

DEAN'S MESSAGE



Dear Alumnus,

Let me begin by wishing you a very Happy New Year! I hope 2022 brings joy, happiness, and good health to you and your loved ones.

Despite the ongoing challenging times we face owing to the pandemic – our staff, faculty and students, as always, continue to make the best of these tough times. While the severity of the situation cannot be underplayed, here's hoping that there is a light at the end of the tunnel.

Despite these challenges IIT Bombay had a highly productive and rewarding 2021. The Institute acted quickly and developed innovative ways to combat the myriad issues it faced because of COVID-19. We are extremely proud of our students and our faculty, all of whom came together during trying times and gave their very best to their beloved Institute

Here are some of the key milestones we achieved recently:

- As is our tradition, the Institute successfully celebrated its annual Alumni Day on December 26, 2021 in a hybrid mode.
- We are grateful to our alumni of the Silver Jubilee batch of '96, who have generously adopted a Legacy Project and pledged a sum of Rs. 17 Crore towards the same.
- The Institute also inaugurated Cafe' 92 near SJMSOM on December 18, 2021, the legacy project of the '92 batch. We are extremely thankful to the batch for their generosity and the batch leaders for their tremendous support in executing the project.
- The Institute successfully conducted its annual Techfest, Asia's largest Science and Technology festival, but in virtual mode due to the pandemic.
- IIT Bombay and Tata Consulting Engineers Limited (TCE) have signed an MOU on December 13, 2021 to promote meaningful collaboration between academia and industry for developing and deploying technologies in various areas of impact.

As we look forward to a bright 2022 it will be a busy year as IIT Bombay seeks to expand the impact and visibility of our research programs and prepare our next generation of leaders. We are developing and promoting a strategic plan for the Institute that identifies priorities for investment to drive the next chapter of discoveries.

This month also marks the beginning of our students' spring semester, and I wish all of them a successful term ahead.

As we inch closer to normalcy and are trying to bring back as many students as possible to campus again, I urge you to follow all of the norms and restrictions advocated by the Government of India and, most importantly, stay safe.

Finally, the generous contribution received from our alumni, corporate entities, and other friends of the Institute make an essential difference in our endeavour to pursue global excellence. Examples of alumni-funds utilised for the betterment of the Institute include Institute Development, Infrastructure Development, Young Faculty Awards, Chair Professorships, Hostel Development, Student Development, etc. We urge you to continue your philanthropic efforts and contribute to the betterment of your beloved Institute to the best of your ability.

Sincerely,

Suhas Joshi
Dean of Alumni and Corporate Relations

Dean Alumni and Corporate Relations Office
Dean ACR, Main Building, First Floor,
IIT Bombay, Powai
Mumbai – 400076, INDIA

FACULTY INTERVIEW

A Glimpse at the Journey of a Rising Eminent Young Scientist at IIT Bombay



Introduction: It's rare, yet fascinating, to witness the journey of young achievers as they accomplish significant benchmarks in their lives. IIT Bombay is home to many such young and diverse talents who have made a name for themselves, created change, and left their mark on society. Our own Prof. Amartya Mukhopadhyay, Department of Metallurgical Engineering and Materials Science, was recently awarded the prestigious Swarnajayanti Fellowship, 2021, for his contribution to the field

of Engineering Science. Read on to know more about how his research impacts the daily lives of regular people, as well as large-scale industries.

- **What is at the very core of your research project, and what compelled you to pursue it?**

Prof. Mukhopadhyay: From a scientific view, the research on battery materials and battery chemistry, involving various aspects of materials science/engineering and electrochemistry, and correlations between the above is fascinating to me. Apart from this, it allows me to initiate exciting new concepts and move forward to material design/development of materials/electrochemical interplays to cell development, eventually leading to prototypes. Moreover, outcomes of these types of research are application-oriented and devised to mitigate and improve societal challenges such as the quality/reliability of electronic devices, poor grid power supply and combat environmental pollution. Btw, environmental pollution is not a new phenomenon in today's world, yet it remains the most significant issue humanity faces and is the leading environmental cause of morbidity and mortality. All these parameters motivated me to pursue research in this area.

- **How does your research improve conventional lithium batteries' structural and functional features?**

Prof. Mukhopadhyay: Overall, the research helps improve all the performance parameters in terms of energy stored per unit mass/volume of a battery, the ability to get charged and release energy at a faster rate, the cycle life, and safety concerns. The research outcomes are expected to progress towards the 'next generation' Li-ion battery systems. In addition to the Li-ion battery system, a significant focus is on futuristic designs, which will augment the journey to create a sustainable India; for example, the sodium ion battery system.

- **Can you explain how your research impacts the daily lives of regular people, as well as large-scale industries?**

Prof. Mukhopadhyay: As mentioned above, the performance, reliability, and advancement of electronic devices, including those used for healthcare, depend immensely on the features of the battery. More notably, the features and performances of the battery systems need to be tuned to render better usage in large scale applications, such as grid energy storage, storage of energy harvested from renewable sources (like solar/wind energy) and electric vehicles. These factors are expected to improve the quality of life by allowing advanced devices to be developed, improve the reliability of power supply via power grids, etc., and help combat the ever-increasing environmental pollution and cleansing of the air we breathe. Improving air quality helps us enhance our overall health and that is the need of the hour in this current scenario. Additionally, developing more sustainable battery systems, like Na-ion batteries, and tuning the electrode materials and preparation conditions will drastically help reduce the cost of electrochemical energy storage.

- **Your research interests vary from discovering materials for electrochemical energy storage to advanced structural ceramics/composites. How did you get interested in these topics?**

Prof. Mukhopadhyay: Our group at IIT Bombay focuses significantly on electrochemical energy storage (i.e., advanced batteries), while fundamental level research on engineering ceramics is pursued based on brainstorming ideas while we work on various problems.

- **You completed your Doctor of Philosophy (D Phil, 2009) in Materials Science, from the University of Oxford, United Kingdom and Master of Technology (M Tech, 2006) in Materials and Metallurgical Engineering, from Indian Institute of Technology (IIT), Kanpur, India. What were the cultural differences (or similarities) you experienced in these two diverse institutions, and how did these experiences shape your approach towards research**

Prof. Mukhopadhyay: IIT Kanpur, IIT Bombay, and Oxford University share a similar work ethic. All these Institutions promote freedom in research activities and provide a robust research culture, which helped me to a great extent. I want to highlight that I was introduced to the world of materials research during my time at IIT Kanpur and was highly motivated to pursue research. The University of Oxford and the University of Brown strengthened my research skills and introduced multiple cultural backgrounds and diversity in research culture. I believe research thrives in a happy and healthy environment, and such informal setups provide a perfect atmosphere for research.

- **What challenges do you foresee in scaling up your research to the next level, from the lab-scale working prototype to an industry model?**

Prof. Mukhopadhyay: I think it's crucial that industry partners collaborate and actively participate in the process. Their active participation motivates the researchers to climb the ladder to the top and yield cutting-edge research. Therefore, industries must work in sync with academic researchers and not expect a mere ready-made prototype.

- **How has IIT Bombay's ecosystem helped you in your research?**

Prof. Mukhopadhyay: As mentioned earlier, the informal setting provided by IIT Bombay helped me immensely. Also, the research culture and support for research (including seed money, part funding, support for research students etc.), provide a sense of peace and relief to researchers during difficult times. It also contributes – explicitly or implicitly – to the ever-improving quality of research at the Institute. The availability of extensive high-end research equipment and facilities for incubating research has benefitted us immensely throughout our journey.

- **What was your experience in terms of your personal and professional life during the pandemic? How did you pursue your research during these tough times?**

Prof. Mukhopadhyay: It was tough; the research students were worried, and during the early part of the pandemic, it was challenging to keep their motivation high. But over time the focus shifted towards analysing the data differently rather than mere experimentation. It was wonderful to see our students in high spirits and conducting an effective analysis, which helped us explore new insights. In fact, we need to thank students for utilising their lockdown period efficiently.

- **What advice would you give young students who wish to pursue research, especially in your own field?**

Prof. Mukhopadhyay: In simple terms, one must enjoy research, irrespective of the area, and not feel stressed out to perform. So, enjoy your work and find your passion.

- **What, if any, are your recommendations to improve the basic quality of research in India?**

Prof. Mukhopadhyay: Unquestionably, India's performance is remarkable in terms of both fundamental and applied research. There is no dearth of research facilities and research funding. Although there has been an

enormous thrust towards applied research and scaling-up, in my view, we need to extend appreciation and support for fundamental level research in Universities and Institutes. I believe new concepts and ideas emerge best at University/Institute levels, some of which can genuinely revolutionise technologies. Extending an appreciation at such a level will also motivate the industries to strategize their engagements with Universities or Institutes. To quote one of my mentors here, 'Professors should aim at discovering, rather than innovating'.

ALUMNI INITIATIVES



Lecture Hall 102 renamed as "Class of 93 Lecture Hall"

IIT Bombay's batch of 1993 gathered at Lecture Hall 102 on campus for a special occasion on December 15, 2021.

The 240-seater facility was renamed "Class of 93 Lecture Hall" to honour the generous contribution made by the '93 batch. Their generosity was used to enhance the space and turn it into a state-of-

the-art facility.

The commemoration event included unveiling the signage installed outside Lecture Hall 102.

The batch of '93 undertook this initiative as a part of IIT Bombay's Silver Jubilee Legacy Project, where alumni from each batch get together as a group and donate towards the Institute's most significant needs.



Director, IIT Bombay, Inaugurates Cafe' 92 on Campus

On December 18, 2021, the Director of IIT Bombay Prof. Subhasis Chaudhuri and other functionaries, along with members of the Silver Jubilee batch of 1992, inaugurated Cafe' 92 near SJMSOM. Cafe' 92 is designed as a relaxing space for IIT Bombay's

community to get together with friends, peers, and classmates and unwind.

Café 92 is the result of the generous donation made by the '92 batch as part of their Legacy Project, where alumni from each batch get together as a group and donate towards the Institute's most significant needs.



Alumni Donate to Establish Three Chair Professorships at IIT Bombay

IIT Bombay is in the process of establishing three Chair Professorships with generous donations from its alumni – Mr. Pankaj Jagtap, Mr. Deepak Kotwal, and Mr. Ram Kelkar.

• Mr. Jagtap (1995 batch) completed his B.Tech. degree from the Department of Civil Engineering and his generous donation will help set up the "Anantrao Jagtap Chair for Construction Management."

• Mr. Kotwal (1970 batch) completed his B. Tech degree from the Department of Mechanical Engineering and his generous donation will help set up the "Sumati and Atmaram Kotwal Sanskrit Acharya Chair."

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The 'Chair Professor' – also known as endowed professorships – is one of the highest honours awarded to professors in academia for excellence in teaching and research. Faculty members at IIT Bombay who pursue high-impact, innovative and cutting-edge research and teaching are awarded these prestigious Chair

Professorships. The Chair Professorship also allows the Institute to retain the best of faculty and attract the crème de la crème of students to the Institute.



IIT Bombay's 1996 batch pledges ₹ 17 Crore to Institute

The 1996 batch of IIT Bombay pledged Rs. 17 crores towards their legacy project on December 26, 2021. This extraordinary donation was announced as part of the annual alumni day celebrations.

This fund will be utilised for several projects including modernisation of facilities across hostels, scholarship programmes for deserving students, programmes related to students' well-being, and more.

The legacy project is one adopted by alums to mark the 25th year of their time as students at IIT Bombay and is a way for them to give back to their alma mater. Last year, the batch of 1995 pledged a sum of Rs. 20.3 crores towards their legacy project donation even as alumni from previous years have pledged similar amounts to the Institute.

SUCCESS STORIES OF IIT BOMBAY



IIT Bombay Professor's work featured in Forbes 2021

Prof. Gopal Dixit's research work on quantum technology has been featured in the prestigious international Forbes magazine. He is currently an Associate Professor at IIT Bombay. The title of his article is "Top 10 Omni Wishes For 2022 With Exponential Impact".



Another Feather in IIT Bombay's Capp

Prof. Eswar Rajasekaran is the recipient of the Prof. K.K. Nageswara Rao Young Achiever Award-2021 given by the Indian Society of Geomatics for his significant contributions in the field of Geomatics.

Prof. Rajasekaran received his Ph.D. in Civil Engineering from the Indian Institute of Science, and he is currently an Assistant Professor in the Interdisciplinary Programme (IDP) in Climate Studies, IIT Bombay.



Prof. Gulab Singh awarded the National Geomatics Award for Excellence

Prof. Gulab Singh from the Centre of Studies in Resources Engineering (CSRE) has been awarded the "National Geomatics Award for Excellence" by the Indian Society of Geomatics (IGS) during the National Symposium on i-GEOMATICS and the annual convention of

ISRS and ISG 2021. This is the highest award given by ISG.

The Indian Society of Geomatics (ISG), established in 1993, is a premier society of professionals and institutions involved in promoting and popularising Geomatics in India.

INNOVATIVE PRODUCT AND TECHNOLOGY



FLEXISURG

Inventor Names: Mr. Sagar Talele, Dr. Rupesh Ghyar, Prof. B. Ravi, Dr. Suresh Deshpande

Technology/Product: Laparoscopic surgical instrument with interchangeable modular heads.

201721047053, 28 Dec 2017.

ABOUT

A minimally invasive laparoscopic surgery relies on special instruments to reach organs inside the abdominal cavity. These metallic tube-shaped laparoscopy instruments have an end-effector – typically, scissors, grasper, needle holder, dissector, clamps, etc., for manipulating the tissue or the organ. The linear entry path of such instruments and the very limited degrees of freedom of the end-effectors makes it difficult to reach organs that are deeply embedded in the human body. Most of the existing laparoscopy instruments use a system of wires, joints, flexible components and pulleys inside an elongated shaft. The connecting wires are typically wound tight but become slack after repeated use and sterilizations, which, in turn, leads to an imperfect force transfer from the surgeon's hand to the end-effector. Spring-based instruments generally deteriorate due to loss of grip and are unable to lock in the angles needed to reach organs.

Eminent surgeon, Dr. Suresh Deshpande, Swarup Hospital, Kolhapur and former President of IAGES (Indian Association of Gastro-intestinal Endo Surgeons) identified this problem and a BETIC researcher took on the challenge of finding a solution in Oct 2014. The researcher understood the need to improve the operation, articulation and rotation, by providing multiple degrees of freedom to manipulate tissues. Existing instruments had restricted the range of movement in the operative zone, causing physical and mental stress to surgeons. The end-effector of the instrument needed to be used as a grasper, scissor, tissue retractor or dissector and the tool head needed to be locked at the desired angle. Flexiburg, the laparoscopic surgical instrument with interchangeable modular heads resolves all of these issues successfully.



Biomedical Engineering and Technology Innovation Centre (BETIC)

Medical devices are critical for healthcare. Local and indigenous development of novel, suitable, reliable, and affordable medical devices change lives and impact the world around us even as they create new jobs.

Since its inception in 2014 at IIT Bombay, the Biomedical Engineering and Technology Innovation Centre (BETIC) has built an ecosystem which is essential to develop local medical devices by connecting the key stakeholders in the medical and healthcare industry – government, academia, medical community, industry, investors and facilitators. Over the past few years, the team has met with several hundred doctors, identified over 400 unmet needs, created 200 novel concepts, and filed 50 patents. They've also developed 20 devices, incubated 15 start-ups, licensed five items to industry, and launched a few products directly into the marketplace.

The following start-ups that BETIC supports reflect its core vision – which is to create global success stories of indigenous medical devices by providing the necessary guidance and reinforcement to med-tech innovators.

BIOPSYGUN



Inventor Names: Mr. Shivam Mittal, Mr. Manish Agarwal, Mr. Sagar Talale, Mr. Salil Kulkarni, Dr. Rupesh Ghyar, Prof. B. Ravi

Technology/Product: Multi-use Biopsy Device.

1503/MUM/2015, 10 Apr 2015. Licensed to Tenon Meditech, Pune, 17 Nov 2017.

ABOUT

A biopsy is a diagnostic procedure in which a tissue sample is taken from the body to examine in a laboratory, usually to check for malignancy (cancerous growth). Minimally invasive needle biopsy is typically preferred because it inflicts less trauma on patients (only 1.5 to 4 mm diameter puncture) and there is less chance of infection. With the Biopsygun, the tissue sample is obtained using a core needle in a cylindrical chunk. The needle is fired under local anesthesia, and the notched needle tip collects the tissue sample. The sharpness of the needle and its firing velocity ensure quick retrieval of the tissue sample without causing damage. The gun is used to collect samples from multiple locations and depths under the guidance of a CT scan or ultrasound imaging tools.



CLUBFOOT

Inventor Names: Mr. Ajay Dusa, Mr. Tapas Pandey, Dr. Rupesh Ghyar, Prof. B. Ravi

Technology/Product: Sensing system to monitor the compliance (wearing duration) of foot abduction braces in children suffering from Clubfoot. Licensed to Metwiz Materials, 2017.

Aroojis, A., Pandey, T., Dusa, A. et al. Development of a functional prototype of a SMART (Sensor-integrated for Monitoring and Remote Tracking) foot abduction brace for clubfoot treatment: a pre-clinical evaluation. *International Orthopaedics (SICOT)* 45, 2401–2410 (2021).
<https://doi.org/10.1007/s00264-021-05042-0>

ABOUT

Clubfoot is a congenital (birth) deformity in which one foot or both feet are rotated internally at the ankle. It affects one in 500 children in India. The preferred treatment is based on Ponseti's method, which starts right after birth. The child's feet are placed in a series of plaster casts that are changed every week for about six weeks. This is followed by specially designed braces called Foot Abduction (FAB) devices which are worn by children when they sleep. The device is worn 24/7 during the first three months after a child's birth. The period is gradually reduced to 8 hours a day when the child turns four, by which time the foot/feet can be fully corrected.

NEWS FROM IIT BOMBAY



IIT Bombay records all-time high placements in phase one

IIT Bombay has bagged a record 1,382 jobs out of 1,723 offers made by 315 companies, including 45 international offers, in the first phase of the ongoing campus placement season. At least 12 students have bagged job offers with an annual salary of over Rs. 1

crore each during the first 18 days of the placement drive.

Overall, this year's average CTC stands at Rs. 25 lakh per annum. Among the various sectors, the average CTC was Rs. 28.4 lakh per annum offered by financial firms, Rs. 27.05 lakh per annum from IT and software firms,

Rs. 25.12 lakh per annum from R&D fields, Rs. 21.54 lakh per annum from engineering and technology firms, and Rs. 18.02 lakh per annum from consulting firms.



A Rising Young Scientist at IIT Bombay

Dr. Paramvir Singh, Postdoctoral Fellow with Prof. Sudarshan Kumar, Combustion Research Laboratory, Aerospace Engineering Department, IIT Bombay, has been selected for the International Society for Energy, Environment, and Sustainability Young Scientists Award for his contribution in the fields of fuel and combustion. His innovation will help develop regulation standards for car emissions.



IIT Bombay to switch to hybrid mode from January

The new semester session will begin on January 3, 2022. While the Institute has provided online lectures for more than 20 months now, starting in January 2022, IIT Bombay will convert to a hybrid form of instruction. Faculty members are encouraged to deliver at least one hour of in-person campus lectures per week.

Professors have also been requested to videotape their sessions and make them available to students who are not present on campus. The Institute has decreed that all class sessions with fewer students will go online.



IIT Bombay submits Vasco pollution source study

IIT Bombay has submitted the Source Appropriation Study to the Goa State Pollution Control Board (GSPCB) which pinpoints the cause of air pollution in Vasco. The report will be finalised at the next board meeting.

Prof. Virendra Sethi from IIT Bombay's environmental science and engineering department presented the 'Source apportionment study' for air quality in Vasco to GSPCB.

The state has witnessed several agitations due to air pollution in the port town, and this report is expected to ascertain the exact cause of the same. Following guidelines set by the Central Pollution Control Board, the study included identifying sample locations, monitoring ambient air quality, and locating emanating sources of pollution.

TECH NUGGESTS



Prof. Anshuman Kumar develops Hyperbolic Crystals

Climate change research, medical diagnostics, COVID-19, and security applications benefit from the infrared wavelength range. However, making inexpensive, tiny, and chip-scale infrared optical components is difficult since it usually necessitates sophisticated and costly fabrication methods.

the problem by growing and optimising a new type of 'hyperbolic' crystal. This 'hyperbolic' crystal demonstrates the highly efficient infrared optical components that stay robust even at high temperatures.

INSTITUTE HIGHLIGHTS



IIT Bombay celebrated annual Techfest 2022 virtually

Techfest's 25th Edition was held in a virtual mode from December 17, 2021, to December 18, 2021. Techfest is Asia's largest annual science and technology festival and brings together several tech companies under one roof.

The day was filled with several exciting workshops, competitions, lectures and summits held by distinguished tech masterminds from around the globe. Techfest also featured the world's most advanced robots and humanoids from the US, Russia, Italy, Switzerland and many more countries.



IIT Bombay Director receives the prestigious ACCS award

Prof. Subhasis Chaudhuri, Director, IIT Bombay, is the recipient of the ACCS Award for the year 2021 given by the Advanced Computing and Communications Society (ACCS). His exceptional research in Computer Vision and Computational Photography has earned him this award. We wish him the very best in his future endeavours.



Prof. Suhas Joshi and Prof. R. Sunoj receive Fellowships

Prof. Suhas Joshi, Mechanical Engineering Department, Dean of Alumni and Corporate Relations, and Prof. R. Sunoj, Chemistry Department, were named Fellows of the National Academy of Sciences (NASI) for their research scholarship. Heartiest congratulations to Prof. Joshi and Prof. Sunoj on their

accomplishments.

Alumni Donates to Establish Three Chair Professorships at IIT Bombay

IIT Bombay is in the process of establishing three Chair Professorships with generous donations from its alumni – Mr. Pankaj Jagtap, Mr. Deepak Kotwal, and Mr. Ram Kelkar.

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UPCOMING EVENTS



International Conference on Environmental Science and Engineering (ICESE 2022)

The Environmental Science and Engineering Department (ESED, formerly CESE), IIT Bombay, is organizing the 'International Conference on Environmental Science and Engineering' (ICESE-2022) to attract scholars and scientists from all over the world who are pursuing research in the fields of environmental science and engineering.

- **Day & Date:** Thursday, January 20 to Saturday, January 22, 2022
- **Time:** 09:15 am to 05:45 pm
- **Venue:** Victor Menezes Convention Centre (VMCC), IIT Bombay



Republic Day Celebrations, 2022

Students, faculty members and alumni get together every year to mark the occasion of India's Republic Day. Covid-19 protocols permitting – hoisting of the Indian flag hoisting and a speech given by IIT Bombay's Director will take place as part of the celebrations.

- **Day & Date:** Wednesday, January 26, 2022
- **Time:** 8:15 AM Onwards
- **Venue:** IIT Bombay, Powai

51st Mood Indigo



Mood Indigo

Mood Indigo, the annual cultural fest of IIT Bombay, has been around for 50 glorious years. It's a celebration of life and art. Students and artists come together, and share and celebrate all forms of art including music, writing, plays and more. Mood Indigo will conduct its 51st edition in a first-of-its-kind hybrid mode on the 29th and 30th January, 2022.

- **Day & Date:** Saturday, January 29 to Sunday, January 30, 2022
- **Time:** 09:15 am to 05:45 pm
- **Venue:** IIT Bombay, Powai



Pramod Chaudhari
**ALUMNI CONTINUING
EDUCATION CENTRE**
INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

Pramod Chaudhari Alumni Continuing Education Centre (PCACEC)

PCACEC starts registration for the first program on Climate Change: Services and Solutions from January 03, 2022. Through this programme, alumni can keep pace with technological advancements in engineering and science while understanding its implications to the world and specifically for their businesses.

- **Day & Date:** Saturday, Feb 12-13 & Saturday, Feb 19-20, 26, 2022
- **Time:** 18:00 – 20:00 PM (IST)
- **Venue:** Online



The Evolution and Future of Energy

A virtual panel discussion by eminent alumni from the Chemical Engineering department of IIT Bombay will focus on energy transition, present-day technology innovations, future trends, and the role of chemical engineers in this transition. This webinar series is an initiative of IIT Bombay's Chemical Engineering alumni of the batch of 1990.

- **Day & Date:** Saturday, January 15, 2022
- **Time:** 7:00 pm - 8:30 pm (IST)
- **Venue:** Online

CORPORATE COLLAB WITH IITB

IIT Bombay Collaborates with INOX and Signs Three MoUs

IIT Bombay has an ongoing multi-dimensional engagement with Indian and multinational business corporates. Recently, IITB and INOX signed three MoUs on December 04, 2021 towards creating a cryogenics research facility, establishing an Inox Chair Professorship, and supporting the existing scholarship program at the Institute.

IIT Bombay and INOX collaborated to create a state-of-the-art cryogenics research facility on campus. The facility will house modern precision equipment and support its maintenance – with the ultimate goal to accelerate high-end research in cryogenics. To recognize the contribution made by INOX, the laboratory will be named “INOX Cryogenics Research Laboratory.”

INOX's donation will help us undertake the following:

- 1) Renovation the existing cryogenics laboratory in the Mechanical Engineering Department at IIT Bombay
- 2) Procurement of state-of-the-art equipment for advanced research in this domain
- 3) Provide funds for ongoing maintenance of the facility and equipment

Student scholarship is an urgent and critical requirement for IIT Bombay. The Institute has constantly emphasised the need to support those who are from socially and economically marginalised communities towards their educational needs. To ensure that no student admitted to the Institute is denied access to a premier education owing to lack of funds, the Institute provides need-based scholarships to deserving students. These scholarships are often supported by the Institute's alumni and their generous donations. Continuing with this tradition, INOX will provide full scholarship support to economically challenged B. Tech students joining the Institute.

INOX has also instituted an 'Inox Chair Professorship' at IIT Bombay to conduct advanced research and undertake challenging projects in the field of cryogenics. The ultimate goal is to make IIT Bombay the leading Institute in the world in cryogenics.

The Chair Professorship will help IIT Bombay adopt an interdisciplinary, collaborative, synergetic, and translative approach to advance research projects that go beyond being just state-of-the-art domains. It will also address application-oriented demands from industry, society and the government. The Chair will strive to leverage the existing knowledge base and provide a platform to potential Chair candidates for further innovation and scale betterment.

OBITUARIES



Tribute to Prof. Surjya Kumar Maiti

We regret to inform you of the passing away of Prof. Surjya Kumar Maiti, former professor in Mechanical Engineering Dept, on December 02, 2021. Prof. Maiti had a very distinguished research career at IIT Bombay and was a Fellow of the Indian National Academy of Engineering.

He was known on campus as a friendly professor with a very pleasing personality.

Our deepest condolences go out to his family members. May his soul rest in eternal peace.



Tribute to Prof. Leela Panchakarla

With deep sorrow we regret to inform you that we have lost a very young, and one of IIT Bombay's most promising, faculty members on December 24, 2021. Prof. Leela Panchakarla, Chemistry department, suffered a massive heart attack and collapsed in his office. Tragically, he breathed his last within moments of being admitted to Hiranandani hospital. He was only 39. It is a profound loss to the IIT Bombay community. We've been rendered speechless ourselves and have no words to console his grieving family. May God give strength to his

loved ones as they deal with this incredibly tragic loss. May his soul rest in eternal peace.