

DEAN'S MESSAGE



Dear Alumnus,

Warm and refreshing greetings from the verdant green campus of IIT Bombay.

Post the first wave of the bountiful Mumbai rains, the lush green campus welcomed all the new and continuing students back to campus for the academic semester.

There were three major events that occurred at IIT Bombay in July: IIT Bombay's annual CSR Conclave – Tech for Sustainable Development, the finale of the Invention Factory Program, and the Civil Services Reunion. Please look for extended and longer special

reports on all these three major events in this newsletter.

Let me now celebrate the accolades, honours, and awards received by the Institute faculty, students, and alumni members.

- I am extremely delighted to announce that IITB's Distinguished Alumnus, Dr. Sharad Kumar Saraf (B.Tech., Electrical Engineering, 1969), has created history by becoming the first Institute alumnus to be appointed as the Chairperson of IITB's Board of Governors (BoG). IIT Bombay is proud of Dr. Saraf's achievement and wishes him the very best on this glorious new chapter in his professional journey.
- I am happy to state that IIT Bombay was placed third in the 'Overall' and 'Engineering' category, and 11th in the 'Management' category in the National Institutional Ranking Framework (NIRF) in 2022. The Institute also ranked fourth in the new 'Research' category.
- Our Director Prof. Subhasis Chaudhuri, Department of Electrical Engineering, was conferred with the very prestigious Advanced Computing and Communications Society (ACCS) Award for the year 2021. The award recognizes his outstanding research in the area of Computer Vision and Computational Photography. Please join me in extending our hearty congratulations to him.
- I want to acknowledge the herculean efforts of IIT Bombay's alumni, Ajit Jawle (Civil Engineering, 1977), Suhas Mehta (Civil Engineering, 1983), Nitin Doshi (Civil Engineering, 1979), Nandkishore Nemade (Chemical Engineering, 1982), and Dhananjay Saheba (Electrical Engineering, 1977) for spearheading the renovation of IIT Bombay's iconic Hostel 5. I also want to thank this alumni-led initiative, especially IIT Bombay Alumni Association (IITBAA) and IIT Bombay Heritage Foundation for a newly upgraded Hostel 5 (H5) with modern, improved facilities. Our next generation of students will have a better quality of life, thanks to the generosity of our alumni.
- IIT Bombay alumnus, Mr. Ashish Chauhan (B.Tech., Mechanical Engineering, 1989) has been selected as the CEO of the National Stock Exchange (NSE). My very best wishes to him as he starts the next phase of his life. I'm sure the NSE is in very good hands!
- I would like to thank our dear alumnus, Sanjeev Nabar (B.Tech & DIIT, Mechanical Engineering and Industrial Design, 1974) for setting up the 'Jaywant M. Nabar' Diamond Level Scholarship. What a wonderfully inspiring initiative by Sanjeev!
- Our wonderful and dynamic IIT Bombay alumnus, Krishna S. Dhir (B.Tech, Chemical Engineering, 1966), recently published his newest book, 'The Wonder That Is Urdu.' I am in awe that despite his professional commitments in OR and the decision sciences space, he found the time to indulge in this creative activity.

- IIT Bombay alumnus, Dr. Yogesh M. Joshi (Ph.D., Chemical Engineering, 2001), is the first Indian to be elected as a Fellow of the Society of Rheology. The Institute congratulates Yogesh on this extraordinary accomplishment!
- Two recent IIT Bombay alumni have brought tremendous honour to our Institute. Dr. Ashutosh Kumar (M.Tech., Ph.D., Civil Engineering, 2018) and currently an assistant professor at IIT Mandi, has won the prestigious "John Carter Award 2022 of IACMAG, USA." Dr. Giridhar Rajesh Bande (Ph. D., Civil Engineering, 2017) and currently an Assistant Professor at IIT Dharwad has won the prestigious "Excellent Paper Award 2022 of IACMAG, USA" for his paper published in ASCE Journal. My heartiest congratulations to both of them.
- Our own IITB faculty and Alumnus (1980) Prof. Urjit A. Yajnik earned an Honourable Mention for his essay 'Gravitational Fields and Quantum Mechanics' accorded by the Gravity Research Foundation, USA. Many congratulations to him.
- Also, IITB Prof. Munukutla Radhakrishna, Department of Earth Sciences, has been selected for the National Geoscience Award 2019, for his significant contributions in the field of Applied Geophysics. My heartiest congratulations to him.
- Vrunda Dave, a Ph.D. student from the Computer Science and Engineering department at IIT Bombay, is the first Indian to be chosen as runner-up for the Beth Outstanding Dissertation Prize (BODP) 2022. Heartiest congratulations and best wishes for her very bright future.

As always, I am very grateful for your support for your cherished Institute. I urge you to come by and visit your alma mater, as well as meet everyone here at the Dean ACR office. You can also see the many varied and dramatic changes that the Institute has seen over the years, and please do give us an insight into your dreams for your alma mater as well.

As I have always said, a vibrant and deeply connected alumni community is key to the advancement and betterment of IIT Bombay. Thank you for your continued support and I hope to see you soon.

Sincerely,

Prof. Ravindra D. Gudi, Ph.D., FNAE and FIChE

Dean – Alumni and Corporate Relations

Institute AI & ML Chair Professor

FACULTY INTERVIEW



Professor Subimal Ghosh - The Civil Engineer Turned Climate Change Crusader

Professor Subimal Ghosh's accomplishments in the field of climate studies are inspiring. From collaborating with governmental agencies and creating a ground-breaking expert system to forecast floods in India to winning prestigious awards, his accomplishments are truly inspirational.

We are pleased to talk to him for the Dean ACR newsletter as he walks us through his professional journey filled with many milestones.

Prof. Ghosh, thank you for speaking with us today. To begin with – can you quickly take us through your academic and career trajectory?

I did my Bachelor of Engineering from Jadavpur University and then my Masters and Ph.D. from the Indian Institute of Sciences, Bangalore, in Civil Engineering. I joined IIT Bombay immediately after as a faculty member in Civil Engineering. And in 2012, we started the Climate Studies academic program at IITB.

You and your team led a major project to design and develop the first-ever ‘expert system’ in a record time of 1.5 years to forecast floods in a city. This came about after the floods devastated Chennai in 2015. Can you take us through those harrowing times and how the ‘expert system’ came about?

In 2015, severe floods took place in Chennai and over 500 lives were lost. At the time, the Principle Scientific Adviser, Prof. Chidambaram, was looking for a way to reduce the impact of floods in cities. He asked me to lead a development initiative of an expert forecasting system for an entire city. This system would combine weather forecasting, tide modelling, hydrological modelling, flood modelling, and 3-D visualization into one single framework.

Over the next few weeks, 30 scientists from 8 different institutions including IMD, NCMRWF, IISC, IIT Bombay, and others came together to form a team to work on this project. A project review committee was also commissioned by former secretary of the Ministry of Earth Sciences, Dr. Shailesh Nayak.

That period was extremely challenging since all of us had to work together towards a single goal. Also, getting raw data for building the model was a major challenge since the information from coastal regions is classified. But finally, the framework was ready within 18 months, and the technology with all the information and code was transferred to the National Centre for Coastal Research (NCCR). The operational name for the system as suggested by NCCR was C-Flows.

While the C-Flows system is currently in Chennai, the same algorithm is now being applied to Mumbai (I-Flows) and is being planned to be duplicated in other cities as well.

You recently won the very prestigious Shanti Swaroop Bhatnagar Award (SSB) in 2019. How does it feel to win such a prestigious award?

I got the award a few months before I turned 40. Normally, scientists apply for the Shanti Swaroop Bhatnagar (SSB) Award after receiving another very prestigious fellowship, the Swarna Jayanti Fellowship by the Department of Science and Technology (DST). I applied for the Swarna Jayanti Fellowship in 2018, and reached the final round, but couldn't get it. During that very upsetting period, I met the then Director of IITB, Prof. Devang Khakhar, who suggested that I should not get upset and encouraged me to apply for the Shanti Swaroop Bhatnagar Award. I ended up winning the Shanti Swaroop Bhatnagar Award first and the very next year I won the Swarna Jayanti Fellowship, as well.

Can you give us details of the research project for which you won this very prestigious award?

I won the Shanti Swaroop Bhatnagar award for Land Atmospheric Interactions. Essentially, my research looked into how the land surface processes influence the Indian monsoon, as well as for improving regional monsoon simulations and predictions. We also looked at the link between deforestation and monsoons. Monsoons are believed to be a product of large-scale circulation, where the moisture mostly comes from the ocean. But the effect of land has always been neglected in monsoon science. Also, the impacts of deforestation and urbanization on rainfall patterns were never really explored before. That's what my research predominantly explored.

You are the convener of the Interdisciplinary Program in Climate Studies (IDPCS). What is your vision for IDPCS?

I joined IITB in 2007 in Civil engineering. In 2008/2009 the then Dean R&D of IITB, Dr. Rangan Banerjee, suggested that IITB faculty working on climate studies should come together and set up an interdisciplinary Centre for Climate Change. In 2012, with funding provided by DST, the Centre of Excellence in Climate Studies was set up at IITB. This was India's first academic programme that focused on all three areas of climate change – climate sciences, climate adaptation, and climate mitigation. It is an interdisciplinary program with faculties from different academic departments who come and work together and jointly supervise students.

Right now, we are in a climate crisis. For any development – technological or societal – the climate is the core component. Since IITB is well-known for tech innovation, we felt that the Institute should have a strong climate component to it, as well. So, the idea of IDPCS is to bring the study of climate into science and technological development.

Given the climate crises in the world, we have to urgently develop, provide and improve climate services and solutions for society. With IDPCS, our goal is to work with organizations like the India Meteorological Department (IMD), other government organizations, and industry. Recently we signed an MoU with IMD. While IITB by itself cannot provide all the solutions, we can, at least, provide strong technical support to IMD and other government organizations.

What is your vision for IDPCS 10 years from now?

The encouraging aspect of our country is that Indians do not deny anthropogenic climate change. They acknowledge that they're suffering from climate change and are looking for a solution. For example, farmers in Marathwada are committing suicide because their agricultural and crop systems are not climate resistant. People in Assam are dying because of floods. That's because we don't have a proper resilience plan or a real disaster mitigation plan in place. It has improved from 40 years back but it's nowhere where it should be. So, what we need are solutions.

Climate studies can inform and instruct farmers on the type of crops they should farm in 10/20 years. We need to educate them on what crops will flourish in the next decade given the changing climate patterns. We need to provide solutions to avoid the bad impact of climate change and decrease CO₂ concentration in the atmosphere. Prof. Abhijeet Banerjee, Nobel Prize Laureate in Economics, said in his book, Poor Economics, "Talking about the problems of the world without talking about some accessible solutions is the way to paralysis rather than progress." Our goal is not to just show a scary picture of the impact of climate change, but to provide solutions for developing a climate-resilient India.

Also, another key challenge for us is to develop the job market for our students working in climate studies. People are now saying that Climate Science will become as important in the future as Computer Science is today. Our challenge going forward is to make sure there are enough employment opportunities for our students. Unfortunately, despite companies tossing terms like Net Zero, etc. they're not actually recruiting very much from the field right now. That has to change.

Recently, IDPCS tweeted about an initiative that generates real-time flood maps for the city of Mumbai on Twitter. Can you explain this initiative to commoners like us?

Back in 2013, we were developing a flood model but we did not have a validation dataset. Prof. Subhankar Karmakar tried to set up a validation unit but worried that our Sensors would get vandalized or stolen. That's why we had to think differently.

Let me give you an example. Say, during the peak monsoon season you want to go to Dadar TT. The BMC will release a weather report that will inform Mumbaikars whether it will rain in Dadar TT or not. But you will have no way to know if the area is presently flooded or not and at what level the flood water will be. Will it be waist-level water or knee-level water or ankle-length water? That's the problem that Mumbaikars, our existing weather models, and scientists are suffering from.

Then we noticed that people generally tweet about the weather. We decided to use that and created a handle #MumbaiFloodData. Our plan going forward is to ask Mumbaikars to tweet and give us information on flood levels in their areas. We will then merge all this diverse information, compile it, run quality control on the data, and then provide monitoring information about the flood back to our people. This validation data will be available for everyone and provide flood-related information in real-time. We will start this project during the upcoming monsoon season and, after two months, we should have some idea of how successful this model can be. We're basically solving our own problems by crowdfunding a solution.

Finally, is there any advice you'd like to give our next generation of scientists and researchers at IIT Bombay?

I have a few. When I first started doing my research, I was very fortunate to have excellent collaborators and colleagues. Prof. Raghu Murtugudde from the University of Maryland was one of them. He is my friend,

philosopher, and guide. He always used to say that whatever you do, you should enjoy and have fun. That is very important, So, firstly, enjoy whatever you do.

The next piece of advice is never to give up. Let me tell you a quick story.

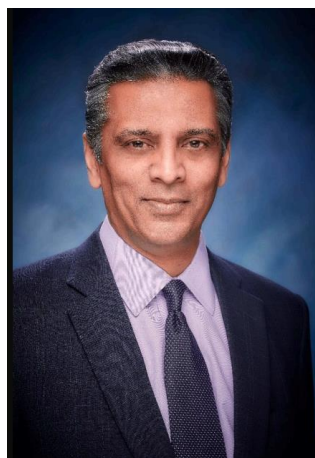
Back in 2011-12, there was a call for proposals under a project called Monsoon Mission. There was a very well-respected senior member in the committee to whom we made our presentation. Halfway into it he stopped us and remarked that people from IIT Bombay know nothing about the climate and that there was no real merit to our proposal. I felt terrible. This came from someone whom I truly respected. Afterward, a few of the other committee members came to me and apologized for his comment, and consoled me. Eventually, our project got funded by the Ministry of Earth Science, Hydrology, and Cryosphere. Through this project, for the first time in India, we quantified the moisture contribution – of land to Indian monsoon rainfall – in India which is around 25%. This study and further research on this subject eventually got me the Shanti Swarup Bhatnagar award in 2018.

A few years later the same senior committee member came to IITB and attended another presentation of mine. He later invited me to tea where he told me that he was wrong about me. And that what I was doing in climate studies is very important and useful. His humility and his encouraging words mean more to me than any other award. For this man whom I respected so much to finally recognize me...that meant so much.

So, my second major piece of advice is – it doesn't matter whether you get hurt or humiliated by someone. Don't ever give up.

Prof. Ghosh's journey has been stellar in terms of his focused research and accomplishments at this very early age. His drive, his commitment to climate studies, his support of his students, and his many accomplishments and awards – they are truly inspirational. We wish Prof. Subimal Ghosh the very best.

IN CONVERSATION WITH ALUMNI



Raj Subramaniam

Looking Back in Time: A Nostalgic Visit To His Alma Mater

IIT Bombay's distinguished alumnus, Mr. Raj Subramaniam (B.Tech, Chemical Engineering, 1987), and the current CEO of FedEx visited the Institute on May 04, 2022.

During his visit, Mr. Subramaniam had constructive conversations with Institute functionaries and was given an overview of the innovative research being pursued at IIT Bombay. He also interacted with faculty members and students from one of IIT Bombay's first interdisciplinary programs- Industrial Engineering and Operations Research (IEOR). Mr. Subramaniam's visit to campus concluded with a quick tour highlighting some of the most iconic buildings and popular hotspots at his alma mater's serene and green campus.

Even though Mr. Subramaniam had a very busy schedule, he still took the time to address a few questions that we posed to him. Undoubtedly, his words will inspire the younger generation of students at IIT Bombay to aspire to greatness and achieve success on a global stage.

Q: Your visit really enthused and energized the campus. Can you tell us how you felt returning to your alma mater? How long has it been since you were here last?

It has been 6-7 years since I was at the IIT Bombay campus. I am proud and humbled to receive the Distinguished Alumnus Award. It's always nostalgic to come back to where you spent such a significant period of your youth.

I had some very meaningful discussions with students on their ambitions and the impact they hope to have. It was certainly amazing to see how the campus has expanded over the past few years, and how this translates to opportunities for students.

Q. I'm sure our students would love to know the secret to your success. In the interest of time, could you elaborate on three specific traits that have made you the highly accomplished person that you are today?

- > Being able to truly embrace change and adjust to different circumstances.
- > Training at the analytical level in a tough competitive environment (such as IIT) provides a way of thinking that helps one succeed.
- > Being able to genuinely relate to people and have empathy.

Q: Are there any tips/any advice, that you can give our younger generation on how to navigate life at IIT Bombay, and life beyond IIT Bombay keeping in mind the ever-evolving world we live in?

I would encourage the younger generation to apply the tremendous amount of real-world skills and subject matter expertise IIT can give. It is also important to have a curious mindset. In addition to that, I would pay attention to how one relates to people and communicates with those around.

The Institute is always excited to get reacquainted with its former students and we are grateful to Mr. Subramaniam and his team for visiting the campus and taking the time to speak with us. We hope that Mr. Subramaniam will visit us again soon and stay for a more extended period.

SPEACIAL REPORT

Another Feather in the Institute's Cap - Tech for Sustainable Development, a Resounding Success

IIT Bombay's Annual Corporate Social Responsibility Conclave 2022, Tech for Sustainable Development, held on July 6, 2022, was a resounding success. A large number of India's biggest corporates who attended the conclave were hugely impressed at the Institute's formidable forays into critical areas of research to develop actionable, cost-effective, sustainable, and scalable solutions that can solve pressing challenges of national and global importance. These include education, healthcare, rural development and agriculture, sustainability, skills and entrepreneurship, women empowerment, social and policy development. Prof. Ravindra D. Gudi, Dean, Alumni and Corporate Relations, IIT Bombay, gave an enlightening insight to corporates present on the Institute's R&D projects in these core areas.



Mr. Amarjeet Sinha, Former Advisor in the Prime Minister's Office and Retired IAS officer presided over the event as the Chief Guest in virtual mode. During his keynote address at the conclave, Mr. Sinha said, "The biggest challenge we face with regards to sustainable development is in technology development and the presence of competent professionals in rural areas, as well as a strong community connect. Technological innovations can play a critical role in improving the lives and livelihoods of deprived households and moving them up the skilling ladder. The coming together of 'Tech for Sustainable Development' and Institutions like IIT Bombay, whose ideas and innovations can be transformative for the livelihoods of people, provide an opportunity for the same."



Ms. Sujata Saunik (IAS), Additional Chief Secretary, General Administration Department (GAD), Government of Maharashtra (India), and Takemi Fellow, Harvard University, graced the conclave as the Guest of Honour. Ms. Saunik was also a panellist in 'Climate Change Mitigation through Technology and Innovation' where she highlighted the "5Cs" approach toward climate change mitigation. These include cost, capacity, collaboration, climate-centric policies, and cohesive outcomes.



Highlighting the depth of IIT Bombay's ecosystem in science and technology, Prof. S. Sudarshan, Deputy Director, Academic and Infrastructural Affairs, IIT Bombay, added, "IIT Bombay and companies can work together to create an impact. By partnering with the Institute, corporates will be a part of cutting-edge research in areas of local and global importance, and in the process, fine-tune their CSR strategies to make them more impactful. I would like to thank all the leaders from many of India's biggest companies who are participating in this conclave and have witnessed the projects currently underway at the Institute."

Prof. Sudarshan also showcased a recently released book, IIT Bombay's Ideas and Innovations for Society (IBIS) that highlighted 100 technology translations of IIT Bombay that have created a significant societal impact.

Click on the video below to get a glimpse of IIT Bombay's Annual CSR Conclave 2022 – Tech for Sustainable Development.

<https://youtu.be/pl26aiH3CEs>

The conclave was sponsored by IIT Bombay's Wadhvani Research Centre for Bioengineering and Koita Centre for Digital Health. The event received media support from The CSR Journal.

The CSR Journal spoke to the many attendees at the conclave who talked about their dreams, goals, and aspirations from the event.

Showcasing 'Tech for Sustainable Development' Through Kiosks, Presentations, and Panels

Over the course of the day, IIT Bombay showcased its many pioneering projects through kiosks that were set up thematically at the venue. Many of the faculty members and students of the Institute directly involved in these projects were present at these counters to interact with the attendees and gave them a detailed overview of their current research pursuits and future goals.



This was followed by Prof. Sandeep Anand, Professor, Department of Electrical Engineering, IIT Bombay who highlighted the 'Challenges in India's Transition to Electric Mobility.'



Prof. Ravindra D. Gudi, Dean, Alumni and Corporate Relations, IIT Bombay, spoke about 'Sustainability Aspects in Chemical and Pharma Manufacturing.'



The presentations were followed by panel discussions with industry experts and faculty members on issues related to its core themes.

The first panel on ‘Climate Change Mitigation through Technology and Innovations’ addressed the adverse effects of climate change and the innovative solutions that can help combat this global problem.

Participants on the panel included Prof. Subimal Ghosh, Convener, Interdisciplinary Program in Climate Studies, and Professor, Department of Civil Engineering, IIT Bombay (moderator); Ms. Sujata Saunik (IAS),

Additional Chief Secretary, General Administration Department (GAD), Government of Maharashtra (India) and Takemi Fellow, Harvard University; Ms. Lipi Mehta, Head, Outreach & Partnerships, Paani Foundation; Prof. D. Parthasarathy, Professor, Department of Humanities and Social Science, IIT Bombay (virtual mode).

This was followed by a panel on ‘Clean Energy Solutions’ that showcased the current and emerging challenges in the clean energy space and the role of academia in helping resolve them.



Participants included Mr. Pawan Mehndiratta, Head, Corporate Centre – Tech & Manufacturing, L&T Green Energy; Prof. Shireesh B. Kedare, Professor, Department of Energy Science and Engineering, IIT Bombay (moderator); Prof. Suneet Singh, Head of Department of Energy Science and Engineering, IIT Bombay; Dr. Ravindra Utgikar, Vice President, Corporate Strategy & Marketing, Praj Industries Ltd.; Prof. Chetan Singh Solanki, Professor, Department of Energy Science and Engineering, IIT

Bombay.

The third panel in the series, ‘Healthcare and Biosciences: Key Challenges and Technology Solutions’, discussed the current and emerging challenges in the healthcare space and analysed the vital role that academia plays in finding long-term solutions, focusing specifically on the underprivileged communities.

Participants included Dr. Srivalli Shrikanth, Professor and Head of Department of Oral and Maxillofacial Surgery, MGM Institute of Health Sciences, Navi Mumbai; Prof. Siddharth Tallur, Professor, Department of Electrical Engineering and Professor-In-Charge, Wadhvani Electronics Laboratory, IIT Bombay; Prof. B. Ravi, Professor, Department of Mechanical Engineering and Principal Investigator, Biomedical Engineering and Technology Innovation Centre, IIT Bombay; Prof. Ganesh Ramakrishnan, Professor, Department of Computer Science and Engineering, IIT Bombay, and Professor-in-Charge, Koita Centre for Digital Health, IIT Bombay; Dr. Abdur Rub, Chief Executive Officer, Wadhvani Research Centre for Bioengineering, IIT Bombay (moderator).



The fourth panel on ‘Circular Economy’ highlighted the challenges and opportunities that exist in the Circular Economy domain and elaborated on the opportunities for synergy between industry and academia.

Participants included Mr. Rajendra V. Gandhi, Managing Director of GRP Limited; Mr. Swapan Ray, Honorary Secretary, Indian Centre for Plastic in the Environment and Sr. Vice President (Petrochemicals), Reliance Industries Limited.; Mr. Gurpreet Kohli, Global Program Director (R&D), Fabric Solutions / Laundry, Unilever; Prof. Guruswamy Kumaraswamy,

Professor, Department of Chemical Engineering, IIT Bombay; Prof. Yogendra Shastri, Professor, Department of Chemical Engineering, IIT Bombay (moderator).



The final panel of the conclave on ‘Tech Entrepreneurship: Driving India’s Growth’ deliberated on the possibility of a collaborative framework where IIT Bombay can partner with industry and support socially relevant organizations and entrepreneurs.

Participants included Mr. Ravishankar Gedela, Chief Executive Officer, IIT Bombay Development and Relations Foundation (IITBDRF); Prof. B. Ravi, Professor, Department of Mechanical Engineering and Professor-In-Charge,

Desai Sethi School of Entrepreneurship, IIT Bombay; Mr. Rushin Patel, Regional CSR Head – Mumbai & other Districts, Adani Foundation; Prof. Devdip Purkayastha, Professor-of-Practice, Desai Sethi School of Entrepreneurship, IIT Bombay (moderator).

When the End is Only the Beginning

Despite the pouring rains in Mumbai, Tech for Sustainable Development was a grand success and attended by many of India's top corporates. By the end of the day, many of the corporate leaders present were deeply impacted by the conclave and expressed keen interest in collaborating with IIT Bombay in its research areas of global importance, particularly sustainability, healthcare, and women empowerment. The conclave also helped corporate leadership discover ways in which they can partner and collaborate with IIT Bombay to create societal impact through technology solutions and make their CSR outcomes more impactful and measurable.

The success of Tech for Sustainable Development 2022 has made IIT Bombay even more determined to amplify its annual CSR conclave and ensure that this yearly event gets bigger and better with every passing year. While CSR will definitely aid the Institute in its education and research goals toward becoming a globally competitive science and technology Institute, more importantly, it will also get the Institute one step closer to its overall commitment to leading from the front toward nation-building for a bigger and better India.



Taking a Break from a Life of Service - IIT Bombay Hosts First Ever Civil Services (CS) Alumni Reunion

Some of IIT Bombay's alumni opt for a career in the Indian Civil Services after graduating from the Institute. It is a matter of immense pride for the Institute that they are serving

the nation by way of governance and making high-impact policy decisions that benefit our country.

The Institute was delighted to honour them by hosting its first-ever 'Civil Services Alumni Reunion' on campus over three days between July 8-10, 2022. The event, planned by IIT Bombay Alumni Association (IITBAA), was attended by over 30 alumni from various batches.

The reunion explored ways in which IIT Bombay could help its CS alumni with the challenging and on-the-ground issues they face regularly. It also looked at ways the CS alumni can leverage the Institute's pioneering research, the expertise of the faculty/student body, and its Centres of Excellence.

The three-day reunion was packed with activities. Several CS officers like Dr. Satish B. Agnihotri, Professor, Centre for Technology Alternatives for Rural Areas (CTARA), IIT Bombay; Mr. Amrish Kumar, IAS officer and, currently, the Project Director at Isha Outreach; and Mr. Nandakumar Saravade, Independent Advisor, Cyber Security, and Risk, Indian Police Service, shared details of their inspiring professional and personal journeys.

There were a series of exciting interactions between the CS alumni, the Institute's faculty from various departments, and other distinguished invitees including Mr. Ashank Desai, the Institute's Distinguished Alumnus, Prof. Chetan Singh Solanki, Department of Energy Science and Engineering, and the Ashank Desai Centre of Policy Studies, IIT Bombay faculty members from CTARA and the Department of Computer Science and Engineering.

The reunion was not just serious meetings and conversations though. They were interspersed with fun activities like a campus tour where CS alumni went back to their old hangout spots, discovered new infrastructures on campus, played indoor cricket and table tennis matches, crooned their favourite tunes during a lively karaoke night, and physically challenged themselves with a trek to Lohgad.

The three-day CS alumni reunion came to an end on July 9. Both sides agreed to work together closely and support each other moving forward. The Institute is committed to compiling the technology requirements of its CS alumni and developing solutions for them. IIT Bombay also agreed to create a portal with some of its key technology projects and collaborate with them on an e-Governance course. The reunion allowed the Institute to start building a network of CS officers who assured their alma mater of their help with any government-related

issues. In the future, the annual CS alumni reunion will be more structured and each department on campus will create innovative technological solutions for the CS alumni.

The Institute is extremely gratified that the civil services alumni took the time out from their busy schedules to bond with their cherished alma mater and promised to return next year.

We cannot wait to meet them again!



Invention Factory - Creating the Next Generation of Inventors and Entrepreneurs

A Smart Clubfoot Brace, a Hand Pump with an Integrated Water Purification System, and an Active Thermoregulatory Vest were crowned the top three inventions during the grand finale on July 1, 2022, of the Invention Factory Program, a six-week-long ideate-to-prototype-to-pitch initiative funded by the Maker Bhavan Foundation.

Spearheading the program were Prof. Alan Wolf, Professor of Physics and U.S. Patent Attorney, and Prof. Eric Lima, Professor of Mechanical Engineering, along with faculty members from IIT Bombay, Prof. Amber Shrivastava, Assistant Professor, Department of Mechanical Engineering, and Prof. Sandip Mondal, Assistant Professor, Department of Electrical Engineering.

IIT Bombay alumnus, Mr. Ruyintan Mehta, who was present as a guest evaluator at Invention Factory at Syracuse University in 2016 was so impressed with it that he, together with fellow alums Rajesh Mashruwala, Hemant Kanakia, and Avi Nash, decided to launch the program in India. The first two editions of Invention Factory were held at IIT Gandhinagar in 2018 and 2019 with support from the Maker Bhavan Foundation (MBF), a California-based charitable foundation. In 2022 MBF supported two editions of Invention Factory: IIT Bombay and IIT Gandhinagar. IIT Bombay's Distinguished Alumnus Mr. Sudarshan Saraf (B.Tech., Mechanical Engineering and Manufacturing Engineering, 1970) sponsored the cash prize for the winners.

At IIT Bombay, the program brought together 19 students from different IITs across India. The students worked in teams, conceived and created prototypes for inventions, learnt how to pitch them, and wrote and filled out provisional patent applications for their products in India and the US. The teams presented their ideas to a panel of six to eight guest evaluators every week who provided expert inputs and suggestions for enhancing the scope of their ideas, even as the students strongly defended their ideas and methodology in rigorous Q&A sessions.

On the day of the finale, all the teams demonstrated their prototypes and described their inventions to the jury. Presented by a range of products that the students were passionate about and that met an important societal or consumer need, jury members then deliberated on the impressive variety of inventions in front of them. They finally announced the winning inventions based on how unique and solution-oriented they were.



1st Prize

Smart Clubfoot Brace

Sripriya Konda and Shaan Sapru from IIT Kharagpur win the Invention Factory Program at IIT Bombay for inventing the 'Smart Clubfoot Brace'

Sripriya Konda and Shaan Sapru from IIT Kharagpur won the grand first prize and took home a cash prize of Rs. 2 Lakhs for successfully developing a 'Smart Clubfoot Brace.' This device is a smart corrective brace for kids that will ensure a higher compliance rate, enabling every baby with clubfoot to sleep comfortably.



Prototype of the 'Smart Clubfoot Brace'

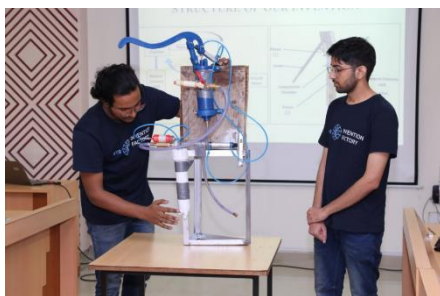
An elated Sripriya Konda said after the win, "We are very thrilled. But we don't want our or any other inventions to die out. All the inventions can and should be pursued. This was a very good program that gave us the opportunity to work with other coinventors."



2nd Prize

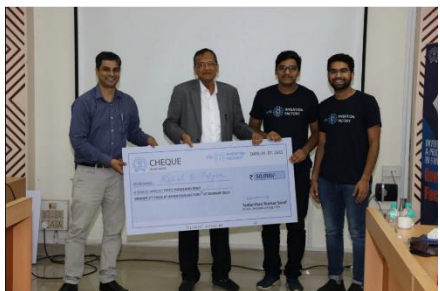
Hand Pump with an Integrated Water Purification System
Smart Clubfoot Brace

Arpit Upadhyay and Mohit Jajoriya from IIT Bombay win second place for inventing a 'Hand Pump with an Integrated Water Purification System'



Prototype of the 'Smart Clubfoot Brace'

The second position was bagged by Arpit Upadhyay and Mohit Jajoriya, IIT Bombay, who won a cash prize of Rs. 1 Lakh for inventing a 'Hand Pump with an Integrated Water Purification System.' The objective of this product is to provide citizens with easy access to clean drinking water, especially those in rural areas. The speciality of this product is that it performs reverse osmosis without electricity.



3rd Prize

Active Thermoregulatory Vest

Rahul Bansal, IIT Ropar, and Phalgun Vyas, IIT Madras, bag the third position for inventing an 'Active Thermoregulatory Vest'



Prototype of the 'Active Thermoregulatory Vest'

IIT Bombay congratulates the winners, as well as all the participants of the Invention Factory program. We hope that all of them go on to invent more important, essential, and affordable products that can help and change our world for the better.



Dr. Jay Lala with his wife, Michele, and daughter, Brittany, attending remotely from San Diego, CA, USA

The Aerospace Computational Engine (ACE) Inaugurated at the Department of Aerospace Engineering

The Aerospace Computational Engine (ACE) was inaugurated on December 1, 2021, on the Golden Jubilee anniversary of the pioneer aerospace batch of 1971. Dr. Jay Lala (B.Tech.,

Aerospace Engineering, 1971), who funded the facility, inaugurated ACE remotely while the ceremony was also attended in person by a few members of his family.

A paucity of high-performance computational facilities for researchers at the Department of Aerospace Engineering led to them submitting a proposal for Rs. 50 lakhs to build ACE to Dr. Lala during the headship tenure of Prof. Avijit Chatterjee in 2017. This facility was meant for exclusive use by the faculty and research scholars of the department of aerospace engineering. It was very serendipitous that during this time, Dr. Lala, who had already sponsored a teaching award at his alma mater, was looking to fund another project at IIT Bombay. As he graciously came on board to fund the lab, IIT Bombay matched his grant and the ACE facility was born. (<https://varuna.aero.iitb.ac.in/ace/>).

Apart from Dr. Lala and the Institute, many others played an integral part in the fruition of ACE. These include the former DD FEA, Prof. Mujumdar; the successive Aerospace Department HoDs Profs. A. Chatterjee and Sudarshan Kumar; system administrator, Vinay Narasimhan; and the office staff of the Department of Aerospace Engineering along with Prof. Prabhu Ramachandran for leading the effort to build ACE.

About ACE

To utilize the grant money most effectively, the department decided to build a computational facility with around 400 CPU cores and some NVIDIA GPU cards. The cluster was carefully designed to provide the maximum number of high-performance computational cores. The CPUs were the recent AMD Ryzen 3950x 16 core high-performance processors along with a few GPUs (NVIDIA RTX 2080). The facility consists of two small computational clusters. One of these clusters is called Shukra, which has a standard 1GBps network switch connecting 14 compute nodes, four of which are GPU nodes. For supporting larger computations requiring a distributed computation environment, the lab also has a cluster called Soumya with a high-speed Intel Omnipath interconnect and 100GBps bandwidth with 10 compute nodes. The facility is housed at the CFD lab's aerospace engineering annex and has a UPS to provide 30 minutes of backup in case of short power outages. These two clusters provide the department with valuable access to high-performance computing resources.



Dr. Lala's family members, faculty members, and institute dignitaries at the ACE facility inauguration



Ribbon cutting for the facility

Dr. Lala joined the function via zoom



A Soiree at the Windy City

Prof. Subhasis Chaudhuri, Director, IIT Bombay, meets with the Institute's Chicago alumni

Prof. Subhasis Chaudhuri, Director, IIT Bombay, met with alumni members from Chicago on May 20, 2022, at the University Club of Chicago. Mr. Ram Kelkar, IIT Bombay alumnus (B.Tech., Electrical Engineering, 1980) and Co-Founder, IIT Bombay

Heritage Foundation, arranged the soiree along with the IITB DRF office.

Over the course of the evening, Prof. Chaudhuri gave alumni members an overview of IIT Bombay's 2030 vision of becoming a leading global science and tech institution, the Institute's strategic initiatives to establish world-class research in emerging areas, build IIT Bombay into a deep tech hub, enhance faculty value propositions, and establish a strong connect with industry. Prof. Chaudhuri stressed data sciences, artificial intelligence, sustainability, advanced manufacturing, and healthcare, as the focus areas of IIT Bombay's ongoing research endeavours.

In an interactive session later, Prof. Chaudhuri responded to the many doubts and queries from alumni members. He outlined plans that IIT Bombay has towards building more multidisciplinary centres at the institute, changes in curriculum, the Institute's need to augment research laboratories, and living facilities for the increasing number of students (including building state-of-the-art hostels) on campus. Prof. Chaudhuri and alumni members also had a lively and vibrant discussion on the crucial role that alumni can play in their alma mater's tryst with excellence.

The meet-and-greet with Prof. Chaudhuri was attended by alumni members from batches spanning 40 years. The list of attendees included Dr. Anoop Kulkarni (Ph.D., Electrical Engineering, 1997), Mr. Harsh Koppula (B. Tech., Mechanical Engineering, 1976), Mr. Nitesh Dixit (B. Tech., Physics, 2003), Dr. Anil Oroskar (B.Tech., Chemical Engineering, 1977), Dr. Ujjwal Gupta (M.Sc. / S.M, Chemistry, 2003), Dr. Gopi Sethu Rao (M.Tech, Chemical Engineering, 1993), Shreyas Chavan (B. Tech., Mechanical Engineering, 2014), Prof. Ajit Tamhane (B. Tech, Mechanical Engineering, 1968), and Prof. Amit Sethi, Professor, Department of Electrical Engineering, IIT Bombay.

DONOR INSTITUTED CHAIR PROFESSORSHIP



Prof. Siddhartha Ghosh appointed the Jitendra K. & Meena J. Mehta Chair Professor of Structural Engineering

About the Donor:

Dr. Jitendrakumar K. Mehta, (B.Tech, Civil Engineering, 1963), President of Innova Structural Design Group, established the Jitendra K. & Meena J. Mehta Chair Professor of Structural Engineering in

2014. He established this Chair Professorship to promote academic and research pursuits in the field of structural engineering.

About the Appointee:

Prof. Siddhartha Ghosh is the Jitendra K. & Meena J. Mehta Chair Professor of Structural Engineering, Department of Civil Engineering.

Prof. Ghosh's illustrious academic background includes a B.E., Department of Civil Engineering, Jadavpur University, Kolkata, India. He then received his Masters in Structural Engineering from IIT Kanpur. After completing his Ph.D. from the University of Michigan in 2003, he joined IIT Bombay, where he has held various academic positions over the last two decades.

His research interests are primarily in the application of probabilistic methodologies in civil infrastructure risk reduction. In recent years, he has also supervised postgraduate students working in the areas of value of information in structural health monitoring, analysis and design of tensile membranes, risk analysis in earthquake engineering, uncertainty quantification, and the use of topology optimization in structural design. He also manages the 'Structural Safety, Risk, and Reliability (SSRR) Lab' at IIT Bombay.

Prof. Ghosh teaches graduate and undergraduate courses in structural engineering and probabilistic methods at IIT Bombay. He also consults in areas related to structural dynamics, structural reliability, bridge safety, and design, NDT & retrofit of steel and RC structures.

Currently, he is the convenor of the Bureau of Indian Standards' working groups on 'tensile membrane structures' and 'structural health monitoring.'

Prof. Ghosh has also recently been appointed as Dean of Educational Outreach at IIT Bombay.



Prof. Venkata Santosh Kumar Delhi appointed the Anantrao Jagtap Chair Professor

About the Donor:

Mr. Pankaj Jagtap, Senior Vice President of Professional Services, HighRadius Corporation, donated generously to set up the 'Anantrao Jagtap Chair for Construction Management' in memory of his late father, Shri. Anantrao Jagtap, who was also a Civil Engineer and passionate about the field of Construction Management. The Chair Professorship will identify and support faculty with an exceptional understanding of research and pedagogy in the area of indigenous, accurate, low-cost, and efficient construction management. The primary objective of this Chair

Professorship is to attract young and talented faculty members from all over the world and provide them with the financial support to build a world-class program in Construction Management at IIT Bombay.

About the Appointee:

Prof. Kumar received his B. Tech in Civil Engineering and Ph.D. in Building Technology and Construction Management Division from IIT Madras. He was also a Fulbright Nehru Doctoral and Professional Research Fellow at the Global Projects Centre, Stanford University, in 2012.

He is an Associate Professor in the Civil Engineering Department at IIT Bombay. He is part of the Construction Technology and Management Specialization program in the Civil Engineering Department. His research interests include information management on large engineering projects. He works on Building Information Modelling (BIM), AI/ML applications in Construction Management, Construction Contract Management, AR/VR/MR applications for Construction Safety and Planning.

He is also actively involved in several projects that provide policy and strategy guidance to various governmental agencies and private companies.

He is the recipient of multiple honours and awards over the years. These include the Highly Commended Paper Award (2022); 22nd CIB World Building Congress, Australia; the Department Excellence in Teaching Award (2021), Civil Engineering Department, IIT Bombay; the Best Paper Award, Indian Lean Construction

Conference (2019); the Fulbright Nehru Doctoral and Professional Research Fellowship (2012), Global Projects Centre, Stanford University; and more.

NEWS FROM IIT BOMBAY



IIT Bombay Alumnus, Sharad Kumar Saraf, appointed Chairperson of IITB's Board of Governors

IIT Bombay's Distinguished Alumnus, Dr. Sharad Kumar Saraf (B.Tech., Electrical Engineering, 1969), has created history by becoming the first Institute alumnus to be appointed as the Chairperson of IITB's Board of Governors (BoG). Dr. Saraf has been a member of IITB's BoG for the past four years and is currently serving as the Chairperson of the BoG, IIT Jammu.

Dr. Saraf is currently the Chairman and Managing Director of Technocraft Industries India Ltd., which he co-founded in 1972 with his brother, Mr. Sudarshan Kumar Saraf, another Distinguished Alumnus of IIT Bombay. Dr. Saraf has played a key role in the advancement of his alma mater through his generous contributions which include setting up the Technocraft Centre for Applied Artificial Intelligence (TCA2I) along with his brother. The objective of the centre is to promote Artificial Intelligence and was formally inaugurated in April this year.



IIT Bombay Ranks 3rd Overall in NIRF Rankings

The 7th edition of the National Institutional Ranking Framework (NIRF) was announced by the Honourable Union Minister of Education, Government of India, Mr. Dharmendra Pradhan. IIT Bombay placed third in the 'Overall' and 'Engineering' category, and 11th in the 'Management' category. The Institute also ranked fourth in the new 'Research' category.

The parameters used for NIRF rankings include Teaching, Learning & Resources, Research and Professional Practice, Graduation Outcomes, Outreach and Inclusivity, and Perception.

Speaking about IIT Bombay's performance in the NIRF Rankings, Prof. Subhasis Chaudhuri, Director, IIT Bombay, said, "IIT Bombay always strives to provide the best all-around career training for all our students and focuses on research and entrepreneurial activities that have a great impact on our society. Our efforts to better ourselves will continue and this recognition from NIRF will further consolidate our resolve to work harder."



Prof. Subhasis Chaudhuri, Director, IIT Bombay, Conferred with Prestigious Advanced Computing and Communications Society (ACCS) Award

Prof. Subhasis Chaudhuri, Department of Electrical Engineering and Director, IIT Bombay, has been conferred with the very prestigious Advanced Computing and Communications Society (ACCS) Award for the year 2021. The award recognizes his outstanding research in the area of Computer Vision and Computational Photography.



IIT Bombay Alumnus, Ashish Chauhan, Selected CEO of National Stock Exchange (NSE)

IIT Bombay alumnus, Mr. Ashish Chauhan (B.Tech., Mechanical Engineering, 1989) has been selected as the CEO of the National Stock Exchange (NSE).

Mr. Chauhan spent the last decade as the CEO of the Bombay Stock Exchange. He is considered the father of modern financial derivatives in India, is credited with NSE-50 (Nifty), and took the BSE public in 2017. He also set up India's first fully automated screen-based trading system and created a commercial satellite communications network in the country.

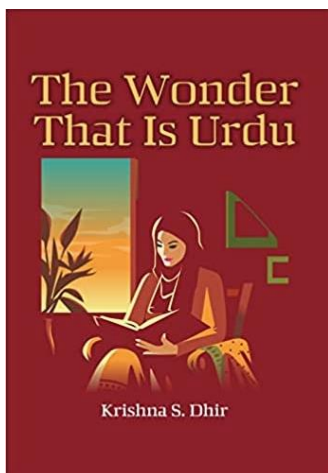
Mr. Chauhan will take over as CEO of the NSE in November 2022.



IIT Bombay Alumnus, Sanjeev Nabar, sets up the ‘Jaywant M. Nabar’ Diamond Level Scholarship

IIT Bombay alumnus, Sanjeev Nabar (B.Tech & DIIT, Mechanical Engineering and Industrial Design, 1974), and currently, the Founder & Managing Director of Ikebana Engineering Ltd. has graciously committed to a Diamond Level Scholarship at the Institute. The ‘Jaywant M. Nabar’ scholarship will pay homage to Mr. Nabar’s father, the late Mr. Jaywant Mangesh Nabar, who would have celebrated his 100th birth anniversary on July 22, 2022. The scholarship will support one meritorious student per year for a total period of 16 years.

Financial scholarships are integral to IIT Bombay’s resolve to build an equitable launchpad for success for financially-constrained students. The Institute is grateful to Mr. Nabar for his generous donation as it aligns with the Institute’s mission of ensuring access and inclusion at every level.



IIT Bombay Alumnus, Krishna S. Dhir, Publishes Book ‘The Wonder That Is Urdu’

IIT Bombay alumnus, Krishna S. Dhir (B.Tech, Chemical Engineering, 1966) who is a Research Professor of Management Science, Szechenyi Istvan University of Gyor, Hungary, recently published his newest book, ‘The Wonder That Is Urdu.’

Language is a developmental, social, and cultural phenomenon. In his book, Dhir provides an excellent illustration of how the various Apabhramsa of South Asia interacted with Perso-Arabic and European languages, to give rise to various new languages, including Urdu, and traces their growth through the time of the Mughals and the British. The book also looks at how all the major religions of the world originated in the Asian continent, analyses the role of social and economic institutions and traditions in the evolution of Urdu, and

highlights protest literature.

Dhir also quotes Mir, Ghalib, Daagh Dehlvi, Sahir Ludhianvi, Faiz Ahmad, Ahmad Fraz, and other poets to prove how Urdu poetry has been used to protest against sieges, raids, imprisonment, imperialism, and colonisation, as well as to express love and peace.

Dhir is a former Business Dean of the University of Hawaii at Hilo, and the Henry Gund Professor Emeritus and Business Dean at Berry College, Mt. Berry, GA. Dhir spent 13 years in the industry as VP of Strategy at BioStar Medical in Boulder CO; as manager at CIBA-GEIGY in Basle Switzerland; and as a chemical engineer with Borg-Warner in Parkersburg. Dhir received the 2008 Dennis Grawoig award and the 2009 Jimmy Barnes Distinguished Service Award and is a Gold Medalist of the St. John Ambulance Association of India.



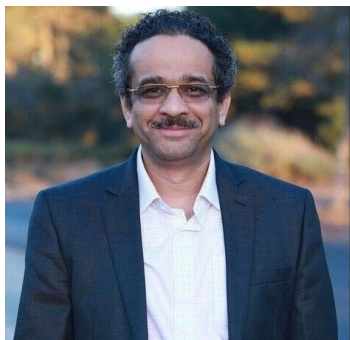
Prof. Munukutla Radhakrishna, Department of Earth Sciences, wins the National Geosciences Award 2019

Prof. Munukutla Radhakrishna, Department of Earth Sciences, has been selected for the National Geoscience Award 2019, for his significant contributions in the field of Applied Geophysics which include New Technologies in Geophysical Exploration Application of Geophysical Methods, Geo-Magnetism, Geophysical Survey Techniques, and Instrumentation. The award comprises a cash amount of Rs. 3 lakhs and a Certificate. The award function will be organized by the Ministry of Mines on July 12, 2022, at Dr. Ambedkar International Centre, 15 Janpath, New Delhi.



Prof. Urjit A. Yajnik earns an Honourable Mention for his essay 'Gravitational Fields and Quantum Mechanics'

Prof. Urjit A. Yajnik earned an Honourable Mention for his essay 'Gravitational Fields and Quantum Mechanics' accorded by the Gravity Research Foundation, USA. He co-authored the essay with R. B. MacKenzie, Victor Massart, M. B. Paranjape of the University of Montreal, and Gordon Semenoff of the University of British Columbia. The essay will be published in the October 2022 special issue of the International Journal of Modern Physics D (IJMPD). The essay looks at how Quantum Mechanics allows the wavefunction of a particle to be "spread" over space and asks the question, what happens to its gravitational field?



IIT Bombay alumnus, Dr. Yogesh M. Joshi, elected as a Fellow of the Society of Rheology

IIT Bombay alumnus, Dr. Yogesh M. Joshi (Ph.D., Chemical Engineering, 2001), is the first Indian to be elected as a Fellow of the Society of Rheology. The Society of Rheology was founded in the US in 1929 and honours distinguished achievements in science, noteworthy accomplishments in technology, and exceptional scholarship in the field of Rheology. This prestigious fellowship is awarded annually to less than 0.5% of the society's membership in any given year.

Dr. Joshi is currently the Girish & Sushma Rani Pathak Chair, and Professor at the Department of Chemical Engineering, IIT Kanpur. He is also a recipient of several awards, fellowships, and honours including the Shanti Swarup Bhatnagar Award (2015) given by the Government of India. He was also elected as a Fellow of the Indian National Academy of Engineering (2016) and the National Academy of Sciences, India (2017). Dr. Joshi is a Senior Editor of Langmuir, and he serves on the editorial boards of the Journal of Rheology, Rheologica Acta, and Physics of Fluids.



IITB Alumnus, Dr. Ashutosh Kumar, wins John Carter Award 2022

IIT Bombay alumnus, Dr. Ashutosh Kumar (M.Tech., Ph.D., Civil Engineering, 2018), and currently, an assistant professor at IIT Mandi, has won the prestigious "John Carter Award 2022 of IACMAG, USA" (<https://www.iacmag.net/>). The award will be presented during the 16th IACMAG conference in Italy, later this year.

The John Carter Award is given to a researcher who has demonstrated outstanding research potential in Geomechanics through her/his work published in refereed journals and graduated with a Ph.D. degree less than 5 years before the closing date of the applications.

Dr. Kumar is also the recipient of the Excellence in Ph.D. Thesis Awards given by IIT Bombay in 2018.



IITB Alumnus, Dr. Giridhar Rajesh Bande, wins Excellent Paper Award 2022 of IACMAG, USA

IIT Bombay alumnus, Dr. Giridhar Rajesh Bande (Ph. D., Civil Engineering, 2017), and currently, an Assistant Professor at IIT Dharwad, will receive the prestigious "Excellent Paper Award 2022 of IACMAG, USA" (<https://www.iacmag.net/>), for his paper published in ASCE Journal. The award will be given during the 16th IACMAG conference in Italy, later this year.

IACMAG's Excellent Paper Award recognises brilliant research contributions published through refereed paper(s) in archived journals. The award is given to research that's of high quality and whose subjects are wide-ranging in geomechanics/geotechnics including areas such as analytical or numerical methods, constitutive modelling, and testing, and important practical geotechnical applications.

Dr. Bande also won the Excellence in Ph.D. Thesis Awards given by IIT Bombay in 2019.

Dr. Bande's award-winning research paper is titled, "B. G. Rajesh and D. Choudhury (2017); "Generalized seismic active thrust on a retaining wall with submerged backfill using a modified pseudo-dynamic method", International Journal of Geomechanics, ASCE, (ISSN: 1532-3641, Impact Factor: 3.819) USA, Vol. 17(3), pp. 06016023_1-10, doi: 10.1061/(ASCE)GM.1943-5622.0000750"



Ph.D. Student Vrunda Dave's Dissertation is Runner-up in the Beth Outstanding Dissertation Prize (BODP) 2022

Vrunda Dave, a Ph.D. student from the Computer Science and Engineering department at IIT Bombay, is the first Indian to be chosen as runner-up for the Beth Outstanding Dissertation Prize (BODP) 2022.

The E. W. Beth Dissertation Prize, named in honour of the Dutch mathematician Evert Willem Beth, is instituted by the Association for Logic, Language and Information (FoLLI) each year, and recognizes outstanding Ph.D. theses in the fields of Logic, Language, and Information.

Dissertations are evaluated based on their technical depth, strength, and originality. The shortlisted theses will be published by FoLLI. The committee was particularly impressed by the breadth, technical depth, and novelty of the results in Dave's thesis.

Earlier this year, Dave's thesis won an honourable mention at the ACM India Doctoral Dissertation Award 2021.

INSTITUTE HIGHLIGHTS



Dr. Shailesh J. Mehta
Distinguished Alumnus
B.Tech. Mechanical Engineering, 1971
IIT Bombay



Mr. Ram Kelkar
Distinguished Alumnus
B.Tech. Electrical Engineering, 1980
IIT Bombay

Shailesh J. Mehta School of Management (SJMSOM) hosts its 4th International Conference on Financial Markets and Corporate Finance (ICFMCF)

IIT Bombay's Shailesh J. Mehta School of Management (SJMSOM) hosted its 4th International Conference on Financial Markets and Corporate Finance (ICFMCF) between July 7-9, 2022. Two of IITB's Distinguished Alumni were the key speakers at the event – Dr. Shailesh J. Mehta, President, Granite Hill Capital Ventures LP, USA, and a generous contributor to the School of Management at IIT Bombay (renamed as SJMSOM to acknowledge and recognise his donation), as

well as Ram Kelkar, Principal and Managing Director, Capital Markets Group Milliman Financial Risk Management LLC, and co-founder IITB Heritage Foundation.

Dr. Mehta spoke on 'Private Equity & Startup Financing' while Mr. Kelkar joined the conference virtually and delivered a lecture on 'Innovation in Insurance and Retirement Products: Global trends and recent developments in India.'

The objective of the conference was to showcase pioneering research in the areas of financial markets and corporate finance. The international forum brought together researchers, academicians, and industry executives working in the area of finance and allied areas and provided them with a unique platform to network and learn the best practices in the financial domain.



Newly Renovated Hostel 5 Inaugurated

IIT Bombay's newly upgraded Hostel 5 (H5) with modern, improved facilities was inaugurated on July 22, 2022. This first-of-its-kind renovation project – a joint initiative between IIT Bombay, IIT Bombay Alumni Association (IITBAA), and IIT Bombay Heritage Foundation – was spearheaded and driven entirely by alumni members Mr. Ajit Jawle (Civil Engineering, 1977), Mr. Suhas Mehta (Civil Engineering, 1983), Mr. Nitin Doshi (Civil Engineering, 1979), Mr. Nandkishore Nemade (Chemical Engineering, 1982), and Mr. Dhananjay Saheba (Electrical Engineering, 1977). Through their tireless efforts, H5's alumni raised funds and implemented the hostel's refurbishment in June 2021. A year later, Hostel 5 today boasts freshly painted walls, air-conditioned study rooms, and additional restroom facilities, among other amenities, to ensure a holistic living environment for our present and future students.

Visit the Hostel 5 website at this link here: <https://lnkd.in/g/xU8p9j>



MoU signed between IIT Bombay Research Park and Deutsche Bank

IIT Bombay Research Park Foundation signed an MoU with Deutsche bank, one of the world's foremost financial institutions, as the first company in this domain to partner with them. The goal of this collaboration is to birth innovation in Fintech and related areas and ignite the imagination of IIT Bombay's students.



DESE Hosts 8th International Virtual Conference on Advances in Energy Research

The Department of Energy Science and Engineering (DESE) hosted the 8th International Virtual Conference on Advances in Energy Research at IIT Bombay between July 7-9, 2022.

The rapid depletion of natural resources and the adverse changes in the climate created huge challenges for researchers. It was essential to take stock of the current energy conversion and supply systems and to put forward new ideas to move towards a more sustainable future. The conference looked at topics ranging from advanced conventional energy technology, clean coal and CCS, oil and natural gas, enhanced oil and gas recovery, IC engines, advances in nuclear energy, renewable and non-conventional energy technology, and more.

DESE focuses on research and education for the development of sustainable energy systems for the future. The department is a unique blend of science and engineering for the energy sector and is a leading inter-disciplinary energy education and research hub.

TECH NUGGETS

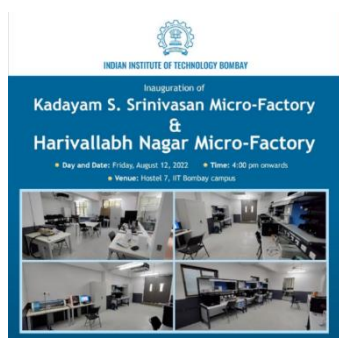


IIT Bombay organizes certification course on IoT

The Technology Innovation HUB (TIH) Foundation for IoT (Internet of Things) and IoE (Internet of Everything), IIT Bombay, organized a certification course, "Introductory Course on IoT" from July 4 to July 8, 2022. The course looked at End-to-End IoT system design and provided a basic introduction to developing an IoT-based system, including the various components of such a system. The course also covered other key aspects considered in the design, implementation, and hands-on

experience necessary to build such a system. Over 50 representatives from industry, academia, and research institutes participated in the event.

UPCOMING EVENTS



Inauguration of ‘Kadayam S. Srinivasan’ and ‘Harivallabh Nagar Micro-Factories

The ‘Kadayam S. Srinivasan Micro-Factory’ and ‘Harivallabh Nagar Micro-Factory’ have been set up at IIT Bombay’s campus through the generous donations of IITB alumni, Mr. Balaji Srinivasan (B.Tech, Chemical Engineering, 1993) and Mr. Sumeet Nagar (B. Tech, Mechanical Engineering, 1993). The facilities are now operational and will be formally inaugurated on August 12, 2022.

The micro-factories form an integral part of IIT Bombay’s Maker Space initiative that intends to replace the conventional drawing and workshop courses with state-of-the-art thematic labs and micro-factories. The objective of this project is to transform the educational experience of students by enabling hands-on learning with the help of advanced facilities similar to those found in real-world industrial setups, and also teach students the latest design and manufacturing practices.

The Hostel 7 Micro-Factories are equipped with 3D printers, laser cutters, forming machines, electronic lathes, and the latest modelling software to enhance their research. These facilities contribute to IIT Bombay’s larger mission of providing its students with practical learning that can prepare them for real-life challenges.

Day & Date: Friday, August 12, 2022

Time: 4:00 pm onwards

Venue: Hostel 7, IIT Bombay campus



Alumni Student Mentorship Program (ASMP)

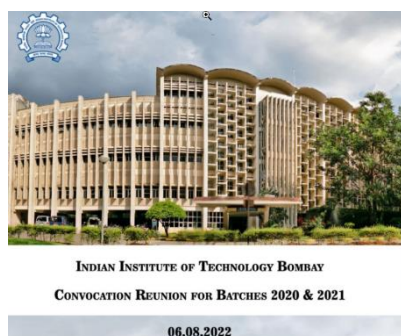
One of the key ways for alumni to volunteer their services to their alma mater is through the Alumni Student Mentorship Program (ASMP). The latter facilitates one-on-one meetings between IITB’s alumni and the Institute’s students. Through ASMP, alumni mentor and guide the students with life-changing decisions regarding their future career paths, offer their expertise to

departments and faculty, help with fundraising initiatives, arrange for guest speakers at events held at the Institute, and more.

Day & Date: Friday, August 5, 2022

Time: TBA

Venue: TBA



60th Convocation Ceremony for IIT Bombay’s 2022 Graduating Batch of Students

The 60th convocation ceremony for the 2022 batch of students graduating from IIT Bombay will be held on August 20, 2022, at IITB’s campus. Graduating students will be conferred their degrees during this momentous occasion that marks the culmination of their student lives. It’s also a day filled with joy and celebration when students get together, reminisce about their time at IITB, and socialize with their friends and faculty one last time before they embark on the next phase of their lives.

Day & Date: Friday, August 20, 2022

Time: 10:30 am onwards

Venue: IIT Bombay



Independence Day Celebrations

IIT Bombay will celebrate India's 75th Independence Day on August 15, 2022. The Institute celebrates India's independence every year by honouring and saluting the country's freedom fighters. This year too, the extended IIT Bombay family will come together and celebrate India's freedom with a sense of national pride and patriotism.

Day & Date: Monday, August 15, 2022

Time: 8:15 am onwards

Venue: IIT Bombay



IIT Bombay Gen Zero Women Initiative

IIT Bombay represents some of the best science and technology talent in India. The Institute has always promoted gender equality and women empowerment, even as our next generation of women students will join a legacy of women alumnae and global icons such as Padma Shri awardees Dr. Rohini M. Godbole, Dr. Sharada Srinivasan, and more.

To honour these exceptional women alumnae and their many stellar accomplishments, IIT Bombay, along with our alumnus, Mr. D.C. Agrawal, will be hosting an event called the 'IIT Bombay Gen Zero Women Initiative' with the launch of a coffee-table book and a podcast highlighting their stories.

Day & Date: September 23, 2022

Time: 3:00 pm onwards

Venue: VMCC, IIT Bombay campus



IIT Bombay Research Park to Host Conclave on Sustainability

IIT Bombay Research Park Foundation will host a Conclave on Sustainability on November 30, 2022.

Dr. M. Ravichandran, Secretary, Government of India, will be the guest of honour at the occasion. The sessions at the conclave will cover critical topics such as Air and Water Quality, Sustainable & Resilient Infrastructure, AI for Sustainability, Climate Mitigation, Green Technology & Carbon Sequestration, Climate Policy and Circular Economy, and Food-Energy-Water nexus.

Day & Date: November 30, 2022

Time: TBA

Venue: IIT Bombay campus

OBITUARY



In memory of Mr. Anant Yashwant Khare

IIT Bombay alumnus, Mr. Anant Yashwant Khare (B.Tech, Civil Engineering, 1967), more popularly known as Nanda Khare, passed away in Pune on July 22, 2022, after a prolonged illness.

Mr. Khare was born in Nagpur to Yashwant Anant Khare and Sumati Khare on October 2, 1946. After finishing his school years at English School and Saraswati Vidyalaya, he joined IIT Bombay.

Mr. Khare was a multi-dimensional man who had varied interests throughout his life. He was a partner and managing director at Khare and Tarkunde Pvt. Ltd., a company founded by his father. Between 1981 to 1992, he was actively involved with the Marathi Vidnyan Parishad, a learning centre focused on science. Between 1998 to 2017, he worked at the now defunct newspaper, Aajcha Sudharak, first as a member of its editorial board, and, then, as its editor-in-chief. He was also a member of the Marathi Science Council.

Mr. Khare was also an award-winning and gifted Marathi writer who tackled scientific, sociological, and economic issues in his writing. He received several awards from multiple foundations like Granthali, Lokmangal, Vidarbha Sahitya Sangh, and more. His book 'Kahani Manav Pranyachi' won the Bhai Madhavrao Bagal Award in 2010 from the Maharashtra State Government. His Marathi novel 'Udya,' meaning tomorrow, won the Sahitya Academy Award in Marathi in 2020, but he politely declined the award citing "personal reasons." The novel looks at the digital revolution and explores a future where humanity is controlled by machines.

His other literary works comprise novels, translations, and autobiographies. These include Antajichi Bakhar, Kahani Manavpranyachi, Bakhar Antakalachi, Waarulpuraan, and Samprati, among others. His autobiography, Evaji, was published in 2011.

IIT Bombay mourns the passing away of the dynamic and multi-faceted Mr. Anant Yashwant Khare. Our deepest condolences go out to his family members. May his soul rest in eternal peace.