



January - February - March 2022

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INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

Education Minister Shri. Dharmendra Pradhan Inaugurates New Hostel 17 At IIT Bombay



Minister of Education and Minister of Skill Development and Entrepreneurship Shri. Dharmendra Pradhan along with Director of IIT Bombay Prof. Subhasis Chaudhuri; Chairperson, BoG, IIT Bombay Dr. Pawan Goenka and other dignitaries during ribbon cutting ceremony of Hostel-17, IIT Bombay

The Honourable Minister of Education and Minister of Skill Development and Entrepreneurship, Government of India, **Shri. Dharmendra Pradhan** inaugurated the new Hostel 17 at Indian Institute of Technology Bombay campus on March 27, 2022. The Minister also unveiled the plaque and planted a tree in the hostel campus.

The Chairperson, Board of Governors, IIT Bombay Dr. Pawan Goenka, Director of IIT Bombay Prof. Subhasis Chaudhuri and other key IIT Bombay functionaries were also present on the occasion.

In his address, **Prof. Subhasis Chaudhuri** said, "The IIT system thrived under the patronage of the Government of India and our alumni have excelled in all forms of career paths they have chosen. I am sure that this state-of-the-art hostel will help in further improving the campus ambience for the students in the campus".

Chairperson, BoG, IIT Bombay **Dr. Pawan Goenka**, in his address said, "We are very fortunate to have Shri. Dharmendra Pradhan as the Education Minister for the inauguration".

Congratulating IIT Bombay for the newly-added hostel facility on campus, the Chief Guest **Shri. Dharmendra Pradhan** said, "In a residential education campus, quality of student, the content of study, quality of teaching





rendered by the faculty and the ambience play a major role in moulding the students' career. I feel ambience helps to create positivity and positivity gives rise to innovative thoughts". He urged IIT Bombay to become a global solution provider for all societal problems and IIT Bombay's students to become employers rather than being employees.

Minister of Education and Minister of Skill Development and Entrepreneurship Shri. Dharmendra Pradhan unveiled the plaque to mark the inauguration of the new Hostel 17 of IIT Bombay. Director of IIT Bombay Prof. Subhasis Chaudhuri; Chairperson, BoG, IIT Bombay Dr. Pawan Goenka and Institute functionaries are also seen.

Features of H17:

- 1. Ground + 9 Floor
- 3. Regular rooms: 1059 Nos.
- 5. Time taken for construction: 40 months
- 2. Total no. of rooms: 1115
- 4. Single rooms for differently-abled: 50 Nos.
- 6. Double rooms with toilet for differently-abled: 6 Nos.

Facilities include:

- Gymnasium: 1 No.
- Wifi & LAN connection in each room (iii)
- First Aid Room: 1 No. (v)
- (vii)
- (ix) Store Room: 1 No.
- (xi)
- Student Council Room: 1 No. (viii)
- CCTV systems Fire fighting system (sprinkler piping) provided in each room (xii)
- (ii) Common Computer Room: 1 No.
- (iv) Music Room: 1 No.
- Common laundry: Washing & drying (40 Nos.) (vi)
- Place for students' break-out session: 72 Nos.
- Public Address (PA) system (for emergency) (x)



Minister of Education and Minister of Skill Development and Entrepreneurship Shri. Dharmendra Pradhan addressing the audience during the inauguration ceremony of IIT Bombay Hostel-17

More than 200 people attended the event including faculty, staff and students. The entire event was broadcast live on the Institute's Official YouTube Channel: https://www.youtube.com/c/IITBombayOfficialChannel



IIT Bombay Celebrates 63rd Foundation Day

- 'Prof. S. C. Bhattacharya Award for Excellence in Pure Sciences' for 2021 conferred on Prof. Jugal K. Verma
- 'Prof. H. H. Mathur Award for Excellence in Applied Sciences' for 2021 conferred on Prof. Jayesh Bellare
- 13 Distinguished Alumnus Awards and 2 Young Alumni Achiever Awards



(L- R) Dean (Alumni and Corporate Relations) Prof. Ravindra Gudi, Director Prof. Subhasis Chaudhuri, Chief Guest Dr. Anil Kakodkar and Dean (Research and Development) Prof. Milind Atrey on the dais during the celebrations

The Indian Institute of Technology Bombay celebrated its **63rd Foundation Day** on March 10, 2022 by honouring the distinguished contributions of its faculty members as well as alumni who have contributed eminently and made their mark in their chosen fields of profession.



Screengrab of teaser 'IIT Bombay Gen Zero Women Initiative' released on 63rd Foundation Day Celebrations of IIT Bombay

The Foundation Day ceremony started with a welcome address by the Director of IIT Bombay **Prof. Subhasis Chaudhuri**. In his welcome address, Prof. Chaudhuri highlighted the key milestones achieved by the Institute in the past 63 years. Prof. Chaudhuri said, "The path to glory of an Institute is through the hardwork and dedication of its faculty, staff and students, but the signs of glory are the achievements of its alumni. We are delighted at the success of our alumni".





Chief guest of the function Dr. Anil Kakodkar, Chancellor, Homi Bhabha National Institute and Chairman, Rajeev Gandhi Science & Technology Commission and Member, Atomic Energy Commission addressed the audience

The Chief Guest of the function Dr. Anil Kakodkar, Chancellor, Homi Bhabha National Institute and Chairman, Rajeev Gandhi Science & Technology Commission and Member, Atomic Energy Commission, in his address said, "In context with the current scenario in the country about the education and its role in national development, institutions like IIT Bombay and higher learning institutions at the apex level must be a kind of minienvironment that represents the best that you want to see in the country".

"We also need to focus on bridging the gap between India and most advanced countries as well as bridging the gap between the divides in the country, because while the country's economy is growing, the disparity is also growing equally fast. I think it is reaching alarming levels. So while we talk about technology at its highest level, we also should talk about leveraging knowledge and technology to bridge the divides that exist within the country— rich-poor, urban-rural and bridging that gap is equally important," he added.



Prof. Jugal K. Verma, Department of Mathematics, receiving 'Prof. S.C. Bhattacharya Award for Excellence in Research in Pure Sciences



Prof. Jayesh Bellare, Department of Chemical Engineering, receiving 'Prof. H.H. Mathur Award for Excellence in Research in Applied Sciences'

The Institute honoured its select alumni for their achievements in diverse fields ranging from academics, research and entrepreneurship. The 'Prof. S.C. Bhattacharva Award for Excellence in Research in Pure Sciences' was conferred on Prof. Jugal K. Verma, Department of Mathematics, for his research in investigating the algebraic structures attached to points of algebraic varieties such as curves and surfaces defined by polynomials. These investigations are useful to understand their geometric properties. The 'Prof. H.H. Mathur Award for



Excellence in Research in Applied Sciences' was conferred on **Prof. Jayesh Bellare**, Department of Chemical Engineering, for developing cryoelectron microscopy techniques and novel nanostructured materials for biomedical devices, including resorbable implants for regenerative medicine and establishing their utility by first-in-human clinical trials.

The Institute recognised select alumni of IIT Bombay, who have excelled in their field of work and made the Institute proud with the **Distinguished Alumnus Awards (DAA)**. The awardees this year include:

- Mr. Hari Mohan Bangur [B.Tech., 1975, Chemical Engineering]
- Mr. Vasant Vasant Limaye [B.Tech., 1978, Mechanical Engineering]
- Mr. Rammohan Varadarajan [B.Tech., 1982, Chemical Engineering]
- Mr. Vijay Iyengar [B.Tech., 1982, Chemical Engineering]
- Mr. Suhas Narayan Mehta [B.Tech., 1983, Civil Engineering]
- Dr. Chandrasekhar Narayanaswami [B.Tech., 1986, Electrical Engineering]
- Prof. Sharada Srinivasan [B.Tech., 1987, Engineering Physics]
- Dr. Rajeev Rastogi [B.Tech., 1988, Computer Science and Engineering]
- Prof. Navakanta Bhat [M.Tech., 1992, Electrical Engineering]
- Dr. Premnath Venugopalan [B.Tech., 1993, Chemical Engineering]
- Prof. Harmit Singh Malik [B.Tech., 1993, Chemical Engineering]
- Dr. Keshab Panda [Ph.D., 1996, Aerospace Engineering]
- Mr. Munish Moudgil [Dual Degree (B.Tech.+ M.Tech.), 1996, Electrical Engineering]

The Institute also conferred the **Young Alumni Achiever Awards (YAAA)**, which are intended to recognize the contributions of the alumni who have made outstanding achievements in their chosen field of work and are below 40 years of age. These awards were instituted in the year 2011. The awardees for this year's Young Alumni Achiever Awards 2022 are:

- Prof. Aditya G. Parameswaran [B.Tech., 2007, Computer Science and Engineering]
- Dr. Shahaji More [Ph.D., 2013, Metallurgical Engineering and Materials Science]

Besides the distribution of the Institute awards, the audience also witnessed the **handing over of Hostel 5 (on video)** - renovated under the joint initiative called 'enhancement of oldest hotels' between the Institute and IIT Bombay Alumni Association (which has been possible by a robust fund-raising exercise by the H5 alumni of the Institute across batches) and **release of a teaser of 'IIT Bombay Gen Zero Women'** - initiated in 2021 to profile the professional and personal journeys of 30 IIT Bombay alumna (women alumni).

In addition, a video of the 'Stay Connected' initiative by the Alumni and Corporate Relations office was showcased during the Foundation Day celebrations. This initiative has been implemented to encourage alumni to update their contact details on a dedicated portal created by the IT team of Dean (ACR) Office, so that they can receive updates about the Institute's latest developments.

The function was held in physical presence of the awardees, their family members, Institute functionaries and invited dignitaries and was transmitted live on social media channels for others.



DAA and YAAA awardees along with Director of IIT Bombay Prof. Subhasis Chaudhuri (C), Dean (Alumni and Corporate Relations) Prof. Ravindra Gudi (2nd from L), Dean (Research and Development), Prof. Milind Atrey (5th from R) and Chief Guest Dr. Anil Kakodkar (6th from R)



IIT Bombay Conducts Presentation By Rakesh Mathur Research Awardees

The **Office of Dean (Research and Development)** organised a presentation by the recipients of the Rakesh Mathur Awards for Excellence in Research - 2021 of their work for the IIT Bombay academic community on March 16, 2022. The presentations were focussed on the significance of the work leading to these research awards. **Prof. Milind D. Atrey**, Dean (**Research and Development**) gave introductory remarks about the programme.

Details of presentations by the awardees are as follows:



Speaker:

Prof. Jugal K. Verma,Department of Mathematics

Award:

Recipient of Prof. S.C. Bhattacharya Award for Excellence in Pure Sciences

Presentation Title:

"Multivariate Polynomial Equations and Mixed Volumes of Newton Polytopes"

Speaker:

Prof. Jayesh Bellare,

Department of Chemical Engineering

Award:

Recipient of Prof. H.H. Mathur Award for Excellence in Applied Sciences

Presentation Title:

"Resorbable Nanomaterials and Nanomedicines for Healthcare"





261 Students Receive Degrees During Institute's Interim Session of 60th Convocation Ceremony



(L- R) Chairperson of the Board of Governors, IIT Bombay Dr. Pawan Goenka, Chief Guest Dr. Krishna M. Ella and Director Prof. Subhasis Chaudhuri on the dais during the 60th interim convocation of the Institute

The Indian Institute of Technology Bombay (IIT Bombay) awarded degrees to 261 students at the interim session of its 60th Convocation on February 26, 2022. This session was the first event that was held in the physical presence of degree recipients, the guests and invitees at IIT Bombay since lockdown two years ago.



Chairperson of BoG, IIT Bombay Dr. Pawan Goenka addressing the audience

During the interim session of the 60th convocation, 284 degrees were awarded, which include 189 PhD, 20 Dual Degrees [10 (M.Tech.+ Ph.D.) and 10 (M.Sc.+ Ph.D.)] were awarded to 209 students. In addition, 95 degrees including 29 B.Tech., 2 B.Des., 1 BS, 10 M.Tech., 2 M.Des., 2 M.Phil., 6 M.Sc., 5 Ms by Research, 7 PGDIIT, 6 DD (B.Tech.+ M.Tech.) and 5 (E-MBA) degrees were awarded to 68 students.

The degrees were conferred upon those students who have completed all the requirements during the period from August 2021 to January 2022 and have





Chief Guest Dr. Krishna M. Ella urged students to be innovators

requested for the degree to be awarded earlier than the 60th Convocation. The function was presided by Padma Bhusan **Dr. Krishna M. Ella**, Chairman and Managing Director of Bharat Biotech and inventor of Covaxin as the Chief Guest, in the presence of Dr. Pawan Goenka, Chairperson of the Board of Governors, IIT Bombay and Prof. Subhasis Chaudhuri, Director, IIT Bombay among others.

Addressing the graduates, **Dr. Ella** emphasized the importance of clinical research and asked the students, "to be an innovator and not copy, start with a startup and be a lifelong knowledge seeker,

keen observer and be passionate of solving societal problems".

The Chairperson of the Board of Governors, IIT Bombay **Dr. Pawan Goenka** in his address, said, "IITs have convinced me that the calibre of researchers and innovators in India is as good as anywhere else in the world. I urge you to translate that calibre into scientific discovery that will make the world a better place to live in and to never go too far from Science and Technology. This is where the action is and is going to continue to be".



Director of IIT Bombay Prof. Subhasis Chaudhuri conferring degree to one of the graduating students during the 60th interim convocation of the Institute



Graduating students taking pledge during the 60th interim convocation of the Institute

Congratulating the graduating students and their families, Director of IIT Bombay Prof. Subhasis Chaudhuri said, "This being the first fully physical event in the campus in last two years, it was a delight to see the sea of joy among the graduates and their relatives in the Convocation Hall. I am sure that our graduates will work hard to solve our societal problems".

Apart from the students and faculty members of the Institute, the ceremony was attended by the families and friends of the students.



Institute Celebrates 73rd Republic Day





Republic Day celebrations at the Institute Gymkhana ground

The Indian Institute of Technology Bombay celebrated the **73rd Republic Day** on January 26, 2022, following the COVID-19 rules and guidelines, with a minimum number of attendees maintaining social distance.

The celebration began with the unfurling of the National Flag by the Institute's Director **Prof. Subhasis Chaudhuri** at the Institute's Gymkhana ground. IIT Bombay security staff and NCC gave a salute to the National Flag. Prof. Subhasis Chaudhuri addressed the gathering and shared his best wishes with the IIT Bombay community on the occasion of Republic Day. The entire programme was broadcast live on the Institute's YouTube channel.

Prof. Chaudhuri awarded certificates to winners of an **essay writing competition** on "**Independent India@75:Way Forward**" held during **Vigilance Awareness Week 2021**.

Chief Security Officer Lt. Col. R. K. Mishra (Retd.) along with security guards Mr. R. D. Shinde, Mr. K. B. Kumbhar, Mr. S. A. Ramane and Mr. D. B. Yadav from the Security Section were presented cash awards and a certificate (physically) for their bravery in a fire rescue operation. Mr. Manivannan P., Jr. Administrative Assistant, Centre of Studies in Resources Engineering (CSRE) was presented with extraordinary devotion and sincerity towards the maintenance and safe-keeping of CSRE all through the COVID-19 period. Best NCC cadets were also felicitated at the event.

Other security guards and staff from IIT Bombay were felicitated with appreciation certificates online for COVID-19 during the event.

Winners of Essay Competition (Vigilance Awareness Week 2021)

First Prize Prof. Subrato Banerjee Department of Humanities and Social Sciences Second Prize Dr. Varsha Kosta Mahesh IIT Campus School & Jr. College Third Prize Mr. Jitendra Kumar Jain Central Library

Students

First Prize

Mr. Anand Bhaskar

B. Tech., Department of Mechanical Engineering

Second Prize

Mr. Sanket Mishra

Ph.D., Industrial Engineering and Operations Research

Third Prize

Mr. Krushnakant Bhattad

B. Tech., Department of Computer Science and Engineering



Establishment Of Chair Professorship In Quantitative Finance



IIT Bombay established a **Chair Professorship** to support education and research in Quantitative Finance, an interdisciplinary field at the intersection of finance, statistics and technology. This Chair Professorship has been set up with courtesy of the generous donation made by **Mr. Ram Kelkar** through the IIT Bombay Heritage Foundation. The Chair will be titled "**The Kelkar Family Chair in Quantitative Finance**".

The vision of the Chair includes imbibing the fundamentals of Quantitative Finance within the bright minds of students at IIT Bombay, inviting faculty experts and researchers in the domain of Quantitative Finance from across the globe, developing and evolving the Institute as one of the Centres of Excellence in the world and being a pioneer in the area of Quantitative Finance, Financial Engineering and Risk Management using Financial Derivatives.

IIT Bombay Introduces A New Academic Programme - Master Of Arts By Research (M.A. Res.)

Indian Institute of Technology Bombay is introducing a new and innovative programme, Master of Arts by Research (M.A. Res.) This programme, offered by the Department of Humanities and Social Sciences (HSS), will emphasise what are broadly called 'research' skills that are important not only in academia, but also in the workplace. Students will learn to integrate diverse sources of information, learn to read, think and write critically, and learn to apply conceptual, analytical and methodological frameworks. The programme will provide students with a wide choice of courses after common courses in the first semester, to enable a more student-driven approach to learning and to support disciplinary crossovers.

The two-year programme has a sanctioned strength of 20 seats and will begin in July 2022 with three

broad specialisations: (a) Human Sciences;

- (b) Linguistics, Literature and Performance; and
- (c) Sociology. Admissions will be based on scores of the recently introduced GATE-XH paper as well as an admissions test (MAAT) and interview. Talking about the new academic programme, the Director of IIT Bombay **Prof. Subhasis Chaudhuri** said, "IIT Bombay emphasises strong analytical skill development among students in all academic programmes. The proposed (M.A. Res.) will additionally strengthen the learning-by-doing concept amongst the entrants in the new programme".

The Head of the HSS Department **Prof. Kushal Deb** said, "The Department is looking forward to the new programme especially given its potential for interdisciplinary teaching and the opportunity to train a new cohort of students in research".

For more information, please visit the Institute's academics page link on the https://www.iitb.ac.in/newacadhome/masterofArts.jsp

IIT Bombay Participates From India On World Engineering Day



On March 4, 2022, the Indian Institute of Technology Bombay participated in the World Engineering Day 24 HRS LIVE programme, the first-ever 24 HRS LIVE broadcast of a Global UNESCO Day, celebrating a global streaming of engineering activities from across the world from Sydney to Costa Rica and everything in between.

IIT Bombay was the sole Institute from India to participate in this one-of-its-kind programme. Our Institute presented some of the path-breaking and critical work that we are doing and it was streamed on the homepage – https://worldengineeringday.net/.

The event was hosted by the World Federation of Engineering Organizations (WFEO), its members and partners. The event kicked off in Sydney, Australia and WFEO connected with selected locations in a number of regions as they celebrated engineers and World Engineering Day. As the sun moved around the world, so were the celebrations featured online.

We thank our Distinguished Alumnus Dr. Marlene Kanga for coordinating this activity.



IIT Bombay Observes Marathi Bhasha Samvardhan Pandharwada









Glimpses of cultural programme during Marathi Bhasha Samvardhan Pandharwada celebration

The Indian Institute of Technology Bombay celebrated **Marathi Bhasha Samvardhan Pandharwada (Marathi Language Conservation Fortnight)** during January 14-28, 2022 by organising a handwriting competition and a cultural programme, virtually. The objective of the celebration was to preserve and practice Marathi language.

This year, the handwriting competition received an overwhelming participation of over 70 entries from the staff, faculty and students. The competition was judged by **Prof. G.V. Sreekumar**, IDC School of Design, IIT Bombay.

Winners of Handwriting Competition

Prize:	Name:	
First Prize:	Mr. Umesh Pirankar, Jr. Mechanic, Electrical Maintenance Division and Ms. Samiksha Yadav, Student, Department of Civil Engineering	
Second Prize:	Mr. Prathamesh Sawant, Student, Department of Civil Engineering	
Third Prize:	Ms. Siddhi Gaikwad, Student, Department of Metallurgical Engineering and Materials Science	

Participants of various age groups from IIT Bombay community performed different art forms during the cultural programme held on January 27, 2022, highlighting the Marathi culture. A video recording of the online event is available at:

https://archive.library.iitb.ac.in/items/show/5097



International Women's Day Celebrations At IIT Bombay



The Gender Cell of the Institute organised two events on the occasion of International Women's Day and as part of Azadi ka Amrit Mahotsav.

The first event was a screening of the film 'Picture a Scientist' on March 4, 2022 in the Lecture Hall Complex. This documentary film chronicles the journey of three women scientists as they discuss their careers, the barriers they faced and their efforts to make science more diverse, equitable and inclusive. The screening was followed by a live discussion facilitated by faculty members in the Institute. Several students enthusiastically participated in the discussion.

The second event was held online on March 9, 2022. Director of IIT Bombay **Prof. Subhasis Chaudhuri** appreciated the efforts and initiatives of the Gender

Cell to enhance gender inclusion and sensitization. The Director also announced the launch of a mandatory online training program 'Gender in Workplace' for all employees at IIT Bombay.

A promo video of the employee training program is available at :

https://www.gendercell.iitb.ac.in/promo-gender-workplace-employee.mp4

A video recording of the online event where the Director launched the employee training program is at: https://www.gendercell.iitb.ac.in/InternationalWomensDay2022.mp4

An overview of the IIT Bombay's participation in the GATI program was presented followed by an interactive online workshop on gender, sexuality and consent in the 'phygital' world conducted by the organisation *Point of View*. The workshop was attended by over 100 students.

DSSE Hosts "Celebrating Women As Changemakers" 2022

The Desai-Sethi School of Entrepreneurship, IIT Bombay, hosted the annual International Womens' Day Celebrations (online) under CGI's Women In Entrepreneurship (WIE) programme on March 8, 2022.

The session kick-started with a power-packed keynote session by Ms. Saroja Yeramilli, Founder and CEO at Melorra, with the theme of 'Self-made women' wherein she talked about her journey in raising a 24-million-dollar round from leading VCs of the country. This was followed by a panel discussion by IIT Bombay alumni entrepreneurs on their entrepreneurial journeys.



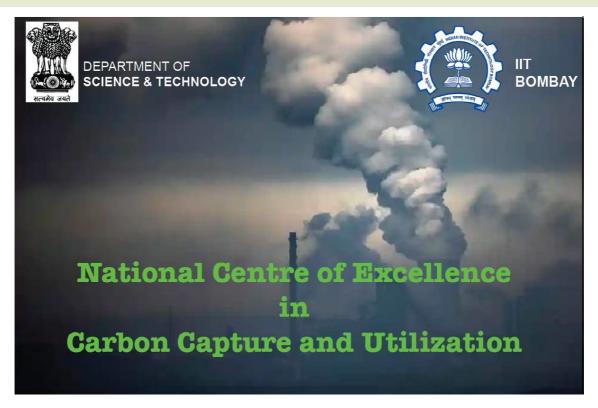
Panel discussion of IIT Bombay alumni women entrepreneurs with host Prof. Shobha Shukla, Department of Metallurgical Engineering and Materials Sciences

Ms. Shivangi Nadkarni from *Arrka* talked about her journey as a cybersecurity entrepreneur and emphasized the importance of wearing multiple hats as an entrepreneur. The highlight was the closing keynote delivered by **Ms. Gayatri Yadav**, Chief Marketing Officer at *Sequoia*. She stressed the importance of building a personal brand for entrepreneurs.

The event concluded with the announcement of the WiE-IDEAS programme offering seed grants and mentoring support to women entrepreneurs.



Institute Establishes India's First NCoE-CCU



Indian Institute of Technology Bombay has announced the establishment of the National Centre of Excellence in Carbon Capture and Utilization (NCoE-CCU), with support from the Department of Science and Technology (DST), Ministry of Science and Technology, New Delhi. The NCoE is the country's first such centre funded by the Government of India, formally sanctioned in December 2021.

Carbon Capture, Utilization and Storage (CCUS) is a crucial climate change mitigation solution that is constantly advancing in its technology readiness levels for operational feasibility and economic viability. A cobenefit application of CCUS is enhanced oil and gas recovery, whereby CO2 is used to increase natural resource production while a good part of the CO2 is stored in the subsurface. At COP-26, held in Glasgow, UK last year, the Hon'ble Prime Minister **Mr. Narendra Modi** delivered the five 'Panchamrit' nectar elements to deal with climate challenge, including our commitment to become a net-zero emissions nation by 2070. CCUS has often been slated as the apt technological solution to decarbonize the existing and forthcoming energy-intensive industries.

The Director of IIT Bombay **Prof. Subhasis Chaudhuri** said that the decarbonization of 'hard-to-abate' industries would require outstanding efforts to achieve the net-zero goals. "*IIT Bombay has undertaken leadership to address several science and engineering grand challenges and develop their end-to-end solutions. The National Centre shall explore and unlock the potential of CCU technologies to lead India in this potential sunshine industrial sector to evolve as a circular carbon economy. Last year, the IIT Bombay team brought laurels to the country by winning the prestigious X-PRIZE Award, supported by the Elon Musk Foundation for 'demonstration of carbon dioxide removal', announced at the Sustainable Innovation Forum at COP-26," he said.*

The National Centre will act as a multi-disciplinary, long-term research and development, collaboration and capacity-building hub in the area of carbon capture and utilization. The NCoE will be nodal for state-of-the-art research and application-oriented initiatives in the field of CCUS. The cross-disciplinary training through the NCoE will develop a deep understanding and problem-oriented approach in next-generation researchers through outreach and capacity-building programmes.

The National Centre will facilitate capturing and mapping current R&D and innovation activities in the domain and develop a network of researchers, industries and stakeholders in the domain with coordinated and synergized research between partnering groups and organizations. The NCoE has founding partnerships with several academic and research institutes (such as other IITs, universities and CSIR labs) and industries (petroleum, cement, power, steel, etc.).



Celebrating 51 Years Of Mood Indigo

IIT Bombay hosted its 51st annual cultural festival Mood Indigo (Mood-I) on January 29 and 30, 2022 online. The 51st edition highlighted a theme, "**An Ethereal Odyssey**" based on the underlying concept of the spirit of adventure and travel.

Celebrities and acclaimed artists including singers Kailash Kher, B Praak; Indian cricketer Gautam Gambhir; stand-up comedian Abhishek Upmanyu; music composer Salim Merchant; Member of Parliament Mrs. Smriti Irani, Chef Sanjiv Kapoor; actor Tusshar Kapoor; Indian YouTuber Prajakta Kohli; Member of Parliament Dr. Shashi Tharoor and many more graced the festival with their presence online.

Mood Indigo also hosted the **Homecoming Nite** event on March 13, 2022 at Gymkhana grounds where Bollywood personalities such as **John Abraham**, **Jacqueline Fernandez**, **Rakul Preet Singh**, **Jubin Nautiyal**, **Sanam**, **Vishal Mishra** and stand-up comedian **Biswa Kalyan Rath** among others attended.





Popular Indian stand-up comedian Biswa Kalyan Rath captured the audience with his witty humour



Singer Kailash Kher made audience groove with his soulful performance at the Mood Indigo's Popular Nite





Singer Jubin Nautiyal enthralling the audiences with his soulful voice



Actors Ahsaas Channa, Naveen Kasturia, Shivankit Singh, Chaitanya Kumbhakonum and Revathi Pillai celebrated 10 years of TVF journey



Chef Sanjyot Keer; Co-Founder and CEO, Monk Entertainment Viraj Sheth; Podcaster and Entrepreneur Raj Shamani; YouTuber Nikunj Lotia from BeYouNick fame and Digital Content Creator Ranveer Allahbadia at the MI Creators Panel



Member of Parliament Dr. Shashi Tharoor interacting with students during Mood Indigo's "Eloquence"



Member of Parliament Mrs. Smriti Irani interacting with students during Mood Indigo's "Eloquence"



Bollywood actors John Abraham, Jacqueline Fernandez and Rakul Preet Singh promoting the movie Attack



The Homecoming Nite concert by Indie rock/pop band Sanam was a huge hit



E-Cell Organizes 17th Edition Of E-Summit



Winners of Eureka! and Eureka! GCC with Team E-Cell and Team GII at Dubai Marina

The 17th edition of **E-Summit**, IIT Bombay's annual entrepreneurship summit, was a grand conclave organized by E-Cell during February 5-6, 2022 in hybrid mode. The theme for this year was "**A Trailblazing Realm**" aimed at providing a platform to stimulate discussion on ideas that possess the potential to revolutionise the world.



Mr. Vijay Shekhar Sharma, Co-founder & CEO of Paytm speaking with the audience at E-Summit 22

The E-summit saw a plethora of events, competitions, meetups and a lot more events, catering to audiences across the board including investors, entrepreneurs, mentors, corporates, enthusiasts and students.

TTMM (The Ten Minute Million), Networking Arena (NA), Seedstars and Eureka! were some of the events that were conducted offline. While TTMM and NA were held in Mumbai, Eureka! (for gulf countries) was held in Dubai as a part of The Dubai Expo 22. Other events that were hosted

online included *CCC* (*Content Creation Conclave*), *Internship and Job Fair*, *Entre-MUN* and numerous others, each specifically designed to cater to a certain audience.

A series of speaker sessions with esteemed personalities included **Mr. Aman Gupta**, Co-founder and CEO of *BoAt*; **Mr. Anupam Mittal**, Founder and CEO of *Shaadi.com* and **Ms. Namita Thapar**, ED at *Emcure Pharmaceuticals* from Shark Tank India who interacted with the students and entrepreneurs. Other speakers

included **Byju Raveendran**, Founder and CEO of *Byju's*; **Mr. Vijay Shekhar Sharma**, Founder and CEO of *Paytm*; **Mr. Kunal Shah**, Founder and CEO of *CRED*; **Mr. Varun Alagh**, Co-founder of *Mama Earth*; **Mr. Arjun Malhotra**, Co-founder of *HCL* and many more leaders who have created a significant impact around us.

A range of competitions held during the E-Summit such as Money Heist, IPL Auction, Ace The Case, Get Set Pitch, Bid and Build and Boardroom were open to all.



A founder pitching her startup at The Ten Minute Million



IIT Bombay's Abhyuday Hosts Its Annual Social Festival



Poster of Manhole, a 3D animated short film

Abhyuday, the social body of IIT Bombay, organized its 9th annual edition of the social festival **Socio-Weekend** during January 22- 23, 2022 based on the theme "**A Melioristic Paradigm**".

The fest encompassed various events and activities like Samwad – group discussion ranging from social to general issues, IAS talk – Insight into Governance, Importance of Financial Literacy, Driving To A Greener Future- Electric vehicles, emotional intelligence workshop, health check-up camp, author talk, plantation drive, menstrual hygiene workshop and several competitions and campaigns.

The event was graced by the presence of eminent personalities such as Mr. Sriram Iyer, Chief Editor, Business Insider India; Mr. Sanjeev Saxena, President - Automotive Technology, Schaeffler India; Mr. Shiv Khera, author of You Can Win; Dr. Era Dutta, Consultant Psychiatrist, Founder - Mind Wellness; Ms. Suhani Mohan, Co-founder and CEO of Saral Designs; and Mr. Rishi Garg, IAS Officer, among many others.

KV Powai's Alumnus Receives Award For His Initiative 'Feeding From Far'



Mr. Paritosh Pant distributes meals for the needy

Mr. Paritosh Pant, an alumnus of Kendriya Vidyalaya, IIT Powai and campus resident, has received several awards like AB de Villiers, Plan India Impact Awards 2021 under the 'Best Community Volunteer' category and Better India #COVIDSoldiers Award for his initiative 'Feeding From Far'. His initiative has been recognized for distributing meals during the pandemic to the residents of Govandi, the homebound migrant workers leaving Mumbai and the people of floodravaged Chiplun in the year 2021 through the model of the community-kitchen, care package and dry ration.

The campaign started in Govandi, Mumbai, which has the least average life expectancy in the city, hosts Mumbai's oldest and largest waste dumping ground and has the biggest concentration of daily wage workers. Started in April 2020, Feeding From Far is amongst India's top 5 crowd-funded campaigns, which kick-started with the help of an army of 250 on-ground and 50 off-ground volunteers. The group has fed 30 lakh meals and the campaign is still going on. Feeding From Far has reached out to more than 11,500 backers worldwide and received donations of INR 4.75 crores so far.

Donation link - http://bit.lv/FeedingFromFar



Series Of Panel Discussion On "Changing Role Of Chemical Engineers"



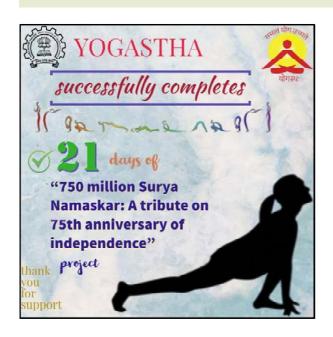
Former Deputy Director (AIA) Prof. A.K. Suresh speaks at an online panel discussion on "The Evolution and Future of Energy"

The Indian Institute of Technology Bombay held an online panel discussion on "The Evolution and Future of Energy" as a part of the series "Changing Role of Chemical Engineers" organized by the Department of Chemical Engineering (ChE) in collaboration with the Department's alumni on January 15, 2022.

The discussion was focused on energy transition from conventional fossil fuels while addressing challenges such as carbon emissions and climate change. It also focused on the solutions available today, the advancements and investments in technology that we need to make the transition, the role of chemical engineers in this transition and how IIT Bombay can lead and shape these trends.

The event was engaging and insightful, with more than 180 attendees.

Yogastha Participates In 750 Million Surya Namaskar Challenge



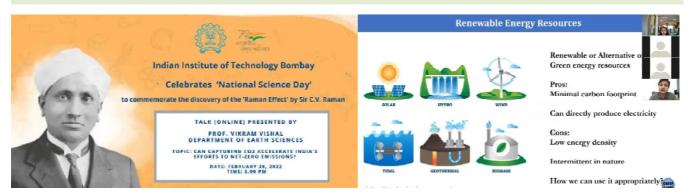
Yogastha, a yoga and wellness club of IIT Bombay participated in the "750 million Surya Namaskar: A Tribute on the 75th anniversary of Independence" Challenge to commemorate the 75th anniversary of Independence in an online mode following COVID-19 pandemic protocols. The National Yogasana Sports Federation, Ministry of Youth Affairs and Sports, Government of India, decided to run this project, 750 million Surya Namaskar in 30 states, involving 30,000 institutes and 3 lakh students, to celebrate the 75 years of Indian Independence as a part of Azadi Ka Amrit Mahotsav.

The participants performed 13 rounds of Suryanamaskar every day for 21 days, with instructions and facilitation by Yogastha core team members. The sessions started on January 15, 2022 and the whole activity was successfully completed to achieve the target of 21 days. In addition to Suryanamaskar, the participants also practiced sukshmavyayam and yoga-nidra, to ensure a robust daily practice that would benefit the mind and the body as a whole.

The event witnessed enthusiastic participation from all the members of the IIT Bombay community including faculty, students, staff and their family members. The participants practiced all the exercises and performed *Surya Namaskar* with full determination and zeal.



National Science Day



IIT Bombay celebrated the **National Science Day (online)** on **February 28, 2022** to commemorate the discovery of the 'Raman Effect' by **Sir C.V. Raman**. For this discovery, Sir Raman was awarded the Nobel Prize in Physics in 1930. As part of this celebration, the Institute organised a lecture on "*Can capturing CO2 accelerate India's efforts to net-zero emissions?*" by **Prof. Vikram Vishal**, Department of Earth Sciences for the IIT Bombay community on February 28, 2022.

Desai-Sethi School Of Entrepreneurship Hosts Town Hall 2022

On January 29, 2022, the Desai-Sethi School of Entrepreneurship (DSSE) hosted its Town Hall 2022 (online) with the objective of raising levels of engagement with stakeholders and sharing an update on the school's progress and its plans ahead. DSSE's stakeholders include key IIT Bombay dignitaries and functionaries, its pool of faculty including adjunct faculty, associate faculty and PGC committee, its donors and benefactors, its students and startup founders, IIT Bombay entrepreneurship ecosystem partners like SINE, e-Cell and IIT Bombay Centres of Excellence (COEs), friends and well-wishers of the School.



Padma Vibhushan **Dr. Anil Kakodkar** was the Guest of Honour. Other key dignitaries included Director **Prof. Subhasis Chaudhuri**, Dean (International Relations) **Prof. Amit Agarwal**, **Mr. Bharat Desai**, Chairman and Co-founder of *Syntel Inc.* and IIT Bombay Alumnus; **Prof. Anand Kusre** (Former Professor-in-Charge, DSSE) and IIT Bombay alumni from the Class of 1990. The event was well-attended by 65 people including IIT Bombay faculty members and over 30 start-up founders.

The event started with IIT Bombay's vision for entrepreneurship by Institute Director Prof. Subhasis Chaudhuri, a progress update of the School by Prof. B. Ravi (Professor-in-Charge, DSSE) and a keynote on 'Science and Society' by Dr. Anil Kakodkar. Other events included a panel discussion on 'Nurturing Deep Tech Ventures' by Prof. Devdip Purkayastha (with panelists Prof. Parag Bhargava, Prof. Rajkumar Hirwani and venture capitalist Dr. Ajay Sethi); a fireside chat about 'Sustaining and Scaling DSSE and the Entrepreneurship Ecosystem' with Prof. Raj Jaswa and Mr. Bharat Desai. The agenda also included a section called 'DSSE Appreciates' hosted by Prof. Anu Narasimhan where DSSE students and startup founders were appreciated and recognized.



IIT Bombay Professor Receives National Award For Best Electoral Practices



Technical Advisor Group receiving award on National Voters Day

Prof. G. Siva Kumar, Department of Computer Science and Engineering, IIT Bombay and a member of the Technical Advisory Group (TAG), received the national award for best electoral practices in the "Special Category Award" for IT initiatives.

He was presented with the award on National Voters Day, January 25, 2022 by the Election Commission of India, in the presence of Mr. Kiren Rijiju, Hon'ble Minister of Law and Justice; Mr. Sushil Chandra, Chief Election Commissioner; Mr. Rajiv Kumar and Mr. Anup Chandra Pandey, Election Commissioners.

Prof. Rajat Moona, Director, IIT Bhilai, is the current Chairman of TAG. Other TAG members include **Mr. H. Krishnamurthy,** Chief Research Scientist (Retd), IISc Bangalore and **Mr. R.S. Mani,** Deputy Director-General of NIC.

State-Of-The-Art Classroom And Lab Facilities Inaugurated At IIT Bombay

On February 14, 2022, Dr. Hemant Kanakia, an IIT Bombay alumnus (B.Tech., Electrical Engineering, 1975) and founder of Maker Bhavan Foundation, inaugurated the Collaborative Classroom (CC) and Experiential Learning Laboratory (ELL) at the Department of Electrical Engineering (EE) at IIT Bombay. These facilities will help instructors design and execute active and hands-on learning exercises, which have been shown to improve learning outcomes for students.



IIT Bombay alumnus Dr. Hemant Kanakia inaugurating state-of-the-art classroom and lab facilities at Department of Electrical Engineering (EE), IIT Bombay

The CC will facilitate active learning in the courses at the Department of EE and has a capacity of 60 students. The ELL will facilitate hands-on learning and has a capacity of 50 students. The ELL has a maker-area with double-paned glass walls, that houses equipment such as 3D printers, laser cutter, vacuum forming, desktop CNC milling machine, 3D scanner, lathe and hand-operated power tools for machining and making fixtures for projects.

Both the facilities have been funded by the Maker Bhavan Foundation, which partners with science and engineering colleges of India to provide access to world-class facilities, resources and expertise towards designing and supporting programs that integrate new methods of teaching and learning into their existing curriculum. The Institute's collaboration with Maker Bhavan contributes to IIT Bombay's continued mission of providing state-of-the-art facilities to its students to augment their learning and growth. IIT Bombay is deeply grateful to Dr. Hemant Kanakia for his generous donation.



New Centre Of Ageing And Neurodegenerative Diseases At The Institute



IIT Bombay alumnus Mr. Sharad Sanghi (fourth from left) during the MOU signing along with Prof. Subhasis Chaudhuri, Director, IIT Bombay (third from right) and Prof. Ravindra Gudi, Dean (Alumni and Corporate Relations) (fifth from right)

IIT Bombay signed a Memorandum of Understanding (MOU) on February 18, 2022 with its distinguished alumnus **Mr. Sharad Sanghi** (B. Tech., Electrical Engineering, 1989) for the setting up of a Centre of Ageing and Neurodegenerative Diseases at the Institute. Mr. Sanghi, who is currently the Managing Director of NTT Ltd. in India, has committed a donation of a generous amount towards the Centre which will be called "**Sunita Sanghi Centre of Ageing and Neurodegenerative**" **diseases (SCAN)**, in memory of his late mother Mrs. Sunita Sanghi.

Speaking about this collaboration, **Prof. Subhasis Chaudhuri**, Director, IIT Bombay said, "As the Indian population ages and its growth slows down, the burden of neurodegenerative diseases will increase.

Early detection and slowing the onset of such diseases will be key levers towards effective therapy and this Centre will go a long way in helping us overcome this challenge. Mr. Sanghi's donation will enable us to embark on this journey and we are deeply grateful to him for his generosity".

Speaking about the initiative, **Mr. Sharad Sanghi**, Managing Director, NTT Ltd. in India said, "Neurodegenerative diseases are increasingly becoming a challenge to the senior citizens of our society and threatening to deprive them of a quality life in their golden years. The onset of such ailments is a trauma for the affected person, as well as their loved ones. This contribution is a tribute to my late mother Mrs. Sunita Sanghi and an effort towards enabling the planned Centre of Ageing and Neurodegenerative Diseases at the Institute. This Centre is an endeavour towards ensuring that neurodegenerative disorders in the elderly are detected and treated in a timely manner for better outcomes".

Institute Alumnus Mr. Arpit Mathur Donates Generous Amount For C-MInDS



IIT Bombay alumnus Mr. Arpit Mathur (B.Tech., and M.Tech., Computer Science, 2006) and currently the Sub Portfolio Manager at Exoduspoint Capital, has contributed generously towards the Institute. Mr. Mathur is one of the 'Founding Donors' of The Centre for Machine Intelligence and Data Science (C-MInDS). The 'Founding Donors' contribute towards the funding requirements of IIT Bombay's strategic initiatives. Mr. Mathur has also instituted the 'Renuka Mathur Endowed Scholarship' in the memory of his mother. This scholarship will support girl students of IIT Bombay. Mr. Mathur has kindly committed to contribute over \$ 1 Million to the Institute, towards these causes.

C-MInDS was set up in February 2020 with an objective to build a world-class Centre in the field of Artificial Intelligence and Data Science. The Centre aims to engage in application-oriented research projects that try to solve large-scale challenges faced by society and industry in various sectors including healthcare, education, transportation amongst others.

Mr. Mathur has chosen to donate to C-MInDS as he believes that India needs to be at the forefront of any advances in AI and ML and that IIT Bombay is leading that effort by setting up C-MInDS.

Mr. Mathur's contributions will facilitate IIT Bombay's vision to build a world-class research and academic Centre in strategic areas, empower bright young minds and enable its aspiration to be among the top 50 institutions in the world in the next decade.



IIT Bombay Alumnus Mr. Raj Nair Donates Generously For BSL3 GMP Lab



(Left to right) Ms. Latha Venkitachalam, CEO, IIT Bombay Alumni Association (IITBAA); Mr. Raj Nair, a distinguished IIT Bombay alumnus and presently the Chairman at Avalon Consulting; Prof. Subhasis Chaudhuri, Director, IIT Bombay; Prof. Tom Mathew, Dean, Infrastructure Planning and Support (IPS)

On January 27, 2022, the Indian Institute of Technology Bombay signed a Memorandum of Understanding (MoU) with its Distinguished Alumnus Mr. Raj Nair (B. Tech., Metallurgical and Material Science Engineering, 1971) and its fellow alumni organisation IIT Bombay Alumni Association (IITBAA) for the construction of a sophisticated Biosafety Level 3 (BSL3) Good **Manufacturing Practice (GMP)** Lab at the Department of Biosciences and Bioengineering (BSBE). The MoU was signed by IIT Bombay's Director Prof. Subhasis Chaudhari, the donor Mr. Raj Nair and IITBAA's CEO Ms. Latha Venkitachalam. Mr. Nair has committed to donate a substantial undisclosed amount to IIT Bombay for this purpose and also program manage its

implementation with help from **Mr. Ajit Jawle**, a fellow alum and expert in GMP systems. Mr. Nair has offered to also guide the researchers on the commercial aspects of the go-to-market strategy using his experience as a strategy consultant.

The proposed facility located at the BSBE department is expected to facilitate the progression of breakthrough translational research from the laboratory stage to the market by manufacturing materials required for human clinical trials. This facility will be used by the researchers in BSBE and other departments on campus to manufacture nanomaterials, tissue-engineered grafts, CAR-T constructs, drug nanoparticles, etc. for conducting clinical trials. Several IIT Bombay faculty members specialise in these areas and the GMP lab can help shorten the time it takes to get their life-saving solutions to the market. Mr. Nair's vision for this initiative is that India and IIT Bombay become a place where the output of research will result in bold and impactful solutions for the masses that facilitate a 10X improvement - better, cheaper and faster - than the existing solutions anywhere in the world, so that thousands of patients suffering from difficult-to-treat diseases will benefit.

Speaking about this partnership, **Prof. Subhasis Chaudhuri**, Director, IIT Bombay said, "There was a critical need for a GMP lab at the Institute's BSBE department and we are extremely grateful to Mr. Nair for tending to it. Mr. Nair's donation will serve to further our vision of making lab-produced products easily available in the market and facilitate real-world practical applications that are faster, better and beneficial to the masses. The establishment of this lab is a step towards our stated objective of being among the top 50 institutions in the world".

Speaking on this collaboration, **Mr. Raj Nair** said, "I felt that the best way to give back to my alma mater is to raise the level of ambition of the faculty and students drastically by working towards goals that might seem hard to reach for ordinary people. The best way to give to the needy would be to bring to them highly affordable breakthrough medical solutions to save lakhs of people by facilitating translation research efforts".

Prof. Rohit Srivastava, Head and **Prof. Himanshu Patel**, Chair Professor of the Department of Biosciences and Bioengineering at IIT Bombay spoke about GMP Lab being an important addition to the BSBE facility on campus and said, "We thank Mr. Raj Nair for his generosity and his vision of bringing indigenous lab researched products to market through the establishment of this GMP facility. This is a first-of-its kind facility at any of the IITs in India and will help shorten the time it takes to conduct Clinical Trials for products from the Department of Biosciences and Bioengineering and rest of the Institute".



IIT Bombay Alumnus Mr. Deepak Satwalekar Donates Generously For New Design Lab



IIT Bombay signed a Memorandum of Understanding (MoU) with its distinguished alumnus, **Mr. Deepak M. Satwalekar** (B. Tech – Hons, Mechanical Engineering, 1971), on March 10, 2022, for the establishment of a state-of-the-art Design and Making Lab at the Institute. Mr. Satwalekar has committed to donate a generous amount for the setting up of the lab that will provide hands-on training to first-year engineering students with the best-in-class machinery, thereby unlocking new and immersive ways of learning.

The lab will be named after Mr. Satwalekar and his wife, **Mrs. Maya Satwalekar**, to acknowledge their philanthropic donation and will be located on the first floor of the Pre-Engineered Transit Building on campus. The lab will allow students to gain access to top-of-the-class equipment for mechanical and electronic work including 3D printers, laser cutters, the latest workstations with CAD (Computer-aided Design software) and a complete electronics setup.

Series Of Video Podcasts On 'My Take On EdTech'

The interdisciplinary Programme in Educational Technology, IIT Bombay organized a video podcast on My Take on EdTech, with focus on Statewide Implementation, as a part of an interaction series called 'My Take on EdTech', on March 17, 2022. **Mr. Ambrish Kumar**, Project Director at Isha outreach, IAS, IIT Bombay alumnus was the invited speaker.

Comparing the world of educational technology to classroom teaching, Mr. Kumar said, "Teachers can never become obsolete as the primary role of a teacher is to inspire other human beings and bring in the joy of learning, which can't be replaced by technology".



Mr. Amrish Kumar sharing his views in a video podcast on 'My take on EdTech'

Mr. Kumar shared a range of examples from working in Isha Sanskriti School and Department of Digital India Land Records, for employment of technology towards education and social welfare. Teaching English as mother tongue to children through gestures and digitising the maps of land records of several villages in Rajasthan employing thousands of team members were some of the effective integration of technology described by him.

He mentioned that native human intelligence should be nurtured rather than suppressed through technology. Thus making it all about technological systems and taking away the live human element should not be the goal. He accentuated the desire to abolish hierarchy created only on the basis of academic curriculum in order to enable the growth of human beings in the best possible way and generate leaders.

The podcast was well-attended by faculty, alumni, students and post-doctoral fellows from various departments of IIT Bombay.

Hindi-Cell Organizes Hindi Workshop

The Hindi Cell organized a Hindi Workshop for the Institute staff in physical mode on March 24, 2022. **Dr. Harshmohan Krishnatray** a former Professor, Department of Official Language, Ministry of Home Affairs, Govt. of India was the speaker of this workshop.

The workshop included a brief overview of the Official Language Policy of the Government of India and an exercise based on official terminology and phrases. The objective of the workshop was to encourage the staff members to use Hindi in official work.



Book Launch By Student Wellness Centre



(L- R) Dean (Student Affairs) Prof. T. Kundu, Director Prof. Subhasis Chaudhuri, author Ms. Amita Tagare and Deputy Director (Academic and Infrastructural Affairs) Prof. S. Sudarshan during the book launch

Director of IIT Bombay **Prof. Subhasis Chaudhuri** launched 'The Handbook of Hand-holding and Healing, authored by **Ms. Amita Tagare**, former Incharge of the Student Wellness Centre on March 9, 2022. Ms. Tagare has over 30 years of experience in counselling students at IIT Bombay. The handbook is a compilation of Ms. Tagare's journey through a variety of student-related concerns and the formation of a support structure through combined efforts of many functionaries. It serves as a ready handbook for easy implementation by all stakeholders.

Prof. Subhasis Chaudhuri, Director of IIT Bombay; **Prof. S. Sudarshan**, Deputy Director (Academic and Infrastructural Affairs); **Prof. T. Kundu**, Dean (Student Affairs) and **Prof. Soumyo Mukherji**, former Dean (Student Affairs) spoke words of encouragement for the book and appreciated Ms. Tagare's efforts. They also suggested wider dissemination of the book amongst faculty, parents and other IITs. Ms. Tagare was also urged to bring out an expanded edition of the book.

Talk On Crisis Management



The Student Wellness Centre of IIT Bombay, organized a talk on "Managing Crisis in life" for students under its mental health webinar series *Vartalap* on January 29, 2022.

The speaker for the session was **Dr. Shishir Palsapure**, a practising psychotherapist, an international trainer and a renowned motivational speaker. Dr. Palsapure laid emphasis on when to seek immediate support for self and others in crisis and how to normalise struggles in life.

The event was broadcasted on the official Youtube Channel: https://www.youtube.com/c/CoreCounsellingTeamIITB

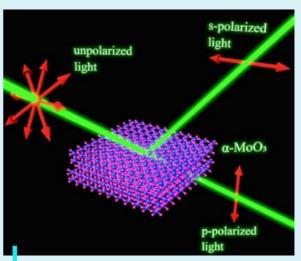


Research in focus

"Good Vibrations" In An Exotic Material Enable Key Technology For Hot Infrared Optical Components

Ever wondered how those temperature scanners that we see everyday from malls to hospitals, actually work? These devices employ infrared technology - the long wavelength part of light, which we cannot see with bare eyes. Atoms are always moving and their speed determines the temperature of an object. These moving atoms emit radiation not as a visible light but as heat and for most everyday temperatures, these emitted wavelengths are quite long.

Infrared technology is everywhere. Infrared cameras are designed to record thermal gradients, where these cameras can be mounted on drones and used to monitor and security of the wildlife sanctuaries. Infrared imaging can be beneficial in medical science, just like ultrasound and X-ray imaging, where it can help in the diagnosis of abnormalities in the underlying tissues through variation of temperature of the skin. Further, polarization-resolved IR imaging can be even more valuable as it adds contrast between the objects and the ambient, which is crucial for medical science and security applications. During the



Schematic representation of a van der Waals' crystal (α -MoO3) based polarizer. Unpolarized light with random distribution of electric field interacts with a thin film of α -MoO3 and reflects the light with one polarization state and transmits the light with its orthogonal polarization state.

recent CoVID-19 pandemic, infrared imaging has proven vital for detecting and containment of global pandemic outbreaks. Climate change is an extremely important global challenge and this year's Nobel prize in Physics was awarded for the reliable prediction of global warming. In this context, infrared technology can help track changes in the climate by enabling monitoring of not only the temperatures of the ocean and landmass but also the composition of the atmosphere.

Despite all these cool applications, one of the major challenges in infrared technology is the miniaturization of the devices (such as waveplates, polarizers and others) so that the size of the conventional platforms can be reduced up to a handheld device and even to chipscale. To address this, researchers at the Laboratory of Optics of Quantum Materials (LOQM), Indian Institute of Technology Bombay, with their collaborators at Massachusetts Institute of Technology (MIT), have successfully demonstrated an exotic property of extremely thin materials called hyperbolicity for making a robust ultrathin polarizer. Their findings are published in the journal Advanced Optical Materials, Wiley-VCH. The research article also has **Mr. Anuj Kumar Singh** from IIT Bombay and **Prof. Nicholas Fang** and **Dr. Sang Hoon Nam** from MIT as coathors.

"Light waves have electric fields oscillating in different directions. Hyperbolicity in our grown crystals makes them behave like a shiny metal for electric field oscillating in one direction and like an insulator such as glass for the perpendicular direction", explains **Dr. Saurabh Dixit**, an equally contributing lead author of the work. This property of hyperbolicity arises from the peculiar direction in which the atoms of this exotic material molybdenum oxide vibrate. The researchers demonstrated that if we choose the geometry intelligently, one can exploit these vibrations to make ultrathin infrared optical components which are not only high performance at room temperature but also show robustness at higher temperatures! "This is a very important result because when these devices are deployed on the field, one cannot maintain laboratory-like temperature conditions", remarks **Mr. Nihar Ranjan Sahoo**, equally contributing lead author of the work.

Such materials have importance in designing low-cost, miniaturized and flat IR optical components and devices. "In this wavelength range, typical components are made by making nanoscale or micron scale patterns, where complex and expensive lithography techniques are required. In this work, we demonstrate that these exotic crystals grown in our lab can provide these functionalities as it is without the associated fabrication complexity. This is the first time we show that these infrared devices can withstand high temperatures. Our current focus is on chip-scale integration and achieving even larger operational bandwidth than the current demonstration", says **Prof. Anshuman Kumar**, lead principal investigator of the research project, commenting on the technological significance and future directions of this research.

Article written by : Dr. Saurabh Dixit (Post Doctoral Fellow) and Mr. Nihar Ranjan Sahoo (Ph.D. student) Department of Physics

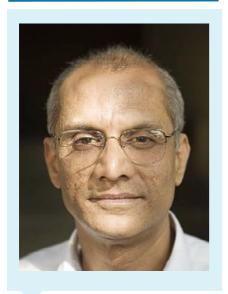
Link to published work : https://onlinelibrary.wiley.com/doi/10.1002/adom.202101919





The Koita Centre for Digital Health, IIT Bombay hosted the Ayushman Bharat Digital Mission (ABDM) Training Program for State Joint Directors in partnership with the National Health Authority (NHA) at the Indian Institute of Technology Bombay on March 10 and 11, 2022.

Institute Colloquium / Lectures



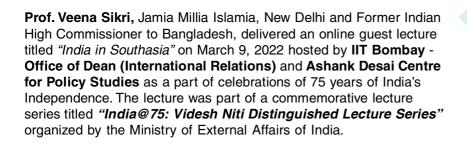
Dr. Colin Gonsalves, a Senior Advocate, Supreme Court and Founder, Human Rights Law Network (HRLN), delivered an Institute lecture titled "Constitution Lecture" on January 22, 2022.



The Koita Centre for Digital Health, IIT Bombay had organised a talk by **Dr. C. S. Pramesh**, the Director of Tata Memorial Hospital, Mumbai titled *"Reducing Inequities In Cancer Care"* on March 9, 2022.



Prof. Dilip Mookherjee, Professor of Economics, Boston University, delivered an Institute Lecture titled *"Reassessing Decentralization"* on March 9, 2022.







Awards and Distinctions

Prof. Ruchi Anand, Department of Chemistry; Prof. Samir K. Maji, Department of Biosciences and Bioengineering; Prof. Sunita Sarawagi and Prof. Sudarshan S, Department of Computer Science and Engineering, have been admitted as Fellows of Indian Academy of Sciences (IASc), Bengaluru

Prof. Arnab Dutta, Department of Chemistry, has been selected as a member of the prestigious Indian National Young Academy of Sciences (INYAS), for the period of five years (2022-2026)

Prof. Narayan Rangaraj, Industrial Engineering and Operations Research (IEOR), has been selected as a Fellow of the Operational Research Society of India (ORSI)

Prof. Niranjan Balachandran and Prof. Manoj K. Keshari, Department of Mathematics, have been invited to join the Editorial Board of "Proceedings - Mathematical Sciences", published by the Indian Academy of Sciences

Prof. Abhijit Chatterjee, Department of Chemical Engineering, has been invited to join the editorial board of Modeling and Simulation in Material Science and Engineering (MSMSE) as a member from Dec-2021 to 2023 Editorial board - Modelling and Simulation in Materials Science and Engineering - IOPscience

Prof. Rajkumar S. Pant, Department of Aerospace Engineering, has been elevated to the rank of Fellow of The Aeronautical Society of India

Prof. Debabrata Maiti, Department of Chemistry, has been selected for the Sun Pharma Science Foundation Research Awards 2021- Pharmaceutical Sciences

Prof. Bhaskaran Muralidharan,

Department of Electrical Engineering, has been selected on the Editorial board of Materials for Quantum Technology (from the prestigious IOP Publishing)

Prof. Sunita Sarawagi, Department of Computer Science and Engineering, has been selected as Fellows of Association of Computing Machinery (ACM) 2021

Prof. Subhananda Chakrabarti,

Department of Electrical Engineering, has been elected to the rank of Fellow of

the Institution of Engineering and Technology (IET), UK

Prof. Rashmi Gupta, Department of Humanities and Social Sciences, has been appointed as an Associate Editor for Humanities and Social Sciences Communication (*Nature Portfolio* journals)

Prof. Asmita Mukherjee, Department of Physics, has been elected as the non-US/Non-European member of the EIC user group steering committee member

Prof. Avik Bhattacharya, Centre of Studies in Resources Engineering, has been selected to serve as the Editor-in-Chief for IEEE Geoscience and Remote Sensing Letters (GRSL)

Prof. Bakul Rao, Centre for Technology Alternatives for Rural Areas, has been invited to join the Editorial Board of *Development Engineering* - a journal published by Elsevier

Prof. Gopal Dixit, Department of Physics, has been invited to join the Youth Editorial Board of Journal *Ultrafast Science* (from the prestigious Science -American Association for the Advancement of Science (AAAS) publisher)

Prof. Arpita Mondal, Department of Civil Engineering, has been selected to feature in the second edition of the 'She Is' book series by the Office of Principal Scientific Adviser (PSA), Government of India and the Red Dot Foundation featuring 75 Women in STEAM (fields of Science, Technology, Engineering, Arts and Mathematics) in India

Prof. Sudarshan Kumar, Department of Aerospace Engineering has been selected as the Fellow of The Combustion Institute, USA, for his outstanding contributions to applied research in the field of Flameless/ mild combustion and accurate measurement of laminar burning velocity, high pressure and temperature conditions.

Prof. Biswabandan Panda, Department of Computer Science and Engineering, has been selected as one of the recipients of the "2022 Qualcomm Faculty Award" for his contributions to microarchitecture research

Prof. Prasanna Gandhi, Department of Mechanical Engineering and his team have received the "Technology Translation Award" from SERB (SERB- TETRA) for their work titled "Method Apparatus for dynamic amplification of motion with frictionless precision guidance"

Prof. Mythili Vutukuru, Department of Computer Science and Engineering, has been selected as one of the recipients of the "2022 Qualcomm Faculty Award" for her contributions to systems research

Invited Lectures/ Paper
Presentation/ Publications/
Participation in Conferences

Mr. Vidit Mohan, a Ph.D. student and Prof. Rohan Chinchwadkar, Shailesh J. Mehta School of Management, published a paper titled "Technology Business Incubation: A Literature Review and Gaps", in International Journal of Global Business & Competitiveness, 2022, pp.1-11

Ms.Vrunda Dave, under the supervision of Prof. S. Krishna, Department of Computer Science and Engineering, has been selected as a recipient of the Honorable Mention for ACM India Doctoral Dissertation Award (DDA) 2022 for her thesis titled "On Some Fundamental Problems and Applications of Word Transducers". The award recognizes the topmost doctoral dissertation(s) in Computer Science and Engineering from a degree-awarding institution based in India

Prof. U. A. Yajnik, Department of Physics, delivered a lecture (online) at Universite de Montreal, Canada on October 8, 2021 and at Ashoka University, New Delhi on October 20, 2021 titled "Matter-anti-matter asymmetry of the Universe: is there a unified theory?"

Prof. U. A. Yajnik, Department of Physics, delivered a lecture in a seminar "PAAI in the sky: a hypothesis for the Dark sector in cosmology" at the IIT Bombay - Hiroshima joint workshop on Neutrino Physics and related topics during October 25 - 27, 2021

Prof. U. A. Yajnik, Department of Physics, delivered a Plenary Talk on "Emergent Dark Energy" at Anomalies international conference at IIT Hyderabad November 11, 2021

Prof. U. A. Yajnik, Department of Physics, delivered a Colloquium lecture titled "The birth of the Standard Model of Cosmology: pioneering contributions of Steven Weinberg" at TIFR, November 17, 2021



Conferences/ Workshops/ Webinars/ Symposiums

SciPy India 2021

Free and Open Source Software for Education (FOSSEE), IIT Bombay organized SciPy India 2021 (Online) during January 21-22, 2022. The SciPy India conference is aimed at providing opportunities to spread the use of the Python programming language in the Scientific Computing community in India. It provided a unique opportunity to interact with the "Who's who" of the Python for Scientific Computing fraternity and learn, understand, participate and contribute to Scientific Computing using Python. The online conference objective was to combine education, engineering and science with computing through the medium of Python. The conference featured a number of workshops and talks by invited speakers. Mr. Anand Chitipothu, Software Consultant and Trainer and Mr. Praveen Patil, a physics teacher and FOSS enthusiast were the keynote and invited speakers respectively at the conference.

Workshop on Emotional Wellness

Bandhu, a Student Wellness Centre, IIT Bombay initiative organized an online workshop on January 22, 2022 by **Mr. Nelson Moses** – Mental Health Advocate and Suicide Prevention Expert, to understand how we can be mindful of our emotions and have a look at practical activities that can help heal through the difficult times.

N. R. Kamath Distinguished Webinar

Dr. Anand Garde, Nuclear Fuel Consulting Engineer and Chairman of the Kroll Zirconium Medal Selection Committee. delivered the **N. R. Kamath Distinguished Webinar** titled "Current status of use of Zirconium in LWR fuel and expansion of nuclear power" on February 15, 2022.

Virtual E-mobility workshop

The Industrial Research and Consultancy Centre (IRCC), IIT Bombay organized a one-day virtual E-mobility workshop on February 19, 2022 spanning the following broad aspects:

- (a) Advancements in power drive train
- (b) Smart charging infrastructure
- (c) Sustainable battery technology
- (d) Hydrogen-based mobility
- (e) Environment Impacts, E-transportation planning (f) New vehicle design and mechanics

The convener for this workshop was **Prof. Sandeep Anand**, Department of Electrical Engineering. The event included six symposiums, two plenary talks, a firesidechat and panel discussion. Speakers included **Dr. Pawan Kumar Goenka** (Chairperson - IIT Bombay BoG Chairman & Ex-MD & CEO, Mahindra and Mahindra), **Mr. Bhavish Aggarwal** (Co-Founder and CEO, OLA Cabs) and many more.

Symposiumon"Emerging Contaminants Fate, Transport & Remediation"

Under Azadi Ka Amrit Mahotsav, the Environmental Science and Engineering Department (ESED) had organised a 2-day symposium (online) on 'Emerging Contaminants Fate, Transport & Remediation Aspects' during February 21-22, 2022.

Workshop on stochastic models

The Office of Dean (Alumni and Corporate Relations) hosted a small workshop on stochastic models to coincide with the visit of Professor Bruce Hajek, the N.R. Kamath Distinguished Chair in the Department of Electrical Engineering, IIT Bombay. Mr. Amit Apte (IISER Pune) was the speaker of the workshop titled "An Introduction to Data Assimilation1" held on March 02, 2022.

Joint Symposium on Food Sustainability

The Environmental Science and Engineering Department had organized a joint symposium (online) in collaboration with the Faculty of Land and Food Systems, University of British Columbia, Canada and sponsored by Shastri Indo-Canadian Institute titled "Sustainable Developments in Local Land and Food Systems: Socioeconomic, Technological, and Environmental Aspects" on March 22, 2022.

Students News

IIT Bombay student team has won the Minus CO2 Challenge 2021 organized by the European Association of Geoscientists and Engineers (EAGE). The winning team from the Department of Earth Sciences includes Rhythm Bhadresh Shah (Ph.D. student), Firdush Zallah Hussain (a second-year M.Tech. in Petroleum Geosciences), Sushmita Rangnath Mastud (a second-year M.Tech. in GeoExploration), Sonal Janagal (a second-year M.Tech. in Petroleum Geosciences) and Arpita Chakraborty (a second-year M.Tech. in Petroleum Geosciences). Congratulations to the winning team, Faculty Advisor Prof. Sudipta Dasgupta, mentors Prof. Vikram Vishal, Prof. Bharath Shekar and Ph.D. student Ms. Somali Roy.





Najmul Haque Barbhuiya (Ph.D. student, Environmental Nanotechnology Lab (Enano Lab) and team, Environmental Science and Engineering Department, IIT Bombay, received the Best Paper Award paper titled "Laser-Induced Graphene-Based Electroconductive Filters and Composites Membranes for the Removal of Pharmaceutical Compounds" which participated in the Sixth International Conference on Sustainable Energy and Environmental Challenges (VI SEEC) organized by the International Society for Energy, Environment and Sustainability (ISEES) during December 27-29, 2021.



Highlight Notification



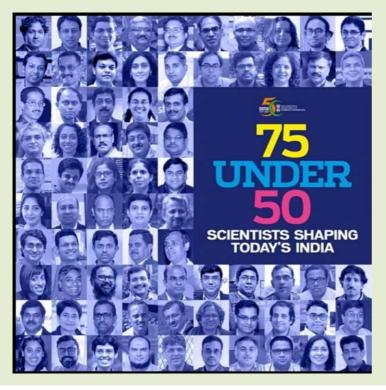
Prof. Rangan Banerjee, Department of Energy Science and Engineering, has been appointed as the Director of IIT Delhi, w.e.f. January 11, 2022



Prof. Suhas Joshi, Department of Mechanical Engineering, has been appointed as the Director of IIT Indore, w.e.f. January 11, 2022



Prof. Anurag Garg, Environmental Science and Engineering Department, has been appointed as **Associate Dean - III (IPS): Environment and Safety**, a new position created based on the BoG approval, w.e.f. February 15, 2022



Prof. Subimal Ghosh, Department of Civil Engineering and Convenor, IIT Bombay Climate Studies;
Prof. Anshuman Kumar, Department of Physics and Prof. Rohit Srivastava, Head, Biosciences and Bioengineering have been featured in the coffee-table book "75 under 50: Scientists Shaping Today's India" launched by Dr. Jitendra Singh, Union Minister of State (Independent Charge) Science & Technology on the National Science Day on February 28, 2022 to mark "Vigyan Sarvatra Pujyate", published by Vigyan Prasar.

Alumni News



Dr. Pramod Chaudhari, a distinguished alumnus (B.Tech., Mechanical Engineering, 1971) of the Institute and Founder Chairman of Praj Industries, has recently been bestowed with the prestigious **2022 William C. Holmberg Award for Lifetime Achievement in Advanced Bioeconomy.** He is the first Asian recipient of this global honour.



Notification

Prof. Ravindra D. Gudi, Core Faculty Professor, Department of Chemical Engineering, has been appointed as the Dean (Alumni and Corporate Relations) w.e.f. February 02, 2022

Prof. Suvarn Kulkarni, Department of Chemistry, has been appointed as Associate Dean (Academic Programmes) w.e.f. January 04, 2022

Prof. Swaroop Ganguly, Department of Electrical Engineering, has been appointed as new Professor-in-Charge of the IIT Bombay Research Park w.e.f. February 10, 2022

Prof. U. K. Anandvardhanan, has been appointed as the Head, Department of Mathematics w.e.f. December 30, 2021

Prof. Suparna Mukherji, Environmental Science and Engineering Department, has been appointed as Head, Centre for Research in Nanotechnology and

Science and Sophisticated Analytical Instrument Facility, IIT Bombay w.e.f. January 06, 2022

Prof. N.N. Vishwanathan, has been appointed as Head, Department of Metallurgical Engineering and Materials Science w.e.f. February 14, 2022

Prof. Prabhu Ramachandran, Department of Aerospace Engineering, has been appointed as Head, Computer Centre, IIT Bombay w.e.f. March 02, 2022

Prof. Ateeque Malani, Department of Chemical Engineering, has been appointed as Warden of Hostel No. 2 w.e.f. February 25, 2022

Prof. Asish Sarangi, Department of Energy Science and Engineering, has been appointed as Associate Warden of Hostel No. 12 w.e.f. March 08, 2022

Prof. Zakir Rather, Department of Energy Science and Engineering, has been appointed as Associate Warden of Hostel No. 2 w.e.f. February 25, 2022

Obituary



Prof. C. M. Srivastava, a former professor in the Department of Physics passed away on February 14, 2022.



Mr. Dilip S. Kalambate, IIT Bombay Non-Academic Staff Association (NASA) President and Hall Manager of Hostel-9 passed away on February 16, 2022. He was also the Vice-Chairman of IIT (Mumbai) Employees Co-operative Credit Society Ltd. He was a very active football player and had participated in Inter-IIT Staff sports meets on many occasions.



Retirements on January 31, 2022

Prof. Gosukonda Subrahmanyam,



Department of Biosciences and Bioengineering, retired after 29 years of service

Mr. Dipak R. Birare,



Administrative
Assistant,
Computer Centre,
retired after 40
years of service

Mr. Sahebrao M. Gawai, Sr.



Security Guard, Security Section, retired after 32 years of service

Ms. Nayana R. Menon, Multi-



skilled Assistant B, Central Library, retired after 16 years of service

Ms. Krishnamoorthy Aruna, Sr.



Trained Graduate Teacher, Campus School, retired voluntarily after 26 years of service

Retirements on February 28, 2022

Prof. Hari Shankar Pandalai,



Department of Earth Sciences, retired after 34 years of service

Mr. Anil V. Desai, Sr. Multi-skilled



Assistant, IDC-School of Design, retired after 35 years of service

Mr. Sunil D. Mule, Sr.



Administrative Assistant, Hostel No. 3, retired voluntarily after 24 years of service

Mr. Vinaykumar P. Misra, Multi-



skilled Assistant
C, Department of
Biosciences and
Bioengineering,
retired after 29
years of service

Retirements on March 31, 2022

Prof. Ajit R. Kulkarni, Department



of Metallurgical Engineering and Materials Science, retired after 34 years of service

Mr. K.R.P. Unnithan,



Superintending Engineer, Estate Office, retired after 36 years of service

Mr. Anwar S. Shaikh, Sr. Security



Guard, Security Section, retired after 42 years of service

Mr. Jagannath R. Varma, Sr.



Multi-skilled Assistant, Gymkhana, retired after 36 years of service

Mr. Kali P. Shukla, Sr. Multi-



skilled Assistant, Director Office, retired after 33 years of service

CEP courses scheduled in April and May 2022						
No	Course Title	Course Coordinator/ Department	Duration			
1	Translational Research In Medicine (Trim): Focus On Proteomics	Prof. Sanjeeva Srivastava, Department of Biosciences and Bioengineering	April 20, 2022 (1 day)			
2	Data Protection And Privacy Techniques	Prof. Virendra Singh, Department of Electrical Engineering	May 14, 2022 (1 day)			







Photo Credit: @nature_iitb@devangagarwal8888



January - February - March 2022

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	BOOK POST	