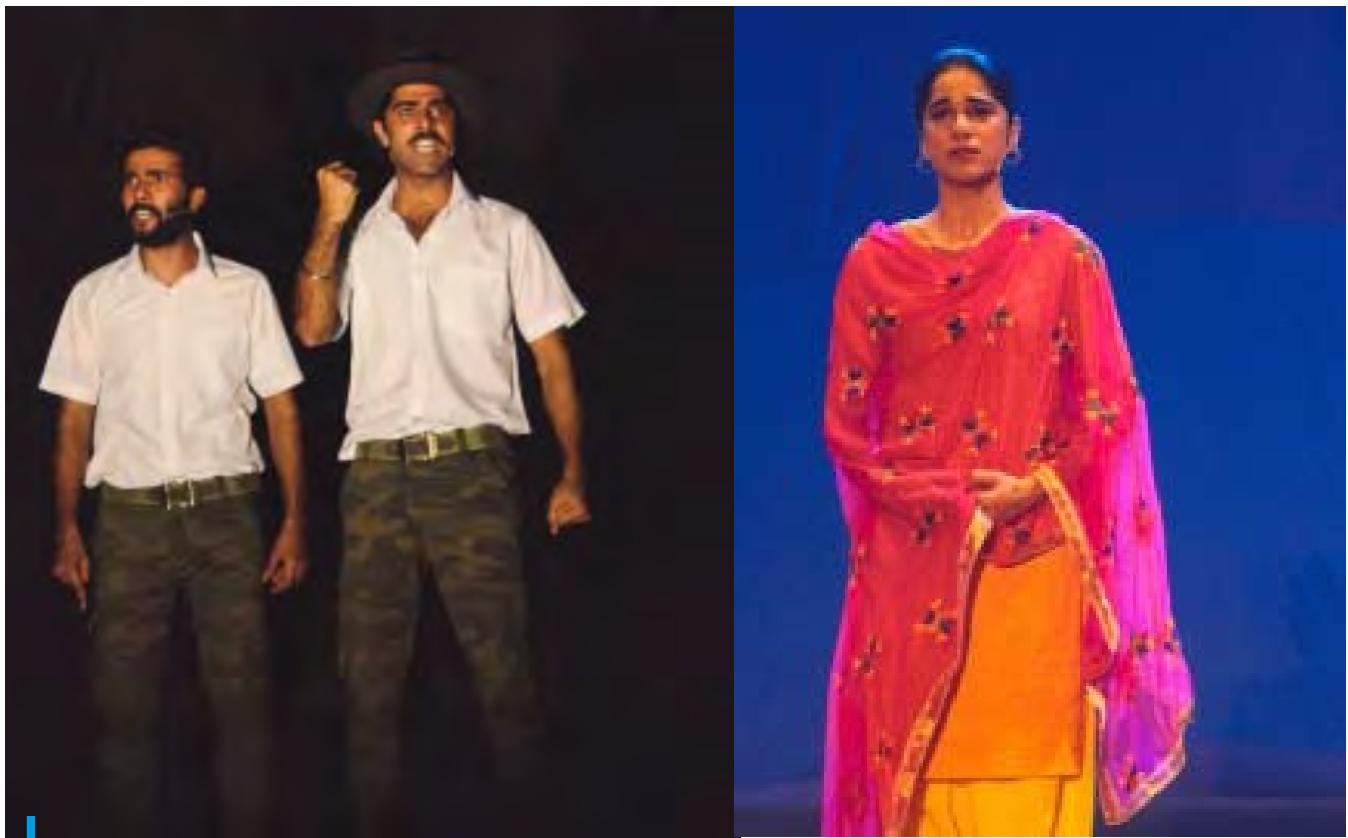
The fest witnessed a footfall of approx. 1,45,000 students from colleges across the country in its last edition. With personalities like Subramanian Swamy, Prithviraj Chavan, Deepika Padukone, Fatima Sana Shaikh, Nitesh Tiwari, Siddhant Chaturvedi, Yami Gautam, Rajeev Masand, Zakir Khan, Rahul Subramanian, Singer K.K and international artists from different countries, Mood Indigo 2019 proved to be a cultural extravaganza. Classical singer Rekha Bharadwaj graced the opening ceremony of Mood Indigo 2019.



*The Canadian giants MAGIC! enthralled the audience with their magical songs at International Nite*



*Punjabi singer Guru Randhawa rocked the Mood Indigo's Institute Nite with his electrifying performance*



*Gagan Damama Bajyo*, a musical play showcased the inspiring life of one of India's most celebrated freedom fighters and revolutionaries Shaheed Bhagat Singh. The play, written and directed by actor-playwright-poet Piyush Mishra, filled the audience with patriotism and feeling of unity



*She's Got the Look* is all about beauty, a competition tailor-made for those who aspire to be the next glamour-exuding diva



Taba Chake, a finger style guitar player, singer-songwriter and a dreamer from Doimukh in Arunachal Pradesh captivated the audience by his unique vocals and percussive performance style



International artist Celetica performing the mystic Great Highland Bagpipes with influences from Irish folk, Symphonic Metal and Classical music



Deepika Padukone promoting her upcoming film 'Chhapaak' on acid attack victim



Gully boy fame Siddhant Chaturvedi addressing the audience



Ex-Chief Minister, Maharashtra Prithviraj Chavan spoke on 'Impending Reconstruction of Indian Politics'



Mood Indigo's Humorfest was graced by the comical performances of the 'Sakht Launda' fame Zakir Khan and the extremely witty Rahul Subramanian



Jitendra Kumar, Nidhi Bisht and Gajraj Rao from *The Viral Fever*, one of the pioneers of the web series in India, at Mood Indigo



The Timeliners cast, from "Filter-Copy", the master content-creators spilled the beans about their interesting journeys in the first time ever "MI Fanfest"



The Fusion Nite concert by Echoes of India and Kabir's cafe was a huge hit



The literary fest of Mood Indigo called upon Devdutt Patnaik, the renowned Indian mythologist, speaker, illustrator and author. He gave an extremely resourceful and enlightening talk on 'Innovation in Culture, Leadership and Indian Approach to Management'



Vogue, an inter-college fashion contest, showcased the fashion trends amongst the youth



Dangal fame director-writer Nitesh Tiwari along with actor Fatima Sana Sheikh at Mood Indigo LitFest



Dr. Subramanian Swamy, Member of Parliament, Rajya Sabha spoke on 'Relevance of Management Education in Technical Institutes'



Classical singer Rekha Bharadwaj enthalling the audiences with her soulful voice



The Chio-Tian Folk Drums & Arts Troupe gave culturally immersing performance promoting Taiwanese folk culture



Uri fame Yami Gautam at the Literary Fest of Mood Indigo

## Ms. Apeksha Fernandes Sets New Records



**Apeksha Fernandes**, daughter of Prof. B.G. Fernandes; Head, Department of Electrical Engineering and a student of class IX at Bombay Scottish School, Powai represented India at the 10th Asian Age Group Championship that was held in Bengaluru from October 24 to 27, 2019. She won one bronze medal for India in the 200-metres breast stroke with a timing of two minutes and 40.38 seconds, which is India's best for women under all age categories. In addition, she was also a member of the 4 x 100 metres mixed medley relay team which won the bronze medal.

In the CISCE school national swim meet that was held in October at Bengaluru, Apeksha won gold medals in all the three events she participated in. During the process,

she won the individual championship trophy for girls in the under-17 age group. She represented CISCE schools in the recently held school national swim meet conducted by SGFI at Delhi and won 3 gold medals and set two new national records.

## IIT Bombay Celebrates Constitution Day

On the occasion of Constitution Day, also known as **Samvidhan Divas**, IIT Bombay staff took a pledge to promote harmony and the spirit of universal brotherhood amongst all countrymen on November 26, 2019, in the Main Building of the campus.

The Institute dignitaries

**Prof. Subhasis Chaudhuri**, Director, **Prof. A.K. Suresh**, Dy. Director (AIA), **Prof. P.M. Mujumdar**, Dy. Director (FEA), **Prof. K.P. Kaliappan**, Dean (Faculty), **Prof. Ravindra Gudi**, Head, Department of Chemical Engineering, **Dr. R. Premkumar**, Registrar, and others marked their notable presence on the occasion.

IIT Bombay staff read the Preamble to the Constitution and took oath celebrating the Constitution Day. The Indian constitution was adopted on 26th November 1949 and came into force on 26th January 1950. A special joint session of commemoration function from Central Hall Parliament was streamed live after the pledge administration as a part of the year-long celebrations of the 70th anniversary of the adoption of the Indian Constitution.



*As per the directives of MHRD regarding observance of Constitution Day, a pledge and the reading of preamble and fundamental duties was administered by Registrar of IIT Bombay Dr. R. Premkumar to all employees in the Main Building on November 26, 2019*

## IIT Bombay Conducts Lectures on Nobel Prizes 2019



Industrial Research & Consultancy Center (IRCC) has been organizing lectures on Nobel Prizes from 2009 onward annually. The lectures are focussed on the significance of the work leading to the award of this coveted prize and are presented at a level accessible to a literate audience. Lectures on Nobel Prizes 2019 were organized on Thursday, November 28, 2019 at Prof. B. Nag Auditorium, Victor Menezes Convention Centre of the Institute. **Prof. Milind D. Atrey**, Dean (R&D) gave introductory remarks about the program.

**Experts who gave lectures this year are as follows:**

Category	Laureate(s) [Prof.] & Awarded work	Speaker [Prof.]
Chemistry	John B. Goodenough, M. Stanley Whittingham & Akira Yoshino <i>"Development of lithium-ion batteries"</i>	C. Subramaniam, Department of Chemistry
Economics (Sveriges Riksbank Prize)	Abhijit Banerjee, Esther Duflo & Michael Kremer <i>"Experimental approach to alleviating global poverty"</i>	G. Haripriya, Department of Humanities & Social Sciences
Literature	Peter Handke <i>"Influential work that with linguistic ingenuity has explored the periphery and the specificity of human experience"</i>	Sudha Shastri, Department of Humanities & Social Sciences
Physics	James Peebles <i>"Theoretical discoveries in physical cosmology"</i> & Michel Mayor & Didier Queloz <i>"Discovery of an exoplanet orbiting a solar-type star"</i>	Vikram Rentala, Department of Physics
Physiology / Medicine	William G. Kaelin Jr, Sir Peter J. Ratcliffe & Gregg L. Semenza <i>"Discoveries of how cells sense and adapt to oxygen availability"</i>	Rahul Purwar, Department of Biosciences & Bioengineering

A large number of faculty members, students and the staff attended the programme. **Prof. Atrey** gave a vote of thanks to all the speakers and participants of the programme.

## IIT Bombay, McKelvey Engineering partner to study air pollution



On December 16, 2019, faculty from the McKelvey School of Engineering at Washington University in St. Louis and Indian Institute of Technology Bombay (IIT Bombay) launched the **Aerosol and Air Quality Research Facility** at IIT Bombay. This partnership is the latest in a long history of collaboration between the universities. The new research facility will also bring in high-tech instrumentation for fundamental research in aerosol science and engineering, as well as new equipment for on-the-ground air quality monitoring and characterization.

“The research facility offers great potential to rapidly advance understanding of air quality in India, which is of high importance given the elevated concentrations of fine particulate matter that have been observed in the region,” said **Randall Martin**, Professor of energy, environmental and chemical engineering at the McKelvey School and principal investigator for SPARTAN.

Washington University Chancellor Professor Andrew Martin and Professor Subhasis Chaudhuri, Director, IIT Bombay, have both made generous contributions to support the program. In October 2019, they signed a memorandum of understanding to formalize the collaboration for a joint MS Programme for B.Tech Students at IIT Bombay. After the first five years, industry, government and other funding sources will help sustain and grow the program.

## 2020 Hult Prize Competition Held At IIT Bombay



Winners of 2020 Hult Prize On-campus Competition

The Hult Prize 2020, world's biggest social entrepreneurship competition, had conducted its on-campus round for the first time in IIT Bombay on November 25, 2019, in collaboration with NTPC Limited and E-Cell, IIT Bombay. The 2020 Hult Prize Challenge, 'Bold Business idea for a Better Planet' aims at enforcing game-changing startup ideas which can create an environment of sustained profitable enterprises with the view to change the fundamentals of the economy. Offered in partnership with Bill Clinton Foundation and the United Nations, the global winner

gets \$1 million prize for launching the startup. It challenges college students to solve a pressing social issue around topics such as environment, food security, water access, energy, and education. The Hult Prize has three stages: On-campus, Regionals & World Finals.

A total of 20 teams pitched their idea in the challenge. Team Thundering Titans comprising of **Shrut Sanghvi, Shubhankar Seth, Sahil Shah & Samish Baheti** emerged as the winners of the competition. They advance straight to one of the 30+ Regional Summits happening worldwide, a step closer to winning the \$1 million prize.

## Centre for Policy Studies Hosts Resilient Futures India Initiative Partnership Summit



**Centre for Policy studies** hosted the **Partnership Summit of Resilient Futures India Initiative (RFII)** on December 17, 2019 at VMCC. RFII is a multilateral partnership initiative between India and the UK comprising Queen Mary University of London (QMUL), the Somerville College, Oxford, Indian Institute for Technology Bombay (IIT Bombay), Tata Institute for Social Sciences (TISS), and OP Jindal Global University (JGU) as well as the All India Institute of Medical Sciences (AIIMS), Indian Council for Medical Research (ICMR) and the Commonwealth Secretary General. This open partnership builds relationships between Indian and UK academic, civil society, policy makers and industry leaders to design durable solutions for enhancing lives, communities and systems in contexts of uncertainty.

The RFII launch event took place in February 2019 at Delhi and the second one in July 2019 in London. This third event was jointly hosted by TISS and CPS at IIT Bombay. The first day at TISS involved discussions on mental health, access to health care in India, and the health of internal migrants. Day two hosted by the Centre for Policy Studies focused on domestic violence and saw the launch of one of the RFII projects 'Surviving violence: Everyday resilience and gender justice in rural-urban India'.

The event was attended by RFII partners from QMUL, TISS, O.P. Jindal Global University, Nari Samata Manch, Prajnya, Navjyoti Foundation, AIIMS; dignitaries including The Lord Patel of Bradford, the British Deputy High Commissioner, Mumbai, Mr. Crispin Simon, Prof. Prajapati Trivedi of the Commonwealth Secretariat, the Vice Principal (International), QMUL, Prof. Colin Grant as well as professors from IIT Bombay including Prof. Satish B. Agnihotri, Prof. Anand Rao, Prof. Mrinmoyi Kulkarni and panellists, Nida Sheriff (Chayn), Prof. Visweswaran Navaratnam (UniversitiSains Malaysia), and Prof. Beena Chintalapuri (Ashoka Fellow); and IIT Bombay students.

December 17 started with welcome address by Prof. Agnihotri and Lord Patel of Bradford. It was followed by a panel discussion 'Surviving violence, everyday resilience and gender justice' which was chaired by Prof. Trivedi and included the leads of the 'Surviving violence' project (Prof. Shazia Choudhry, Dr. Philippa Williams, Prof. Ajay Pandey, Dr. Girija Godbole, and Dr. Swarna Rajagopalan), Sudaroli Ramaswamy (Prajnya), Prof. Vindhya Undurti (TISS), and Nida Sheriff (Chayn). Prof. Choudhry and Dr. Williams discussed the 'Surviving violence' project, its aims and objectives, and its design. Prof. Undurti discussed a community-based intervention in Andhra Pradesh and Telangana which began as a poverty alleviation project and subsequently expanded its objectives to social empowerment. Finally, Nida Sheriff shared work of Chayn in supporting victims of domestic violence through its online platform and the crowdsourcing of resources.

The roundtable, 'Policymaking for resilient futures' was jointly chaired by The Lord Patel of Bradford and Prof. Agnihotri. Professors Shalini Bharat (TISS), Prajapati Trivedi (Commonwealth Secretariat), Visweswaran Navaratnam (Universiti Sains Malaysia), and Beena Chintalapuri (Ashoka Fellow) discussed the role and form that policymaking should take if it is to become a more effective means of increasing community and state resilience without shifting the onus to the individual. Discussing their work, they showed how policy interventions can lead to more resilient futures, and how it is possible to scale-up interventions so long as contexts, cultures, and actors are considered and included in the policy process.

Both the panel discussion and the roundtable were followed by insightful questions and discussions. Vote of thanks was given by **Dr. Girija Godbole**.

## Inauguration Of Common Application Portal For International Students



HRD Minister Shri. Ramesh Pokhriyal 'Nishank' inaugurating common portal for admission to IITs, IISc for international applicants

The Minister of HRD **Shri. Ramesh Pokhriyal 'Nishank'** inaugurated a common portal for admission to IITs and IISc for international applicants at the IIT Council Meeting in Delhi on September 27, 2019.

International applicants aspiring to study post-graduate programmes in Indian Institutes of Technology (IITs) and Indian Institute of Science (IISc) now have a single portal where they can apply for admission for the academic year starting July 2020. The international applicant portal (<https://intapp.iitb.ac.in>) provides a convenient interface to view and apply to more than 600 Masters and PhD degree programmes offered at premier science and engineering institutes simultaneously.

Applicants will be informed of their selection through the portal, and they can accept any one offer and proceed with the other formalities of entry into the country and admission process at the chosen institute.

International applicants can also avail opportunities to secure teaching or research assistantships to fund their education in India. Together with the ease of application, scholarships and hostel accommodation, the institutes now expect to see a significant increase in the number of international students on their campuses.

## Interactive Session with Lori Beer, Global CIO JP Morgan Chase

Indian Institute of Technology Bombay hosted a session in collaboration with one of the leading multinational banks in USA, JPMorgan Chase & Co under the 'College to Corporate', an initiative by IITBombayX on November 5, 2019. It was graced by **Lori Beer**, Global CIO of JP Morgan Chase & Co. Around 2,325 students from 60 diverse engineering institutions across India connected through broadcasting to interact with Lori and hear her views about technology and its advancement. It helped students understand the necessary skills needed for the future workplaces. It was a confluence of buzzing young energies along with inspiration as she put forth her perspective.



Lori Beer, Global CIO of JP Morgan Chase & Co., conducting an interactive session on technology and its advancement

## SoULS Wins 'Global Grand Prize' at the IEEE – Empowering a Billion Lives Finals



SoULS, IIT Bombay win 'Global Grand Prize' at the 2019 IEEE – Empowering a Billion Lives

**Solar Urja through Localization for Sustainability (SoULS)**, a flagship initiative of Indian Institute of Technology Bombay, has won first grand prize in the IEEE's Empower a Billion Lives (EBL) final competition held during September 28 to October 1, 2019 at Baltimore, the United States. The award includes a citation and grand prize of \$100,000. More than 23 teams from Europe, South America, Africa, Asia Pacific and South Asia regions had participated in the competition.

IEEE's EBL is a global competition aimed at fostering innovation to develop solutions to energy access. SoULS qualified for the Global Finals after winning the South Asia Regional round held in December 2018.

**Prof. Chetan Singh Solanki** from Department of Energy Science and Engineering and **Prof. Jayendran Venkateswaran** from Department of Industrial Engineering & Operations Research, Principal Investigators of the SoULS Initiative represented SoULS in the event.

## 1 Million Students Across The Globe Build And Light Up Solar Lamps



Thousands of school students lit solar lamps in a simultaneous attempt of two Guinness World Records, "Largest Environment Sustainability Lesson" and "Most people assembling solar-powered lamps" at Indira Gandhi Indoor Stadium, New Delhi

A Global Student Solar Assembly workshop involving over 1 million students from 100 countries across the world was organised at IIT Bombay on the occasion of 150th birth anniversary of **Mahatma Gandhi** on October 2, 2019. IIT Bombay campus hosted around 1400 students from various schools and institutions who assembled with their own lamps and took a pledge to become student solar ambassadors towards protecting the environment.

Lakhs of students simultaneously participated in the event across the country at multiple locations including hospitals, beaches, schools, NGOs, jails, etc. apart from the 1000s of schools across India and in 100s of countries across the world.

**Dr Srikumar Banerjee**, Ex-Chairman, BARC was the chief guest for the event at IIT Bombay. He congratulated the students for being part of such a global event that creates awareness for environment.

This event marked the culmination of **Gandhi Global Solar Yatra (GGSY)** initiated by **Professor Solanki**. He undertook Gandhi Global Solar Yatra (GGSY) from the historic Sabarmati Ashram last year and travelled to more than 30 countries across the world and 50 Indian cities sensitising people. During this yatra, he delivered talks in prestigious global universities and research institutions like ULB, Belgium, MIT, Boston, LBNL among others.

## Mega Clean-up Drive At Versova Beach By IIT Bombay, Mumbaikars



Volunteers cleaning up the Versova Beach

To mark the 150<sup>th</sup> birth anniversary of Mahatma Gandhi, around 75 volunteers from Abhyuday, IIT Bombay's social body, along with more than 3000 Mumbai residents participated in the **Swacch India Campaign** of Versova Beach (world's largest beach cleanup campaign recognized by the UN) on October 2, 2019.

Volunteers interacted with **lawyer-activist Afroz Shah**, learning a lot on how each and everyone's contribution is necessary to save Mother Earth. Abhyuday intends to encourage students to reduce, reuse, recycle, redesign and rethink the waste generated in and outside the campus.

## 300 IIT Bombay Volunteers Clear 1.5 Metric Tonne Garbage From Powai Lake



Around 300 volunteers from IIT Bombay collected around 1.5 metric tonnes of garbage along a stretch of 1.5 km on the Powai lake starting from Powai Udyaan on November 3, 2019. This was the second edition of their momentum in continuation of their cleanup and awareness campaign started earlier this year in June. Around 400 volunteers helped clear the garbage as a part of the campaign last time.

The drive was a collaborative effort by **Abhyuday**, IIT Bombay's social body and Brihanmumbai Municipal Corporation (BMC).

Post the clean-up drive, the officials from the BMC spoke about their plans to separate solid waste going into the lake. The campaign was aimed at promoting a cleaner, greener and healthier environment.

## Director Subhasis Chaudhuri Inaugurates New Gender Cell Office



The Director of the Institute **Prof. Subhasis Chaudhuri** formally inaugurated the new office of Gender Cell, IIT Bombay on October 3, 2019 in the presence of key members of the Gender Cell and few students. The new office is located on the 3rd floor of the Main Building. The inauguration ceremony was followed by a brief presentation on the activities and workshops conducted by Gender Cell in the year 2018-2019. An insightful discussion on the future plans was also held with the Director. The Director also felicitated winners of GenArt, a painting competition held by Gender Cell.

IIT Bombay Director Subhasis Chaudhuri inaugurating new office of Gender Cell

## Rockstar Fame Sanjana Sanghi Flags Off IIT Bombay's Cyclothon 2019



Actor Ms. Sanjana Sanghi flags off the Techfest Cyclothon 2019 at the Main Gate

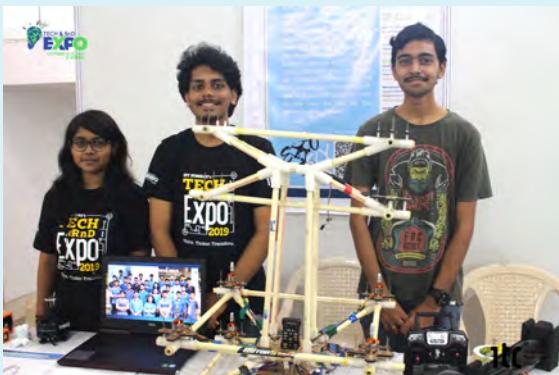
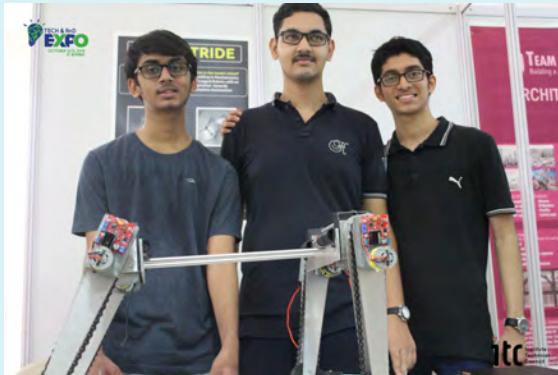


Participants at the Techfest Cyclothon 2019

With a vision to make cycling a green and eco-friendly means of transport, Techfest held its fifth edition of Cyclothon on October 6, 2019. The theme "**Cyclothon 2019: Brake Pollution to Break Pollution**" was aimed to spread awareness about the increased risk of heart diseases in today's society.

The event was flagged off by **Ms. Sanjana Sanghi**, known for her good performance in Bollywood movies like **Hindi Medium** and **Rockstar** at the Main Gate. The concluding ceremony was graced by the **Pyaar ka Punchnama** series fame **Ms. Sonnalli Seygall**, who spoke about the importance of fitness and its far-reaching effects in our daily lives. Free t-shirts, health checkups and a fun zumba workshop by **Kunal Jessani** was also conducted for the participants.

## Two Day Tech & RnD Expo Held For Public at IIT Bombay



### Glimpses of Tech & RnD Expo held at IIT Bombay

The Institute Technical Council (ITC) and Student Alumni Relations Cell (SARC) of Indian Institution of Technology Bombay held the “**Tech & RnD Expo**”, a two-day exposition for the public to give them a view of the various technical activities and projects that take place in the Institute of Eminence, on October 12 and 13, 2019.

Various student technical teams of the Institute like the IIT Bombay Racing team, Satellite team, Mars Rover Team, Team AUV (Autonomous Underwater Vehicle) among many others showcased their innovative concepts and projects that have won laurels for the Institute at national and international competitions.

Many innovative ideas like a non-invasive device to gain an in-depth analysis of a person's cardiac health, solar panelled robots, systems aiding paper reuse in an efficient manner to name a few were also the part of the exhibitions. The event witnessed various talks on interesting and intriguing topics and interactions with professors and alumni of IIT Bombay who have excelled in their respective domains.

Visitors got acquainted with the various facilities that aid technical and research activities in the Institute like the various departmental laboratories and the Tinkerer's Laboratory (TL), an alumnus supported laboratory.

## Eco-friendly 'Kulhads' Replace Plastic Bottles At IIT Bombay Marathon



Team Zero Waste volunteers at the plastic-free IIT Bombay half-marathon



IIT Bombay marathon participant drinking water from eco-friendly kulhad

To make a community shift towards sustainable alternatives, **Team Zero Waste** took an initiative to make IIT Bombay Half Marathon plastic-free. 13,000 PET bottles were successfully replaced with eco-friendly clay kulhads at the half-marathon held at its campus on October 13, 2019.

A small empty PET bottle of 250ml weighs approximately 12gms. So, the 13,000 PET bottles would have generated approximately  $12\text{g} \times 13000 = 156\text{kg}$  of plastic waste, which was avoided this year. Further, the carbon footprint of PET is about 6 kg of CO<sub>2</sub> per kg of plastic. So, the initiative led to a reduction of 936kg of CO<sub>2</sub> emissions. To avoid sending the used kulhads to a landfill, these kulhads were collected and sent to **Prof. Bakul Rao's** lab at Centre for Technology Alternatives for Rural Areas (CTARA), IIT Bombay to be used in a wastewater treatment project.

The response to the first plastic-free half-marathon in India was overwhelmingly positive. Participants and residents both praised the uniqueness of the initiative and were glad to be a part of this event.

A 70 times marathon runner participant remarked, "It is the first time I have actually seen such an initiative where the message of going plastic-free is not just limited to slogans and banners, but has been actually implemented in practice." This initiative has inspired different groups aiming to reduce plastic consumption and waste to come together and join forces for lasting changes at larger scales.

## IIT Bombay Observes Vigilance Awareness Week



Staff of IIT Bombay taking pledge

On the occasion of Vigilance Awareness Week observed from October 28, 2019 to November 2, 2019, IIT Bombay staff took a pledge to promote probity in public life and to achieve corruption-free society on October 28, 2019, in the Main Building of the campus. IIT Bombay staff pledged to foster a culture of honesty and integrity and commit to good corporate governance-based transparency, accountability and fairness. The Vigilance Cell of IIT Bombay had also organised essay competition on "**Integrity: A Way Of Life**" for the campus community.

## IIT Bombay Business Fest Makes A Splash With Avenues 2019



Aroon Purie, Founding Chairman & Editor-in-Chief of India Today Group, led an insightful session on journalism and media



Renowned actor-director Nandita Das in an interactive session



Mr. Suresh Prabhu, former Minister of Railways and Member of Parliament addressing the students

**Avenues**, the annual business festival of Shailesh J. Mehta School of Management, IIT Bombay, concluded successfully on October 20, 2019, breaking previous records in terms of footfall and registrations. Over 16,000 people registered for the events online and around 5,000 people attended during the course of the three days fest that kicked off on October 18, 2019.

The flagship event of **Avenues**, **Alankar** – the leadership summit, saw eminent speakers who excel in their respective fields. Day one was graced by **Mr. Harsh Mariwala**, Founder and Chairman of Marico Group; **Mr. Aroon Purie**, Founding Chairman and Editor-in-Chief of India Today Group; **Dr. Radhakrishnan Pillai**, best-selling author and leadership speaker and **Mr. Ankur Warikoo**, Co-founder and CEO of nearbuy.com.

Day two had **Ms. Nandita Das**, a renowned actor, director and social activist. The concluding day saw **Dr. Niranjan Hiranandani**, Co-founder and MD of Hiranandani Group and **Mr. Suresh Prabhu**, former Minister of Railways and Member of Parliament as the eminent guests. All these speakers interacted with the audience and had unique insights to share regarding their individual experiences.

All were impressed by the level of competition that the events characterized. The Comedy Night was headlined by **Kumar Varun** and also featured popular stand-up artists **Rueben Kaduskar** and **Ankita Shrivastav**. There was also a screening of a new video by YouTubers **The Screen Patti**, presented by their cast and crew. The final evening of the fest saw a concert by the band **Euphony**.

## IIT Bombay Celebrates Rashtriya Ekta Diwas



Teachers participating and administering pledge to students on Rashtriya Ekta Diwas

Commemorating the birth anniversary of Iron Man **Sardar Vallabhbhai Patel**, the Indian Institute of Technology Bombay observed **National Unity Day (Rashtriya Ekta Diwas)** on October 31, 2019. Various programmes and activities were conducted by the Kendriya Vidyalaya, Powai to honour his memory. The celebrations began by students taking a pledge and presenting the morning assembly programme based on contribution and life of Sardar Vallabhbhai Patel.

### Vice-Principal Mr. Mithilesh Kumar

**Singh**, in his address, stated that Sardar Vallabhbhai Patel's will and determination, his excellent negotiation skills and various strategies enabled to unite the 565 self-governing princely states post-independence into a unified India.

Followed by this, there was a talk on the sagacious life and activities of Sardar Vallabhbhai Patel and recitation of Rashtriya Ekta Gaan by secondary section students of the school. Following activities were conducted in the school on National Unity Day (Rashtriya Ekta Diwas):

- Exhibition of the activities on 'Ek Bharat Shreshtha Bharat'
- Unity Run
- Prabhat Pheri
- Slogan Writing Competition
- Essay Writing Competition was organized on the topic, "The Life Story of Sardar Vallabhbhai Patel"
- Debate on "Is Sardar Vallabhbhai Patel the Iron Man of India?" conducted in both Hindi and English



Students of Kendriya Vidyalaya, IIT Powai participating in Unity Run on National Unity Day



Students of Kendriya Vidyalaya, IIT Powai participating in Prabhat Pheri on Rashtriya Ekta Diwas

## IIT Bombay Develops Robotic Boat To Help India Post In Sorting Applications

IIT Bombay extended its support to India Post Mumbai's General Post Office (GPO) in their two-day district philatelic exhibition 'Mumbaipex 2019' held on November 6 in Mumbai. The Design Innovation Center (DIC) and e-Yantra Lab of IIT Bombay together created a state-of-the-art arena where a robotic boat will pick-up parcels and deliver at the right locations. The event motivated visitors to understand how technology can be used to support the numerous operations and also inspire them to do such activities.



**The e-Yantra**, sponsored by Ministry of Human Resource Development (MHRD) under the National Mission on Education through Information and communication technology (ICT) program, an initiative by IIT Bombay aims to create the next generation of embedded systems engineers with a practical outlook and solutions to some of the real-world problems. **Prof. Kavi Arya** of Computer Science at IIT Bombay is passionately involved in conducting e-Yantra workshops and training across the country benefiting thousands of students in the path of innovation.

**The Design Innovation Center (DIC)**, sponsored by MHRD and established at IIT Bombay, has been working towards solving real-life problems using creativity and design thinking to come up with innovative solutions. Through live case studies, the DIC team has conceived the methodology for design innovation in three interlinked components comprising of Chakku 7 Concerns (7Cs) for innovation.

**Prof. B.K. Chakravarthy** of Industrial Design Centre (IDC) School at IIT Bombay has been a Chair Professor for India Post and has worked on projects from the maintenance-free letterbox, easy-to-carry postman bag, safe and easy-to-use trolley for bag handling at railway stations and hand stamps with high-quality letter for stamp cancellation. Eminent Gandhian and President of Mani Bhavan Gandhi Sangrahalaya, Mumbai **Dr. Ushaben Thakkar** was the chief guest for the event.

## Blood Donation Camp Held in IIT Bombay



Abhyuday in collaboration with **Tata Hospital** and **Mohan Foundation** organised a blood donation and organ donation awareness camp in IIT Bombay on October 19, 2019. The camp witnessed active participation from students, staff and faculty supporting the drive. About 296 samples of blood were collected and 25 donors pledged to donate their organs.

## IIT Bombay Hosts Governing Council Meeting of Centre of Excellence in Oil, Gas and Energy

The first meeting of the Governing Council of the newly-established Centre of Excellence in Oil, Gas and Energy was held on November 7, 2019, at IIT Bombay under the chairmanship of **Dr. Anil Kakodkar**. This Centre will collaborate with six public sector undertakings (PSUs) of oil and gas sector and Engineers India Limited (EIL) to facilitate quality interaction between IIT Bombay and PSUs in oil and gas as well as energy sector and to carry out research projects from lab to implementation ready stage in mission mode in nationally-important areas in India's oil, gas and energy sector and for capacity building to make PSUs future ready.



*Institute Director Prof. Subhasis Chaudhuri and dignitaries with Dr. Anil Kakodkar, Chairman of the Governing Council of Centre of Excellence in Oil, Gas and Energy*

## IIT Bombay Celebrates National Education Day

IIT Bombay held an annual observance on **National Education Day** to commemorate the birth anniversary of **Maulana Abul Kalam Azad**, the first education minister of independent India on November 11, 2019. As a part of the celebrations, the Indian Institute of Technology Bombay organized the following lectures:



Lecture by **Prof. Jandhyala B G Tilak**, Former Professor & Vice Chancellor, NUEPA, ICSSR National Fellow & Distinguished Professor, Council For Social Development, New Delhi titled "*Education in India-Challenges and Policy Responses*" on November 11, 2019 .

The recipients of the **Shanti Swarup Bhatnagar Prize** for Science and Technology for 2019 were invited to give talk on their research works by IRCC.

### Bhatnagar Award category, Speaker and Talk Title:



**Award Category:** Earth, Atmosphere, Ocean and Planetary sciences  
**Prof. Subimal Ghosh**, Department of Civil Engineering  
**Talk Title:** 'Land-Atmosphere Feedback in Indian Summer Monsoon'

**Award Category:** Chemical sciences  
**Prof. Raghavan B. Sunoj**, Department of Chemistry  
**Talk Title:** 'Chemical Catalysis using Computers'



A good number of students, faculty members and staff members attended the function. **Prof. A. M. Pradeep**, Associate Dean (R&D) presented memento to the speakers and vote of thanks to all present.

## Research in focus

## Nanocarbon Florets to Treat Industrial Effluents

Researchers design a new material for removing heavy metal contaminants from water in a single step

Nanomaterials are revolutionising the way we do things with applications in medicine, electronics and biocompatible materials, to name a few. Scientists are studying various nanoforms of carbon—nanotubes, nanocones, nanohorns, two-dimensional graphene and even carbon onions! Now, researchers from the Indian Institute of Technology Bombay have added a new form to this list called nano carbon florets. These nano-sized florets, shaped like marigold flowers, have much more than just good looks to flaunt; they can help keep the environment clean by removing harmful heavy metal pollutants from industrial effluents.

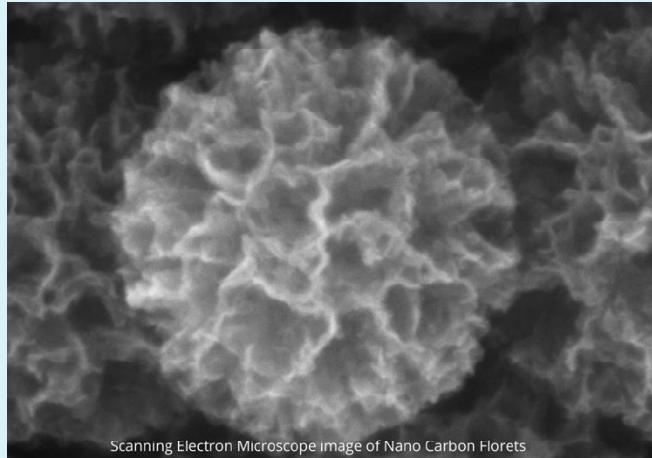
In a study published in the journal ACS Applied Nano Materials, Prof C Subramaniam and his team from the Department of Chemistry have designed nanocarbon florets that can remove up to 90% of pollutants containing arsenic, chromium, cadmium and mercury. These florets also work in contaminated water with a wide range of acidity or alkalinity. They remove impurities by adsorption—impurities stick to the surface of the florets as the water passes over it. All it takes is a wash with a mild acid, and they are as good as new! The nanocarbon florets are chemically and mechanically robust and stay stable over a wide temperature range. Hence, they are a convenient and sustainable solution to decontaminate water.

Effluents from chemical industries, tanneries or chrome plating plants contain ions of hazardous heavy metals such as arsenic, chromium, mercury and cadmium. These substances can cause cancer and genetic mutations. They tend to accumulate over time in the surroundings, inflicting long term harm to the environment.

Adsorption-based filtering is easy to implement and scale, and the filter material can be reused. It is also the most advantageous and economical method as compared to conventional methods like chemical precipitation, ion exchange, electrochemical removal and membrane separation. Methods that use membrane-based separation remove water from impurities whereas adsorption removes impurities from water. Hence, it is also more energy-efficient and wastes less water.

An ideal filter that works on adsorption needs to have a high surface area so that more impurities can stick to it. "Just having more surface area is not enough, but having accessible surface area is the key parameter," explains Prof Subramaniam. The filter material must be porous, with a pore size suitable for the impurity to pass through, and should have enough pore density. It should allow impurities dissolved in water to interact and should be chemically and mechanically stable.

Adsorbents explored so far do not satisfy all the parameters. For example, synthetic compounds can efficiently and selectively remove specific impurities but are not biocompatible and hence are difficult to dispose of. On the other hand, biomass-based materials are inefficient and cannot be reused.



Scanning Electron Microscope image of Nano Carbon Florets

The emerging metal-organic frameworks, although efficient, are unstable. Carbon-based nanomaterials score better than others, but many of them are hydrophobic, so water takes time to interact with these. Carbon-based nanomaterials such as nanotubes and nanohorns tend to lump together, reducing the surface area and further slowing adsorption. The researchers of this study tried to address these shortcomings by designing a hydrophilic nanocarbon material that attracts water.

In the current study, the researchers created nanocarbon florets using chemical vapour deposition of carbon on a silica-based template. The florets are formed of lamellar, feather-like graphitic sheets that converge at the centre and are held in place through a solid, connected core, much like a marigold flower. These florets offered a large accessible area for adsorption, were hydrophilic and chemically stable in highly acidic or alkaline water. They can also filter various impurities, thus eliminating the need for using different filter material for each contaminant.

The researchers tested the efficiency of their florets by passing water contaminated with arsenic, chromium, cadmium and mercury. Though these florets tended to prefer arsenic and chromium, they removed 80-90% of all impurities. The researchers observed that the efficiency of adsorption was more when a single contaminant was present instead of multiple pollutants. The filtering ability of these florets reduced only slightly even after repeated use.

"Other chemically-tailored adsorbents such as zeolites, activated carbon, nanotubes, graphene, polymers are most effective against a single metal ion, with both efficiency and capacity substantially reducing for other ions," say the researchers. Though the chemical properties of nanocarbon florets aid adsorption, the engineered structure contributes significantly to the higher value of adsorption.

The researchers have filed a patent for their design and are looking at commercialising the filter. "More work in partnership with industry will be needed to use these nanocarbon floret filters at an industrial scale," concludes Prof Subramaniam.

Link to published work:

[Nanostructured Carbon Florets As Scavenger Of As3+, Cr6+, Cd2+ And Hg2+ For Water Remediation](#)

## IIT Bombay Concludes Annual US Roadshow On A Grand Note



SF Bay Area Roadshow - October 12, 2019



Seattle Roadshow - October 13, 2019



Houston Roadshow - October 15, 2019



Greater New York Roadshow - October 20, 2019

An IIT Bombay team comprising of Director **Prof. Subhasis Chaudhuri**, several Deans and other members visited a number of alumni chapters across the US as part of their annual IIT Bombay Road Show in October 2019. It was a great opportunity for the alumni to hear about the latest developments on the IIT Bombay campus.

The IIT Bombay US Roadshow started off with an elegant dinner for 250 people on October 12 in Santa Clara where the guests interacted with each other and also welcomed the Institute's new Director **Prof. Subhasis Chaudhuri**.

October 13 saw the IIT Bombay Roadshow team host a delicious dinner for about 120 people in Seattle. Director Chaudhuri spoke about the current progress of the Institute. The IIT Bombay team also met with industry leaders at major corporations in the area.

The next stop was Houston where over 100 alumni gathered for the event. The Director and the IIT Bombay leadership team shared with the alumni the ambitious plans for the institute and spoke of how the alumni can participate.

GNY Chapter's flagship event — annual reunion—was held on October 20th as a part of the IIT Bombay Roadshow. A sold-out crowd of about 185 attendees enjoyed a day that included campus updates by IIT Bombay's new Director **Prof. Subhasis Chaudhuri**, and a presentation by **Dr. Viral Acharya**, IIT Bombay alumni and ex-Deputy Governor, RBI on how loose monetary policy by central banks around the world is creating zombie companies. A refreshingly candid and captivating fireside chat with **Mr. Rajat Gupta**, ex-CEO of McKinsey & Co. followed lunch. All in all, with the spectacular NYC skyline and Hudson River in the background, good food, friends and speakers, the IIT Bombay Road show concluded on a high note.

## 26<sup>th</sup> Inter-IIT Staff Sports Meet 2019 At IIT Kharagpur

The Indian Institute of Technology Bombay was represented by a 70-member contingent (60 men and 10 women) in the 26th Inter-IIT Staff Sports Meet 2019 held at IIT Kharagpur from December 24 to 28, 2019.

IIT Bombay fielded its team in all the events that were part of the meet (badminton, cricket, tennis, table tennis, volleyball, football and athletics in the men's category and badminton, table tennis and athletics in the women's category) and won medals in events as mentioned below:

<b>Table Tennis (Women)</b>	– <i>Gold</i>	<b>Badminton (Women)</b>	– <i>Gold (Eighth time in a row)</i>
<b>Tennis</b>	– <i>Gold</i>	<b>Cricket</b>	– <i>Silver</i>
<b>Badminton</b>	– <i>Bronze</i>	<b>Table Tennis (Men)</b>	– <i>Bronze</i>
<b>Football</b>	– <i>Bronze</i>	<b>400 meters (Men)</b>	– <i>Bronze</i>
<b>Volleyball</b>	– <i>Fourth position</i>		

The football and volleyball teams put up very impressive performances in the league stages and managed to



Contingent with overall championship

secure the bronze medal in football. The cricket team displayed a high-quality performance and won a silver medal. The women's badminton team yet again created a record of sorts by winning their 8th consecutive gold medal. The tennis team too won a gold medal. The table tennis women's team won a gold while men's team secured a bronze medal. Though there is ample scope for improving the performance in the coming year, the overall performance of the staff contingent was highly impressive across all disciplines and was also exemplary in terms of sporting behaviour on and off-the-field.

To conclude, the IIT Bombay women's contingent won the General Championship for Women and The IIT Bombay staff contingent won the Overall General Championship for the second time in a row.



IIT Bombay cricket team with silver medal trophy



IIT Bombay football team with bronze medal



IIT Bombay table tennis (women) with gold medal



IIT Bombay women's contingent with women GC trophy



IIT Bombay tennis team (men) with gold medal



IIT Bombay badminton (women) with gold medal



IIT Bombay badminton men's team with bronze medal

## Institute Colloquium / Lectures



**Prof. Michael L. Klein, FRS** Laura H Carnell Professor of Science and Dean of Science & Technology, Temple University, Philadelphia, USA, delivered an Institute lecture titled *“Wetting-Dewetting Transitions & Nature’s Exquisite Sensing Machines: Unveiling the Molecular Mechanism of Pain?”* on October 3, 2019



**Prof. Axel Kleidon**, Research Group leader, Biospheric Theory and Modelling Group, Max-Planck-Institute for Biogeochemistry, Jena, Germany, delivered an Institute lecture titled *“Using thermodynamic limits to infer climate and global climate change”* on October 9, 2019



**Prof. Michael Jordan**, University of California, Berkeley delivered 7th Annual Indira Foundation Lecture titled *“Machine Learning: Dynamical, Statistical and Economic”* on November 4, 2019



**Prof. Justin Wark**, Department of Physics, Oxford University and Fellow, Trinity College, UK delivered an Institute lecture titled *“Science with X-Ray Free Electron Lasers”* on November 15, 2019



**Dr. Ajit Sapre**, Group President (R&T), Reliance Industries Ltd. delivered an Institute Distinguished Lecture in Chemical Engineering (in memory of Professor C.V. Seshadri) titled “*Technology initiatives by Reliance Industries to meet global challenges*” on November 29, 2019



**Prof. Rukmini Bhaya Nair**, Professor Emerita, Department of Humanities and Social Sciences, IIT Delhi delivered an Institute Lecture titled “*Five Ideas of The University The 21st Century: Towards a ‘Stem And Leaf’ Model of Interdisciplinary Research Cooperation*” on December 2, 2019



**Prof. Slobodan Simonovic**, Professor Emeritus, Department of Civil and Environmental Engineering, Director of Engineering Works, Institute for Catastrophic Loss Reduction, The University of Western Ontario, London delivered an institute lecture titled “*Resilience – Imperative of the Society Under Global Change*” on December 6, 2019



**Prof. Richa Nagar**, Professor of College of Liberal Arts, Chair of Russel and Elizabeth M. Bennett Chair of Excellence, Beverly and Richard Fink Professor in Liberal Arts, University of Minnesota-Twin Cities delivered Institute lecture titled “*Academic Knowledge and People’s Struggles*” on December 9, 2019.

## Awards and Distinctions

**Prof. K. G. Suresh**, Department of Physics has been selected to receive the MRSI (Materials Research Society of India) Medal for the year 2020

**Prof. Anindya Datta**, Department of Chemistry has been nominated to join Editorial Advisory Board of 2020 Journal of Physical Chemistry for a period of 3 years, starting from January 2020

**Prof. Neela Nataraj**, Department of Mathematics has been elected as a Fellow of the National Academy of Sciences (FNASc) for the year 2019

**Prof. Bijnan Bandyopadhyay**, Department of Systems and Control Engineering (SysCon); **Prof. Ruchi Anand**, Department of Chemistry and **Prof. Rohit Srivastava**, Department of Bioscience and Bioengineering have been elected for the Fellowship of National Academy of Sciences (FNASc) for the year 2019

**Prof. Sunita Sarawagi** of CSE has been selected to receive the prestigious Infosys Prize for the year 2019 for Engineering and Computer Science

**Prof. Atanu Ghosh** of Shailesh J. Mehta School of Management was invited to join the Board of Governors of the two management institutes of Institute of Management Technology (IMT) group of institutions - IMT Hyderabad and IMT Nagpur and accepted these invitations to be on the BoG of these two institutes

**Prof. N. Viswanathan**, Department of Metallurgical Engineering and Materials Science (MEMS) has been selected to receive 'Metallurgist of the award 2019 - Ferrous category'. This award was instituted by Ministry of Steel, GoI and will be conferred on him on November 14, 2019

## Prof. Debabrata Maiti,

Department of Chemistry has been invited to join the Editorial Board of 'Chemistry A European Journal' for a period 4 years, starting from January 2020

## Prof. Rohit Srivastava,

Department of Biosciences and Bioengineering has been elected as a Fellow of the National Academy of Sciences, India (NASI)

**Mr. Durgesh Tamhane** and **Ms. Indrani Mukherjee**, students from Department of Electric Engineering have won first prize at the IEEE International Sensors and Measurement Student Contest at the 2019 IEEE Sensors Conference at Montreal, Canada. Their project is titled '*Detection of defects in steel sheets*'

International Federation for Information Processing Technical Committee on Human Computer Interaction (IFIP TC13) has honoured **Prof. Anirudha Joshi** of IDC with the 2019 IFIP TC13 award for his outstanding contributions in human computer interaction (HCI)

**"SoULS Initiative, IIT Bombay"** has won the 1st Grand Prize in the IEEE's Empower a Billion Lives (EBL) competition, the Finals of which was held during September 28th - October 1st at Baltimore, USA. The award includes a citation and grand prize of \$100,000

**Mr. Divakar Kuppan**, a student of Industrial Design Centre (IDC) has won the Best Animation Student Film at the 8th Mumbai Short International Film Festival for his graduation animation film titled, "*Panangaatu Nari/ The Fox of the Palmgrove*".

## Invited Lectures/ Paper Presentation/ Participation in Conferences

**Prof. Atanu Ghosh** of Shailesh J. Mehta School of Management was invited to speak on "Blue

*Ocean Strategy & Indian Textile Industry*" at an International Textile Conference, organised by Diagonal Consulting held at Indian Institute of Management Ahmedabad (IIMA) on October 3 - 4, 2019. He also had addressed a workshop on "*Management Lessons for Design oriented Business Managers*" and had an interactive session with the students of Strategic Design Management programme at National Institute of Design (NID), Gandhinagar campus on October 2, 2019

**Prof. U. A. Yajnik**, Department of Physics was on the advisory committee of the international conference 'Frontiers of High Energy Physics' organised by University of Hyderabad and IIT Hyderabad held from October 14 - 17, 2019. He chaired the inaugural session and presented a paper titled "*PAAI in the sky : towards a particulate explanation for Dark Energy*"

**Prof. Balaji Ramakrishnan**, Department of Civil Engineering, organised a National Workshop on "*Renewable Energy from Ocean: Potential along Indian Subcontinent*" during September 30 & October 1, 2019, as part of SPARC program at IIT Bombay

**Pradnya.K.Taksande, Pranav. Jha, & Prof. Abhay. Karandikar**, Department of Electrical Engineering, published a paper titled "*Dual Connectivity Support in 5G Networks: An SDN based approach*" in 2019 IEEE Wireless Communications and Networking Conference (WCNC), pp. 1-6, IEEE

**Dr. Neha Rathi**, Post Doctoral Fellow, Department of Humanities & Social Sciences received a scholarship (US\$1700) from International Home Economics Services, Inc. to attend International Federation for Home Economics (IFHE) Congress in Atlanta, USA, for the year 2020

## Other Events / Talks

As part of "Days of Moscow in India", eminent Russian Cosmonaut **Sergei Nikolaevich Revin** visited Indian Institute of Technology Bombay on November 21, 2019, to deliver a lecture. He shared his inspiring experiences with the audience. A photo exhibition on his space journey was also displayed at the venue. A good number of students, faculty members and staff members attended the session who got a unique opportunity to listen to his experiences.



**Open Learning Initiative (OLI)** YouTube channel, an initiative by National Service Scheme (NSS) IIT Bombay to provide free and quality education to school students has crossed a huge milestone of more than 100,000 subscribers. Started in 2015, the channel features videos in nine different regional languages to primary, secondary, and higher secondary school students which makes it unique amongst all other educational content providers.



A delegation of 15 journalists/editors from **Bhutan** visited IIT Bombay on November 22, 2019. The visit was part of the familiarization tour organized by the External publicity and Public Diplomacy Division of Ministry of External Affairs, Government of India. The programme is aimed at familiarizing members of the foreign media with different aspects of the country.



## Institute Cultural Council Conducts Various Cultural Events

Culturals is about life, surprises and discovery. Numerous cultural events are conducted all year long by the Cultural Council catering to genres like music, dance, dramatics, film, photography, fine arts, classical & folk arts, speaking arts, literary arts and more. **Following are the few glimpses of the event :**



**Izhaar**, a flagship event of Cultural Club of IIT Bombay, hosted a Kavi Sammelan on October 10, 2019. The event was graced by eminent poets **Rajesh Reddy, Shariq Kaifi, Swapnil Tiwari, Pooja Bhatia** and **Mudita Rastogi**. The audience witnessed a fine amalgamation of **Hindi- Urdu poetry** in this event.



The Institute Cultural Council and Fourthwall, the Dramatics Club of IIT Bombay hosted **Theatre Fest** to celebrate the theatre and arts from October 18 - 20, 2019. Three professional plays, “**Pitaji Please**” directed by theatre veteran Makrand Deshpande, “**Refund**” by Rangshila Productions and “**Uljhan**” by IIT Bombay alumnus were performed to the massive response of the audience on each of these days.



**Surbahaar**, the biggest musical extravaganza of the year, was organised by Symphony, in association with Music Basti, a flagship programs of Enabling Leadership, a global organization that believes every child can be a leader on October 25, 2019. The event was graced by **Mr. Mithoon**, a versatile Bollywood composer and music director. The evening was a truly an extravaganza that captivated audiences with live performance

Roots, the classical and folk arts club of IIT Bombay organized **VIRASAT 2019-20**, the biggest extravaganza of dance and music from November 1 - 3, 2019. The swooning moods of ragas, the intimate romance of swaras, the dynamic flow of talas, the vibrant shades of percussion, the geometric perfection of nritha, and the vivid faces of abhinaya were witnessed at this mega musical evening.



*Pandita Anuradha Pal, the 'first professional female tabla virtuoso in the world' - 'rhythm queen' & tabla phenomenon performing tabla solo at Virasat 2019-20*



*Pandit Kaivalyakumar, a leading exponent of Kirana Gharana with a rich multigenerational lineage performing Hindustani classical music at Virasat 2019-20*

## Instant Milk Coolers With Water Heater (IMC\_WH) Technology

Indian Institute of Technology Bombay has signed a 'Licensing Agreement' with Prompt Equipments Pvt. Ltd. (PEPL), Ahmedabad on December 20, 2019 to manufacture and commercialize Instant Milk Coolers with water heater (IMC WH) technology. It was signed by **Prof. Milind Atrey**, Dean (R&D), IIT Bombay and **Mr. Shridhar Mehta**, Director, Prompt Equipments Pvt. Ltd in the presence of Prof. M. V. Rane and others.

**Prof. M.V. Rane**, Department of Mechanical Engineering and his team has developed Instant Milk Coolers with water heater having nominal milk chilling capacity of 500 LPD. The company would build and sell Instant Milk Coolers with water heater using the institute's technology. These coolers are capable of instant milk cooling at the source even in the areas of unreliable electric grid.

Prompt Equipments is engaged in manufacturing dairy related equipments, instruments and systems.



 **In the  
Wilderness**



**Photo Credit :**  
**by Mr. Chintamani Joglekar**  
 offg. Dy. Registrar HR-1 (HRM)

## Appointments

**Dr. Vinay J. Ribeiro**, has been appointed as Associate Professor in the Department of Computer Science and Engineering

**Dr. Bharatkumar Suthar**, has been appointed as Assistant Professor in the Department of Chemical Engineering

**Dr. Nitin Kumar**, has been appointed as Asst. Professor (Grade-I) in the Department of Physics w.e.f. December 02, 2019

**Mr. Rajendra P. Namilakonda**, has been appointed as Executive Engineer (Scale-I) in the Electrical Maintenance Division w.e.f. December 18, 2019

## Retirements on October 31, 2019

**Ms. Alpana S. Bhagwat**, Principal, Campus School, retired after 30 years of service

## Retirements on November 30, 2019

**Prof. Narayanan Venkataramani**, Department of Metallurgical Engineering & Materials Science, retired after 37 years of service

**Mr. Gopal R. Chilap**, Manager, Printing Press, retired after 36 years of service



**Mr. Nissar Khan**, Assistant Technical Officer, Department of Civil Engineering, retired after 38 years of service



**Mr. Dilawar S. Shaikh**, Sr. Multi Skilled Assistant, Department of Physics, retired after 39 years of service



**Mr. Dilip S. Salap**, Sr. Multi Skilled Assistant, Administration Section, retired after 37 years of service



## Retirements on December 31, 2019

**Dr. V. Arumugam**, Technical Officer, Office of Dean (R&D), retired after 37 years of service



**Ms. Beena H. Tamse Kakade**, Sr.Trained Graduate Teacher, Campus School, retired after 36 years of service



**Ms. Aruna Khadture**, Jr.Supdt., Administration Section, retired after 34 years of service



**Mr. Vishvambhar H. Yadav**, Sr. Multi Skilled Assistant, Department of Metallurgical Engineering & Materials Science, retired after 39 years of service



**Mr. Harishchandra J. Prajapati**, Security Guard, Security Section, retired after 39 years of service



**Mr. Shubrata Dutta**, Sr. Multi Skilled Assistant, Department of Electrical Engineering, retired after 34 years of service



## Notification

**Prof. Santosh Noronha**, Department of Chemical Engineering has been appointed as Professor-in-charge, TATA Centre for Technology and Design (TCTD) w.e.f. October 15, 2019

**Mr. Suresh S. Bambodkar**, Sr. PGT (Scale- I) has been given additional incharge as Principal of IIT Bombay Campus School and Jr. College w.e.f. from November 1, 2019

**Prof. Shireesh B. Kedare**, Department of Energy Science and Engineering has been appointed as the first Professor-in-charge, Centre of Excellence in Oil, Gas and Energy w.e.f. November 19, 2019

**Prof. Phani Tetali**, IDC School of Design has been appointed as Head, IDC School of Design w.e.f. from November 21, 2019

**Prof. Parag Tandaiya**, Department of Mechanical Engineering has been appointed as Associate Professor (Academic Level 13A2) w.e.f. from November 25, 2019

<b>CEP courses scheduled during February - April 2020</b>				
<b>Duration</b>	<b>Days</b>	<b>Course Title</b>	<b>Course Coordinator</b>	<b>Department</b>
<b>Open Programmes :</b>				
5-2-2020	2 Days	Resource Recovery Opportunities From Biodegradable Fraction of Municipal Solid Waste	Prof. anurag Garg	Environmental Science & Engineering
7-2-2020	2 Days	Basics Of Weather Dynamics	Prof. Sridhar Balasubramanian	Mechanical Engineering
10-2-2020	5 Days	End To End Innovation	Prof. Santosh Noronha	Chemical Engineering
14-2-2020	2 Days	Sustainable Finance: Development, Opportunities And Challenges	Prof. Trupti Mishra	School of Management
19-2-2020	3 Days	Design Thinking: Upholding User Needs &	Prof. Nishant Sharma	Industrial Design Centre
20-2-2020	3 Days	Integrated Water Resources Management Under A Changing Climate	Prof. Riddhi Singh	Civil Engineering
20-2-2020	2 Days	3d Printing of Metals	Prof. Karunakara P. K. Poolan	Mechanical Engineering
21-2-2020	16 Days	Product Design – A Strategic Tool For Innovation: New Product Development & For Enduring Competition	Prof. P Kumaresan	Industrial Design Centre
25-2-2020	4 Days	Introduction To Quantitative Research Methods In Hci 2020	Prof. Anirudha Joshi	Industrial Design Centre
27-2-2020	3 Days	Chemical Process Risk Assessment	Prof. Sandip Roy	Chemical Engineering
<b>In House Programmes :</b>				
3-2-2020	1 Months	Training In Continuous Flow Process Intensification	Prof. Anil Kumar	Chemistry
4-2-2020	5 Days	Parallel Programming For Heterogenous Architectures	Prof. Shivasubramanian Gopalakrishnan	Mechanical Engineering
7-2-2020	3 Days	Finance For Tech Leaders	Prof. Sonti Venkata Durga Nageswara Rao	School of Management
10-2-2020	4 Days	Crash Course on Applied Mineral Exploration	Prof. Alok Porwal	Centre For Studies In Resources Engineering
13-2-2020	5 Days	Game Theory And Agent- Based Modeling For Security, And Power System Security	Prof. Ankur Kulkarni	Systems & Control Engineering
<b>In House Programmes :</b>				
16-4-2020	3 Days	Cement Concrete Pavement: Materials, Design, Construction, Quality Control, Failures And Maintenance	Prof. Dharamveer Singh	Civil Engineering
18-4-2020	6 Days	Certificate Program In Machine Learning & Ai	Prof. Shivaram Kalyanakrishnan	Computer Science & Engineering
20-4-2020	3 Days	Sparc Workshop: Advanced Manufacturing Methods And Modelling - Examples From Aerospace To Bio-applications	Prof. Shyamprasad Karagadde	Mechanical Engineering