

## Students Pledge To Give Back To The Institute



*Glimpses of Valedictory function*

IIT Bombay held the Institute Valedictory Function on May 3, 2019. Graduating students take the “**Give One for IIT Bombay**” pledge every year and forever cement their bond as a concerned stakeholder of the Institute family. The Institute Valedictory Function (IVF) is the last address of the Institute to the graduating batch. The event was graced by the inspiring words of the Institute’s esteemed alumnus **Mr. Abhay Pandey** (BTech., 1993, General Partner of A91 Partners) and **Mr. Gagan Bhalla** (BTech., 1996, CEO and COO of Apollo Sugar and Apollo White Dental). Both the alumni highlighted some of their corporate life incidents, educating the graduating students about life outside Institute. Things like ‘what lies ahead’ and the ways of reconnecting with the alma mater were conveyed during Institute Valedictory function.

Undergraduate and postgraduate student representatives Ms. Kanishka Patil and Ms. Pooja shared their experience with the guests and the students. Outstanding contribution awards were given to Mr. Karan Mantri (SARC Overall Coordinator 2017- 18), Mr. Samarth Agrawal (SARC Overall Coordinator 2018-19), Mr. Taveesh Garg, Ms. Vaishali Agarwal and Ms. Mrinal Dharmik (SARC Core Team Members 2017-18) by the Dean (Alumni and Corporate Relations) Prof. Suhas Joshi.

The proceedings also included the ceremonial transfer of the student list from **Prof. Soumyo Mukherjee**, Dean (Student Affairs) to the alumni list with **Prof. Suhas Joshi**. Prof. Joshi talked about how the students can stay connected to the Institute as an alumnus and give back to the Institute.

## 100 Graduates Make IIT Bombay-Monash Research Academy Proud

IIT Bombay-Monash Research Academy now has 100 graduates, thus marking a significant milestone in the Academy's 10-year journey.

The Academy's 100th Joint PhD student **Mr. Vamshi Krishna Kammadanam** presented his defense seminar on April 25, 2019. **Prof. Subhasis Chaudhuri**, Director, IIT Bombay, **Prof. A.K. Suresh**, Deputy Director, (Academic & Infrastructural Affairs), **Prof. Virendra Sule**, Professor, IIT Bombay, **Prof. Neela Nataraj**, Academy Professor In-charge, **Prof. Rushikesh Joshi**, Professor, IIT Bombay, **Prof. Bimal Roy**, Professor, Indian Statistical Institute, Kolkata, **Prof. Vikram Vishal**, the Academy's first graduate and now Professor, IIT Bombay were present.



From left: Prof. Murali Sastry (CEO, The Academy), Mr. Vamshi Krishna Kammadanam (The Academy's 100<sup>th</sup> graduate), Prof. Vikram Vishal (The Academy's first graduate), Prof. Neela Nataraj (The Academy's Professor In-charge, IIT Bombay), Prof. Subhasis Chaudhuri (Director, IIT Bombay), Prof. A.K. Suresh (Deputy Director, Academic & Infrastructural Affairs)

The Indian Institute of Technology Bombay and Monash University, Australia got together in 2008 to create a unique Joint Venture (JV) research academy which aims to enhance research collaborations between Australia and India. The mandate of the Academy is to facilitate cutting-edge, application-oriented research through a PhD program that leverages world-class infrastructure at both IIT Bombay and Monash University (Melbourne), developing high-impact solutions in critical areas such as climate change, renewable energy, clean water, advanced engineering and biotechnology. With 175 research scholars currently on the rolls and highly-placed graduates, Academy's Joint PhD program is unique in terms of size and scale.

## Launch of IIT Bombay-Ohio State Frontier Science And Engineering Research Center



IIT Bombay's former Director Prof. Devang Khakhar (left) and Prof. Steven Ringel, Associate Vice President for Research and Executive Director of the Institute for Materials Research (IMR) celebrate the collaboration

The Ohio State University on April 10, 2019 signed an agreement with the Indian Institute of Technology Bombay to launch the Ohio land grant university's first academic research center shared outside the U.S. The IIT Bombay-Ohio State Frontier Science and Engineering Research Center will be a center for collaborative research shared by Ohio State and IIT Bombay, a world-leading science- and technology-focused public institution in Mumbai. Through this new center of excellence, professional researchers from across the globe will connect and foster future project collaborations, while students from both institutions conduct collaborative research through a student exchange and scholarship program.

## IIT Bombay Signs MoU With BIS for Standardization And Conformity Assessment



MoU signing by Prof. Devang V. Khakhar, former Director, IIT Bombay and Ms. Surina Rajan, IAS, Director General, BIS

Bureau of Indian Standards (BIS), the National Standards Body of India and Indian Institute of Technology Bombay signed a Memorandum of Understanding (MoU) on April 16, 2019 to collaborate in the field of standardization and conformity assessment. According to MoU, IIT Bombay will develop infrastructure support for R&D projects of relevance to standardization.

BIS will provide financial support to IIT Bombay for such R&D projects. The terms and conditions for infrastructure support and finance will be jointly worked out based on the nature and the duration of the R&D projects. The MoU also envisages that IIT Bombay will provide IT-based technological solutions regarding various activities of the Bureau, including Conformity Assessment processes, as and when required.

## Diamond Jubilee Celebrations In Australia

IIT Bombay hosted a gala dinner in Sydney, Australia for its alumni to celebrate the Diamond Jubilee of the Institute. The event was attended by over 130 alumni and their families. The keynote address was delivered by IIT Bombay alumnus **Ms. Marlene Kanga**, followed by a presentation by **Prof. Devang Khakhar**, former Director of IIT Bombay and **Prof. Suhas Joshi**, Dean (Alumni and Corporate Relations). IIT Bombay would like to thank all its alumni in Australia for making this event so memorable.



Glimpses of gala dinner at Sydney



## 15<sup>th</sup> World Conference On Transport Research (WCTR)



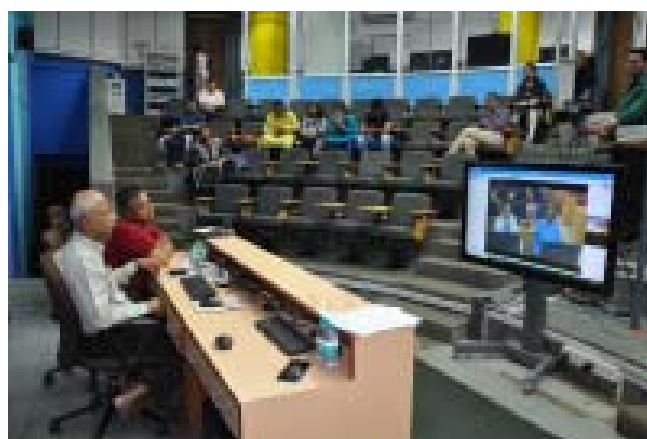
15<sup>th</sup> World Conference on Transport Research (WCTR)

Transportation Systems Engineering Group, Civil Engineering Department of IIT Bombay conducted the prestigious 15<sup>th</sup> World Conference on Transport Research (WCTR) during May 26-31, 2019. The WCTR is the flagship activity of World Conference on Transport Research Society (WCTRS). The opening ceremony of the conference was held on May 27, 2019. **Prof. K. V. Krishna Rao**, Department of Civil Engineering was the Conference Director of the WCTR. The 15<sup>th</sup> WCTR provided a forum for the interchange of ideas among transportation fraternity from all over the world, from a perspective which is multi-modal, multi-disciplinary and multi-sectoral. The conference provided a platform to the academicians, practitioners, managers, and policymakers together from all parts of the world to share cutting-edge research and advanced state-of-practice. Over 1000 delegates from over 60 countries attended the conference. More than 1200 presentations on the topics of transportation were presented in the conference in several technical and special sessions. As a part of this event, WCTRS Young Researchers' conference was held on May 26, 2019.

## Workshop On Scilab



The IIT Bombay team connected with the coordinators from remote centres across India through the video conferencing software A-VIEW from the CDEEP seminar hall



The Teaching Learning Centre (ICT) under the 'Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT)' supported by the FOSSEE and the SpokenTutorial projects conducted a one-day 'Coordinators Workshop on Scilab' on April 16, 2019. **Prof. Kannan M Moudgalya** co-ordinated the workshop. The workshop was a blended training programme that used A-VIEW for live interactions and Spoken Tutorials to learn Scilab. The medium of instruction for this workshop was English. Language dubbed Spoken Tutorials in Hindi and a few other languages were also available. The workshop was inaugurated by **Prof. A K Suresh**, Deputy Director (AIA), **Prof Kannan Moudgalya** briefed the participants about the workshop schedule and the Spoken Tutorial methodology. **Prof. Madhu Belur** explained the participants about the capabilities and advantages of using Scilab. After this interactive session, the participants practised Scilab through Spoken Tutorials in the respective remote centres. The workshop concluded with another interactive session at 5:00 pm where the participants interacted with the Scilab team with their general and technical queries. More than 160 remote centres participated in the workshop.

## 10th ACM/ SPEC International Conference On Performance Engineering



*The ICPE is the leading international forum for presenting and discussing novel ideas, innovations, trends and experiences in the field of performance engineering*

The Department of Computer Science and Engineering at IIT Bombay hosted the **10th ACM/ SPEC International Conference on Performance Engineering (ICPE)** at the Victor Menezes Convention Centre on its campus, from April 7 to 11, 2019. The first two days (April 7- 8) compressed events and workshops, while the main conference was held during April 9-11, 2019.

The theme of this year's conference was *"Performance Engineering in the AI Era"*.

**Prof. Varsha Apte**, Department of Computer Science and Engineering was the organizing co-chair of the conference (along with Prof Antinisca Dimarco of University of L' Aquila, Italy).

**Prof. Kishor Trivedi**, Fitzgerald Hudson Chair of ECE Dept, Duke University, USA, **Prof. Evgenia Smirni**, Sidney P. Chockley Professor of CS Dept the College of William and Mary, USA and **Dr. N. Muralidaran**, MD & CEO of NSEIT, Mumbai were the keynote speakers in the main conference.

In addition to the main conference, one ICPE workshop (the 2nd workshop on Education and Practice of Performance Engineering (WEPPE)) and two ICPE tutorials were held on April 8, 2019.

Furthermore, ICPE 2019 saw three unique co-located events on April 7-8, 2019 : The TCS-TIFR Quantum Computing Symposium, The First India Performance Workshop and a first Performance Modeling and Simulation Hackathon Training Event. The TCS-TIFR workshop saw leaders in Quantum Computing from academia and industry around the world. "IndiaPerf" workshop witnessed speakers faculty from IIT Bombay along with experienced industry leaders from Airtel, Netapp, VMWare, HPE, TCS.

ICPE 2019 had a record-breaking attendance of over 200 participants (of which almost 150 were from India) and was profusely declared by the international ICPE steering committee as possibly the most successful ICPE ever.

## AUA Board Meeting In Hong Kong



Delegates of the AUA Summit 2019 in Hong Kong

The third annual Asian Universities Alliance (AUA) Summit was held in Hong Kong on April 13 and 14, 2019. Comprising of two Working Group Meetings, the AUA Board Meeting and Presidents Forum, the summit was attended by 60 delegates from all 15 member universities, the largest delegation ever. First session of the board meeting was chaired by **Prof. P.M. Mujumdar**, Deputy Director (Finance and External Affairs). During the first board meeting, the AUA members reviewed the 2018-2019 work.

## Release Of Special Edition Of 'KSHITIJ'



Release of special issue of Institute's Hindi Magazine 'KSHITIJ' by former Director of IIT Bombay Prof. Devang Khakhar

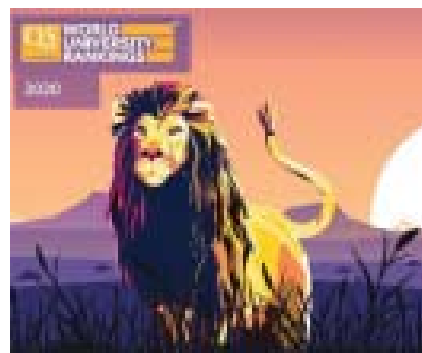
The Diamond Jubilee Special Issue of Institute's Hindi Magazine "KSHITIJ" was released on April 11, 2019 by former Director, IIT Bombay **Prof. D.V. Khakhar**, in the august presence of Padmasree **Dr. D.B. Phatak**, retired Professor, IIT Bombay and other faculty, student and staff members. The Director, in his opening remarks, placed on record and appreciated the effort of Hindi Magazine Editorial Board for the excellent work. He further extended his heartiest gratitude towards the faculty, staff and students who have contributed Hindi articles for this special issue entitled 'The journey of six decades of IIT Bombay'. Prof. Phatak, Prof. S.D. Agashe, Department of Electrical Engineering in their address to the audience lauded the writers for their valuable contributions made by way of informative writings for the magazine and also inspired the students, faculty and staff members to write popular articles in Hindi on scientific subjects for the benefit of general masses of the country. The editorial board felicitated the dignitaries on the dais.



## QS Ranks IIT Bombay 1st In India, 152nd In World

IIT Bombay has moved significantly up from 162nd rank last year to 152nd rank this year in the Quacquarelli Symonds (QS) World University Rankings. Overall, the Institution improved on its 2019 performance by 10 places.

The results were released on June 19, 2019 by QS, a British company. IIT Bombay ranks 1st in India, with an overall score of 49.4 out of 100. The Institute has a score of 54.5 in academic reputation, 71.2 in employer reputation, 54.6 in citation per faculty, 45.8 in faculty student ratio, 3.4 in international faculty and 1.6 in international students, all scores out of a maximum of 100 points. Among these six parameters, Employer Reputation is the strongest one for IIT Bombay with a rank of 95 globally. Since 2014, in the World University Rankings by QS, IIT Bombay has moved up 81 places.



## Re-dedication Of The Infinity Corridor And Iconic Arch To The Institute

As part of Diamond Jubilee Celebrations, IIT Bombay has reconstructed the old Infinity Corridor with the Iconic Arch. The corridor and arch were re-dedicated to the Institute by the former Director Prof. Devang Khakhar, IIT Bombay on April 9, 2019.



Former Director Prof. Devang Khakhar, Director Prof. Subhasis Chaudhuri and Dean (Infrastructure Planning & Support) Prof. B V S Vishwanadham during the re-dedication



## Inauguration Of Canteen At Main Building

Former Director Prof. Devang Khakhar and Prof. Subhasis Chaudhuri, Director, IIT Bombay rededicated the canteen at Main Building to the Institute on April 16, 2019. The canteen kitchen is now well-equipped with modern kitchen equipments, ventilation system and fire alarm system.



Former Director Prof. Devang Khakhar and Director Prof. Subhasis Chaudhuri inaugurating the Canteen in Main Building



## 'Maacher Jhol' - The 'Fish Curry' Animation Film Bags Award By The National French Academy Of Cinema



The Animation film **'Maacher Jhol' (The Fish Curry)** directed by **Mr. Abhishek Verma**, IDC alumnus has been awarded by The Académie des César- the National French Academy of Cinema as a best short film from India. The award and felicitation ceremony was held at UNESCO in the presence of the UNESCO President Audrey Azoulay. The award was given by French Actor Zinedine Soualem.

The film has been screened in 35 cities across Europe.

## IIT Bombay Alumnus Bags Namma Bengalurean Of The Year Award



The 10th edition of the Namma Bengaluru Awards was held on May 1, 2019 at B.R. Ambedkar Bhavan, Bengaluru. Mr. Ashok Kamath, alumnus of IIT Bombay and Chairman of Akshara Foundation, was awarded the prestigious title 'Namma Bengalurean of the Year' for his exemplary service in the field of education, specifically for math solutions in government schools.

*Conferment of prestigious title 'Namma Bengalurean of the Year' on IIT Bombay alumnus Mr. Ashok Kamath*

## Mr. Kanishak Kataria, Alumnus Of IIT Bombay Tops 2018's Civil Service Exam

**Kanishak Kataria**  
All India Rank 1,  
UPSC Civil Services Exam 2018



*Mr. Kanishak Kataria, an alumnus of IIT Bombay topped the civil services exam*



## IIT Bombay Wins National Intellectual Property Award 2019



Former Dean (R&D) Prof. P. V. Balaji receiving the National Intellectual Property Award 2019 along with the team members

IIT Bombay won the National Intellectual Property Award 2019 under the category of ‘**Top Academic Institution for Patents and Commercialisation**’ given by Government of India (Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, and Intellectual Property office, India). The award carries a memento, citation and cash incentive of rupees one lakh. The award was received by **Prof. P. V. Balaji**, former Dean (R&D) on behalf of Institute at the function held at New Delhi on April 26, 2019.

## Observance Of Anti-Terrorism Day



As per the directives of MHRD regarding Observance of Anti-Terrorism Day on May 21, 2019, a pledge was administered by Registrar of IIT Bombay Dr. R. Premkumar to all employees in the Main Building on May 21, 2019.

## World Environment Day 2019: OVER 400 Young Environmentalists Clean Up Powai Lake

The Powai lake was once a lifeline for Mumbai as it supplied around two million gallons of water to the city. The lake has suffered much over the years. The lake water has now been declared unfit for drinking. The MSAA (Maharashtra State Angling Association) control of Powai lake has revised its constitution "to actively care for, clean, develop, maintain and beautify the environment at Powai lake". It's also people's responsibility to keep the lake clean and healthy.

In light of this, **Abhyuday, IIT Bombay** in collaboration with **Nisarg Swasthya Sansthan**, conducted the Powai lake mega clean-up campaign on June 5, 2019 on account of World Environment Day. This campaign was followed by

a plantation drive on the banks of the lake. The campaign was aimed at cleaning the bank of Powai lake to promote a cleaner, greener and healthier environment. It also aimed at spreading awareness among people to stop littering here.

The campaign began with volunteers taking a pledge not to pollute the lake any further and to create a greener environment. Volunteers spread out along a stretch of 1.5 kilometres along the banks of the lake and collected around 1.5 tonnes of solid waste including plastics and other materials that pollute the lake. Volunteers, through their efforts, have set an example on what needs to be done for a cleaner Powai lake.



More than 400 volunteers from IIT Bombay and residents of Powai participated



## Abhyuday Conducts Volunteer Weekends To Initiate Social Change

Volunteer weekends aim to enlighten the youth by making them conscious of the social issues and encouraging them to initiate social change. Abhyuday connects and takes help of youth for conducting various social activities. Abhyuday, IIT Bombay conducted volunteer visits during May 25-26, 2019 to involve students in social work. The team visited **Priscilla Children's Home**, Navi Mumbai (orphanage) to conduct '**Masti ki Paathshala session**' with students of classes VI to X. Volunteers conducted some fun and basic science-based experiments with students and taught them the logic behind the activities. The session concluded with some riddles and logic puzzles.

Volunteers joined **Afroz Shah's Mithi River Rejuvenation Project** to clean the river of plastic/ filth. They also collected plastic from the doorsteps of people living on the banks of the river to create awareness amongst them.

On May 26, 2019 and during June 1-2, 2019, volunteers, along with Robinhood Army, distributed food to more than 160 poor kids in nearby **hakone slum** areas, conducted a PT session to teach the children the benefit of exercise and interactive session teaching the children the basics of geography.

Abhyuday, IIT Bombay visited **Aman Day Care Centre** during June 1-2, 2019 to conduct the 'Masti ki Paathshala session'. Volunteers conducted some fun and basic science-based experiments with students and taught them the logic behind the activities. The session ended up with some riddles and drawing sessions.

Abhyuday, IIT Bombay also visited the **BHN health care** old age home in Mumbai on June 2, 2019. Volunteers spent time with the inmates and played games. All the the volunteers collected fond memories and wonderful learning.



'Be the change you want to see'



## E-cell Organizes SEEtalks



13-year-old Master Tilak Mehta (entrepreneur) from Garodia International Centre for Learning Mumbai (GICLM) and Ms. Dimple Parmar, IIM Calcutta alumnus and Cancer activist giving an engaging talk to the audience

E-cell, IIT Bombay hosted a platform that brings to the forefront hidden and unheard stories of entrepreneurs and inspirations within India with School of Entrepreneurial Exploration (SEE) talks on June 15, 2019. These are the stories that capture human imagination, determination and yearning to see the larger picture and continuously move towards one's dream. SEE talks is an endeavour to share inspirational stories from different walks of society that have changed the way we perceive our present and our future.

These positive stories will inspire next generation to take steps to help the larger society. Moreover it is an endeavour to handhold people in their journey to explore entrepreneurship.

From the 13-year-old Master Tilak Mehta (entrepreneur) Garodia International Centre for Learning Mumbai (GICLM) to the loving mother and social worker Ms. Sindhutai Sakpal, SEE talks hosted many. Other inspirational speakers included police officers Mr. Somesh Goyal and Aroop Mukherjee, social worker Mamoon Akhtar, musician Benny Prasad, entrepreneurs Jayanthi Kathale, Shriyansh Bhandari and Ramesh Dharmi, army officer Param Veer Chakra Yogender Singh Yadav, entrepreneur and social workers Dr Abhijeet Sonawane, Siddharth Jayakumar and Gurmeet Singh, pilot Captain Amol Yadav and Cancer activist Dimple Parmar.

## Annual Showcase Of Design Projects At Design Degree Show 2019

The IDC School of Design, IIT Bombay organized Design and Degree Show 2019 at VMCC, IIT Bombay during June 22-23, 2019. DDS 2019 is a showcase of the design projects that are a synergistic output of human-centered thinking, critical problem solving, deeper aesthetic understanding and foresight, inculcated and added up in the design arsenal of the graduating students of Industrial Design Centre, IIT Bombay. The DDS 2019 was inaugurated by **Prof. Sudhakar Nadkarni** who has the distinction of having initiated three major institutions in the country and was instrumental in starting the Industrial Design Centre at IIT Bombay in 1969.



Prof. Sudhakar Nadkarni inaugurating the Design Degree Show 2019

The event showcased the design projects by the outgoing batch of Master of Design (MDes) students of five streams and first outgoing batch of Bachelor of Design (B.Des) of IDC School of Design, IIT Bombay. The event was attended by design professionals, academicians, design students from various institutes and the general public interested in design.

## Design Innovation Center Displays Significant Projects At Design Degree Show 2019

MHRD's **Design Innovation Center** set-up at IIT Bombay along with its three Spokes (College of Engineering Pune, Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli & National Innovation Foundation, Ahmedabad) exhibited its key Projects during the annual students' event of IDC School of Design "Degree Show 2019" held during June 22-23, 2019 at IIT Bombay Campus.

The Design Innovation Center (DIC) aims to promote innovation at every stage in the value chain, from idea to market and to facilitate interdisciplinary design-focused innovation and entrepreneurship. 20 Design Innovation Centres have been set up across the country and each Design Innovation centre has to mentor three spokes to spread culture of design innovation.





## Celebration Of International Day of Yoga 2019



International Yoga Day is celebrated every year on June 21 to raise awareness worldwide about the benefits of yoga in daily life. Yoga brings balance between body, soul and mind. It helps us to understand the purpose of life and teaches us to survive in the changing environment. Yoga is a 5,000-year-old physical, mental and spiritual practice that originated in India. Yogastha - The Wellness Club, IIT Bombay organizes regular yoga sessions, workshops, yoga competitions and various lecture sessions. The events are organized to help students, faculty and campus residents to live stress-free and develop a healthy lifestyle. The sessions also help to nurture the yogic practice among the IIT Bombay community.

As part of run-up to International Day of Yoga, following events were organised by the Yogastha team over 100 days:

- Yogastha conducted the second edition of **Yog Pratiyogita** on March 23, 2019 for the campus residents. The event received a huge response with participants including students, faculty and staff. There were 3 age groups: 14-24, 25-35 and 36 and above for male and female categories. Each participant had to select 4 asanas to perform out of the 10 choices in his or her group. The total time allotted to one person was 3 minutes, during which all 4 asanas were to be demonstrated. Some of the important asanas performed were sirasana, mayurasana, sarvangasana, vimanasana and dhanurasana.

- A workshop on **Power & Yin Yoga** was organized on May 3, 2019 to mark the celebration of 50 days to International Day of Yoga. It introduced the participants with two modern yoga variants. This event was attended by more than 100 participants from diverse backgrounds of IIT Bombay community.

- Flexibility is an essential component of good physical health. Whether we are playing a sport, practicing yoga or simply going about our daily life, the flexibility of one's body aids. A workshop on **Flexibility & Stretching** was organized on May 15, 2019. The workshop focussed on making the movements deeper and easier, improve the agility to help in any activity that is to be performed. This event was attended by more than 100 participants.

- A four day workshop on **Pranayama** was organized from May 21-24, 2019. Yoga expert Mr. Deepak Parmar delivered

the talk (Introduction to various pranayamas) on day 1. Day 2 onwards, pranayama practice was conducted by Mr. R.R. Surve from Ambika Yoga Kutir, Mumbai. This practice involved the importance of breathing, prayers, cleansing processes, pranakarshan practices, emotional connection of breath & thought, introduction to yamniyam and panchkosha (five sheaths). The workshop was attended by 120-140 participants.

- Mr. Birjoo Mehta, a senior Iyengar yoga teacher at ramamani Iyengar Memorial Yoga Institute Pune led a workshop session titled '**Introduction to Iyengar Yoga with yog-asana demonstration**' on June 1, 2019. The session focused on body alignment in the posture with breath control. Mr. Mehta learned yoga under the tutelage of Sri BKS Iyengar in 1974. He has also accompanied and demonstrated Iyengar yoga at various international conventions and workshops attended by Sri BKS Iyengar since 1998. On June 21, 2018, he was listed amongst the 100 Most Inspiring Teachers of Yoga in India.

- **Heartfulness Meditation** - A talk & workshop was held during June 7-9, 2019 as a part of International day of Yoga month celebration. This three day event featured eminent speakers viz. Ms. Sonali Godbole, global heartfulness trainer and associate director, CME - integrated leadership and wellness programs for professionals, Mr. Tushar Pradhan, CIO, HSBC Global Asset Management Company, India, Dr. Lalitha Dhareshwar, former Raja Ramanna Fellow, Department of Atomic Energy, B.A.R.C. and former head, Laser and Neutron Physics Division, B.A.R.C.

- A symposium on '**Research on Yoga Based Practices**' on different topics like '*Yoga for Personal and Social Well Being*', '*The Philosophical Basis of Yoga*', '*Correlation of Indian Philosophical Systems and Scope of Research in Yoga*', '*Yoga Research in Management and Allied Fields*', '*Physiological and Therapeutic effects of Yoga*', '*Indian Psychology and Yoga: Implications for Positive Psychology and Transpersonal Psychology*', '*Perspectives of Research in the Field of Yoga*', '*Towards Multi Paradigm Multi Method approach for Research in Yoga*' was held on June 15, 2019. It featured lead yoga practitioners and researchers.





Prof. Atul Srivastava, Chairman (Sports - Gymkhana), Chief Guests Ms. Anu Aggarwal, Founder Director of Anu Aggarwal Foundation, Mr. Tushar Pradhan, CIO, HSBC, Prof. Subhasis Chaudhuri, Director and Prof. Tapanendu Kundu, Dean (Student Affairs)

■ IIT Bombay celebrated the **Fifth International Yoga Day on June 21, 2019**. The event witnessed enthusiastic participation from all the members of the IIT Bombay community including faculty, students, staff and their family members. Prior to the main event, Yogashta - The Wellness Club organized **4 practice sessions to make participants acquainted for Common Yoga Protocol (CYP)** on June 16, 17, 18 and 19, 2019 both in the morning and evening at Yoga room (Multipurpose hall), 3rd floor, New SAC. Participants who attended 3 out of 4 practice sessions along with the Common Yoga Protocol on June 21 received a free yoga mat. Two yoga sessions were conducted on June 21, 2019 at the Indoor Badminton Court located in the Gymkhana Building at IIT Bombay. During the morning session, a CYP was conducted. IIT Bombay community members gathered in the morning and practiced yoga under the guidance of trained yoga teachers who spoke about its benefits on health and environment. More than 200 people participated in each session. The participants were taught various asanas and pranayama. The instructor explained the benefits of these for one's physical and mental health and well-being. The trainer encouraged the participants to practice yoga every day.

**Ms. Anu Aggarwal, Founder Director of Anu Aggarwal Foundation and Mr. Tushar Pradhan, CIO, HSBC were the Chief Guest of the event. Prof. Subhasis Chaudhuri, Director, Prof. Tapanendu Kundu, Dean (Student Affairs) & Prof. Atul Srivastava, Chairman (Sports - Gymkhana)** also graced the event.

In the evening session at 6pm, **Yogathon** was organized at the same venue. Registered participants performed 108 surya namaskars. The participants practiced all the exercises with full determination and zeal. Participants who completed 108 surya namaskars received a token of appreciation and an e-certificate. **Chief Guest Mr. Jayaram Meena, IIT Bombay alumni** and 1008 surya namaskar finisher graced the occasion. Prior to the main event, Yogashta - The Wellness Club organized 12 practice sessions from May 27, 2019 to gradually build the strength, endurance of the participants to finish the challenge. As a part of **Festival of Yoga & Well being**, Yogashta-Wellness Club, IIT Bombay organized various exciting activities like **Slogan Competition, Article Writing Competition, Poster making competition, Quiz Competition** and the participants were provided with questions at the venue (Indoor Badminton Court), 8 AM after Common Yoga Protocol.



## e-Yantra Ideas Competition (eYIC - 2019)

The finals of the IIT Bombay's **e-Yantra Ideas Competition** was held during April 5-6, 2019 on campus. The e-Yantra Ideas Competition invites students to articulate a real-world problem as a project proposal in a given format. Shortlisted projects are implemented under the mentorship of a teacher at their respective college and remote mentorship by e-Yantra. The e-Yantra project staff conducts reviews to monitor progress and provide feedback. Of the 362 proposals from 306 e-Yantra labs, 122 were shortlisted for implementation and 64 projects presented in regional finals. Eventually 21 finalists showed their working prototypes in an exhibition at IIT Bombay. These teams from various colleges across India compete for different award categories, and a chance to be eligible for a summer internship at IIT Bombay.

### Award winners categories :

#### Best Algorithm

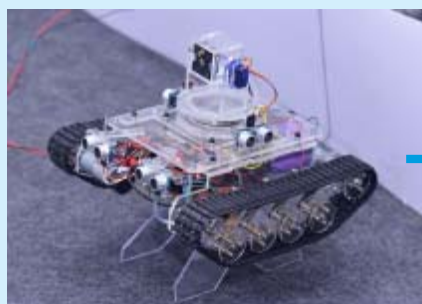


Student team from Vivekanand Education Society's Institute of Technology, Mumbai receiving certificates for the Project titled Street Quality Identification Device (squid)

#### Best Demonstration



Student team from Ramrao Adik Institute of Technology, Nerul receiving certificates for the project titled 'Defence Mechanism System Using Image Processing'



Interesting design feature was suspension based tank wheels

#### Best Hardware (Two Projects)



Student team from Fr. Conceicao Rodrigues College of Engineering, Bandra receiving certificates for the project titled 'Pani-puri And Dahi-puri Vending Machine Using Image Processing And Machine Learning'



It makes pani-puri and dahi-puri, and cleans the machine



Student team from K.J. Somaiya College of Engineering, Vidya Vihar receiving certificates for the project titled 'Autonomous Surface Rover And Underwater Inspection System'



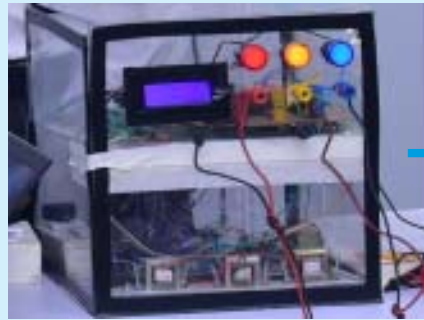
The prototype has a pulley mechanism for dropping node to the bottom of lake, pool, etc.



### Close-to-market



Student team from Jawahar Education Society's A.C. Patil College of Engineering, Kharghar, Navi Mumbai receiving certificates for the project titled 'Generator Excitation Control Using Phasor Measurement Unit'



Generator Excitation Control Using Phasor Measurement Unit

### Judge's Choice



Student team from Knowledge Institute of Technology, Salem, Tamilnadu receiving certificates for the project titled 'Agribot 1.0'



The team had focused on weather forecasting and soil quality detection using the bot

### Most Innovative



Student team from Kongu Engineering College, Erode, Tamilnadu receiving certificates for the project titled 'Biodegradable And Edible Wheat Bran Plate Making Machine'



This prototype used hydraulic system to press down the wheat bran mixture into plate.

"Education is the key to employability and economic advantage in this day and age especially project-based education" suggested **Prof. Kavi Arya**, Principal Investigator, e-Yantra project. e-Yantra helps students engage with education in a multidisciplinary and a fun manner.



## e-Yantra Symposium (eYS - 2019)

**e-Yantra Symposium** is a community building activity for colleges that have setup a lab under the eYantra Lab Setup Initiative (eLSI). Teachers and students from the growing e-Yantra community of 350+ colleges come together to update themselves about the latest cool ideas in other e-Yantra labs and to plan their coming year's activities. As a result, the community learns from each other and becomes smarter every year. Data from the past 8 years demonstrates that within a year of establishing an e-Yantra lab, a college's students perform significantly better in e-Yantra competitions, thus establishing high practical skill levels of e-Yantra students.



Keynote by Mr. Tapan Mishra, Director, ISRO Space Application Centre, Ahmedabad



Panel members Mr. Gurinder Singh Malik (MHRD), Ms. Jaya Goyal (British Council), Mr. Raghunath Iyer (IIT alumnus), Mr. Romesh Kaul (Director, Mahindra CIE), and Mr. Nilay Bhuptani (IITRAM Ahmedabad) during panel discussion on 'Role of e-Yantra Labs in Industry / Academia interaction and Govt./ Industry Support in Building the Innovation Pipeline'

This year's e-Yantra Symposium achieved a seven-year track record of running a massive (MHRD-funded) National Robotics outreach program. On display are the finals of two of its major student-facing initiatives: the e-Yantra Robotics Competition (eYRC-2018) and e-Yantra Ideas Competition (eYIC-2019). The e-Yantra Symposium is also a basis for academia-industry engagement using the 350+ labs it has established. From these colleges, student teams along with their teacher mentors participated in e-Yantra Ideas Competition (eYIC-2019). This competition ensures that the labs established through the e-Yantra Lab Setup Initiative (eLSI) are used and innovative projects are executed using the facilities of these labs. As a part of eYS-2019, talks and panel discussions stimulated the assembled teachers and student innovators to improve their performance year-on-year.

On June 19-21, 2019, e-Yantra visited the College of Science and Technology (CST/Pheuntsholing, Bhutan) to initiate engagement with Bhutan for setting up 4 e-Yantra labs. e-Yantra team members **Mr. Aditya Panwar** and **Mr. Simranjeet Singh** interacted with **Prof. Cheki Dorji** (President, CST/Pheuntsholing).

The e-Yantra Symposium fulfills its goal every year of nurturing young innovators around e-Yantra labs to inspire them to reach greater heights in the coming years. The eYantra project is funded by the Ministry of Human Resource Development (MHRD), under the National Mission for Education through ICT (NMEICT) to provide hands-on learning to students with limited access to labs and mentors. e-Yantra provides training and mentorship to both teachers and students through the e-Yantra labs. The project's success is evident in the fact that the registrations for e-Yantra Robotics competition has been growing exponentially year-on-year with 350+ labs in India. This year the project is establishing 4 labs in Bhutan and has been invited by the Hon. Minister of Finance (Afghanistan) to set up 10 labs in Afghanistan. The project e-Yantra has moved beyond our borders to Bhutan and soon Afghanistan and tomorrow the world! This is indeed a privilege as the team gets ready to take on new and exciting challenges of scale and reaching out beyond our borders!!

## Research in focus

## Towards Hazard-Free Wearable Health Monitors



Scientists design low-power, low-cost wearable wireless devices to continuously monitor patient's health indicators like ECG and EEG

In developing countries like India, the severe shortage of medical professionals, including doctors and nurses, is taking a toll on patients suffering from cardiovascular diseases and respiratory illnesses like pneumonia, as they need constant care and monitoring. Wearable devices that can continuously monitor vital parameters of such patients can save them from life-threatening complications. Recently, Prof Maryam Shojaei Baghini and her team from the Indian Institute of Technology Bombay (IIT Bombay) have [developed](#) wireless, reliable, robust, low-cost and low-power health monitoring system to monitor vital parameters of a patient like the heart rate, oxygen level and the electrical signals of the heart.

The system, called Bio-WiTel, is based on the concepts of telemetry—literally 'counting (parameters) from a distance'. Telemetric systems for monitoring health consists of a wearable sensor, which transmits data wirelessly to a nearby base station, in a frequency that is reserved for medical devices. Funded by the Ministry of Electronics and Information Technology (MeitY), Bio-WiTel is the first full bio-telemetry technology, with custom-built integrated circuit chip, available in India. This study was published in the IEEE Journal of Biomedical and Health Informatics.

Although many commercial wearables available today use Bluetooth to transmit this data, the radiations from such devices can be harmful and cause damage to human tissues if used for an extended period. Bio-WiTel, on the other hand, radiates less than 25 micro-watts of power and is thus harmless to the body when used continuously.

"Our motivation was to develop a hazardless bio-telemetry system, which is as per the recommendations of regulatory authorities, like the Wireless Planning and Coordination Wing in India and the Federal Communications Commission in the USA", says Dr Abhishek Srivastava who led the study during his PhD at IIT Bombay.

The Bio-WiTel system works in the frequency range of 401-406 MHz. It has a range of about three metres and can

transmit the data to a mobile phone, or a dongle connected to a computer. The data thus collected can be accessed over the Internet and hence can help remote monitoring of many patients.

The researchers custom-designed the transmitter, receiver, the communication scheme and the corresponding software of Bio-WiTel so that it had the desired features. They made essential design choices, such as the right data rate that fits the power budget, as a higher data rate would consume more power. They also had an optimal wireless modulation scheme that was robust and reliable. In this case, they used frequency modulation and a data rate that could carry 12 bio-signals simultaneously. They designed the transmitter and receiver as custom fabricated integrated circuits, instead of assembling discrete components, to make the system low cost and low power. Their detailed design considerations included the effect of the packaging and the circuit board, as well as the provision of test points for testing the circuits.

The researchers tested their prototype by transmitting data of the electrocardiogram (ECG) and photoplethysmogram (PPG) with a range of three metres. The ECG measures the electrical signals of the heart while the PPG indicates the pulse and the volume of blood pumped in some areas of the body. They also measured the power consumed by the transmitter, its sensitivity, the power consumption of the receiver and the maximum data and error rate of the system. The results were found to be satisfactory.

The study team also compared Bio-WiTel with seven similar wearable monitoring systems. They found that Bio-WiTel operated at a smaller voltage than others and consumed three to four times less power, although it had a comparable data rate. Its sensitivity was also higher, and its error rate was within the acceptable limits.

Apart from monitoring, the researchers believe that a system like Bio-WiTel can also help in the early diagnosis of many life-threatening diseases as monitoring such patients can be more comfortable. "A device like this will also help in getting rid of big instruments in hospitals environments, like the Intensive Care Units (ICUs), where vitals of the patients are regularly monitored", says Dr Srivastava.

Conference papers based on work related to Bio-WiTel have fetched the researchers the best paper award in the International Conference on VLSI Design in 2019 and a nomination for best paper in 2018. The researchers have filed three patents for Bio-WiTel and are hoping to see it commercialised very soon. "This work has opened up various interesting areas of research, like automation of the system to give real-time feedback to the patients and integration with a technology that draws energy from the patient's body, so that it could operate without a battery", concludes Dr Srivastava.

*Link to published work:*

[Bio-WiTel: A Low-Power Integrated Wireless Telemetry System for Healthcare Applications in 401–406 MHz Band of MedRadio spectrum](#)

## IIT Bombay At "Study in India" Fair In Nepal

A team from IIT Bombay participated in the '**Study in India**' fair organized in Nepal. The fair was held during May 22-23, 2019 in Kathmandu and May 25-26, 2019 in Birgunj. The 'Study in India' programme is an initiative by EdCIL, a Government of India company under the aegis of MHRD, specifically to provide a platform for leading universities and institutions from India to showcase their strength in higher education in all disciplines. Apart from IIT Bombay, there were around twenty other universities (both public and private) that participated in the fair. The IIT Bombay team consisted of



Mr. Arnab Das, Executive Officer (International Relations), Mr. Prasanna Hate, Administrative Superintendent (Academic Office) and Prof. Upendra Bhandarkar (Mechanical Engineering). The primary aim of the IIT Bombay team was to disseminate information regarding courses and admission procedures to the Masters and PhD programmes running in the Institute. A highlight of IIT Bombay's initiative is the scholarship (30 in number) made available by the Dean (IR) office to international students enrolling in PhD programs, subject to them meeting certain criteria. Past MTech students from IIT Bombay also visited the fair.

The team also visited **Tribhuvan University (in Kathmandu)**, presented a keynote talk at a graduate student symposium and acted as jury member to a poster competition in the Institute of Engineering Campus (Pulchowk), while Mr. Das and Mr. Hate interacted with the Vice Chancellor (Prof. T.R. Khaniya) at the Kirtipur campus to study the possibility of an MoU between IIT Bombay and Tribhuvan University. The team also met four PhD alumni of IIT Bombay, who are faculty members in various engineering streams at Tribhuvan University. At the Kathmandu fair, the second secretary (Education) of the Indian Embassy Mr. N.K. Jaiswal interacted with the IIT Bombay team. The Deputy Chief of Mission Mr. Ajay Kumar along with Mr. N.K. Jaiswal, Mr. C.P. Singh and Mr. A.K. Chakraborty from the Education wing of the embassy also interacted with the team from IIT Bombay. At Birgunj, the Consul General Mr. B.C. Pradhan interacted with the team. Overall, it was a fruitful visit and the team expects more applications at the Masters and PhD level from Nepali students.

### Institute Colloquium / Lectures

**Prof. T. Pradeep**, Deepak Parekh Institute Chair Professor and Professor of Chemistry, DST Unit of Nanoscience and Thematic Unit of Excellence, Department of Chemistry, Indian Institute of Technology Madras delivered Institute lecture on *"From materials to clean water: Science, Technology and Industry"* on June 6, 2019



### Awards and Distinctions

**Prof. Tarun Kant**, Department of Civil Engineering has been selected to receive "INSA Prof Brahma Prakash Memorial Medal 2019."

### Invited Talks

**Prof. U. A. Yajnik**, Department of Physics, delivered a seminar at TIFR Mumbai on April 18, 2019 titled *"More fundamental particles? A particulate explanation of Dark Energy concordant with Dark Matter"*



## Tinkerers' Laboratory: Helping Ideas Take Shape

Tinkerers' lab, conceptualized and built from the generous contribution and immense support of Institute's 1975 batch of alumni and later by our 1966 batch of alumni, is the best place in IIT Bombay for enthusiastic engineers.

It is a nearly 24/7 facility completely managed by students (**Mr. Manan Tayal** and **Mr. Lovekush Tak** are the presently the managers of this Lab) under the guidance of Faculty Champions **Prof. Ramesh Singh**, **Prof. Joseph John** and **Prof. Vivek Sangwan**.

Tinkerers' Lab houses machinery and equipment ranging from tiny resistors to sophisticated machines like 3D printer, CNC and Laser Cutter. Lab is a one stop solution for all technical works, such as hobby project, DIYs hack, gadget repair, course project or something that can revolutionize the world.

### Recent happenings in the lab are:

- A **Vertical Milling machine** was installed in Tinkerers Lab on March 31, 2019
- **Technovation**: This is a platform where promising and innovative ideas of students in the fields of autonomy and robotics, rural technology, campus sustainability and open domain can be shaped into reality through financial funding and support in the form of mentorship and industrial exposure from the Tinkerer's Lab and the alumni of IIT Bombay
- **Basic Solidworks session**: A SolidWorks workshop was conducted on May 4, 2019 to help the students, mainly freshmen, appreciate and use the globally used solid modeling computer-aided design and computer-aided engineering computer program and familiarise with the environment that is not covered in the regular coursework.

### Star-gazing sessions by Krittika

**Krittika** - the Astronomy club of the institute conducted a star-gazing session on May 31 in which residents of all age groups of our campus got to spectate the wonderful rings of Saturn and the moons of Jupiter. Similar sessions were held for the visiting interns.

### The Maths and Physics Club (MnP)

#### 1) Summer of Science

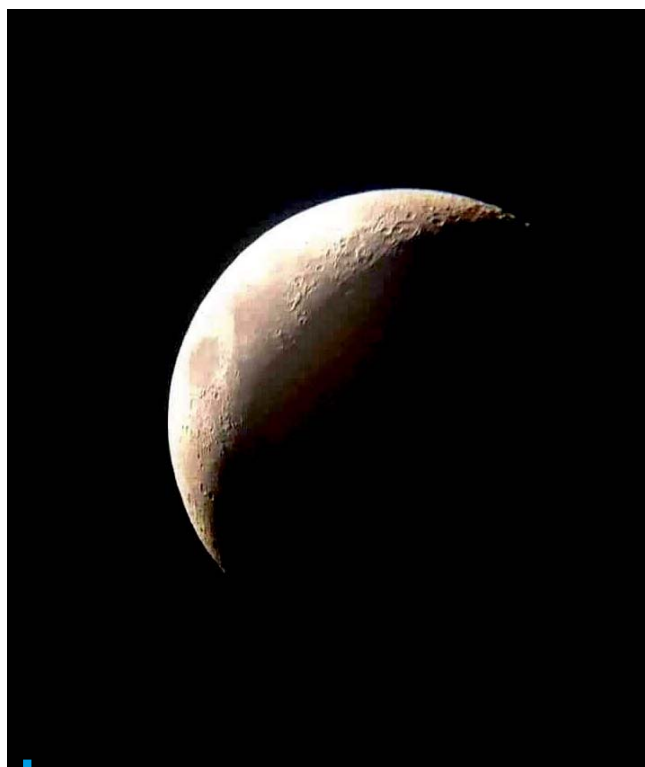
1) Launched on April 14, 2019, the 4<sup>th</sup> Summer of Science gives a platform to over 435 students explore various interesting topics like Computer architecture, Chemical kinetics, Financial Mathematics, Cosmology and many more under the guidance of over 120 mentors.

2) The MnP club was invited to give an overview of the various activities it conducts and presented an interactive session for the TEQIP (KITE), an initiative of the Ministry of Human Rights Development (MHRD) under which IIT Bombay is conducting several activities pertaining to pedagogy and educational outreach.

3) A talk titled 'My tryst with Physics' was organised on April 12, 2019 where Hrishikesh Iyer, fourth-year undergrad of the Engineering Physics department shared his journey from Quantum biology and astrophysics all the way to particle physics before finding his passion and settling on Electrical Engineering, enlightening on the opportunities in the institute.



TL managers and technicians with the newly installed Vertical Milling Machine



The image of the crescent phase of moon captured during the star gazing session.

## Reaching Over 50 Countries; Creating Over 1 Million Student Solar Ambassadors



The world in the current scenario has contradictory energy requirements. While we enjoy access to universal energy, over-exploitation of energy is causing catastrophic climate change. The world is already hotter by nearly 1°C. The world needs to adopt 100% renewable energy by 2050, in just 31 years according to the 2018 IPCC Report. Therefore, there is a need to relook the current energy generation scenario and its delivery mechanism.

**Prof. Chetan S. Solanki** from Department of Energy Science and Engineering, IIT Bombay said that this is the time to bring **“Energy Swaraj”** on the lines of Mahatma Gandhi’s epitomized philosophy of **“Gram Swaraj”**. Energy Swaraj is when the communities start generating and consuming their own energy needs. As a culmination of this yatra, a Students Solar Ambassador Workshop is organized wherein more than 1 Million Students will be given hands-on training in solar lamp assembly on 2nd October 2019. This event is based on a similar workshop conducted in 2018 wherein more than 1.30 lakh students across India participated in it.

This noble cause which is based on the Gandhian Principles of ‘non-violence,’ ‘Swaraj’ and ‘self-sufficiency’ was initiated on December 25, 2018 from Sabarmati Ashram, which has been synonymous to the Gandhian struggle for Independence. Prof. Solanki has been traveling extensively to various countries to propagate the message of ‘Energy Swaraj.’ Till date, he has traveled to over 16 countries, and more than

60 countries are already on-board to conduct the Students Solar Ambassador Workshop. Recently, Prof. Solanki has visited various countries of Europe and America, generating much interest in this global mega-event. He also visited over six cities in the United States of America, wherein the Indian Embassy at Washington DC supporting the cause. He has traveled five continents of North America, Europe, Asia, Africa, and the Middle East.

In the new set of events, Prof. Solanki has embarked on the March to the Sun! March 150 million kilometers! Incredible!, isn’t it? That is precisely what GGSY team is trying to do by walking till 2nd Oct. to celebrate the 150th birth anniversary of Mahatma Gandhi. Not only that one walks, every kilometer of walk results in Rs. 10 being pledged for the cause from the sponsors. The App, “Impact - Walk-Jog-Run for Fitness & Charity”, available on play store, helps one keep track of walking. The world is going to walk 150 million km in 150 days involving 150 countries to celebrate the 150th birth anniversary of Mahatma Gandhi. This march was launched on 5th May 2019, with 150 people marching from Nariman Point to Girgaum Chowpati, being spearheaded by Prof. Solanki.

Prof. Solanki explained the relevance of this event, *“This symbolic walk of 150 million kilometres to celebrate 150th Birth Anniversary of Mahatma Gandhi is to remind ourselves that life on Earth is sustained by solar energy, and we need to bring ‘Energy Swaraj’ for sustainability of life on Earth.”*



## Notification

**Prof. Neela Nataraj**, Department of Mathematics, has been appointed as the Professor-in-Charge, IIT Bombay-Monash Research Academy w.e.f. April 12, 2019

**Prof. Ramesh Singh**, Department of Mechanical Engineering has been appointed as Professor incharge of National Centre for Aerospace Innovation and Research (NCAIR) w.e.f. April 12, 2019

**Prof. Milind Atrey**, Department of Mechanical Engineering, has been appointed as the Dean R&D w.e.f. May 1, 2019

**Prof. Santosh Gharpure**, Department of Chemistry has been appointed as Professor-Incharge of Society of Innovation and Entrepreneurship (SINE) w.e.f. May 1, 2019

**Prof. A. M. Pradeep**, Department of Aerospace Engineering, has been appointed as the Associate Dean R&D w.e.f. May 1, 2019

**Prof. Umesh Bellur** has been appointed as the Head, Department of Computer Science and Engineering w.e.f. May 1, 2019

**Prof. T. Kundu**, Department of Physics, has been appointed as Dean (Student Affairs) w.e.f. May 16, 2019

**Prof. George Mathew**, Department of Earth Sciences has been appointed as an Associate Dean (Student Affairs) w.e.f. May 16, 2019

**Prof. Rohit Srivastava** has been appointed as the Head, Department of Biosciences and Bioengineering w.e.f. May 22, 2019

**Prof. Mukul Chandorkar**, Department of Electrical Engineering has been appointed as Head of Application Software Cell w.e.f. May 29, 2019

**Prof. Manasa R. Behera**, Department of Civil Engineering has been appointed as an Associate Warden, Hostel No.3, w.e.f. May 30, 2019

**Prof. Shishir K.Jha**, SJM School of Management has been appointed as the Head, Centre for Policy Studies w.e.f. May 31, 2019

**Prof. Nandita Madhavan**, Department of Chemistry has been appointed as the Warden, Hostel No. 11 w.e.f. June 1, 2019

**Prof. Achintya K.Dutta**, Department of Chemistry has been appointed as an Associate Warden, Hostel No. 4 w.e.f. June 3, 2019

**Prof. Ateeque Malani**, Department of Chemical Engineering has been appointed as the Warden, Hostel No.7 w.e.f. June 10, 2019

**Prof. Harish Phuleria**, Department of Environmental Science and Engineering has been appointed as the Warden, Hostel. No. 1 w.e.f. June 12, 2019

**Prof. P.J. Guruprasad**, Department of Aerospace Engineering has been appointed as an Associate Warden, Hostel No. 1 w.e.f. June 12, 2019

**Prof. Viren Menezes**, Department of Aerospace Engineering has been appointed as the Professor-in-Charge of the Placement Office w.e.f. June 17, 2019

**Prof. Arghadeep Laskar**, Department of Civil Engineering has been appointed as the Associate Warden, Hostel No. 16 w.e.f. June 24, 2019

**Prof. Ashutosh Kumar**, Department of Bioscience and Bioengineering has been appointed as the Warden, Hostel No. 8 w.e.f. June 25, 2019

## Appointments

**Dr. Monika Bhattacharjee** has been appointed as Assistant Professor in the Department of Mathematics w.e.f. May 30, 2019



**Ms. Anisha Mathews** has been appointed as Student Counselor (Scale-I) w.e.f. June 6, 2019



**Ms. Lavina Lewis** has been appointed as Student Counselor (Scale-I) w.e.f. June 10, 2019



### Retirements on April 30, 2019

**Prof. Sabbir N. Merchant,**



Department of Electrical Engineering retired after 38 years of service

**Mr. Bhanudas M. Dhanve, Sr.**



Multi Skilled Assistant, Estate Office retired after 40 years of service

**Mr. Pralhad V. Kharat, Sr. Multi**



Skilled Assistant, Estate Office retired after 39 years of service

**Mr. Ashok V. Mawade, Multi**



Skilled Assistant A, IDC School of Design retired after 37 years of service

**Ms. Kanta M. Dube, Multi Skilled**



Assistant C, Academic Section retired after 29 years of service

### Retirements on May 31, 2019

**Prof. B.A. Ravi Poovaiah, IDC**



School of Design retired after 36 years of service

**Prof. C.P. Rao,**



Department of Chemistry retired after 31 years of service

**Mr. K.S. Anilkumar, PS to**  
Director, Director Office retired after 38 years of service



**Mr. Dinkar B. Kamble, Assistant**  
Library Officer, Central Library retired after 33 years of service



**Mr. T.M. Surendran,**  
Superintendent, Registrar Office retired after 37 years of service



**Mr. M.R. Nair, Sr. Administrative**  
Assistant, Gymkhana retired after 36 years of service



**Mr. Ratan S. Jadhav, Sr.**  
Mechanic, Electrical Maintenance retired after 38 years of service



**Mr. Balwant S. Kamble, Sr.**  
Multi-skilled Assistant, Administration retired after 37 years of service



**Mr. G.M. Garud, Sr. Security**  
Guard, Audit Section retired after 38 years of service

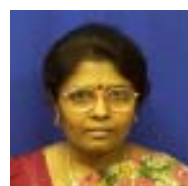


### Retirements on June 30, 2019

**Ms. Madhavi Y. Kulkarni, Sr.**  
Trained Graduate Teacher, Campus School retired after 35 years of service



**Ms. Sridevi D.S, Sr. Post Graduate**  
Teacher (Scale I), Campus School retired after 29 years of service



**Mr. Gopal I Solanki, Sr. Multi-**  
skilled Assistant, Department of Physics retired after 39 years of service



**Mr. Duryodhan P. Jawale, Sr.**  
Multi-skilled Assistant, Campus School retired after 38 years of service



**Mr. Virendra Kambl, Sr. Multi-**  
skilled Assistant, Department of Chemistry retired after 37 years of service



**Mr. Gautam T. Kamble, Sr.**  
Attendant, Department of Mechanical Engineering retired after 36 years of service



**Ms. Kamala V. Solanki, Multi-**  
skilled Assistant B, Hospital retired after 31 years of service



**Ms. Alka S. Shinde, Multi-skilled**  
Assistant A, Hospital retired after 4 years of service



CEP courses scheduled during July - August - September 2019				
Duration	Days	Course Title	Course Coordinator	Department
<b>July 2019</b>				
<b>Open Programmes :</b>				
24-7-2019	3 days	Opensource Cfd: Basic Gopalakrishnan	Prof. Shivasubramanian	Mechanical Engineering
24-7-2019	3 days	Sustainable Businesses - A Modern Approach	Prof. Yogendra Shastri	Chemical Engineering
25-7-2019	3 days	Expo Cd Communication Design For It And Media Professionals	Prof. B.A. Ravi Poovaiah	Industrial Design Centre
27-7-2019	30 days	Xvii Batch Of Executive Program In Management (Specialisation In Marketing & Hrm (EPM Mhrm)	Prof. S. Bhargava	School Of Management
<b>August 2019</b>				
<b>Open Programmes :</b>				
1-8-2019	3 days	Chemical Process Risk Assessment	Prof. Sandip Roy	Chemical Engineering IDC School of Design
22-8-2019	3 days	Expo Pdi Exposure To Product Design And Innovation	Prof. B.A. Ravi Poovaiah	IDC School of Design
26-8-2019	2 days	3d Printing	Prof. K.P. Karunakaran	Mechanical Engineering
<b>In House Programmes :</b>				
5-8-2019	1 months	Training In Continuous Flow Processes	Prof. Anil Kumar	Chemistry
<b>September 2019</b>				
<b>Open Programmes :</b>				
17-9-2019	5 days	Protein Aggregation: Posing Human Diseases To Formulation Issues	Prof. Samir Maji	Bioscience and Bio Engineering
18-9-2019	11 days	Monsoon Course On Hci 2019	Prof. Anirudha Joshil	DC School of Design
26-9-2019	3 days	Expo Infodesign Information Structuring, Architecture And Visualization	Prof. B.A. Ravi Poovaiah	IDC School of Design
26-9-2019	3 days	Theory And Technology Of Silicon Solar Cells	Prof. Anil Kottantharayil	Electrical Engineering
<b>GIAN Courses :</b>				
18-9-2019	5 days	Mathematics In Perspective	Prof. K. Ramasubramanian	Humanities & Social Sciences





In the  
Wilderness



**Photo Credit :**  
**by Mr. Batu S. Kambale,**  
Hospital, IIT Bombay

## salt'n pepper

by Dr. Arun Inamdar

"...can't get this..England won the World Cup without defeating anyone, but going by the ICC rules, which they didn't follow strictly!"



A Cricket Fan's Dilemma!

