

IIT Bombay Holds 59th Convocation In Virtual Reality mode



Senate members on the dais during the 59th Convocation



Professor Subhasis Chaudhuri, Director, IIT Bombay addressing the graduating students

The 59th Convocation of IIT Bombay was held online in Virtual Reality (VR) mode, keeping in view the safety measures of the ongoing pandemic. The Institute, like last year, had arranged VR-convocation for the graduating students, as it did not wish to put their health at risk but at the same time, did not wish to deprive them of the sense of achievement and pride of passing out of India's premier engineering Institute. In a unique experience, the personalized avatar of each graduate received the degree certificate from the personalized avatar of the Director **Prof. Subhasis Chaudhuri**. All medal winners received their medals from the personalized avatar of the Chief Guest **Prof. Geoffrey Hinton**, Fellow of Royal Society (FRS), University of Toronto. The event was live-telecast on Institute's official YouTube channel.

Like last year, the Institute provided an opportunity to students to socialize around a virtual campus, visit their hostels and departments and bump into/ meet their friends and faculty, all virtually. In addition, certain components of the convocation showcased a few graduates being actually present in the scene.



Chief Guest Prof. Geoffrey Hinton, FRS, University of Toronto addressing the audience

Prof. Geoffrey Hinton, often hailed as the father of artificial neural networks, is an Emeritus Professor at the University of Toronto, the Chief Scientific Advisor of the Vector Institute and a Vice-President and Engineering Fellow at Google. He has also served as a professor at Carnegie-Mellon University and University College of London. Hinton has a BA in Experimental Psychology from Cambridge University and a PhD in Artificial Intelligence from the University of Edinburgh. He is known for his seminal research contributions in areas such as back propagation algorithm,

Boltzmann machines, time delay networks, variational learning and capsule networks. Hinton was elected as the Fellow of the Royal Society (FRS) in 1998 and as a Member of National Academy of Engineering, USA, in 2016. In 2018, he received Canada's highest civilian award, 'Companion of the Order of Canada'. He has received several major awards, with the top-most honour being the Turing Award in 2018. Prof. Hinton received Honorary Doctorate degrees from the University of Sherbrooke, University of Edinburgh and University of Sussex.

Presenting the Institute's Report for the year 2020-21, **Prof. Subhasis Chaudhuri**, the Director of IIT Bombay, informed that IIT Bombay continues to be a much sought-after destination for UG and PG studies. *"We are happy to note that despite the pandemic, our students did not have to suffer academically. The training that our students received will definitely see them taking up leadership roles, as always, in the academic and corporate world, thus contributing to the needs of our country", said Prof. Chaudhuri*

Chief Guest **Prof. Geoffrey Hinton**, FRS, in his speech said, *"I would like to congratulate the students who had difficulties with their studies but persevered and overcame them. Perseverance is an admirable quality and in the long run, it is much more important than just raw talent. To be a good researcher, he/ she needs a lot of perseverance because most new ideas turn out to be wrong and it generally takes a lot of commitment and hard work to discover why they are wrong".*

"I believe that the rapid progress of AI is going to transform society in ways we do not fully understand and not all of the effects are going to be good. I hope that many of the graduating students will choose to be part of the coming revolution in medicine that combines exciting new technology with helping fellow human beings. I hope that this graduating class will use their talent and education for the good of humanity and will never put political expediency above the search for truth," he added.

At the 59th Convocation, a total of 2501 degrees were awarded. These include 178 PhD, 36 (MTech/ MPhil+PhD), 26 Dual Degree (MSc+PhD), 8 MS (by research), 689 MTech, 63 MDes, 18 Dual Degree (BDes+MDes), 13 MPhil, 109 MBA, 1 EMBA, 7 MPP, 235 two-year MSc, 324 Dual Degree (BTech+MTech), 663 BTech Degrees, 12 Interdisciplinary Dual Degrees (BTech/ BS+MTech/ MSc), 8 Dual Degrees (BS+MSc), 49 BS, 14 BDes and 20 PGDIIT. The Institute granted 28 joint PhD's along with Monash University this year. Prof. Margaret Gardner, President and the Vice-Chancellor of Monash University conferred the degrees online. This year, 38 research scholars have been selected for the award of 'Naik and Rastogi Award for Excellence in PhD Research' for the year 2019-21.

This year, three students were presented the Gold medals for their exemplary performance. The '**President of India Medal**' was bestowed on **Siddharth Chandak**, a (BTech) student from the Department of Electrical Engineering. The '**Institute Gold Medal (2019-20)**' and the '**Dr. Shankar Dayal Sharma Gold Medal**' was awarded to **Manu Srivastava**, a student from the Department of Physics. Additionally, departmental toppers were presented with silver medals by the chief guest. Prof. Margaret Gardner, President and Vice-Chancellor, Monash University, Australia, members of Board of Governors and several other distinguished guests from India and abroad attended the Convocation function online, besides the graduating students and their parents.



Personalized avatar of Prof. Subhasis Chaudhuri, Director, IIT Bombay distributing the certificates to the personalized avatars of graduating students using VR-mode



MEDALS AND PRIZES

PRESIDENT OF INDIA MEDAL

(for the year 2020-21)

Siddharth Chandak
B.Tech. (Electrical Engg.)

INSTITUTE GOLD MEDAL (for the year 2019-20)

Manu Srivastava
Dual Degree (Engineering Physics)

INSTITUTE SILVER MEDAL (for the year 2020-21)

BACHELOR OF TECHNOLOGY

Aerospace Engineering

Karthik Anantharaman

Chemical Engineering

Rajat Daga
Sharvari Sudhir Kemkar

Civil Engineering

Shashanka Katta

Computer Science and Engineering

Aman Kansal

Electrical Engineering

Syomantak Chaudhuri

Mechanical Engineering

Lakhani Raj Viren

Metallurgical Engineering and Materials Science

Mrigi Munjal

Engineering Physics

Duse Chaitrali Manoj

B.DES.

Industrial Design Centre

Harshit Satija

DUAL DEGREE PROGRAMME

Aerospace Engineering

Ankit Choudhary

Civil Engineering

Barkale Shubham Uttamrao

Electrical Engineering

Shubhang Bhatnagar

Mechanical Engineering

Sameesh Santosh Baheti

Metallurgical Engineering and Materials Science

Satra Taksh Jitendra

Energy Science and Engineering

Kumaresh Ramesh

DUAL DEGREE (B.Des.+M.Des.)

Industrial Design Centre (Specialization: Interaction Design)

Richa Agrawal

MASTER OF SCIENCE

Applied Geophysics

Shivam Jaiswal

Biosciences and Bioengineering

Ambalika Chowdhury

Chemistry

Aashi Kasera

Rupal Garg

Earth Sciences

Arif Khan

Mathematics

Krishna Chaitanya Kalidindi

Applied Statistics and Informatics

Sayantani Sarkar

Physics

Eleena Gupta

MASTER OF TECHNOLOGY

Aerospace Engineering

Akshay Lakhanpal

Patel Jaysinh Jagdishchandra

Biosciences and Bioengineering

Afraha Aboo

Chemical Engineering

Twinkle Jaiswal

Civil Engineering

Vora Anand Milind

Computer Science and Engineering

Oishik Chatterjee

Earth Sciences

Sayantani Biswas

Electrical Engineering

Neelam Sharma

Energy Science and Engineering

Abhishek Kumar Pandey

Mechanical Engineering

Akash Hindeshwar Kapase

Metallurgical Engineering and Materials Science

Gaurav Verma

Earth Sciences and Engineering

Aparna E

Centre of Studies in Resources Engineering

Dil Thomas

Industrial Engineering and Operations Research

Sayan Chatterjee

Centre for Technology Alternatives for Rural Areas

Nalgire Shivanand Mallikarjun

Educational Technology

Gaurav Jaiswal

Mayank Sahu

Centre for Urban Science and Engineering

Krithika Panicker

MASTER OF DESIGN

IDC-School of Design

Indrani Ghosh

MASTER OF BUSINESS ADMINISTRATION (M.B.A.)

Shailesh J. Mehta School Of Management

Thayyil Poojachristine Ramesh Bernadette

MASTER OF PHILOSOPHY

Humanities and Social Sciences

Naina Chopra

MASTERS IN PUBLIC POLICY

Centre for Policy Studies

Taenaz Shakir

OTHER MEDALS

Miss Jayati Deshmukh Memorial Gold Medal

Mr. Kushagra Juneja

Dr. Shankar Dayal Sharma Gold Medal

Manu Srivastava

Vidyasagar Nehra Gold Medal

Shashanka Katta

Prof Madhav Kulkarni Lt. Col.(R) Gold Medal

Shashanka Katta

Sharad Maloo Memorial Gold Medal

Kochar Dimple Vijay

Hindi Vidya Bhavan Gold Medal

Thayyil Poojachristine Ramesh Bernadette

Rajit Bhagwati Memorial Gold Medal

Aparna E

PRIZES

Prof. K C Mukherji Award

Siddharth Chandak

Tulsiram Devidayal, P.M. Natu, Damle Trust Prize

Tezan Sahu

Prof. R.P. Singh Memorial Prize

(B.Tech/ 2 Yr. M.Sc.)

Eleena Gupta

Chandrashekhar Prize

Geetika Jain

Shri R Vembu Iyer Memorial Prize

Arif Khan

Dilip R Limaye Academic Excellence Award

Siddharth Chandak

Prof. A.B. Biswas Memorial & Shri Prakash

Krishnan Award Prize (M.Sc.)

Aashi Kasera

Rupal Garg

Dr. Gargi Vishnoi Memorial Prize

Nishantkumar Jain

Prof. Hiralal Memorial Award

Aashi Kasera

Rupal Garg

Shri Ashok Chaturvedi Memorial Prize (M.Tech)

Akash Hindeshwar Kapase

Prabhulal Bhatnagar Memorial Prize

Gopikrishnan C R

Mrs. Rama Mathur Memorial Prize

Krishna Chaitanya Kalidindi

Prof. M.N.Gopalan Prize (M.Sc.)

Sayantani Sarkar

Ajit Shelat Award

Oishik Chatterjee

Bhavesh Gandhi Memorial Prize

Param Prasad Rekhi

Shubhang Bhatnagar

Akshay Dhoke Memorial Award

Kotariya Vineet Ashok
Anantha Subraya Hegde

Prof. K.C. Khilar PhD Award

Surendra Kumar Verma

Prof. K.C. Khilar Prize (M.Tech.)

Ashwin Amalaruban M

R. G. Manudhane PhD Excellence Award

Mohd Moiz Khan
Pankaj Verma

R.G. Manudhane M.Tech Student Excellence Award Best M.Tech Thesis

Richa Katare

Mr. Pranab Ranjan Sen Award

Mahajani Varad Sanjay

Indira Manudhane Student Excellence Award

Rajat Daga

Shubhada Mulekar Joshi Award

Afra Aboo

Prof. S N Sinha Memorial Award

Sangabattula Lokesh

Dr. P.V.Sukhatme Memorial Award

Krishna Chaitanya Kalidindi
Dhruv Arora
Sayantani Sarkar
Ankita Dargad

S C Mehrotra Prize

Shashanka Katta

K Seshia Research Excellence Award

Manu Srivastava
Duse Chaitrali Manoj

Ramesh Chandra Sinha Academic Excellence Award

Geetika Jain
Sanjoli Narang

Manorama Sinha Academic Excellence Award

Komal Kundlik Gaware

Malini Vyavahare (Indore) Memorial Award

M A Rohit

Digamber & Nilima Joshi Award

Gajjam Jayashree Aanand

Mrs. Charusheela Dange Award

Sanghavi Joy Kaushik

IEOR Alumni Endowment: Excellence in Doctoral Dissertation Award

Ghorpade Tejas Ravindra

IEOR Alumni Endowment: Best Masters' Thesis Award

Sayan Chatterjee
Saurav Pathak

**Institute Academic Prizes for the year 2020-21
II Year B.Tech / Dual Degree / BS (2020 Batch)**

Sr. No.	Roll No.	Name	Prize	Value of prize	Department
1	200050154	Vedang Dhirendra Asgaonkar	I	Rs.3000/-	Computer Sc. & Engg.
2	200050130	Shashwat Garg	II	Rs.2000/-	Computer Sc. & Engg.
3	200260047	Sanyam Saxena	II	Rs.2000/-	Engineering Physics
4	20D070050	Mayank Jain	II	Rs.2000/-	Electrical Engg.
5	200100083	Kartik Pratap Gokhale	Additional	Rs.2000/-	Mechanical Engg.
6	200050050	Harshvardhan Agarwal	Additional	Rs.2000/-	Computer Sc. & Engg.
7	200050048	Hardik Rajpal	Additional	Rs.2000/-	Computer Sc. & Engg.
8	200050100	Parth Dwivedi	Additional	Rs.2000/-	Computer Sc. & Engg.
9	200050109	Prathamesh Sachin Pilkhane	Additional	Rs.2000/-	Computer Sc. & Engg.
10	200050157	Virendra Kabra	Additional	Rs.2000/-	Computer Sc. & Engg.
11	200050046	Gurpreet Singh Wadhwa	Additional	Rs.2000/-	Computer Sc. & Engg.
12	200070090	Waqar Mirza	Additional	Rs.2000/-	Electrical Engg.
13	200020135	Shrey Modi	Additional	Rs.2000/-	Chemical Engg.
14	200070001	Aayush Rajesh	Additional	Rs.2000/-	Electrical Engg.
15	200050064	Kumar Satyam	Additional	Rs.2000/-	Computer Sc. & Engg.
16	200100098	Moiz Shakruwala	Additional	Rs.2000/-	Mechanical Engg.
17	200050125	Sainath Vavilapalli	Additional	Rs.2000/-	Computer Sc. & Engg.
18	200050148	Vaibhav Raj	Additional	Rs.2000/-	Computer Sc. & Engg.
19	200020158	Vatsal Goyal	Additional	Rs.2000/-	Chemical Engg.
20	200070083	Tanmay Dokania	Additional	Rs.2000/-	Electrical Engg.

III Year B.Tech. Branchwise (2019 Batch)

Sr. No	Roll No.	Name	Prize	Value Of Prize	Department
1	19D180009	Deshpande Hrushikesh Shriniwas	I	Rs.3000/-	Aerospace Engineering
2	190010069	Vignesh Anand	II	Rs.2000/-	Aerospace Engineering
3	190020007	Akshat Shirish Zalte	I	Rs.3000/-	Chemical Engineering
4	190020062	Krishi A Mantri	II	Rs.2000/-	Chemical Engineering
5	190040026	Bhuvan Aggarwal	I	Rs.3000/-	Civil Engineering
6	190040132	Vivitsa Jain	II	Rs.2000/-	Civil Engineering
7	190050048	Harshit Gupta	I	Rs.3000/-	Comp.Sc. & Engineering
8	190050089	Pradipta Parag Bora	I	Rs.3000/-	Comp.Sc. & Engineering
9	190050053	Jayesh Singla	II	Rs.2000/-	Comp.Sc. & Engineering
10	190070007	Aniket Rajiv Gupta	I	Rs.3000/-	Electrical Engineering
11	190070038	Nishant Mittal	II	Rs.2000/-	Electrical Engineering
12	190260006	Aneesh Milind Bapat	I	Rs.3000/-	Engineering Physics
13	190260027	Mahadevan Subramanian	II	Rs.2000/-	Engineering Physics
14	190020052	Jain Aryan Amit	I	Rs.3000/-	Mechanical Engineering
15	19D100007	Hiya Akhil Gada	II	Rs.2000/-	Mechanical Engineering
16	190110067	Priyanshu Jain	I	Rs.3000/-	Met. Engg. & Mat. Sci.
17	190110042	Maheesh Baijal	II	Rs.2000/-	Met. Engg. & Mat. Sci.

III Year Dual Degree Branchwise (2019 Batch)

Sr. No	Roll No.	Name	Prize	Value Of Prize	Department
1	190110040	Kushal Kejriwal	I	Rs.3000/-	Electrical Engineering
2	19D070022	Eeshaan Jain	II	Rs.2000/-	Electrical Engineering
3	19D100010	Lakshya Chaplot	I	Rs.3000/-	Mechanical Engineering
4	19D100016	Rishi Kanodia	II	Rs.2000/-	Mechanical Engineering
5	19D170027	Sanidhya Anand	I	Rs.3000/-	Energy Sc. & Engineering
6	19D170003	Arya Santosh Motegaonkar	II	Rs.2000/-	Energy Sc. & Engineering
7	19D180024	Rajvi Paresh Savla	I	Rs.3000/-	Environmental Science & Engineering
8	19D110017	Sanskar Jaiswal	I	Rs.3000/-	Met. Engg. & Mat. Sc.

III Year BS Branchwise (2019 Batch)

Sr. No	Roll No.	Name	Prize	Value Of Prize	Department
1	19B030003	Anish Shivamani	I	Rs.3000/-	Chemistry
2	19B030028	Siddhant Sujit Kolke	II	Rs.2000/-	Chemistry
3	19B080019	Riyan Jain	I	Rs.3000/-	H&SS
4	19B080026	Shah Zeel Sanjay	II	Rs.2000/-	H&SS
5	19B090012	Shirish Chinchani	I	Rs.3000/-	Mathematics

IV Year B.Tech. Branchwise (2018 Batch)

Sr. No.	Roll No.	Name	Prize	Value Of Prize	Department
1	180010047	Randad Nakul Rajesh	I	Rs.3000/-	Aerospace Engineering
2	180010023	Goparaju Khushal	II	Rs.2000/-	Aerospace Engineering
3	18B030003	Anushka Garg Mandal	I	Rs.3000/-	Chemical Engineering

Sr. No.	Roll No.	Name	Prize	Value Of Prize	Department
4	180110014	Arjun Varun Yennemadi	II	Rs.2000/-	Chemical Engineering
5	180020111	Tarun Saini	II	Rs.2000/-	Chemical Engineering
6	180040047	Jaymal A. Lodha	I	Rs.3000/-	Civil Engineering
7	180040051	Karetha Dhrutij Pradip	II	Rs.2000/-	Civil Engineering
8	180050061	Mohammad Ali Rehan	I	Rs.3000/-	Computer Sc. & Engg.
9	180050078	Pratyush Agarwal	I	Rs.3000/-	Computer Sc. & Engg.
10	180050092	Saumya Goyal	I	Rs.3000/-	Computer Sc. & Engg.
11	180050093	Saurav Garg	I	Rs.3000/-	Computer Sc. & Engg.
12	180050100	Shreya Pathak	I	Rs.3000/-	Computer Sc. & Engg.
13	180050076	Pranshu S Negi	II	Rs.2000/-	Computer Sc. & Engg.
14	180050087	Ritika	II	Rs.2000/-	Computer Sc. & Engg.
15	180070041	Parth Nilesh Dodhia	I	Rs.3000/-	Electrical Engineering
16	180070002	Adway Girish	II	Rs.2000/-	Electrical Engineering
17	18D100019	Shaswat Gupta	I	Rs.3000/-	Mechanical Engineering
18	18D10 0020	Shubham Lohiya	II	Rs.2000/-	Mechanical Engineering
19	180110029	Dhruv DhaivatAnjaria	I	Rs.3000/-	Met. Engg.& Mat. Sci.
20	180110009	Alisha Parveen	II	Rs.2000/-	Met. Engg.& Mat. Sci.
21	180260015	Himansh Rathore	I	Rs.3000/-	Engineering Physics
22	180260038	Siddharth Tiwary	I	Rs.3000/-	Engineering Physics
23	180260027	Pushkar Mohile	II	Rs.2000/-	Engineering Physics

IV Year Dual Degree Branch Wise (2018 Batch)

Sr. No.	Roll No.	Name	Prize	Value Of Prize	Department
1	18D070040	Aseer Israr Ansari	I	Rs.3000/-	Electrical Engineering
2	1800 70024	H R Sai Sumedh	II	Rs.2000/-	Electrical Engineering
3	18D1 00007	Bhavini Jeloka	I	Rs.3000/-	Mechanical Engineering
4	18D110021	Samriddhi Shrivastava	I	Rs.3000/-	Met. Engg. & Mat.Sc.
5	18D170002	Aishwarya Sidram Sherla	I	Rs.3000/-	Energy Sc. & Engg.
6	18D170004	Akshat Jain	II	Rs.2000/-	Energy Sc. & Engg.
7	18D180021	Rishi Rathi	I	Rs.3000/-	Environmental Science & Engineering

IV Year Four Year BS Branchwise (2018 Batch)

Sr. No.	Roll No.	Name	Prize	Value Of Prize	Department
1	18B030002	Ajinkya Anil Dhepe	I	Rs.3000/-	Chemistry
2	18B030019	Ramanathan R	I	Rs.3000/-	Chemistry
3	18D070045	Dibyajeet Bagchi	II	Rs.2000/-	Chemistry
4	180110045	Mridul Agrawal	I	Rs.3000/-	H&SS
5	180110010	Anirudh Maheshwari	II	Rs.2000/-	H&SS
6	18B090001	Aryaman Maithani	I	Rs.3000/-	Mathematics

V Year Dual Degree Branchwise (2017 Batch)

Sr. No.	Roll No.	Name	Prize	Value Of Prize	Department
1	170070051	Koustav Jana	I	Rs.3000/-	Electrical Engineering
2	170010050	Siddhartha C V	II	Rs.2000/-	Electrical Engineering

Sr. No.	Roll No.	Name	Prize	Value Of Prize	Department
3	17D170013	Shaunak Amarendra Joshi	I	Rs.3000/-	Energy Sc. & Engineering
4	17D170002	Adarsh Prusty	II	Rs.2000/-	Energy Sc. & Engineering
5	170100015	Radha Manoj Lahoti	I	Rs.3000/-	Mechanical Engineering
6	170100008	Pruthak Utpal Joshi	I	Rs.3000/-	Mechanical Engineering
7	17D170024	Gourav Chopra	I	Rs.3000/-	Mechanical Engineering
8	170110068	Atharv Kotwal	II	Rs.2000/-	Mechanical Engineering
9	17D110003	Sudhanshu Uddhav Suryawanshi	I	Rs.3000/-	Met. Engg. & Mat. Sci.

II Year M.Sc. (2020 Batch)

Sr. No.	Roll No.	Name	Prize	Value Of Prize	Department
1	205030044	Sagnik Chatterjee	I	Rs.3000/-	Chemistry
2	205030033	Ankit Ghosh	II	Rs.2000/-	Chemistry
3	205060011	Ashwini Kumar	I	Rs.3000/-	Earth Sciences
4	205060015	Bunny Devadi	II	Rs.2000/-	Earth Sciences
5	205120041	Katha Ganguly	I	Rs.3000/-	Physics
6	205120049	Shivangi	II	Rs.2000/-	Physics
7	205300021	Abhishek Goswami	I	Rs.3000/-	Biosciences & Bioengineering
8	205280024	Raika Saha	I	Rs.3000/-	Applied Statistics & Informatics
9	205280037	Indraneel Mukhopadhyaya	II	Rs.2000/-	Applied Statistics & Informatics
10	205090026	Akash Biswal	I	Rs.3000/-	Mathematics
11	205090020	Ujjwal Kumar Sana	II	Rs.2000/-	Mathematics
12	205320002	Abhishek Satyavir Sharma	I	Rs.3000/-	Applied Geophysics

B.Des students (2018 Batch)

Sr. No	Roll No.	Name	Prize	Value Of Prize	Department
1	18U130018	Mohak Gulati	I	Rs.3000/-	Industrial Design Centre
2	18U130028	Saumya Oberoi	I	Rs.3000/-	Industrial Design Centre
3	18U130030	Zaid Khuram	II	Rs.2000/-	Industrial Design Centre

B.Des students (2019 Batch)

Sr. No.	Roll No.	Name	Prize	Value Of Prize	Department
1	19U130027	Harshitha Kolli	I	Rs.3000 /-	Industrial Design Centre
2	19U130006	Aditav Dowerah	II	Rs.2000/-	Industrial Design Centre

B.Des students (2020 Batch)

Sr. No	Roll No.	Name	Prize	Value Of Prize	Department
1	20U130030	Ishita Sharma	I	Rs.3000/-	Industrial Design Centre
2	20U130006	Amisha Gopi Nair	II	Rs.2000/-	Industrial Design Centre

Other Prizes

Name of the Prize	Roll No.	Name of the Awardee	Total Amount
Shri Rakesh Mathur Excellence Award	180050061	Mohammad Ali Rehan	Rs. 33,333/- IV Yr. UG Student.
	180050078	Pratyush Agarwal	Rs. 33,333/- IV Yr. UG Student.
	180050100	Shreya Pathak	Rs. 33,333/- IV Yr. UG Student.
Shri T.K. Subramanian Prize For Academic Excellence	180100016	Arjun Kulshrestha	Rs.1000/- IV Yr. B.Tech. Mechanical Engg.
Urvish Medh Memorial Prize (For Electrical Engg.)	200070053	Palagiri Gnanendar Reddy	Rs.2000/- I Yr. B.Tech. Electrical Engg. (in the academic year 2020-21)
	200070001	Aayush Rajesh	Rs.1000/- II Yr. B.Tech. Electrical Engg.
	200070090	Waqar Mirza	Rs.1000/- II Yr. B.Tech. Electrical Engg.
	190070054	Sai Saketika Chekuri	Rs.2000/- III Yr. B.Tech. Electrical Engg.
	180070041	Parth Nilesh Dodhia	Rs.2000/- IV Yr. B.Tech. Electrical Engg.
Prof. M.N. Vartak Memorial Prize	205280024	Raika Saha	Rs.6000/- II Yr. M.Sc. Applied Statistics & Informatics
Mrs. Rama Mathur Memorial Prize	205090026	Akash Biswal	Rs.2000/- II Yr. M.Sc. Mathematics
Aditya Choubey Memorial Prize	200070001	Aayush Rajesh	2000/- II Yr. B.Tech. Electrical Engg.
	200070090	Waqar Mirza	2000/- II Yr. B.Tech. Electrical Engg.
S C Mehrotra Prize	190040026	Bhuvan Aggarwal	Rs.10000/- Topper of II Yr B.Tech Civil
	180040081	Rishabh Sharaff	Rs. 10000/- Topper of III Yr B.Tech Civil
Prof. A.K. Mallik Award	180110076	Shivprasad Kathane	Rs.5000/- IV Yr. B.Tech./ Dual Degree Met. Engg. & Mat. Sc.
Shri Ram Kumar Gupta Merit Award	180110014	Arjun Varun Yennemadi	Rs. 10000/- IV Yr. B.Tech Chemical Engg. (Topper)
Shrimati Prakashvati Devi Gupta Merit Award	180020089	Samarth Anil Doshi	Rs. 7500/- IV Yr. B.Tech Chemical Engg. (2nd Highest)
Praj Industries Academic Excellence Award	18D170002	Aishwarya Sidram Sherla	Rs. 30000/- Topper in 3rd yr (VI semester) UG Programme in Energy Sc. & Engg.
	203170003	Saurabh Kamlakar Jagtap	Rs. 30000/- Topper in 1st yr. (II semester) Masters programme in Energy Sc. & Engg.
Late Prof. R. Subrahmonia Ayyar Academic Excellence Award	180040026	B.Priyanka	Rs. 15000/- (Topper female student in B.Tech 3rd year Civil Engg.)
	203042003	Raygina Lepcha	Rs. 15000/- (Topper female student in M.Tech 1st year Civil Engg.)

Institute Excels In NIRF Rankings 2021



IIT Bombay has secured the **third position** in ‘Overall’ and ‘Engineering’ and **tenth** in the **Management category**. It stood **third** in the new ‘Research’ category of the **National Institutional Ranking Framework (NIRF)**. The results of the 6th edition of NIRF rankings 2021 were announced by the Hon’ble Minister of Education, Government of India **Mr. Dharmendra Pradhan** on September 9, 2021.

The Institute obtained a score of 82.52, 85.16, 68.08 and 80.93 in the Overall, Engineering, Management and Research categories respectively of the NIRF 2021. The parameters used for NIRF rankings include Teaching, Learning & Resources, Research and Professional Practice, Graduation Outcomes, Outreach and Inclusivity and Perception.

The Director of the Institute **Prof. Subhasis Chaudhuri** in his remark said, “*IIT Bombay always strives to provide the best all-round career training for all our students and to focus on research and entrepreneurial activities that have greater impacts on our society. Our efforts shall continue and recognition like this by NIRF will further consolidate our resolve to work harder on these aspects*”.

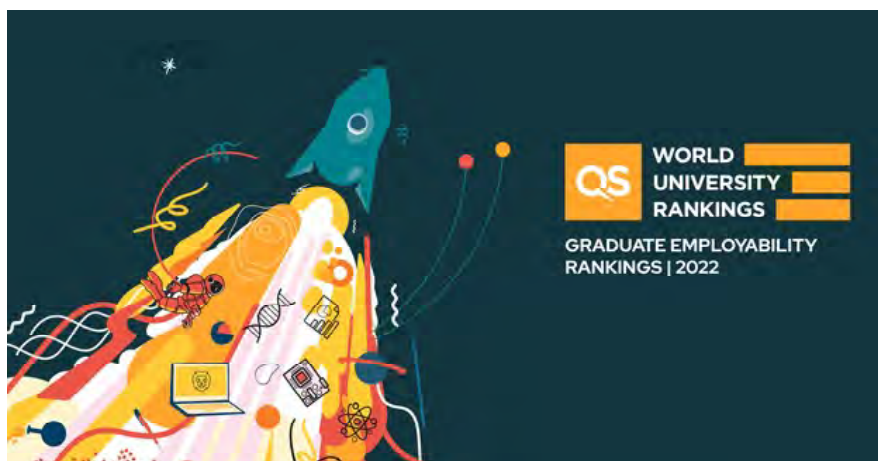
Last year, the Institute was ranked 4th, 3rd and 11th in the Overall, Engineering and Management category respectively of NIRF. The NIRF rankings were initiated by the Ministry of Education (Erstwhile Ministry of Human Resource Development), Government of India in 2015.

IIT Bombay Top Among Indian Universities In QS Graduate Employability Rankings 2022

Indian Institute of Technology Bombay (IIT Bombay) has moved up in the range from 111-120 last rankings year (2020) to 101-110 this year in the **Quacquarelli Symonds (QS) Graduate Employability Rankings 2022**. The Institute stands among the top 22% in the 2022 QS Graduate Employability Rankings.

The results were released on Thursday, September 23, 2021, by QS, a British company. The Institute has a score of **73.9** in **Employer Reputation**, **67.7** in

Alumni Outcomes, **20.3** in **Employer – Student Connections**, **56.3** in **Partnerships with Employers**, and **5.7** in **Graduate Employment Rate**. Among these six parameters, Employer Reputation indicated the strongest one for IIT Bombay with a rank of 70 globally.



In his remark on IIT Bombay’s QS performance, the Institute Director **Prof. Subhasis Chaudhuri** said, “*Training at IIT Bombay emphasizes learning outcomes on developing skills for analytical problem solving, capability to address unseen problems and an appreciation for the constraints that beset a specific problem. These are the terms of endearment for any technology-oriented company. Hence I am not at all surprised at this ranking. As a matter of fact, I expect the rank to be within top-50 if it is truly measured*”.

Institute Celebrates 75th Independence Day

IIT Bombay celebrated 75th Independence Day at the SJMSOM Foyer on August 15, 2021. Following the COVID-19 rules and guidelines by the government, this year's Independence Day was celebrated with a minimum number of functionaries by maintaining social distance.

The celebration began with the unfurling of the national flag by the Institute's Director **Prof. Subhasis Chaudhuri**. Later he addressed the gathering. The entire programme was broadcast live on YouTube Channel.

Independence Day celebrations in the campus



Van Mahotsav 2021



To maintain the greenery of the campus and spread awareness on environment conservation, **Van Mahotsav** was celebrated at IIT Bombay during August 28, 2021 to September 19, 2021. As a Covid-19 precautionary measure, only few functionaries of IIT Bombay participated this year in the annual tree plantation drive programme by maintaining social distancing. Around 530 plant saplings were planted inside the campus. This year's Van Mahotsav was the 31st celebration being followed meticulously by the Estate office.

IIT Bombay Director Subhasis Chaudhuri and other dignitaries during plantation drive

Maharashtra Agriculture Minister Visits Institute



Agriculture Minister Mr. Dadaji Bhuse at IIT Bombay campus



IIT Bombay's functionaries hosted Hon'ble Agriculture Minister **Mr. Dadaji Bhuse** and the entire entourage in the campus on August 31, 2021. The authorities discussed how IIT Bombay can work with the Maharashtra government in helping the small farmers through the development of affordable technology and analytics support. The Institute is eager to connect with the government for socially-impactful projects.

Institute Celebrates Teachers' Day Virtually



The 63rd Teachers' Day celebrations of the Indian Institute of Technology Bombay was held online on September 6, 2021 in view of the ongoing pandemic. **Prof. K. VijayRaghavan**, Principal Scientific Adviser to the Government of India, was the Chief Guest for the occasion. IIT Bombay Director Prof. Subhasis Chaudhuri presented the '**Prof. S. P. Sukhatme Award for Excellence in Teaching**' and '**Dr. P.K. Patwardhan Technology Development Award - 2020**' to select faculty members and '**Institute Academic Prizes**' to students. The awardees expressed their gratitude to the Institute through video messages. The Institute also launched a Faculty Handbook during the virtual event. The online function was attended by faculty, staff members and students.

The recipients of the Prof. S. P. Sukhatme Excellence in Teaching Award 2021 were:

Prof. Krishnendu Sinha, Department of Aerospace Engineering
Prof. Soumyajit Mukherjee, Department of Earth Sciences
Prof. Suryanarayana Doolla, Department of Energy Science and Engineering
Prof. Shyam Asolekar, Environmental Science and Engineering Department
Prof. Sachin Patwardhan, Department of Chemical Engineering
Prof. Madhu Vinjamur, Department of Chemical Engineering
Prof. Alok Goyal, Department of Civil Engineering
Prof. Prakash Nanthagopalan, Department of Civil Engineering
Prof. Ajit Diwan, Department of Computer Science and Engineering
Prof. Amitabha Sanyal, Department of Computer Science and Engineering
Prof. Mukul Chandorkar, Department of Electrical Engineering
Prof. Virendra Singh, Department of Electrical Engineering
Prof. Arunkumar Sridharan, Department of Mechanical Engineering
Prof. Dibyendu Das, Department of Physics
Prof. Arti Kalro, Shailesh J. Mehta School of Management

Dr. P. K. Patwardhan Technology Development Award for the year 2020 was awarded to **Prof. Ganesh Ramakrishnan** and **Mr. Vishal Kaushal**, Department of Computer Science and Engineering for technology development efforts entitled "Video Analytics for Security and Compliance Applications" and **Prof. Prasanna Gandhi**, Department of Mechanical Engineering for technology development efforts entitled "Compliant mechanisms for ultra-precision linear and rotary motion control".

INSTITUTE ACADEMIC PRIZES FOR THE YEAR 2020-21

II YEAR B.TECH./ DUAL DEGREE/ BS (2020 BATCH)

Vedang Dhirendra Asgaonkar, Department of Computer Science and Engineering

III YEAR B.TECH. BRANCHWISE (2019 BATCH)

Deshpande Hrushikesh Shriniwas, Department of Aerospace Engineering
Akshat Shirish Zalte, Department of Chemical Engineering
Bhuvan Aggarwal, Department of Civil Engineering
Harshit Gupta, Department of Computer Science and Engineering
Pradipta Parag Bora, Department of Computer Science and Engineering
Aniket Rajiv Gupta, Department of Electrical Engineering
Aneesh Milind Bapat, Department of Engineering Physics
Jain Aryan Amit, Department of Mechanical Engineering
Priyanshu Jain, Department of Met. Engg. and Mat. Sci.

III YEAR DUAL DEGREE BRANCHWISE (2019 BATCH)

Kushal Kejriwal, Department of Electrical Engineering
Lakshya Chaplot, Department of Mechanical Engineering
Sanidhya Anand, Department of Energy Sc. and Engineering
Rajvi Paresh Savla, Environmental Science and Engineering Department

Sanskar Jaiswal, Department of Met. Engg. and Mat. Sc.

III YEAR BS BRANCHWISE (2019 BATCH)

Anish Shivamani, Department of Chemistry

Riyan Jain, Department of Humanities and Social Science

Shirish Chinchani, Department of Mathematics

IV YEAR B.TECH. BRANCHWISE (2018 BATCH)

Randad Nakul Rajesh, Department of Aerospace Engineering

Anushka Garg Mandal, Department of Chemical Engineering

Jaymal A. Lodha, Department of Civil Engineering

Mohammad Ali Rehan, Department of Computer Science and Engineering

Pratyush Agarwal, Department of Computer Science and Engineering

Saumya Goyal, Department of Computer Science and Engineering

Saurav Garg, Department of Computer Science and Engineering

Shreya Pathak, Department of Computer Science and Engineering

Parth Nilesh Dodhia, Department of Electrical Engineering

Shaswat Gupta, Department of Mechanical Engineering

Dhruv Dhaivat Anjaria, Department of Met.Engg. and Mat. Sci.

Himansh Rathore, Department of Physics

Siddharth Tiwary, Department of Physics

IV YEAR DUAL DEGREE BRANCH WISE (2018 BATCH)

Aseer Israr Ansari, Department of Electrical Engineering

Bhavini Jeloka, Department of Mechanical Engineering

Samriddhi Shrivastava, Department of Met. Engg. and Mat. Sc.

Aishwarya Sidram Sherla, Department of Energy Science and Engineering

Rishi Rathi, Environmental Science and Engineering Department

IV YEAR FOUR YEAR BS BRANCHWISE (2018 BATCH)

Ajinkya Anil Dhepe, Department of Chemistry

Ramanathan R, Department of Chemistry

Mridul Agrawal, Department of Humanities and Social Sciences

Aryaman Maithani, Department of Mathematics

V YEAR DUAL DEGREE BRANCHWISE (2017 BATCH)

Koustav Jana, Department of Electrical Engineering

Shaunak Amarendra Joshi, Department of Energy Science and Engineering

Radha Manoj Lahoti, Department of Mechanical Engineering

Pruthak Utpal Joshi, Department of Mechanical Engineering

Gourav Chopra, Department of Mechanical Engineering

Sudhanshu Uddhav Suryawanshi, Department of Met. Engg. and Mat. Sci.

II YEAR M.SC. (2020 BATCH)

Sagnik Chatterjee, Department of Chemistry

Ashwini Kumar, Department of Earth Sciences

Katha Ganguly, Department of Physics

Abhishek Goswami, Department of Biosciences and Bioengineering

Raika Saha, Applied Statistics and Informatics

Akash Biswal, Department of Mathematics

Abhishek Satyavir Sharma, Applied Geophysics

B.DES. STUDENTS (2018 BATCH)

Mohak Gulati, Industrial Design Centre

Saumya Oberoi, Industrial Design Centre

B.DES. STUDENTS (2019 BATCH)

Harshitha Kolli, Industrial Design Centre

B.DES. STUDENTS (2020 BATCH)

Ishita Sharma, Industrial Design Centre

IIT Bombay Launch 'Project Udaan,' An AI-based Translation Software Ecosystem

On September 14, which is celebrated as Hindi Divas every year, **Prof. Ganesh**

Ramakrishnan, Institute Chair Professor, Department of Computer Science and Engineering, IIT Bombay and his team launched '**Project Udaan**'.

The launch took place during a virtual event, which saw

Dr. Krishnaswamy

VijayRaghavan, Principal

Scientific Adviser to the Government of India as the chief guest. 'Project Udaan,' a

donation-based project, is an end-to-end ecosystem, which translates scientific and technical

content from English to Hindi and all other Indian languages. Prof. Ganesh and his team have built an AI (Artificial Intelligence)-based translation ecosystem, which can help translate engineering textbooks and learning materials in one-sixth the time it would take for a team comprising the domain and linguistic experts working manually. In due course, textbooks in all domains can be taken up.

Seven years ago, Prof. Ganesh and his team came up with 'Project Udaan,' owing to the wide gap they saw in the technical knowledge available in Hindi and other Indian languages. The Indian Constitution requires every state and local authority within the state to provide adequate facilities for instruction in the mother tongue at the primary stage of education for children belonging to linguistic minority groups. The state policies that addressed this requirement served the citizens well for the first three decades since independence; this was a time where most of the economic activity, especially in the manufacturing sector, was conducted using traditional technologies which could easily be transacted in regional languages.

The scenario, however, witnessed a drastic change when the country made progress from being an agrarian society overcoming extreme poverty to a largely urban and urbanising society. The fast-urbanising India built many factories using modern technologies and the opportunities in software technology exploded. Fuelled by this demand for skilled labour with fluency in English, there was an emergence of many secondary schools and colleges of higher learning teaching in English. While this great churn has benefited 10-20% of Indians who become proficient in English, 80% of the nation was left behind by their inability to learn in English. The need of the hour was to cater to 80% of the Indian population by making scientific and technical knowledge available in Indian languages and thus, 'Project Udaan' came into being.

The evolution, progress and capabilities of Prof. Ganesh and his team's end-to-end translation ecosystem have happily and fortuitously coincided with the implementation of the New Education Policy-based initiative to introduce higher education through Indian languages. Through donations, the team aims to continue its work on 'Project Udaan,' and complete its target to translate 500 engineering texts in Hindi in one year and in 15 Indian languages in 3 years.

Speaking about 'Project Udaan,' **Prof. Ganesh Ramakrishnan** said, "Our approach to machine translation has been that it will be aided by human effort. We started building lexicons of various technical domains. Here we faced the challenge of digitising the bilingual dictionaries and glossaries produced by the Commission for Scientific and Technical Terminology (CSTT). We have developed very robust bilingual Optical Character Recognition (OCR) technology and several post-editing tools by which we now have access to digital bilingual dictionaries in a machine-readable format. We are therefore able to use the appropriate scientific and technical terms available in Hindi instead of transliterating the English terms. We are happy to state that by deploying our AI-based Translation Engine, we are now able to translate a technical book in less than one-sixth the time it would take for a team consisting of the domain and linguistic experts working manually. In due course, as our AI and ML engine learns with every page and every book being edited in each domain, we expect to achieve a much shorter turnaround time".



Nivesh Kumar Gifts Institute With An Endowment Fund To Support Industrial Engineering and Operations Research



Mr. Nivesh Kumar

IIT Bombay's alumnus **Nivesh Kumar** made a generous endowment of Rs. 1.25 crores to the '**Industrial Engineering and Operations Research (IEOR) Alumnus Endowment Fund**'. Based out of Singapore, Nivesh is a Systematic Portfolio Manager at Exodus Point Capital Management and is a 2006 M.Tech alumni from IIT Bombay's Industrial Engineering and Operations Research, one of the first interdisciplinary programmes at IIT Bombay.

Nivesh's generous donation to the 'IEOR Alumnus Endowment Fund' will further strengthen the resolve of IEOR to help IIT Bombay achieve excellence. The 'IEOR Alumnus Endowment Fund' aims to use fundamental research as a medium to encourage academic excellence and scholarship at IIT Bombay. The fund comprises awards, scholarships, fellowships and grants awarded to selected

students and faculty to attract, retain and support talent that pursues excellence through fundamental research. Besides this, a part of the endowment will be used for upgrading computation (server) infrastructure and software.

Mr. Kumar said, *"India has a huge talent pool which is deserving of global prominence. It is increasingly important to provide exposure and opportunities to deserving students so that they can realize their potential. The objective of the endowment is to nurture a culture of in-depth research for students and faculty in the IEOR"*.

Prof. Subhasis Chaudhuri, Director, IIT Bombay said, *"It is true to the Institute's mission to create an ambience in which new ideas, research and scholarship flourish and from which the leaders and innovators of tomorrow emerge. We are grateful to Mr. Kumar for his generous contribution, which will help this cause"*.

IIT Bombay and Merck To Launch Centre Of Excellence

IIT Bombay collaborated with **Merck India**, a leading science and technology company, to support the development of clinical tests for Covid-19 disease severity assessment. The company has given a two-year donation of INR 1.7 crore to the Institute, a leader in the field of engineering education and research. The funded project is an ongoing Covid-19 multi-omics research on the development of simple immunoassays based on single-molecule counting (SMC) technology.

An MoU was signed on August 20, 2021 between IIT Bombay and Merck to launch a new **Centre of Excellence (CoE) on Proteomics Biomarkers and Immunoassays**, which will be set up at the Institute. The Centre will host clinical trials of Covid-19 research, clinical translation of the cancer biomarker discovery etc.



Prof. Suhas S. Joshi, Dean (Alumni and Corporate Relations), IIT Bombay and Merck officials during the MoU signing to launch a new Centre of Excellence (CoE) on Proteomics Biomarkers and Immunoassays

The MoU signing was attended by **Prof. Suhas S. Joshi**, Dean (Alumni and Corporate Relations), IIT Bombay, **Prof. Sanjeeva Srivastava**, Department of Biosciences and Bioengineering, IIT Bombay, **Mr. Sunil Punjabi**, Country Head of Research Solutions, Merck India, **Dr. Pankaj Kumar Joshi**, Head of Marketing, Merck, **Mr. Ravishankar Gedela**, CEO, IIT Bombay Development and Relations Foundation (DRF) and **Dr. Arup Acharjee**, Research Scientist, Proteomics Lab, IIT Bombay.

Institute Establishes An Endowment Fund To Recognize Excellence In Doctoral Research

The Indian Institute of Technology Bombay announced the establishment of an endowment fund to support research at the Institute, sponsored by **Mr. Sandeep Naik** and alumnus **Mr. Shantanu Rastogi**. The endowment fund comprises an award that will support the pre-existing PhD award, recognizing excellence in PhD theses work. The 'Best PhD thesis' award was instituted in 2010 and is open to all the PhD students who have graduated during the last two academic years across all departments of IIT Bombay. The award will be renamed as the **"Naik and Rastogi Excellence in PhD Thesis Awards"**.



Mr. Sandeep Naik (through video-conference) and Mr. Shantanu Rastogi along with Director of IIT Bombay Prof. Subhasis Chaudhuri during the endowment event

The fund has been established through Mr. Naik and Mr. Rastogi's generous contribution to give an impetus to research and development. It is a critical step toward recognizing deserving emerging talent at the Institute.

Mr. Sandeep Naik is a 2004 alumnus of the Wharton School of Business, University of Pennsylvania, besides being an alumnus of Medical College of Virginia and works as Managing Director, Head of India and South East Asia at General Atlantic. He was selected as a Young Global Leader by the World Economic Forum.

Mr. Shantanu Rastogi is an MBA graduate from Wharton School of Business and a 2002 alumnus from Electrical Engineering (BTech. and MTech., Dual Degree) at IIT Bombay. He was also a Young Alumnus Achiever Awardee (YAA) of the Institute in 2019. Mr. Rastogi is a Managing Director at General Atlantic.

Speaking about the initiative, **Mr. Naik said**, *"The early beginnings of my career were steeped in research and scholarships attached to research helped me pursue my higher education. Giving back to support strong independent research as a result came as a natural way to contribute. It's an honor to support deep fundamental research that can solve the problems of an emerging nation and catapult it to a developed nation. The gap is wide and we need the best of minds doing doctoral research to help us bridge it"*.

Mr. Rastogi said, *"I deeply cherish my academic journey and friendships developed at IIT Bombay. My foundational years at the Institute have been a pivotal factor in my personal and professional growth. I believe that scientific research is the bedrock of a nation's innovation led development. I am privileged to be able to support the doctoral scholars at the Institute, in furthering their pursuit of outstanding research"*.

Prof. Subhasis Chaudhuri, Director, IIT Bombay said, *"The endowment for research awards will go a long way in furthering the Institute's mission 'to create an ambience in which new ideas, research and scholarship flourish and from which the leaders and innovators of tomorrow emerge"*.

Institute Offers Curated LASE Programme For Students

The Indian Institute of Technology Bombay now offers undergraduate students a choice to curate their courses by providing interdisciplinary foundations to include social sciences, art, and design.

To be known as the **Liberal Arts, Science and Engineering (LASE) Programme**, students from the Autumn 2021 batch can choose to enroll for the course after completing their first academic year. The students can choose between five concentrations: engineering sciences, natural sciences, social sciences, art and design.

Institute Partners With HDFC ERGO To Provide Long-term Strategic Business Solutions



Director of IIT Bombay Prof. Subhasis Chaudhuri along with Mr. Ritesh Kumar, MD and CEO, HDFC ERGO General Insurance

The **Indian Institute of Technology Bombay**, an 'Institution of Eminence' (IoE) and the No. 1 University in India, as per Quacquarelli Symonds (QS) World University Rankings (2022), has partnered with **HDFC ERGO General Insurance**, India's leading private sector general insurance company. This alliance is a first in the insurance sector and is aimed at operationalising high-impact projects across the insurance value chain and developing solutions to relevant business challenges.

In the last few years, the insurance sector has witnessed far-reaching changes in terms of technological advancement. The fast-paced evolution of the sector is attributed to the constant innovations which ensure faster turnaround time and efficient service that have enhanced the overall customer experience. These technology innovations require constant research and development activities to make sure that the business operations are always carried smoothly and proficiently. IIT Bombay and HDFC ERGO's strategic partnership is expected to focus on the research and development in the emerging areas and add value to the overall sector.

IIT Bombay will provide strategic business solutions to HDFC ERGO by leveraging the start-ups at the pre-incubation and incubation stage at the Desai Sethi School of Entrepreneurship (DSSE) and the Society for Innovation and Entrepreneurship (SINE) respectively.

HDFC ERGO will provide strategic investments to IIT Bombay over five years to institutionalize 50 high-impact projects across business verticals such as acquisition, servicing, claims, renewal, underwriting

actuarial practices and operations. The partnership will also see the setup of an innovation lab at IIT Bombay's campus in Powai, Mumbai. The lab will facilitate interactions, brainstorming sessions and requisite workstations for the students, professors and the HDFC ERGO team. This engagement is expected to provide a gateway to professors and students of IIT Bombay to pitch ideas and solutions directly to HDFC ERGO and leverage HDFC ERGO's industry expertise.

Speaking about the partnership, **Mr. Ritesh Kumar**, MD and CEO, HDFC ERGO General Insurance said, *"Dynamism is one of our core values at HDFC ERGO. Living up to our values, we have been consistent in providing progressive technology solutions. We have been focusing on evolving into an AI-first insurance company that will prove beneficial for our customers and have been adopting and implementing Artificial Intelligence (AI) and Machine Learning (ML) in almost all of our operations. Associating with IIT Bombay will aid in accelerating this transformation and will further help us differentiate our offerings in the industry. We are delighted to partner with such a prestigious institution and look forward to many successful projects with the Indian Institute of Technology"*.

Speaking of this collaboration, Director, IIT Bombay, **Prof. Subhasis Chaudhuri** said, *"IIT Bombay has been at the forefront of digital transformations undertaken by many large companies and brands. With our ongoing focus on using technologies such as AI ML to solve real-world problems, this partnership is a natural fit. It gives us immense joy to work with HDFC ERGO"*.

IIT Bombay Alumni Initiate Project To Build New World-Class Hostel Complex



Mr. D.C. Agrawal, President, IITBHF and Mr. Girish Nayak, Chairman, IITBAA along with Director of IIT Bombay Prof. Subhasis Chaudhuri and others

On August 25, 2021 IIT Bombay signed an innovative partnership agreement with its alumni organizations the **Indian Institute of Technology Bombay Alumni Association (IITBAA)** and the **Indian Institute of Technology Bombay Heritage Foundation (IITBHF)** to build a new 1,000–1,500 room world-class Hostel Complex. Under this partnership agreement, IITBAA will be primarily responsible for all funding, design, construction and project management activities. Through this ambitious and much-needed project, the alumni will help build this Hostel Complex at the current site of H7 and H8 on the IIT Bombay campus.

This Hostel Complex will replace hostels 7 and 8 to cater to the current needs of the students and the increased need of women students. During the last two decades, the number of students on campus has increased from 3,000 to 10,000+ and there is a need to improve living infrastructure and build capacity to host them. The challenge is made harder by the limited funding that IIT Bombay has access to and the fact that several of the very old hostels have structural issues and need to be rebuilt. There, is thus, a significant requirement for funds to revamp the old and build new hostels.

IIT Bombay reached out to its alumni to support the Institute in its quest to provide world-class facilities to its students to promote the best learning environments. Responding to the request, a group of volunteers have come together for planning, fund-raising and implementation of the new hostel complex. This is the first-of-its-kind project wherein alumni of IIT Bombay will seek to raise Rs. 120-135 crores and take the lead roles in project planning and

implementation. The new hostel complex will come up in the old location of H8. It will be close to Powai Lake, which has been one of the key features of H7. In addition to wings for male students, it will also have a wing for accommodating the growing number of women students at IIT Bombay.

A Memorandum of Understanding (MoU) was signed by representatives of IIT Bombay and its alumni organizations. **Prof. Subhasis Chaudhuri**, Director, IIT Bombay, **Prof. Prasanna M. Mujumdar**, Deputy Director (Finance and External Affairs), **Prof. S. Sudarshan**, Deputy Director (Academic and Infrastructural Affairs), **Prof. Suhas Joshi**, Dean (Alumni and Corporate Relations) and **Prof. B V S Vishwanadham**, Dean (Infrastructure Planning and Support) were present on the occasion along with **Mr. D.C. Agrawal**, President, Indian Institute of Technology Bombay Heritage Foundation (IITBHF), **Mr. Girish Nayak**, Chairman, Indian Institute of Technology Bombay Alumni Association (IITBAA), **Mr. S. Narayan**, Chairman of the Project Planning Committee, **Mr. Kirat Patel**, **Mr. Sudhir Nikam** and **Ms. Zenobia Driver** representing H7, H8 and the women's hostels H10 and H11.

Speaking on the occasion, **Prof. Subhasis Chaudhuri**, Director, IIT Bombay said, “Students are the essence of all academic institutions. IIT Bombay has been recognized as an ‘Institution of Eminence,’ owing to the hard work put in by the best and brightest of the country. We strive to provide world-class learning as well as a living atmosphere to our students. We are grateful to our alumni for taking the stewardship role in building the new hostel complex,

which is the need of the hour. IIT Bombay sincerely thanks IITBHF and IITBAA for the roles that they have played over the years in various initiatives of the Institute”.

Mr. Kirat Patel, Class of 1975, H8 said, *“IIT Bombay’s alumni have always supported the Institute’s goals and vision. We have full faith that they would come forward to help us yet again in this pioneering initiative. Together, we can create world-class hostels for our students, who are the future of our country”.*

Mr. D. C. Agrawal, Class of 1969, President IITBHF said, *“IIT Bombay students deserve the best facilities to compete in the current global environment. We are determined to help build a hostel complex that is consistent with IIT Bombay’s goals of being a leading world-class Institute”.*

Mr. Girish Nayak, Chairman IIT Bombay Alumni Association said, *“We are happy to be playing our part in ensuring that our students get the best facilities available. We will continue to assist in*

securing IIT Bombay’s reputation as one of the best residential engineering institutes in the country”.

Ms. Zenobia Driver, Class of 1998, H10, speaking of her experience as a woman in STEM (Science, Technology, Engineering and Mathematics) said, *“It is a matter of such joy and pride that more and more girls are choosing STEM as their career and IIT Bombay has undertaken several initiatives to promote gender diversity. The new hostel complex is another step in this direction”.*

Mr. Sudhir Nikam, Class of 1993, H7 added, *“Thousands of alumni have called H7, H8, H10 and H11 their home. We plan to reach out to all of these alumni to contribute to the new Hostel Complex and are sure they would come forward to support us”.*

Mr. S. Narayan, Chairman of the Project Planning Committee said, *“Sustainable living is the need of the hour and we are cognizant of this. The committee will strive towards building an environmentally sensitive hostel complex which will serve as a benchmark for other hostels”.*

IIT Bombay Heritage Foundation Celebrates 25 Years Of Glorious Existence

IIT Bombay Heritage Foundation (IITBHF), the US-based alumni support group for Indian Institute of Technology Bombay, celebrated 25 years of supporting its alma mater with over \$50 million in donations during a virtual event attended by hundreds of leading alumni and past and current IIT Bombay Directors.

IIT Bombay Director **Prof. Subhasis Chaudhuri** lauded the Heritage Foundation’s efforts for its far-reaching contributions over the last 25 years. He said, *“Our success as the top-ranked Indian Institute would not have been possible without the heartfelt and far-reaching support of IIT Bombay Heritage Foundation and the alumni donors”.* He requested the alumni to continue their efforts in supporting IIT Bombay’s vision to enhance its teaching and research standards so that it ranks among the top 50 world institutes by IITB@75.

Distinguished alumni and Past Chairs of IITBHF **Mr. Raj Mashruwala**, **Mr. Victor Menezes**, **Mr. Bharat Desai** and **Mr. Kanwal Rekhi** and former Head of KRESiT and SJ Mehta School of Management **Prof. Deepak Phatak** and former Director of IIT Bombay **Prof. SP Sukhatme** also spoke at the event. Current Chair **Mr. Raj Mashruwala** said, *“What IITBHF has achieved over the last 25 years would not have been possible without the generous support of over 3300 alumni donors”.* The establishment of the IIT Bombay

Heritage Foundation as the first US-based IIT alumni group has helped meet former Director Prof. SP Sukhatme’s vision of an IIT Bombay that has a ‘Tryst with Excellence’.

In his welcoming remarks, **Mr. D. C. Agrawal**, President IIT Bombay Heritage Foundation said, *“This is an occasion to remember our founding, rejoice in our achievements and renew ourselves for the future”.*

The program detailed the many achievements of IIT Bombay Heritage Foundation over the last 25 years:

- Raised over \$50 million in donations from over 3300 unique donors
- Helped establish the most recognizable “IIT” and “IIT Bombay” brand in US and elsewhere
- Supported 575 named scholarships, benefiting nearly 5000 students
- Funded construction and establishment of 25 major centers, schools and laboratories
- Established Faculty Alumni Network to connect IIT Bombay faculty with alumni faculty at other universities
- Funded “Young Faculty Awards” and “Teaching and Research Excellence Awards”
- Established 19 Chair Professorships

IIT Bombay Launches Ashank Desai Centre for Policy Studies



Mr. Ashank Desai and Prof. Suhas Joshi, Dean (Alumni and Corporate Relations) during naming ceremony (virtually) of the Ashank Desai Centre for Policy Studies

On September 21, 2021, the Indian Institute of Technology Bombay launched the ‘**Ashank Desai Centre for Policy Studies (ADCPS)**’, during a virtual event held at the Institute. The launch was presided by distinguished personalities **Prof. Kaushik Basu**, Professor of Economics and Carl Marks Professor of International Studies at Cornell University; **Dr. Naushad Forbes**, Co-Chairman of Forbes Marshall, India’s leading steam engineering and control instrumentation company; **Ms. Yamini Aiyar**, President and Chief Executive of the Centre for Policy Research; and **Mr. Ashank Desai**, an IIT Bombay alumnus and Founder, Vice-Chairman and MD of Mastek Limited, whose generous donation to the Centre for Policy Studies at IIT Bombay, has provided a much-needed boost to this nascent field.

Inaugural keynote addresses were made by Dr. Forbes and Prof. Basu. While speaking about ADCPS, **Dr. Forbes** said, “Good public policy must bring together solid theoretical understanding and academic work in the subject with a policy perspective. This Centre can play a very valuable role because it is at IIT Bombay—within one of our leading research and education institutions. By working collaboratively with other departments on campus, we can develop policy that is both theoretically right and doable”.

Prof. Basu said, “I congratulate IIT Bombay for having the foresight of setting up a Policy Studies

institute and Mr. Ashank Desai for his generosity and farsightedness in helping establish this institute. I have believed for a long time that we need top quality technical research and policy centres, which can bridge the gap between the world of technical research and policymaking, and IIT Bombay epitomizes that. I am delighted that the ‘Ashank Desai Centre for Policy Studies’ has been set up at a top place like IIT Bombay”.

Ms. Aiyar, who was the discussant for the event, said, “Strengthening the institutional foundations for undertaking credible research and policy dialogue is critical for India. India needs an ecosystem of robust, rigorous and independent institutions in the university and civil society that contributes to knowledge building, knowledge creation and simultaneously interface with policy. ADCPS is thus a really important contribution to the public life of India and I’m really looking forward to future interactions with researchers and the cohort of students from the centre”.

CPS was set up in 2016 at IIT Bombay to create capacity for policy studies in India, by positioning itself as a leader in the study of Public Policy. The Centre’s work comprises interdisciplinary research, providing evidence-based, collaborative and critical research in various policy fields, with a special focus on policy formulation and evaluation in India. CPS continues to make significant contributions to the

field of Policy Studies and has achieved multiple milestones by establishing the PhD and Masters in Public Policy programmes.

The funds from Mr. Desai's donation will be utilised for building the Centre's infrastructure and its subsequent maintenance over a period of 10 years. This support is also expected to enable the Centre to focus on research in key areas of Digital Societies, Structural Inequalities, Environment, Energy and Natural Resources, Markets and Governance Processes and Technology and Society.

Mr. Ashank Desai is an Information Technology (IT) Entrepreneur and a respected business personality in India and is a Founder, Vice-Chairman and MD of Mastek Limited. He is one of the founder members and past Chairman of NASSCOM. He is presently the Vice-Chairman, Society for Innovation and Entrepreneurship (SINE) at IIT Bombay. He is a Distinguished Alumnus of IIT Bombay, and also an alumnus of Indian Institute of Management Ahmedabad (IIMA).

Mr. Desai has been felicitated by Prime Minister Shri Narendra Modi for his contribution to NASSCOM and the IT Industry for the last 25 years. He is the former President of Asian-Oceanian Computing Industry Organization (ASOCIO), an apex IT industry association covering 21 Asia-Oceania countries, including Australia, Japan etc. He has also been presented with the Honourable Contributors Award by

ASOCIO – the only Indian to receive this recognition twice. He was conferred the much-coveted 'Outstanding Entrepreneur Award' at the Asia Pacific Entrepreneurship Awards in 2010.

Prof. Subhasis Chaudhuri, Director, IIT Bombay, said, "*The Centre for Policy Studies at IIT Bombay has a stated mission to promote dialogue between academia and other policy stakeholders and create a capacity for policy studies in the country. Mr. Desai's contribution will be a big step in this direction and will provide a boost to the field of policy studies in India. It will enable IIT Bombay to transform this setup into a Centre of Excellence that facilitates evidence-informed and inclusive public policy*".

Speaking of the launch, **Mr. Ashank Desai**, said, "*Policy making will continue to become a very complex and arduous task, thanks to fast-changing technologies and alert stakeholders impacted by policies. We need unbiased advice based on intellectual insight and dialogue. Also, career professionals need to be created to support the policy makers in formulation and implementation. IIT Bombay with an exemplary track record in Research and Education covering technology and social disciplines is very well suited for this task. As payback to my alma mater, my contribution will enable the Policy Centre to move to a next level of effectiveness*".

IIT Bombay Researchers Develop Cost-effective PE-ALD

With the world moving to an era of miniaturization, the role of precisely deposited thin films of various materials on devices has become ubiquitous. **Plasma-enhanced atomic layer deposition (PE-ALD)** can play a distinctive and decisive role in facilitating thin-film fabrication with atomically controlled thickness, for a variety of device applications. This technique relies on the energy provided by energetic species in the plasma and the growth process is self-saturated.

The plasma-enhanced atomic layer deposition facility

indigenously developed by the research group of **Prof. Shaibal K. Sarkar**, Department of Energy Science and Engineering, can serve as a cost-effective alternative to commercially available deposition tools. This system is capable of depositing metal oxides but can be modified for metal nitrides/ sulfides.

This development is supported majorly by the Industrial Research and Consultancy Centre (IRCC) at IIT Bombay and partially by the Ministry of New and Renewable Energy, Govt. of India.



Group of researchers from Department of Energy Science and Engineering develop cost-effective deposition tool

IIT Bombay and AARDO Organize International Online Training Programme



Virtual training programme by IIT Bombay and AARDO

The **Indian Institute of Technology Bombay** and **African-Asian Rural Development Organization (AARDO)** inaugurated an international online training programme on ‘**Food and Nutrition Security in a Post-Pandemic World**’ on September 14, 2021. The online training was held during September 14-23, 2021.

Over 100 delegates from 26 nations from Asia and Africa participated in the programme to discuss food production, food security and nutrition security in the pandemic era. The training programme aimed to identify sustainable approaches that address the technical and policy level challenges faced in ensuring food and nutrition security in the context of the rural area.

The delegates were welcomed by **Prof. Anand B. Rao**, Head, Centre for Technology Alternatives for Rural Areas (CTARA), IIT Bombay. H.E. **Dr. Manoj Nardeosingh**, the Secretary-General of AARDO inaugurated the program. He stated that technologies

and technological solutions are the most effective ways to solve contemporary and impending challenges, pertaining to food and nutrition security in rural communities in both Africa and Asia. The ceremony was also graced by **Prof. Subhasis Chaudhuri**, Director, IIT Bombay. He expressed the hope that “*The outcomes of the training program and the improved understanding of the participants holding different roles in government, NGOs and private institutions would definitely help address the problems of food and nutrition securities in post-pandemic times*”.

The keynote address was delivered by **Mr. Bishow Parajuli**, World Food Program (WFP), Representative and Country Director, India who focused on important issues related to world food security, climate change and the coping mechanisms during the pandemic and its aftermath. The program was conceptualized by **Prof. Satish Agnihotri**, **Prof. Amit Arora** and **Prof. Parmeshwar Udmale** from CTARA, IIT Bombay.

CyberSecurity Innovation Challenge At NCETIS IIT Bombay

The Institute launched **CyberSecurity Innovation Challenge** at the National Center of Excellence in Technology for Internal Security (NCETIS), IIT Bombay in partnership with MeitY Startup Hub under its flagship Digital India Program. The Cyber Security Innovation Challenge is designed by faculty at IIT Bombay. The participating teams had the opportunity to find robust solutions to cybersecurity issues in Endpoint Detection and Response (EDR). In the process, the participants got an opportunity to get mentored by eminent faculty and also incubate their winning solutions into a Startup.

Institute Holds Webinar On The Birth Anniversary Of Prof. N. R. Kamath

The Institute organized a webinar titled '**Chemical Engineering: Chemistry to Computers**', on the occasion of the birth anniversary of **Prof. N. R. Kamath**, who was the Deputy Director of the Institute from 1960 to 1966 and served as the founding head of the Department of Chemical Engineering from 1959 till his retirement in 1974. The webinar was held on September 08, 2021, highlighting the thoughts and perspectives of prestigious thinkers and experts on chemical engineering, tracing the path of the discipline from chemistry to computers.

The speakers at the webinar were **Prof. M.M. Sharma**, Emeritus Professor of Eminence, Institute of Chemical Technology (ICT); **Dr. R.A. Mashelkar**, Chairman, National Innovation Foundation, Reliance Innovation Council, KPIT Technologies Innovation Council, Persistent Systems Innovation Council and Marico Foundation's Governing Council; and former Director of IIT Bombay **Prof. Devang Khakhar**, Department of Chemical Engineering, IIT Bombay.

Indian Institute of Technology Bombay

Prof. N. R. Kamath Birth Anniversary

A WEBINAR ON

'CHEMICAL ENGINEERING: CHEMISTRY TO COMPUTERS'

SPEAKERS

- PROF. M. M. SHARMA**
Emeritus Professor of Eminence, Institute of Chemical Technology (ICT), Mumbai.
- DR. R. A. MASHELKAR**
Chairman - National Innovation Foundation, Reliance Innovation Council, KPIT Technologies Innovation Council, Persistent Systems Innovation Council and Marico Foundation's Governing Council.
- PROF. DEVANG KHAKHAR**
Professor in the Department of Chemical Engineering, IIT Bombay.

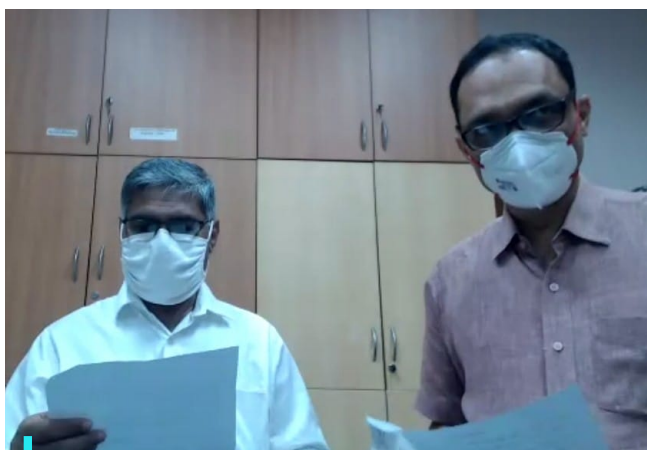
WEDNESDAY SEPTEMBER-08, 2021

TIME: 6:00 PM - 8:00 PM (IST)

ONLINE

Webinar poster on 'Chemical Engineering: Chemistry to Computers'

IIT Bombay Observes Swachhata Pakhwada



Swachhata pledge administrated by Dr. K.V. Reghuthaman, Joint Registrar, IOE and Mr. G. Borkade, Joint Registrar, MMD

The faculty, staff and students of IIT Bombay took the online '**Swachhata Pledge**' to promote Swachh Bharat Mission on September 1, 2021. The Institute initiated various activities during Swachhata Pakhwada to contribute towards a neat and clean environment.

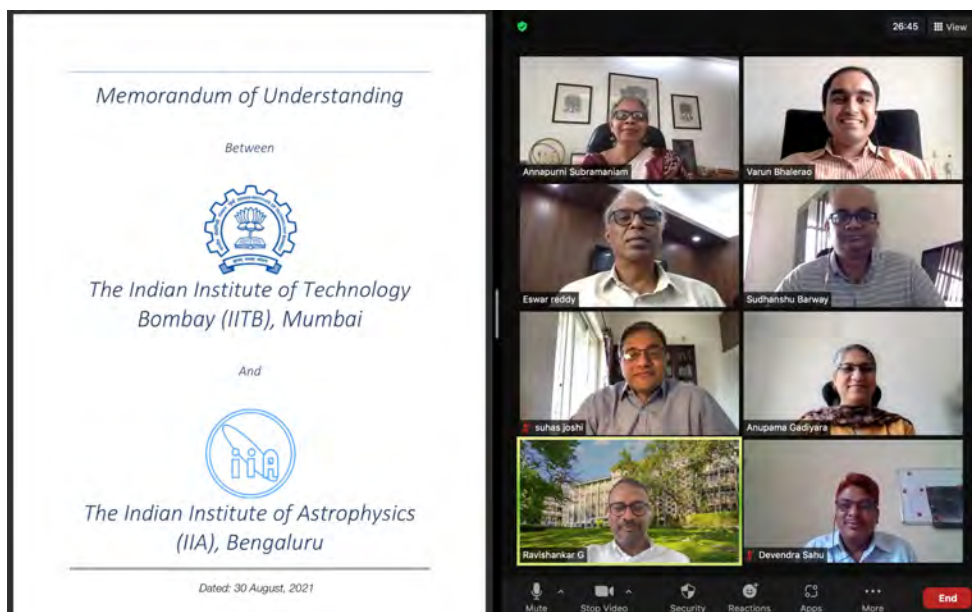
As part of Swachhata Pakhwada 2021, Environmental Science and Engineering Department conducted a webinar on "**Development of innovative technologies for waste recycling and sustainable management**" on Friday, September 3, 2021, to spread awareness about Swachh Bharat Abhiyaan.

IIT Campus School & Jr. College Powai and Kendriya Vidyalaya organized online competitions for school children. NSS IIT Bombay conducted "**Don't Refuse to Reuse**", an online **Best-out-of-Waste**

competition with a goal of not only helping the young students to enhance their creativity and presentation skills but also help them to understand the importance of recycling and reusing the waste material that is available to them. They also conducted an awareness webinar on "**Innovation in Sustainability and Waste Management**" for Zero Waste Week', during the first week of September 1-5, 2021.

The Public Health Office on the campus also carried out an awareness drive of cleanliness and waste recycling.

IIT Bombay Signs MoU With IIA For Handling Operations Of GROWTH - India Telescope



On August 30, 2021, the **Indian Institute of Technology Bombay** signed a Memorandum of Understanding (MoU), valid for a period of five years, with the **Indian Institute of Astrophysics (IIA)**, extending the ongoing collaboration for operations and scientific utilisation of the **GROWTH - India Telescope**. The virtual event was attended by senior dignitaries from both the organisations, including **Prof. Suhas Joshi**, Dean (Alumni and Corporate Relations), IIT Bombay, **Prof. Varun Bhalerao**, Department of Physics and co-ordinator of the project (GROWTH Co-PI), IIT Bombay, **Mr. Ravishankar Gedela**, CEO, Development and Relations Foundation, IIT Bombay, **Prof. Annapurni Subramaniam**, Director, IIA, **Prof. Eswar Reddy**, Dean, IIA, **Prof. Anupama G.C.** (GROWTH Co-PI), **Prof. Sudhanshu Barway** (GROWTH coordinator, IIA) and **Prof. Devendra Sahu**, members of the GROWTH team.

The GROWTH - India telescope was set up jointly by IIA and IIT Bombay under a project supported by DST-SERB and the Indo-US Science and Technology Forum, and became operational in 2018. Under this partnership, the organisations agreed to jointly continue the operations of the project. IIT Bombay students will continue to remotely use this robotic telescope and will use and develop tools for observations and data processing. The operations of the GROWTH - India telescope are supported by generous contributions from the IIT Bombay Alumni Class of 1994.

The GROWTH - India Telescope is a 0.7m wide-field telescope set up in Ladakh as a joint partnership between IIA and IIT Bombay. The main focus of the interdisciplinary project is to undertake continuous studies of cosmic sources that have rapidly-varying properties like emission from gravitational wave events, young supernovae and near-earth asteroids. It is the country's first fully-robotic optical telescope and one of the few such facilities present outside of Europe and the USA. It has facilitated interdisciplinary research work at UG and PG levels and has been instrumental in the research work carried on by IIT Bombay. IIT Bombay students trained with this telescope collaborate with astronomers around the world. Two such students recently discovered 2020 QG, which was the closest known asteroid that flew past Earth without impacting it.

Speaking about the partnership, **Prof. Subhasis Chaudhuri**, Director, IIT Bombay said, "*IIT Bombay aims to be a leader in astronomical research and this prestigious partnership with IIA brings us one step closer to our mission. We would like to thank the alumni from IIT Bombay's batch of 1994 for their generous contribution, which has made it possible for us to get access to the GROWTH - India Telescope, that would further our research. We are thankful to the IIA for continuing this partnership with IIT Bombay and are certain that this partnership will yield revolutionary results along the way.*"

Speaking about the collaboration, **Prof. Annapurni Subramaniam**, Director, IIA, said, "*The GIT, located in the Indian Astronomical Observatory, Hanle, of the IIA, is a facility dedicated to the study of transients. The wealth of expertise and experience of the IIA team in running telescope facilities in one of the best sites in the world combined with the young and enthusiastic team of IIT Bombay is a great collaboration that has already produced fascinating results in the last three years. We look forward to the continued collaboration between the two organisations.*"

Research in focus

Monitoring Antibiotics in Dairy and Meat Made Easy

Researchers from IIT Bombay have developed a simple and novel sensor to find out the level of antibiotics present in food and water.

Antibiotics are very effective in killing bacteria, only as long as the bacteria do not become resistant to the medicine. Antibiotics are widely used to treat bacterial infections in humans and animals. They are even used in household items such as floor cleaners and soaps. Antibiotics enter the environment from these sources and contaminate our food and water, giving a chance to the bacteria to become resistant to the medicines, which could earlier kill them. It means that the drugs we could use to treat a particular disease may no longer be effective.

We need to monitor the level of antibiotics in our milk and meat or the water around us to ensure that it is minimal. A group of scientists, led by **Prof. Soumyo Mukherji**, in the Indian Institute of Technology Bombay (IIT Bombay) and Manipal Institute of Technology, Manipal, have developed a sensor to find out whether a sample contains certain kinds of antibiotics, identified as β -lactam antibiotics. They published a study about this in the journal *Analytical Chemistry*.

There are different methods to check if a sample contains an antibiotic, but they cannot determine the level of the said antibiotic. Other methods such as Mass Spectroscopy or standardized chromatography can measure the levels of antibiotics but are expensive and require experts to handle them. In contrast, the sensor developed by Prof Mukherji and team is easy to use, affordable, robust and reliable. It can be used to check the presence of β -lactam antibiotics in a wide variety of samples, including water, milk and meat and does not require an expert to use it.

Penicillin and similar antibiotics like cephalosporin are called β -lactam antibiotics. They derive their name from the presence of a ring containing nitrogen in their molecular structure. The antibiotics can kill a wide variety of microorganisms, making them a popular drug of choice not only for the treatment of minor infection but also as an ingredient in various household products such as floor cleaners and soaps and food products such as milk and poultry. The β -lactam ring works by targeting the cell wall of the bacteria, thereby destroying the bacteria. The microorganisms resistant to the antibiotics evade destruction by secreting an enzyme called β -lactamase that breaks the β -lactam ring, thus rendering the antibiotic useless.

The sensor has a U shaped bend smaller than that of a U-pin, of optical fibre coated with polyaniline that can be dipped in the sample to be tested. The sensor is ready to be used after coating the polyaniline with a layer of the enzyme β -lactamase. When β -lactam in the test sample gets broken down by the β -lactamase enzyme, hydrogen ions are released, and acid byproducts form. This alters the polymeric backbone of polyaniline- changing its form from emeraldine base to emeraldine salt. This is seen as an increase in absorbance at 435 nm and the amount of light absorbed is proportional to the concentration of antibiotic in the test sample making the solution more acidic. The light is absorbed by the polyaniline coat on the fibre that is sensitive to pH. The amount of light absorbed is proportional to the concentration of the antibiotic in the test sample.

The researchers used their sensor to measure the concentration of antibiotics in milk, meat, and wastewater samples that contained a known amount of the antibiotic. The researchers found that the sensor was most sensitive when the sample was slightly acidic (pH 5.5); hence, they used the same acidity level for other samples. The minimum concentration of antibiotics that the sensor could detect for wastewater was twice that of milk.

The scientists found the sensor is considerably less sensitive to antibiotics in meat as compared to milk. However, given that there are hardly any sensors to detect antibiotics in meat, this is a significant advantage. Since most food safety administrators ban the use of β -lactam antibiotics in poultry, this is particularly useful.

"The sensor development was not free from challenges. Calibrating the sensor for use and making it sensitive to detect the lowest possible antibiotic concentration across different samples was one of the biggest challenges", says **Dr. Pooja**.

The scientists also checked if the sensor was specific to β -lactam antibiotics. They observed that when the sensor was used in a solution containing other antibiotics, it did not detect the antibiotics.

When not coated with the enzyme, the sensors can be stored for a long time. However, once the enzyme is coated, the sensor must be kept at 4°C. When manufactured on a large scale, the sensor could cost less than ₹ 30-35. It is much cheaper as compared to more than ₹ 3000 needed for the conventional techniques in use today. Moreover, each sensor can be used twice, which further reduces the testing cost. The researchers have applied for a patent for the sensor and are awaiting approval.



Article written by: Nagashree Avabhrath

Image Credits: Savitha Sekhar, Research Matters

Link to published work: <https://pubs.acs.org/doi/10.1021/acs.analchem.0c04169>

Abhyuday Creates Awareness To Save Powai Lake

Powai Lake provides food and shelter for over 200 bird species, fish, crocodiles and other creatures. Despite containing only 2% of the Sanjay Gandhi National Park's (SGNP) total surface, the lake is home to 88% of the park's avian species. Team members of Abhyuday, along with PhD student Omkar decided to bring awareness. With the strong support of faculty, introduced an exclusive talk session '**Know Your Powai Lake**' by various experts in the field.



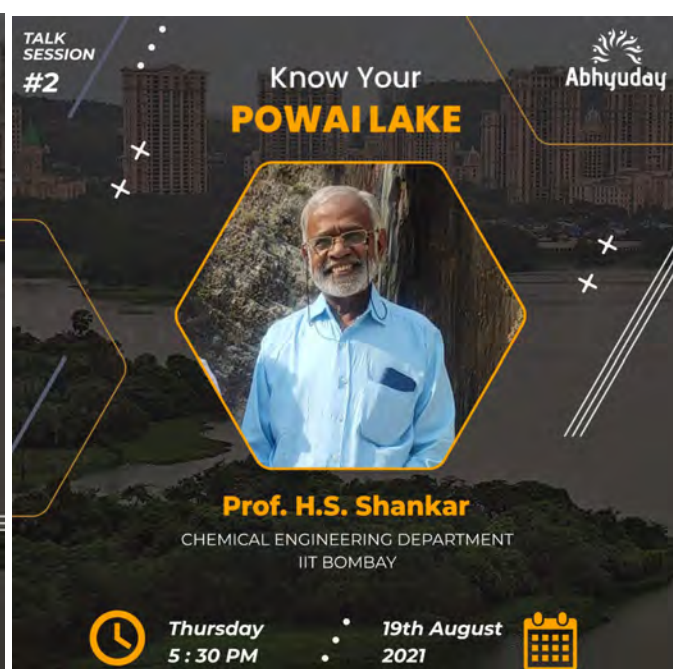
The very first session was '**Know Your Powai Lake: A Case Study of Conservation of Lakes**', which focused on the ways to conserve the lake and also on the conservation of biodiversity it carries. The session was taken by **Mr. Pramod Salaskar**, Secretary, Naushad Ali Sarovar Samvardhini, an association for Lake Conservation and also Co-President, Maharashtra Nature Park Society.

The second talk in the series '**Know your Powai Lake: Ecological Restoration of Degraded Wetlands**', was given by **Prof. H. S. Shankar**, Chemical Engineering, IIT Bombay.

In this talk, he focused on how wetlands are highly productive ecosystems and how due to rapid urbanization poses a threat of degradation. Wetlands are highly productive ecosystems under threat from human settlements. Rapid urbanization imposes a huge load on these natural systems. Technologies that seek synergies in the conflicting demands are away to mitigate the damages and create pathways for a better tomorrow.

The third talk in the series '**Know your Powai Lake: Birds of Powai Lake**' was given by **Ikshan Ganapathi, Aniketa Kabir and Arghya**.

The speakers highlighted that Powai lake hosts 88% of bird species in 2% of the area of SGNP. The session focused on insights about the prominent species of birds found at Powai lake, how they use the habitat, what they feed on, their status here, the conservation challenges they and their habitat face etc.



E-School On Climate Studies & Policy

A 12-day **E-School on Climate Studies & Policy** was organized from August 16-27, 2021. The IDP in Climate Studies is partially sponsored by the Department of Science and Technology under the National Mission on Strategic Knowledge on Climate Change.

As part of the funding for our Centre for Excellence in Climate Studies under this National Mission, an annual E-School on Climate Science and Policy was conducted in order to encourage the participants to shift towards higher education and careers in climate studies.



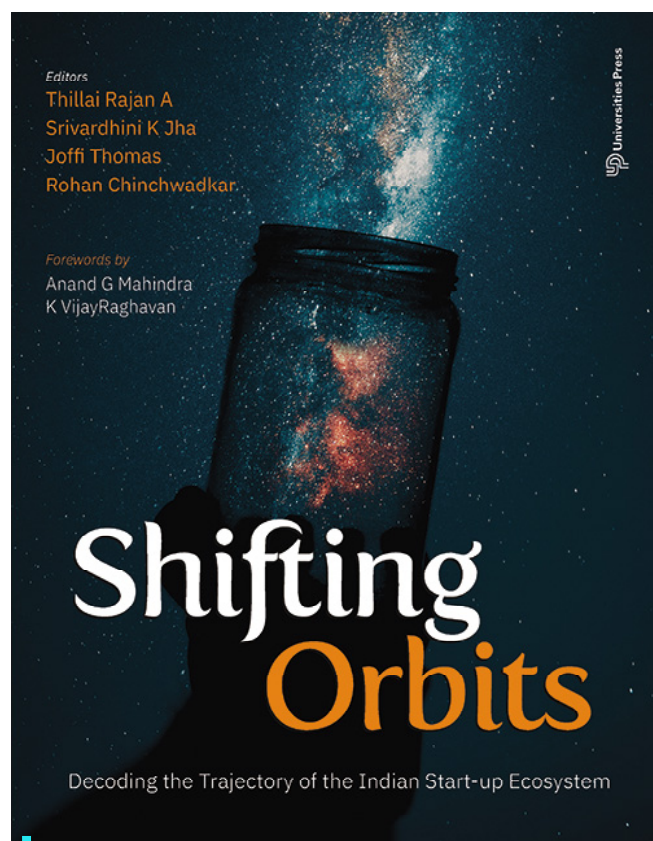
Dr Akhilesh Gupta, Sr Adviser, DST

Chief Guest Dr. Akhilesh Gupta while speaking about Climate Studies at the inaugural session of 8th E-School

Dr. Akhilesh Gupta, Scientist H and Senior Adviser, Policy Coordination and Programme Management Division and Former Advisor/ Head, SPLICE and Climate Change Programme, DST, GoI, was the Chief Guest at the inaugural session of 8th E-School and spoke about Climate Studies for future students.

The E-School proved to be a successful outreach strategy as the E-School was open for participation to academia and industry alike.

NITI Aayog CEO Amitabh Kant Launches Book Co-edited by IIT Bombay Professor



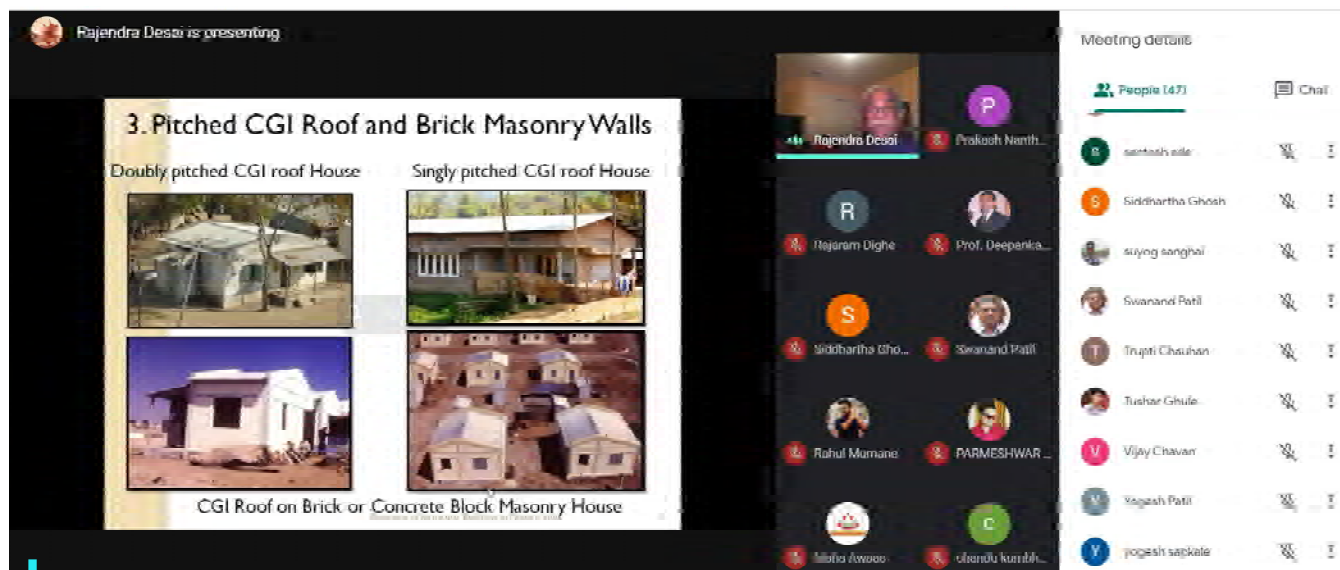
Cover page of the Book

The book titled, '**Shifting Orbits: Decoding the Trajectory of the Indian Start-up Ecosystem**', co-edited by **Prof. Rohan Chinchwadkar**, from the Shailesh J. Mehta School of Management, IIT Bombay, was launched on July 23, 2021, by **Mr. Amitabh Kant**, CEO, NITI Aayog.

The book launch was organized in the virtual mode by the **Innovation Venturing and Entrepreneurship in India Network (iVEIN)**. The book release was followed by the keynote address by Mr. Amitabh Kant and a presentation on the key insights of the book. The event also included a panel discussion on, '**The evolving start-up landscape**', between **Mr. Amitabh Kant** and **Mr. Kris Gopalakrishnan**, Co-Founder, Infosys.

The entrepreneurial paradigm in India has witnessed multiple shifts over time. The current policy imperative has been to support the start-up and venturing route for entrepreneurship. Buoyed by the initial successes in the IT and software industry and a supportive policy framework, the Indian start-up ecosystem has grown considerably. The need for a well-documented and researched text that has tracked the growth of the Indian start-up ecosystem has been acutely felt in recent times. The book bridges that need and highlights the Indian start-up ecosystem

Institute Holds Various Events To Celebrate Amrit Mahotsav



Screengrab of Online CEP course 'Refresher cum Orientation Programme for Rural Housing Engineers (Maharashtra)'

As a part of Amrit Mahotsav, internal and external experts delivered talks on various topics of interest and relevance. An online training programme was planned in three phases by **Prof. Prakash Nanthagopalan**, Department of Civil Engineering, to train more than 100 Rural Housing Engineers. In this regard, the first online CEP course, '**Refresher cum Orientation Programme for Rural Housing Engineers (Maharashtra)**' was organized during May 3-7, 2021 as a part of Azadi Ka Amrit Mahotsav.



The virtual course was organized by **Prof. Manasa R. Behera** and **Prof. V. K. Srineesh**, Department of Civil Engineering during May 17-22, 2021. Practicing engineers, consultants, researchers, faculty and graduate students from Technical Institutes across the country attended the course lectures delivered by national and international experts in the field. The course covered basic coastal engineering, vulnerability, process modelling, climate change impact and the design of coastal infrastructures. On June 19, 2021, an international webinar on '**Overview Materials, Design and Constructions Practices for Bituminous Pavements in India**' was organized by Transportation Systems Engineering, Department of Civil Engineering. As a research collaboration with **Prof. Sherif El-Badawy**, Mansoura University, Egypt. Postdoc and Ph.D. students working with **Prof. Dharmveer Singh** participated as speakers in this webinar.



 IIT Bombay India	 Bharat Ka अमृत महोत्सव 75 Years of India's Independence	 Mansoura University Egypt
SPEAKERS		
 Dr. Dharmveer Singh Associate Professor	 Dr. Bharat Rajan Post Doctoral Fellow	 Mr. Burhan Showkat Ph.D. Scholar
 Mrs. Arpita S Ph.D. Scholar	 Mr. Vamsi Krishna Ph.D. Scholar	
Organized by: Transportation Systems Engineering Department of Civil Engineering Indian Institute of Technology Bombay, INDIA		
Contact Info Dr. Bharat Rajan bharat.rajani@iitb.ac.in +91 9783750870		

Webinar organized by Department of Civil Engineering



Screengrab of the webinar organized by SINE

On July 24, 2021, SINE organized a webinar to commemorate the 75 years of India's Independence celebrations in August 2022 'Azadi Ka Amrit Mahotsav'. The title of the webinar was '**Role of innovative technologies to help resolve malnutrition in India**'. This webinar was a collaborative initiative under the SINE Power Hour Biotech series and roadshow series by BIRAC. The speakers at the webinar were **Dr. Anant Bhan**, Adjunct Professor, Yenepoya University (Moderator) **Prof. Satish Agnihotri**, Emeritus

Fellow, CTARA, IIT Bombay, **Dr. Shirshendu Mukherjee**, Mission Director, Grand Challenge India for BIRAC, DBT and **Dr. Saugandha Das**, Co-Founder, Edhaa Innovations.

The speakers highlighted the issues of malnutrition in India and the challenges faced in the last 75 years, government policies to combat malnutrition Scientific/ Technological solutions available, the role of innovation in resolving the issue of malnourishment.

In line with Hon'ble Prime Minister's vision for a fitter country with the Fit India Movement, IIT Bombay conducted **Fit India Movement Freedom Run 2.0** offline within the Institute campus on August 14, 2021.

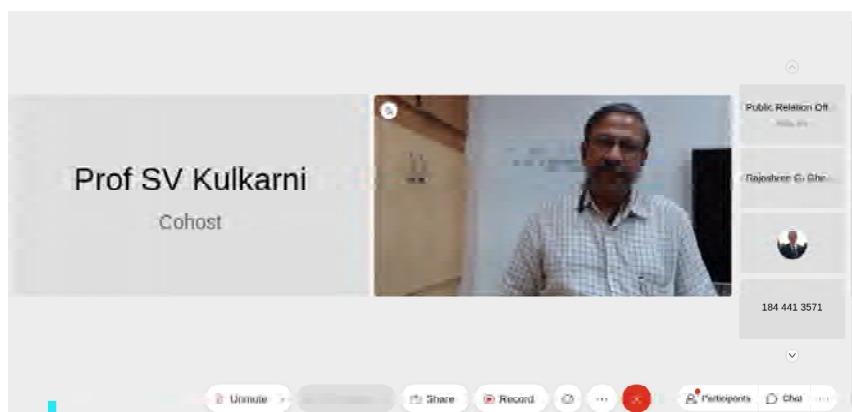
The run was a cross-country race across the lush green IIT Bombay campus with limited registrations following Covid protocols. The competition was organised in two legs separately, for staff and students, with male and female categories in each of them.

The Institute authorities took all necessary precautions to ensure the safety of the participants by ensuring mask compliance and distancing, with the support of security and medical personnel. Enthusiastic residents took part in building a healthier institute community.

On September 1, 2021, the Institute organized a talk on '**The Role of Administration in Institutions of Higher Education**' by **Dr. Premkumar**, Registrar, IIT Bombay, as a part of the Amrit Mahotsav. The talk (online), part of the series of lectures organized, emphasized on administrative and technical skills required for enhancing operational efficiency and effectiveness.



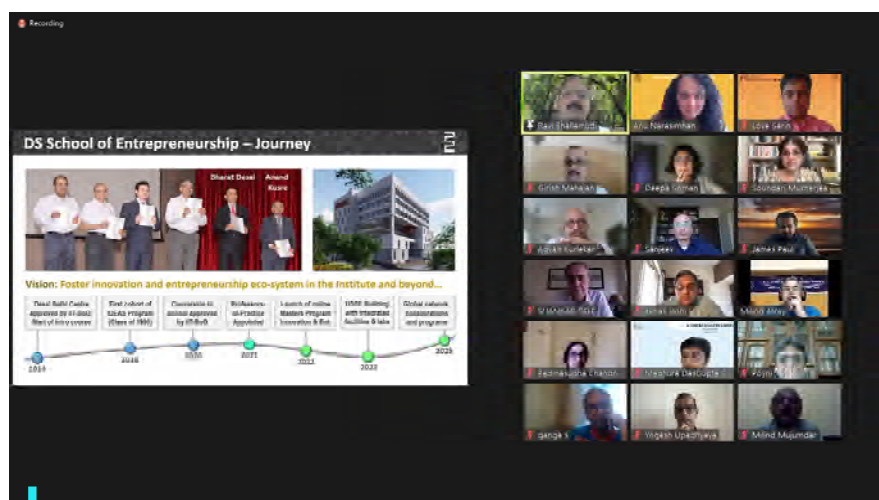
Residents participate in Fit India Movement Freedom Run 2.0



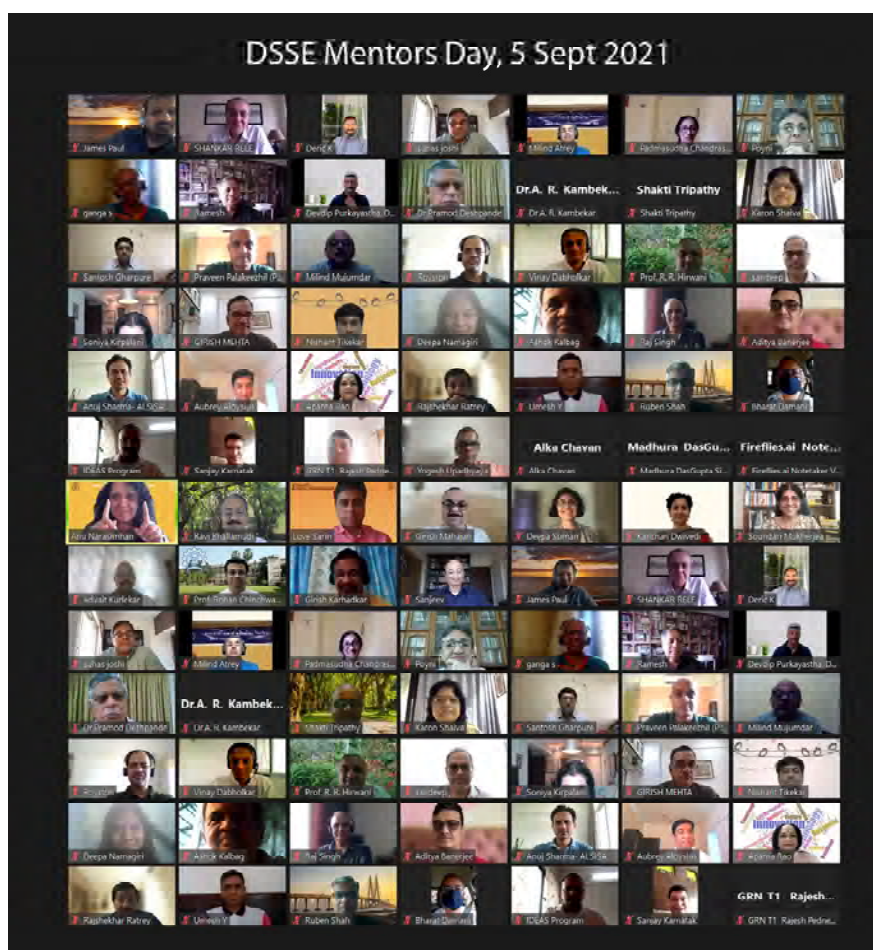
Dr. Premkumar, Registrar, IIT Bombay

Desai-Sethi School of Entrepreneurship Celebrates Mentors' Day

The **Desai-Sethi School of Entrepreneurship (DSSE)** hosted Mentors' Day on September 5, 2021, to felicitate the IIT Bombay alumni and entrepreneurs who have been mentoring the students and early stage startups in entrepreneurship courses and pre-incubation programs for the past several years. Till date, over 150 mentors associated with DSSE have provided 1200+ hours of mentoring to nearly 750 beneficiaries. These numbers will grow rapidly with rising interest in entrepreneurship and an increased engagement of mentors.



Screengrab of DSSE Mentor's Day conducted online

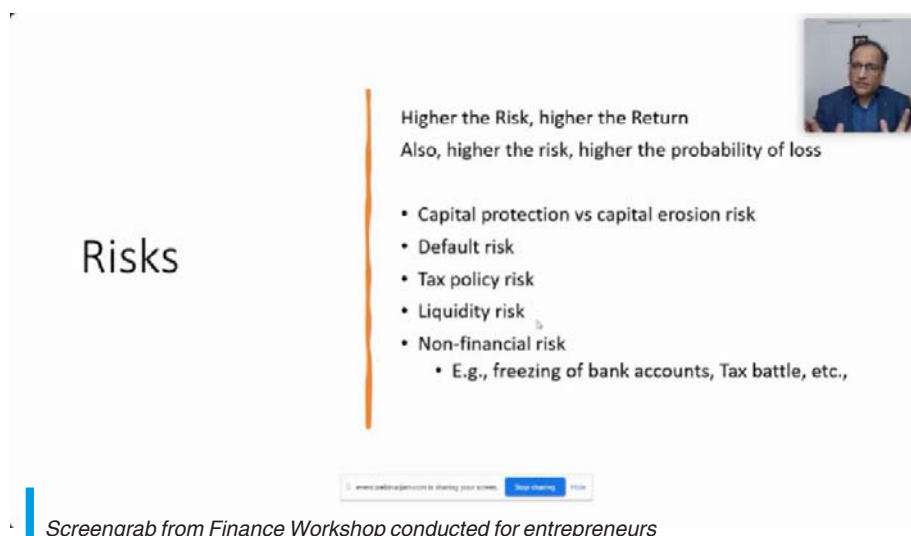


Forty-nine mentors attended the event, which featured a Mentor Dossier launch by **Prof. Milind Atrey**, Dean (Research & Development) and **Prof. Suhas Joshi**, Dean (Alumni and Corporate Relations). It featured the profiles of mentors, pictures of events, testimonials from the mentees that highlight the impact of mentoring at an individual level and an article "Mentoring Matters" by **Dr. Ajay Sethi**, a venture partner at Accel and an IIT Bombay alumnus, about mentoring in the right way and at the right time, with examples. Prof. Atrey spoke about the role of mentors in the entrepreneurship ecosystem and shared insightful tips, as well as do's and don'ts to ensure that the mentor-mentee relationship becomes a long lasting and mutually satisfying engagement. Prof. Joshi highlighted the valuable contributions made by the alumni and how it is helping the Institute become more responsive to its current needs.

Prof. B. Ravi, Professor-in-Charge of DSSE, spoke about various entities of the Institute providing a powerful platform to create new ideas and convert them into entrepreneurial ventures. He highlighted current and upcoming initiatives at DSSE and showed a bouquet of offerings for the mentors to get involved in supporting research (like Smart Campus), education (Indian case studies), innovation (co-working facilities) and entrepreneurship (pre-incubation mentoring) referred to as 'R.E.INVENT'.

Several mentors present at the event shared their ideas to make the programmes stronger. This discussion resulted in a very fruitful and productive conclusion of the event, with some great insights and thoughtful ideas.

IIT Bombay's E-Cell Expands Its Annual B-Model Competition Internationally



Eureka! is a business model competition conducted every year since 1998 by the Entrepreneurship Cell, IIT Bombay. It provides a 3600 holistic experience to its participants and deeply integrates mentoring, networking, incubation and funding opportunities in its structure.

This year, Eureka! expanded internationally and invited entries from the GCC region apart from the Indian subcontinent. Eureka! 2021 invites entries in 7 different tracks, namely, Fintech, Sustainable and Affordable Energy, Ed-tech, Food and Agro, Social, Pan-IIT and Business Track. The tracks encourage entrepreneurship in specific sectors by giving focused mentoring and incubation opportunities. The Business Track is open for startups from all sectors. Eureka! spans five months starting from the registration of the idea to drafting a B-model to pitch in front of a panel of esteemed investors. This year, Eureka! is awarding INR 8 Million in prizes and taking the winning startups from all tracks to Expo 2020 Dubai. Registrations for Eureka! are open at eureka.ecell.in till 16th Oct'21.

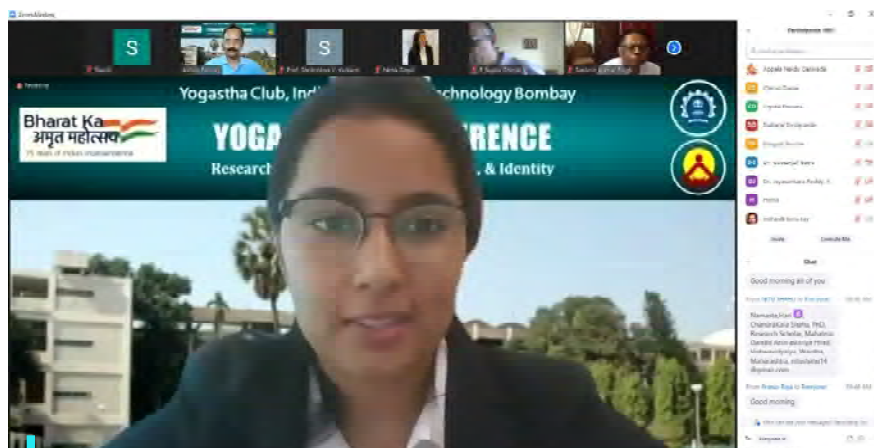
E-Cell IIT Bombay also conducted pre-Eureka! workshop '**illuminate**' to give the aspiring founders an idea of what entrepreneurship entails. The workshops were conducted on three different topics- Entrepreneurship, Marketing and Finance, with each workshop lasting for 3 days. The entrepreneurship workshop focused on Idea Validation, Business Model Canvas, Design Thinking and Pitching. The workshop was centered on the marketing needs of startups with an introduction to several marketing strategies and also provided an introduction to digital marketing, SEO, Google Analytics and other technologies essential for business. The Finance workshop covered the topics of fundraising, stock markets, investing, revenue forecasting and many other things that are necessary for founders to know about.

Institute Colloquium / Lectures

Prof. Arvind Panagariya, Professor of Economics and Jagdish Bhagwati Professor of Indian Political Economy at Columbia University, delivered an Institute lecture titled "*Indian Economy in the Post-Covid World*" on September 01, 2021.



Yogastha Organizes e-Conference



Screengrab of Yogastha e-conference

Yogastha organized a two-day e-conference during August 7-8, 2021 on **Research in Yoga: Mind, Consciousness and Identity**. On the occasion, various eminent speakers spoke about the importance and relevance of yoga during these unprecedented times. **Prof. Ashish Pandey**, faculty of Shailesh J. Mehta School of Management, IIT Bombay, hosted the two-day-long event.

The session began with **Dr. S.N. Rao** giving an introduction on yoga. He emphasized its role for

sustainable living. Prof. Ashish Pandey described Welber's four quadrants as a framework to dwell on the potential of yoga research. **Prof. Bhawuk** spoke on balancing the inward focus with an outward living and on being a caring researcher rather than a disinterested researcher.

Prof. Indranil Basu spoke about consciousness bridging the right and left parts of the brain. **Dr. Parker** demonstrated Tarka as a mind field component cleansed of all distortion and the ability to observe oneself through stages of samadhi.

Prof. Peter Sedlmeier discussed the methodology for yoga research, single case study design, robust theory-based instruments and components of yoga and their impact. **Dr. Phadke** walked the attendees through the evidence of mind-body medicine and the reunion of mind and body.

Prof. Pavlovich presented on yoga and workplace spirituality. She highlighted the key role of mirror neurons for empathy. Dr. Bhawuk shared insights on yoga the supreme positive psychology. He explained that Bhagwad Gita entails positive psychology through negation of negatives such as *ahimsa*, *akrodha* and cultivation of positives such as *satya*, *santosh* and so on.

Dr. Umashankar Pachauri enlightened on the linkages between yoga and Rama Charit Manas. **Prof. Bala Subramaniam** spoke about the role of yoga based practices for mental health, cognition and aging. He pointed out the alarming rise of mental health cases, including stress and anxiety.

Yogastha Conducts Workshop For Students

The Yogastha club had organized a workshop on August 28, 2021. The workshop emphasized the importance of the topic '**Art of Harnessing Mind Power**'. **Mr. Radheshyam Das** began the session by explaining the fundamentals of body, mind, and soul. He asked the participants to identify their nature based on pure innate qualities and bad acquired qualities based on three guna—sattva, rajo and tamo guna with various situations and stories posed to the audience.

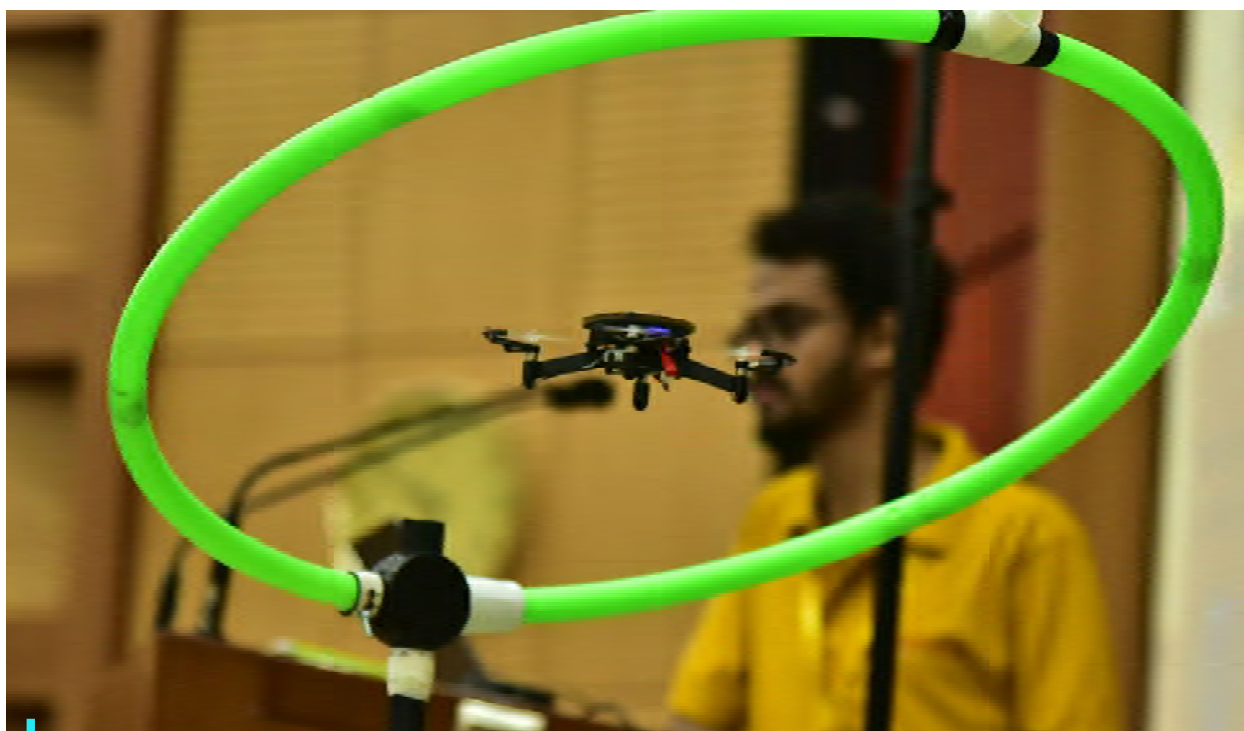
He explained some tips for empowering the mind, which is very important for a student, by talking about Chanakya's eight activities to be shunned completely. He spoke about ways to regulate body speech and mind to develop wisdom and satisfaction for the



Mr. Radheshyam Das during the workshop

leaders and team members. He ended the session with various examples from Mahabharata to highlight how a calm mind acts and affects our life choices and actions differently from a raging mind. The session was very well received, with the participation of more than 200 individuals. The participants were delighted to gain these insights and practical knowledge in such a simplistic approach.

e-Yantra Robotics Competition (eYRC 2021-22)



e-Yantra Robotics Competition Finals (pre-Covid) conducted at IIT Bombay in online mode

Given that the vast majority of our engineering graduates are unemployable for lack of any practical skills, the country desperately needs to change the status quo. The New Education Policy (NEP) prescribes students to be trained using “Project Based Learning” in contemporary skills and turned towards innovation and entrepreneurship.

For the past 9 years, **e-Yantra**, a Robotics Outreach project funded by the Ministry of Education and hosted at IIT Bombay, has been hugely successful in training young engineers in skills anticipated by NEP. What’s more interesting is that it does this through a Massive Open Online Course (MOOC) presenting itself as a competition.

e-Yantra National Robotics Competition has grown from 4,500 registrations in 2012 to 34,500 registrations, testifying to its growing popularity and to the growing wave of education moving online. The competition teaches hardcore engineering skills in a hands-on and fun manner. The first stage trains students through simulators and the second stage tests participants on problems modelled as ‘themes’. e-Yantra provides the resources, training and guidance and even a robotic kit to students whose theme requires hardware. Undergraduate students register as a team of four—any year, any branch from the same institute. This year’s competition has a focus on solving agricultural problems. If they qualify for the finals, then a travel allowance and boarding/ lodging at IIT Bombay is provided for the duration of the finals at IIT Bombay.

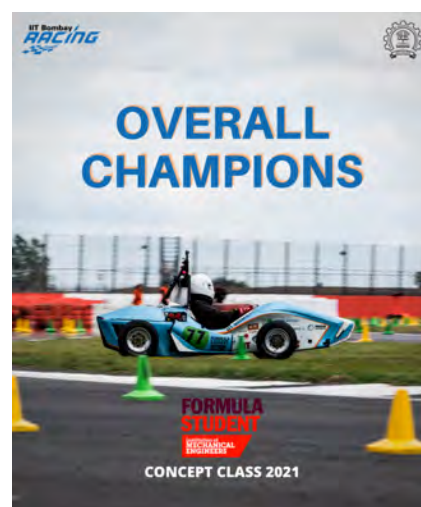
Themes teach a variety of skills including Robotic Operating System (ROS), Control System design, Machine Learning, Image Processing, 3D Design, Embedded Systems and so on. This year’s themes teach state-of-the-art topics taught nowhere in India’s engineering colleges. For instance, Functional Programming - the paradigm using which the WhatsApp system was built. Also FPGAs - a breed of “reconfigurable hardware” permitting accelerated computation such as that required by advanced imaging and video processing used in remote sensing and surveillance.

In summary, e-Yantra teaches students state-of-art skills that prepares youngsters for the future. The coveted prize is a six-week paid summer internship with e-Yantra where participants get to work on ambitious technical projects and get exposed to a variety of extra-curricular talks on topics such as geo-politics, money and investing, soft skills, theatre workshops, meditation sessions, lectures on history, heritage visits to monuments and so on. e-Yantra believes that students who make it to the internship program are potential leaders. These experiences broaden the outlook of our students to sensitize to the rapidly transforming world of global opportunities. Students touched by the competition are more employable and are more ambitious in their career choices and naturally turn to innovation and entrepreneurship as career objectives.

IIT Bombay Racing Team Secures First Position In Formula Student UK 2021

The **IIT Bombay Racing Team** has secured **first position** in the Overall category of **Formula Student UK (FSUK) 2021 Concept Class**. Among 65 teams participating from 18 countries all over the world, the team successfully defended the Engineering Design winners title. Besides winning the first position in the **Overall and Engineering Design** title, the team also won the fourth position in **Business Presentation** and 10th position in **Cost and Manufacturing**.

The team scored 349/430 points in the static events. They also secured the second position in the lap time simulation event, missing out the top place by just four points.



AUV-IITB Wins Three Awards At RoboSub 2021 Competition



The **Autonomous Underwater Vehicle team of IIT Bombay (AUV-IITB)**, has won prestigious awards in three out of the four categories they competed in the **RoboSub 2021 Competition** held virtually. Among 54 teams and 1400+ participants from across 12 countries, the team entered with their latest vehicle, **Matsya 6A** and won three awards.

The awards were announced on Saturday, August 7, 2021. The team secured the **second position** in the 'Technology Demonstration of Propulsion System' category, the **fourth position** in the 'Technical Design Report' category and the **sixth position** for

website; excelling as the best performing Indian team. Despite the challenges faced due to the ongoing pandemic and severe competition from renowned international teams from Caltech, Cornell University, NUS, UCB and others, the AUV-IITB have stared down the odds to prove their skill.

Obituary



Prof. Rinti Banerjee, Department of Biosciences and Bioengineering, passed away on July 8, 2021, to post-covid complications. Prof. Banerjee was a great scholar, researcher and a teacher. She did a lot of research on the pandemic and filed several patents and licensed some of her research output to companies.



Prof. Shripad M. Khopkar, an Emeritus Professor in Department of Chemistry, IIT Bombay, passed away on August 12, 2021. His tenure at IIT Bombay was during 1961-1992 and he has been an Emeritus Professor since 1994. Prof. Khopkar was well-known as a very accomplished chemist and had written several books. He continued his research even long after his retirement

Awards and Distinctions

Prof. Dharamveer Singh, Department of Civil Engineering, has been appointed as an Associate Editor of International Journal of Pavement Research and Technology (IJPRT), Springer

Prof. Dulal Panda, Department of Biosciences and Bioengineering, has been appointed as Director of National Institute of Pharmaceutical Education and Research (NIPER) Mohali

Prof. Rashmi Gupta, Department of Humanities and Social Sciences, has been invited to serve as an Editorial Board Member for Scientific Reports (Nature Portfolio Journals)

Late **Prof. Rinti Banerjee**, Department of Biosciences and Bioengineering; **Prof. Maryam Shojaei**, Department of Electrical Engineering and **Prof. Suparna Mukherjee**, Environmental Science and Engineering Department; has been selected as Women Achievers in STEM from all over India in both academia and industry by Confederation of Indian Industry (CII)

Prof. M. Ravikanth, Department of Chemistry, has been awarded the J.C. Bose Fellowship

Prof. Asmita Mukherjee and **Prof. Parinda Vasa**, Department of Physics, have been awarded the prestigious SERB-POWER Fellowship

Prof. Srinivasan Ramakrishnan, Department of Chemistry, has been awarded Ramanujan Fellowship

Prof. Nutan Limaye, Department of Computer Science and Engineering, **Prof. Srikanth Srinivasan**,

Department of Mathematics (currently at Aarhus University, Denmark) and **Mr. Sebastien Tavenas** from CNRS, France's work has been accepted to be published at the prestigious conference Annual Symposium on Foundations of Computer Science (FOCS 2021)

Prof. Malhar Kulkarni, Department of Humanities and Social Sciences, has received the Mahakavi Kalidas Sanskrit Sadhana Puraskar for the year 2020 from the Government of Maharashtra in recognition of his work as a Teacher of Sanskrit

Prof. Sudarshan Kumar, Department of Aerospace Engineering, has been selected as an Associate Fellow-Class of 2022 in the American Institute of Aeronautics and Astronautics (AIAA)

Prof. Rohit Srivastava, Department of Biosciences and Bioengineering, has been awarded the prestigious Shanti Swarup Bhatnagar Prize for Science and Technology 2021 in Medical Sciences

Prof. Pushpak Bhattacharyya, Department of Computer Science and Engineering, was invited by CERN, the European Organization for Nuclear Research, at Geneva to the first edition of Sparks! to discuss the future of AI. The event called "Future Intelligence" took place on Sept 17 and 18

Prof. Debabrata Maiti and **Prof. Gopalan Rajaraman**, Department of Chemistry, have been selected to receive the Chemical Research Society of India (CRSI) Bronze Medal for the year 2022

Paper Presentation

Prof. D.S. Shah, Department of Mechanical Engineering, presented his work titled "Cadaveric knee simulator in orthopaedic training to quantify joint kinematics for active functional motions" at the 28th congress of the International Society of Biomechanics (ISB) held virtually during July 26-29, 2021.

Prof. Rajesh H. Zele, Department of Electrical Engineering and his team **Devi S, Gourav Tilwankar**, presented a paper entitled, 'Automated Design of

Analog Circuits using Machine Learning Techniques' at the 25th International Symposium on VLSI Design and Test (VDAT 2021) Conference at Sardar Vallabhbhai National Institute of Technology, Surat during September 16-18, 2021

Prof. Alankar Alankar, Department of Mechanical Engineering, published a paper titled "Machine learning elastic constants of multi-component alloys", in Comp. Mater. Sci., 2021, Vol.198,pp.110671

Student News

IIT Bombay Student Bags People's Choice Award in RMS Scientific Imaging Competition 2021



Transmission Electron Microscopy Image of Tin Oxide Nanoparticles by Nitin Arya

The Transmission Electron Microscopy Image of Tin Oxide Nanoparticles by **Nitin Arya**, a PhD student under **Prof. Rajiv O. Dusane**, Department of Metallurgical Engineering and Materials Science (MEMS) won the **People's Choice Award in Royal Microscopical Society Scientific Imaging Competition 2021**. The image was acquired at the newly commissioned TEM facility located in the Department of MEMS.

The Royal Microscopical Society, Oxford, UK, holds an image (Transmission electron and Scanning Electron Microscope) competition globally, once in two years. A total of 36 images were shortlisted out of more than 100 images from 40 countries across the globe.

IIT Bombay Bags 2nd Position In Laurie Dake Challenge 2021

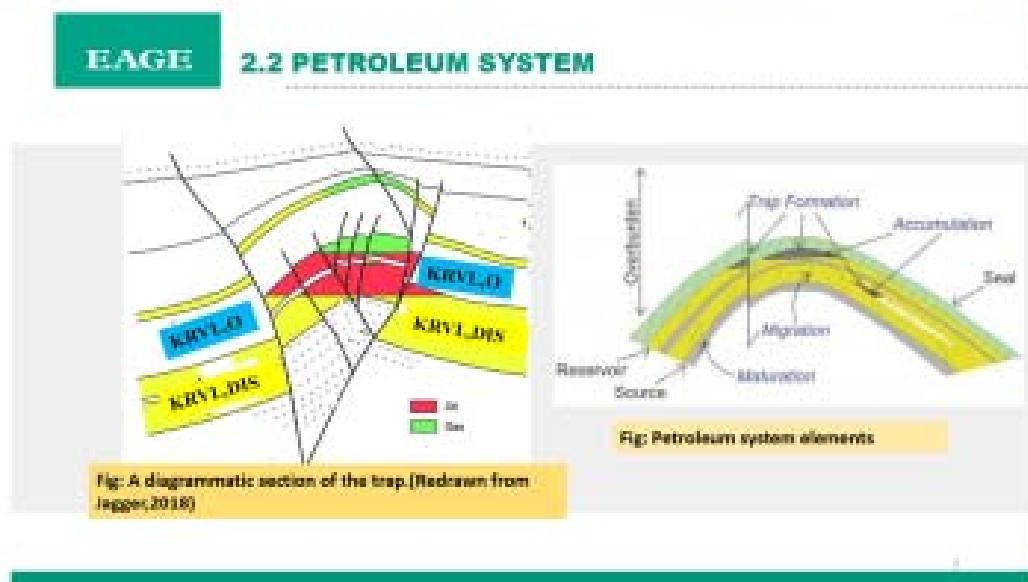
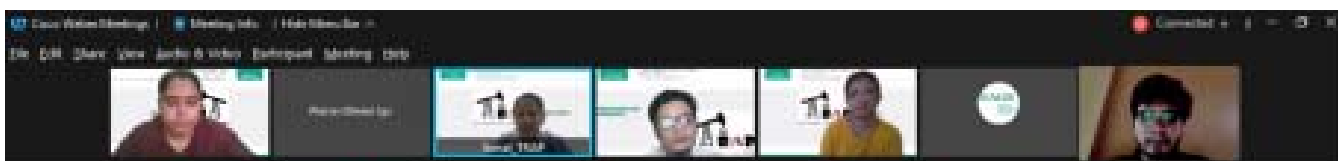


Fig: A diagrammatic section of the trap. (Redrawn from Jegges, 2018)

A team of five students from the Department of Earth Sciences bagged the **second position** in the '**Laurie Dake Challenge**' competition organized by the European Association of Geoscientists and Engineers (EAGE), as a part of its 82nd Annual International Conference and Exhibition. The key focus of the challenge was to prepare an optimized Field Development Plan for an oil field in Germany with datasets sponsored by Wintershall DEA.

The TRAP team members who participated in the competition include second-year MTech Petroleum Geosciences students **Firdush Hussain**, **Sonal Janagal**, **Arpita Chakraborty**, **Sushmita Rangnath Mastud** and a second-year PhD student **Rhythm Shah**.

PhD Student Selected For SERB-Overseas Doctoral Fellowship

Ms. Sangeetharani Munusamy, a PhD student, has been selected for the prestigious SERB-Overseas Doctoral Fellowship to visit Purdue University in 2022. This being competitive, she is one of the 25 recipients of the country to get selected for SERB-OVDF 2022.

Jaltantra Wins Triennial 'IFORS Prize for OR in Development' 2020

Jaltantra, a system for design and optimization of water distribution networks, developed at IIT Bombay, has won the Triennial 'IFORS Prize for OR in Development' 2020. It was awarded by the International Federation of Operational Research Societies at the 22nd Triennial IFORS Conference held virtually from Seoul, South Korea. The submission titled 'JalTantra: Impacting the practice of rural water network design in India' was done by **Nikhil Hooda**, **Prof. Om Damani** (Department of



And the winner is...



JalTantra: Impacting the practice of rural water network design in India

Nikhil Hooda, Om Damani, Ashutosh Mahajan



Computer Science and Engineering), and **Prof. Ashutosh Mahajan** (Department of Industrial Engineering and Operations Research). While many people have contributed to the design and deployment of Jaltantra, the core of the system was developed as part of a PhD student from Nikhil Hooda's thesis with Prof. Ashutosh Mahajan as the key collaborator.

Alumnus News



Mr. Shubham Kumar, former B.Tech. student of batch 2014-2018 (Roll No. 140040084), Department of Civil Engineering has topped (1st Rank) the Union Public Service Commission-UPSC Civil Services Exam 2020.

NOTIFICATIONS

Prof. Subimal Ghosh, Department of Civil Engineering, has been appointed as the Convener, Climate Studies (IDP) w.e.f. January 22, 2021

Prof. Samir Maji, Department of Biosciences and Bioengineering, has been appointed as Warden Hostel No. 18 w.e.f. May 22, 2021

Prof. Debashish Chatterjee, has been appointed as the Convener, Systems and Control Engineering w.e.f. May 25, 2021

Prof. Manasa Behera, Department of Civil Engineering, has been appointed as Associate Warden Hostel No. 03 w.e.f. May 30, 2021

Prof. Nandita Madhavan, Department of Chemistry, has been appointed as Warden Hostel No. 11 w.e.f. June 1, 2021

Prof. Himanshu Bahirat, Department of Electrical Engineering, has been appointed as Associate Warden Hostel No. 18 w.e.f. June 6, 2021

Prof. Aftab Alam, Department of Physics, has been appointed as Warden Hostel No. 14 w.e.f. June 6, 2021

Prof. Sibi Raj B Pillai, Department of Electrical Engineering, has been appointed as Warden Hostel No. 16 w.e.f. June 11, 2021

Prof. Harish Puleria, Environmental Science and Engineering Department, has been appointed as Warden Hostel No. 01 w.e.f. June 12, 2021

Prof. P.J. Guruprasad, Department of Aerospace Engineering, has been appointed as Associate Warden Hostel No. 01 w.e.f. June 12, 2021

Prof. Arghadeep Laskar, Department of Civil Engineering, has been appointed as Associate Warden Hostel No. 16 w.e.f. June 24, 2021

Prof. Subhankar Karmakar, has been appointed as the Head of Environmental Science and Engineering Department w.e.f. July 05, 2021

Prof. Sankara Sarma, Department of Energy Sciences and Engineering, has been appointed as Associate Warden Hostel No. 15 w.e.f. July 14, 2021

Prof. Manjesh Hanawal, Industrial Engineering and Operations Research, has been appointed as Associate Warden Hostel No.15 w.e.f. July 14, 2021

Prof. Rekha Santhanam, Department of Mathematics, has been appointed as Associate Warden Hostel No. 11 w.e.f. July 20, 2021

Dr. K.V. Reghuthaman, Joint Registrar, Institute of Eminence Cell, has been appointed as Deputy Registrar HR-2 (HCM and Payroll) w.e.f. August 1, 2021

Prof. V Raja Babu, Department of Electrical Engineering, has been appointed as Warden Hostel No. 09 w.e.f. August 23, 2021

Prof. Arnab Dutta, Department of Chemistry, has been appointed as Associate Warden Hostel No. 09 w.e.f. August 23, 2021

Prof. Satish Maurya, Department of Earth Sciences, has been appointed as Associate Warden Hostel No. 13 w.e.f. August 27, 2021

Prof. Arpita Sinha, Department of Systems and Control Engineering, has been appointed as Member of Accommodation Allotment Committee-I (AAC-I) w.e.f. August 31, 2021

Prof. Aparna Singh, Department of Metallurgical Engineering and Materials Science, has been appointed as Warden Hostel No. 10 w.e.f. September 1, 2021

Prof. Shamik Sen, Department of Biosciences and Bioengineering, has been appointed as Warden Hostel No. 05 w.e.f. September 1, 2021

Prof. Venkata Saila Nathan R, Department of Energy Science and Engineering, has been appointed as Warden Hostel No. 17 w.e.f. September 1, 2021

Prof. Ritayan Mitra, IDP - Educational Technology, has been appointed as Associate Warden Hostel No. 05 w.e.f. September 1, 2021

Prof. Prasad Bokil, IDC School of Design, has been appointed as Associate Warden Hostel No. 17 w.e.f. September 1, 2021

The Board in its 249th meeting held on November 23, 2019 approved the change of name of "Desai Sethi Centre of Entrepreneurship" (DSCE) to "**Desai Sethi School of Entrepreneurship**" (DSSE)

Appointments

Prof. Aravind Balan, has been appointed as Assistant Professor (Grade I) in the Department of Aerospace Engineering w.e.f. August 2, 2021



Prof. Maniraj Mahalingam, has been appointed as Assistant Professor (Grade I) in the Department of Physics w.e.f. August 2, 2021



Retirements on July 31, 2021

Prof. Alladi Subramanyam, Department of Mathematics, retired after 35 years of service



Prof. N.S. Puneekar, Department of Biosciences and Bioengineering, retired after 32 years of service



Prof. C.V Tomy, Department of Physics, retired after 22 years of service



Ms. Prajakta V. Juwekar, Dy. Registrar, HR-2 (HCM & Payroll), retired after 38 years of service



Ms. Sukhada C. Kulkarni, Assistant Technical Officer, Department of Biosciences and Bioengineering, retired after 31 years of service



Mr. Vinayak R. Khare, Sr. Multi-skilled Assistant, Guest House, retired after 39 years of service



Mr. Badshaha I. Raut, Sr. Multi-skilled Assistant, Electrical Maintenance Division, retired after 33 years of service



Retirements on August 31, 2021

Prof. Bijnan Bandyopadhyay, Systems and Control Engineering, retired after 34 years of service



Prof. Ashok Joshi, Department of Aerospace Engineering, retired after 31 years of service



Ms. Nancy P. Fernandes, Superintendent, Industrial Design Centre, retired after 38 years of service



Ms. Ashwini D. Joshi, Sr. Primary Teacher, Campus School, retired after 31 years of service



Mr. Sudhir E. Ghosalkar, Sr. Multi-skilled Assistant, Electrical Maintenance Division, retired after 38 years of service



Ms. Vrindha Viswanathan, Assistant Technical Officer, Centre for Research in Nanotechnology and Science, retired after 38 years of service



Retirements on September 30, 2021

Prof. G.N. Jadhav, Department of Earth Sciences, retired after 39 years of service



Mr. K. Sengupta, Sports Officer, Gymkhana, retired after 34 years of service



CEP courses scheduled in December 2021

Duration	Days	Course Title	Course Coordinator	Department
Open Programmes : (December 2021)				
6-12-2021	5 days	Multiscale Crystal Plasticity Modelling	Prof. Alankar Alankar	Mechanical Engineering
6-12-2021	6 days	Biology For Engineers	Prof. Ambarish Kunwar	Biosciences and Bioengineering
9-12-2021	3 days	Supplemental Dissipative Devices For Seismic Retrofitting of Non-Ductile Structures	Prof. Meera Raghunandan	Civil Engineering
13-12-2021	6 days	Laboratory and Ergonomic Safety for Engineers	Prof. Ambarish Kunwar	Biosciences and Bioengineering
20-12-2021	3 days	Multiscale Materials Informatics, Discovery and Design	Prof. Alankar Alankar	Mechanical Engineering



In the
Wilderness

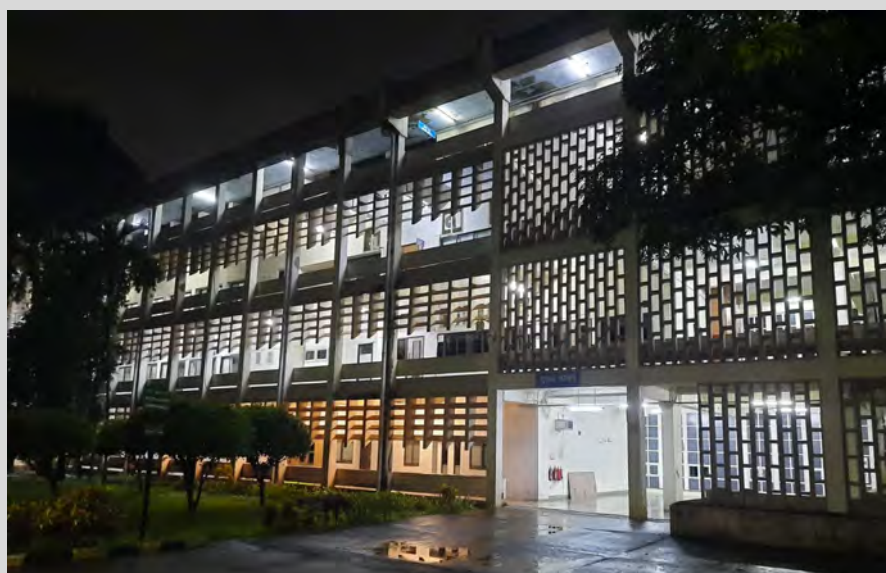


Photo Credit :
Mr. Prasad Matkar

BOOK POST

