



Jun' 21

KNOWLEDGE TREE

Dear Friend,

Greetings from IIT Bombay!

Hope you are healthy and safe.

Nature seems to have spared us her wallop this time – the cyclone 'tauksae' has side-stepped the city and passed on. Except for quite a few branches falling and an odd tree getting uprooted here and there, the campus has been mostly unaffected. Another highlight of this month was that India launched its nationwide vaccination drive. IITB hospital is now an active COVID-19 vaccination centre and we have started vaccination in full swing for campus residents as well as outsiders.

In addition to us providing vaccinations from the IITB Hospital, we also had some sessions to inform our students and staff about the crisis. A discussion with reputed pulmonologist Dr. Zarir Udwadia took place this month to enlighten the students about India's vaccination drive whilst he shared his learnings on ways to mitigate the second wave in the country. Mr. Chapal Mehra addressed the gathering at this session as well to shed more light on global vaccination performance and its success in reducing COVID-19 positivity.

The Institute's E-Valedictory Function was held on May 15 to commemorate as well as celebrate the graduating students' journey here at the Institute. The speakers for the event were our distinguished alumni – Dr. Lalitesh Katragadda, founder of Indihood ; Ms. Shalini Govil Pai, VP & GM at TV, Google; and Mr. Lalit Keshre, Co-Founder and CEO at Groww. We had enlightening discussions with them to understand their life journey. I am sure the discussions were educative in many ways to the graduating students. I am hopeful for a pleasant turn of events to the regular in-person mode next year.

The commencement of the summer break for most students this month marked the start of various extra-curricular activities for them. With a range of classes across Classical Arts, Dance, Dramatics, Media and the Literary Arts under the "Summer School of Cult" along with a summer of algorithms and coding in "Season of Code" and the program "Summer of Science" to give the students a flavour of research, the students of the Institute have a whole lot of activities planned for them by the Institute remotely too. In addition to this, the technical teams of the Institute are working in full swing although remotely. I am proud to inform you that the UMIC team of IIT Bombay bagged the 4th position globally in the American Science of Mechanical Engineers Student Design Challenge 2021. They built a bot capable of moving up to 5 kg weight using a single rechargeable AAA battery.

Lastly, I am extremely pleased to announce that we are launching a new academic program on healthcare informatics starting from the academic year 2021–22. The Centre for Digital Health (CDH) at IIT Bombay aims to provide students with a platform to receive interdisciplinary education in the emerging field of healthcare informatics. It combines AI/ML, statistics, biosciences, medical imaging, and much more. In light of this, we organized a panel discussion and interactive session with IIT alumni to provide the students with a unique and in–depth perspective into the multitude of career opportunities available in Digital healthcare informatics, predicted to be a revolutionary field in the near future.

The generous contribution received from our alumni, corporate entities, and other friends of the Institute helps make an important difference in our endeavor to pursue global excellence. The contribution towards Institute Development, Infrastructure Development, Young Faculty Awards, Chair Professorships, Hostel Development, Student Development, etc. are examples of utilization of these funds for the betterment of the Institute. We invite you to contribute to the Institute’s betterment to the best of your ability.

Suhas Joshi

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Faculty Research at IIT Bombay



Indian industries need ‘Science–enabled–technology’ solutions for global competitiveness

*We are honored to present a short interview with **Prof. Ramesh Singh**, one of our eminent professors in the Mechanical Engineering Department of IIT Bombay.*

Student Research activities at IIT Bombay

Analysis of Strategies used by ATCOs for handling Cognitive Workload

Name: Anudeep Peela

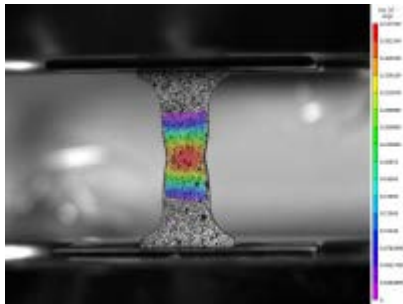
Department: Aerospace Engineering

Program: Dual Degree (4th year)

Name of supervisor: Prof. Rajkumar Pant

When can innovation capabilities enhance export competitiveness?

Insights from the research article entitled '*Innovation Capabilities, Environmentally Sustainable Practices and Export Competitiveness: An Exploratory Study of Firms from India*'



Fatigue and Fracture Behaviour of Thermomechanically Rolled Direct Quenched and Partitioned (TMR-DQP) high strength high ductility steels

Name: GAURAV KUMAR

Department: Mechanical Engineering

Program: Ph.D (2nd year)

Name of supervisor: Prof. Amol A. Gokhale and Prof. Sushil K. Mishra

About the Project

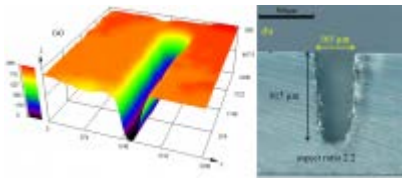
Machine learning assisted modelling of uncertainty for lightweight structures

Name: Athira Anil Kumar

Department: Aerospace Engineering

Program: M. Tech. (Structures)

Name of supervisor: Prof. Susmita Naskar



Fabrication of microchannels in the glass substrate using electrochemical discharge machining process

Name: Dileep Kumar Mishra

Department: Mechanical Engineering

Program: Ph.D (4th year)

Name of supervisor: Prof Pradeep Dixit

Product and Technology Development at IIT Bombay



Peppermint

Start-up Name: Peppermint

Inventor/s Name: Runal Dahiwade, Miraj Vora

Technology/Product: Robotics

Fostered at: SINE, IIT Bombay



chainworks.io

Chainworks Digital Pvt Ltd

Start-up Name: Chainworks Digital

Inventor/s Name: Jitendra Sadangi, Ketan Bhokroy & Tejashree Gaidhani

Technology/Product: Blockchain Products & Services.

Fostered at: SINE, IIT Bombay

Institute Lecture Series

Alumni Initiatives: Named Lectures II

The Named Lectures have been an integral part of the academic programs at IIT Bombay. These lectures are donor instituted and many times for a specific cause that is close to their heart.