IIT Bombay Celebrates Teachers' Day 2023

- International Award for Excellence in Research in Engineering and Technology
- Prof. S.P. Sukhatme Excellence in Teaching Awards to 15 Professors
- Dr. P.K. Patwardhan Technology Development Award
- Award for Excellence in Academics to 61 students

Chief Guest Dr. Arunava Majumdar, Dean, Stanford Doerr School of Sustainability, Jay Precourt Professor, Professor of Mechanical Engineering, Stanford University addressing the audience during 65th Teachers' Day

Commemorating the birth anniversary of noted philosopher, educationist and statesman, Dr. S. Radhakrishnan, the Indian Institute of Technology Bombay (IIT Bombay) celebrated its **65th Teachers' Day** on September 5, 2023, at the Institute campus. **Dr. Arunava Majumdar,** Dean, Stanford Doerr School of Sustainability, Jay Precourt Professor, Professor of Mechanical Engineering, Stanford University was the Chief Guest on the occasion.

The function began with a welcome address by the Institute's Director **Prof. Subhasis Chaudhuri** followed by the speech by the Chief Guest. During his interaction with the faculty and students, the Director of the Institute Prof. Subhasis Chaudhuri commented, *"Recognition of excellence is a societal commitment as it helps in boosting the overall performance of the system collectively. IIT Bombay is proud that many of its faculty members and students have been performing excellently to take us to a greater height"*.

Sharing his own experience on the occasion, the Chief Guest of the function **Dr. Arunava Majumdar** said, *"The respect that students have for their teachers is really about whether the teachers could inspire curiosity in their minds. When a student completes a course from such an inspiring teacher, he or she gets a sense of accomplishment. It gives a confidence that they can now tackle some issues and problems that they could not before. That sense of accomplishment is what marks a good teacher"*.

Dr. Nitin Saxena, N. Rama Rao Chair Professor, Department of Computer Science and Engineering, IIT Kanpur, receiving the IIT Bombay International Award for Excellence in Research in Engineering and Technology for his outstanding contributions to research in engineering and technology

The presentation of awards included the International Award for Excellence in Research in Engineering and Technology; Professor S. P. Sukhatme Award for Excellence in Teaching; Dr. P. K. Patwardhan Technology Development Award (2022) and the Excellence in Academics Award.

The IIT Bombay International Award for **Excellence in Research in Engineering and Technology** (instituted by Mr. Sandeep Naik and Mr. Shantanu Rastogi) was conferred on **Dr. Nitin Saxena,** N. Rama Rao Chair Professor, Department of Computer Science and Engineering, IIT Kanpur, in commendation of his outstanding contributions in the areas of computational algebra and complexity, including solving a long-standing open problem in algorithmic number theory related to efficiently checking for the primality of numbers.

The awardees of Professor S. P. Sukhatme Award for Excellence in Teaching are as follows:

- **Prof. Pradeep Amboor Madathil,**
  Department of Aerospace Engineering

- **Prof. Kumar Singh,**
  Department of Earth Sciences

- **Prof. Suneet Singh,**
  Department of Energy Science and Engineering

- **Prof. Shishir Jha,**
  Centre for Policy Studies formerly with SJMSOM

- **Prof. Amartya Mukhopadhyay,**
  Department of Metallurgical Engineering and Materials Science

- **Prof. Tanmay Bhandakkar,**
  Department of Mechanical Engineering

- **Prof. Avijit Chatterjee,**
  Department of Aerospace Engineering

- **Prof. Dipankar Saha,**
  Department of Electrical Engineering

- **Prof. Saravanan Vijayakumaran,**
  Department of Electrical Engineering

- **Prof. Uday Khedker,**
  Department of Computer Science and Engineering

- **Prof. Mandar Inamdar,**
  Department of Civil Engineering

- **Prof. Ranjan Panda,**
  Department of Humanities and Social Sciences

- **Prof. Salil Kulkarni,**
  Department of Mechanical Engineering

- **Prof. Sankagiri Umasankar,**
  Department of Physics

- **Prof. Pichai Ramadevi,**
  Department of Physics

Dr. P. K. Patwardhan Technology Development Award (2022) was awarded to **Prof. Bhaskaran Raman,** Department of Computer Science and Engineering and **Prof. Kameswari Chebrolu,** Department of Computer Science and Engineering in recognition of their innovative R&D work on *"SAFE: Smart Authenticated Fast Exam".*

One of the highlights of the programme involved recognizing the top-performing students of each class. About **61 students** were felicitated by the Institute Director Prof. Subhasis Chaudhuri for their superlative academic performance.

The Teachers' Day function was well-attended by Dean (Academic Programmes) **Prof. Avinash Mahajan,** Dean (Faculty Affairs) **Prof. Neela Natraj,** Dean (Research and Development) **Prof. Sachin Patwardhan,** Heads of Departments, faculty members, staff and students in large numbers.

The recipients of Prof. S.P. Sukhatme Award for Excellence in Teaching 2023 and IIT Bombay International Award for Excellence in Research in Engineering and Technology with Chief Guest Dr. Arunava Majumdar (fourth from right) and IIT Bombay Director Prof. Subhasis Chaudhuri (c)

IIT Bombay Holds Its Department Degree Distribution Function (61st Convocation)

- A total of 3078 degrees awarded to 2800 students

- Total 420 students were awarded PhD degrees during the academic year 2022-23

The Department Degree Distribution Function (DDDF) of the 61st Convocation was held in the academic units of the degree recipients at the Indian Institute of Technology Bombay (IIT Bombay) campus during two consecutive days viz. August 19-20, 2023.

The DDDFs of the 61st Convocation were presided over by a Departmental Chief Guest, Head of Department and faculty members of the Department. A total of 3078 degrees were awarded to 2800 students during the academic year 2022-23, including 420 PhD degrees.

Congratulating the degree and the medal recipients on the occasion, the Institute Director Prof. Subhasis Chaudhuri said, "Our task as professors during the life cycle of students at IIT Bombay is to provide them with a firm analytical foundation that will help them achieve success and create an impact on our society, which I am sure they all will".

The 'President of India Gold Medal' was bestowed on Harshit Gupta, a BTech student from the Department of Computer Science and Engineering. The 'Institute Gold Medal' was awarded to Anish Shivamani, a BS student from the Department of Chemistry and the 'Dr. Shankar Dayal Sharma Gold Medal' was conferred on Akshat Shirish Zalte, a BTech student from the Department of Chemical Engineering. Many more students were also presented with other gold and silver medals to recognize their excellent performance.

During the academic year 2022-23, 3078 degrees were awarded to 2800 students. The degrees include 816 BTech along with 372 Dual Degrees (BTech+MTech) and 68 Interdisciplinary Dual Degrees (BTech/ BS+MTech/ MSc), 61 four-year BS, along with 18 Dual Degrees (BS+MSc), 25 BDes, along with 20 Dual Degree (BDes+MDes) and 30 three-year BS.

643 MTech, 33 MS by research, 8 Dual Degree (MTech/MSc+MS by research), 73 MDes, 12 MPhil, 276 two-year MSc and 4 five-year Integrated MSc, 114 MBA, 39 EMBA, 12 MPP and 34 PGDIIT were awarded during the academic year 2022-23.

420 PhD [including Dual Degree of MTech/ (MPhil+PhD), Dual Degree of (MSc+PhD) and joint PhDs along with Monash University, Nottingham Trent University (NTU) and National University of Singapore (NUS)] were awarded during the academic year 2022-23.

MEDALS AND PRIZES

OF THE 61ST CONVOCATION OF THE INSTITUTE
as announced during August 2023

PRESIDENT OF INDIA MEDAL
(for the year 2022-23)
Harshit Gupta
B.Tech. (Computer science and Engineering)

INSTITUTE GOLD MEDAL
(for the year 2022-23)
Anish Shivamani
Bachelor of Science (Chemistry)

INSTITUTE SILVER MEDAL
(for the year 2022-23)

BACHELOR OF TECHNOLOGY (B.Tech.)

Aerospace Engineering
Vignesh Anand

Chemical Engineering
Akshat Shirish Zalte

Civil Engineering
Bhuvan Aggarwal

Computer Sc.& Engineering
Jayesh Singla

Electrical Engineering
Sai Saketika Chekuri

Mechanical Engineering
Hiya Akhil Gada

Metallurgical Engineering and Materials Science
Maheesh Baijal

Engineering Physics
Aneesh Milind Bapat

BACHELOR OF SCIENCE
Economics
Swapnil Gupta

DUAL DEGREE
IDC School of Design (B.Des.+M.Des.)
Atish Waghwase

MASTER OF SCIENCE (M.Sc.)

Earth Sciences
Deepak Kumar Jaiswal

Applied Statistics and Informatics
Rajat Garg

Biosciences and Bioengineering
Ravi Sharma

Chemistry
Sandip Kumar Mishra

Mathematics
Poonam Nayak

Physics
Sarthak

**DUAL DEGREES
(B.Tech. + M.Tech.)**

Aerospace Engineering
Goparaju Khushal

Chemical Engineering
Pragya Parihar

Electrical Engineering
H R Sai Sumedh
Aseer Israr Ansari

Energy Science and Engineering
Aishwarya Sidram Sherla

Environmental Science and Engineering
Rishi Rathi

Mechanical Engineering
Hemanth Dontamsetti

Metallurgical Engineering and Materials Science
Aryan Mishra

Engineering Physics
Roshni Singh

**MASTER OF TECHNOLOGY
(M.Tech.)**

Aerospace Engineering
Niladri Pahari

Biomedical Engineering
Aparna Chauhan

Chemical Engineering
Harish S

Civil Engineering
Ritik Dhalwani

Computer Science and Engineering
Aditya Pradhan

Earth Sciences
Ananya Ghosh

Electrical Engineering
Shivam Gupta

Energy Systems and Engineering
Joshi Amit Vivek

Environmental Science and Engineering
Vinutha S R

Mechanical Engineering
Dibyajyoti Chakraborty

Metallurgical Engineering and Materials Science
Singaraju Sai Naga Aditya Viswanath

Materials, Manufacturing and Modelling
Shivansh Singh

Geoinformatics and Natural Resources
Nagineni Abhilash

Systems and Control Engineering
Muthyala Anjali

Technology and Development
Maske Ambadas Bandu

Centre for Urban Science and Engineering
Pragya Shukla

Industrial Engineering and Operations Research
Katikala Geetha Bhargavi

Educational Technology
Aditya Panwar

MASTER OF DESIGN

Mobility and Vehicle Design
Angshuman Das

**MASTER OF BUSINESS ADMINISTRATION
(M.B.A.)**
Keshav Agarwal

**MASTER OF PHILOSOPHY
(M.Phil.)**

Planning and Development
Shilpika Ghosh

MASTER OF PUBLIC POLICY (MPP)
Venkata Subrahmanian N V

OTHER MEDALS

Miss Jayati Deshmukh Memorial Gold Medal
Harshit Gupta Computer Sci. & Engg. (B.Tech.)

Dr. Shankar Dayal Sharma Gold Medal
Akshat Shirish Zalte
Chemical Engineering (B.Tech.)

Vidyasagar Nehra Gold Medal
Bhuvan Aggarwal
Civil Engg. (B.Tech.)

Prof Madhav Kulkarni Lt. Col.(R) Gold Medal
Bhuvan Aggarwal
Civil Engg. (B.Tech.)

Rajit Bhagwati Memorial Gold Medal
Vinutha S R
Environmental Science and Engineering (M.Tech.)

Hindi Vidya Bhavan Gold Medal
Keshav Agarwal
M.B.A.

Sharad Maloo Memorial Gold Medal
Sai Saketika Chekuri
Electrical Engineering (B.Tech.)

Abhijeet Banerjee SJMSOM Silver Medal
Ayush Goel
M.B.A.

PRIZES

Prof K C Mukherji Award
Sai Saketika Chekuri

Tulsiram Devidayal, P.M. Natu, Damle Trust Prize
Aryan Amit Jain

**Prof. R.P. Singh Memorial Prize
(B.Tech. / 2 Yr. M.Sc.)**
Aneesh Milind Bapat

Chandrashekhar Prize
Ananya R Burli

Shri R Vembu Iyer Memorial Prize
Deepak Kumar Jaiswal
Subhasis Nayak

Dilip R Limaye Academic Excellence Award
Harshit Gupta

**Prof. A.B. Biswas Memorial &
Shri Prakash Krishnan Award Prize (M.Sc.)**
Anish Shivamani

Dr. Gargi Vishnoi Memorial Prize
Arghya Banerjee

Prof. Hiralal Memorial Award
Anish Shivamani
Sandip Kumar Mishra

Shri Ashok Chaturvedi Memorial Prize (M.Tech.)
Dibyajyoti Chakraborty

Prabhulal Bhatnagar Memorial Prize
Sakil Ahamed
Khot Rekha Mallappa

Mrs. Rama Mathur Memorial Prize
Poonam Nayak

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

Ajit Shelat Award
Aditya Pradhan

Bhavesh Gandhi Memorial Prize
Aakash Shandilya
H R Sai Sumedh

Akshay Dhoke Memorial Award
Aseer Israr Ansari

Prof. K.C. Khilar PhD Award
Pankaj Mogha

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

R. G. Manudhane PhD Excellence Award
Bhawana Singh Tomar
Shital Yadav

**R.G. Manudhane M.Tech student
Excellence Award Best M.Tech Thesis**
Harish S
Yash Pundlik

Indira Manudhane Student Excellence Award
Akshat Shirish Zalte
Sovanee Kshitij Dinesh

Mr. Pranab Ranjan Sen Award
Vatsal Kanodia

Shubhada Mulekar Joshi Award
Aparna Chauhan

Prof. S N Sinha Memorial award
Jaideep Singh Chawla

Dr. P.V. Sukhatme Memorial Award
Poonam Nayak
Mahima
Rajat Garg
Sylvia Vincent

S C Mehrotra Prize
Bhuvan Aggarwal

K Seshia Research Excellence Award
Abhishek Kejriwal
Mahadevan Subramanian

Ramesh Chandra Sinha Academic Excellence Award
Sai Saketika Chekuri

Manorama Sinha Academic Excellence Award
Vivitsa Jain

Malini Vyavahare (Indore) Memorial Award
Harsh Diwakar
Anurag Aggarwal

Digamber & Nilima Joshi Award
Devaraja Adiga P

Mrs. Charusheela Dange Award
Mahadevan Subramanian

**IEOR Alumnus Endowment: Excellence in
Doctoral Dissertation Award**
Shinde Nimita Rajendra

**IEOR Alumnus Endowment: Best Masters' Thesis
Award**
Vaibhav Singh Panwar
Rohit Soni

**A.Parthasarathy-G Shanmugam Award in
Sedimentology and Petroleum Geology**
Ananya Ghosh

Prashant Dave Best PhD Thesis Award
Taveen Singh Kapoor

Mainak Das Excellence in Publication Award
Kushal Tibrewal

**Smt. Vulavala Mangatayaru Memorial
Award**
Anjali Mahilkar
Gargi Agrahari

Dr. Manu Akula Memorial Award for Academic Excellence in CTaM
Bhuvan Aggarwal
Gaddipati Yaswanth Babu

The Chemours Future of Chemistry Award IITB
Akshat Shirish Zalte

Shri. Anil Kushalchand Hirani Award
Anish Shivamani
Ajinkya Anil Dhepe

The following students are awarded the academic prizes for the year 2022-2023 on the basis of their academic performance (average weighted SPI) during last two semesters.

II Year B.Tech. / Dual Degree / BS (2022 Batch)

Sr. No	Roll No.	Name	Prize	Value of prize	Department
1	22B0935	Dheeraj Kurukunda	I	Rs.3000/-	Computer Sci. & Engg.
2	22B1053	Kavya Gupta	I	Rs.3000/-	Computer Sci. & Engg.
3	22B0955	Aditya Abhishek Agrawal	II	Rs.2000/-	Computer Sci. & Engg.
4	22B0926	Rishabh Raj Prakash	Additional	Rs.2000/-	Computer Sci. & Engg.
5	22B1818	Ved Mayur Danait	Additional	Rs.2000/-	Engineering Physics
6	22B3913	Samar Perwez	Additional	Rs.2000/-	Electrical Engg.
7	22B0981	Kottana Bhavya Sri	Additional	Rs.2000/-	Computer Sci. & Engg.
8	22B1016	Jahnvi Shaw	Additional	Rs.2000/-	Computer Sci. & Engg.
9	22B1260	Harshil Singla	Additional	Rs.2000/-	Electrical Engg.
10	22B0958	Arihant Vashista	Additional	Rs.2000/-	Computer Sci. & Engg.
11	22B1227	Ashwajit Singh	Additional	Rs.2000/-	Electrical Engg.
12	22B1814	Suchet Gopal	Additional	Rs.2000/-	Engineering Physics
13	22B0907	Anumalasetty Varshith	Additional	Rs.2000/-	Computer Sci. & Engg.
14	22B0971	Rijul Bhat	Additional	Rs.2000/-	Computer Sci. & Engg.
15	22B1256	Deeptanshu Malu	Additional	Rs.2000/-	Electrical Engg.
16	22B1069	Mahit Gadhiwala	Additional	Rs.2000/-	Computer Sci. & Engg.
17	22B0029	Dion Reji	Additional	Rs.2000/-	Aerospace Engg.
18	22B0413	Mackwan Brian Shailesh	Additional	Rs.2000/-	Chemical Engg.
19	22B1003	Saksham Rathi	Additional	Rs.2000/-	Computer Sci. & Engg.
20	22B1215	N V Navaneeth Rajesh	Additional	Rs.2000/-	Electrical Engg.
21	22B1232	Nimay Upen Shah	Additional	Rs.2000/-	Electrical Engg.
22	22B1825	Siddhartha Rajeev	Additional	Rs.2000/-	Engineering Physics
23	22B3986	Eshaan Pareek	Additional	Rs.2000/-	Electrical Engg.
24	22B0968	Pratik Sahoo	Additional	Rs.2000/-	Computer Sci. & Engg.
25	22B1073	Thomas Biju Cheeramvelil	Additional	Rs.2000/-	Computer Sci. & Engg.
26	22B1298	Neel Bhavesh Rambhia	Additional	Rs.2000/-	Electrical Engg.
27	22B3909	Piyush Kiran Babar	Additional	Rs.2000/-	Electrical Engg.
28	22B0928	Anilesh Bansal	Additional	Rs.2000/-	Computer Sci. & Engg.
29	22B1850	Arnav Jain	Additional	Rs.2000/-	Engineering Physics
30	22B0920	Nandan Manjunath Immadisetty	Additional	Rs.2000/-	Computer Sci. & Engg.
31	22B0967	Satyankar Chandra	Additional	Rs.2000/-	Computer Sci. & Engg.
32	22B1061	Vishal Bysani	Additional	Rs.2000/-	Computer Sci. & Engg.

III Year B.Tech. Branchwise (2021 Batch)

Sr. No.	Roll No.	Name	Prize	Value of	Department
1	210010073	Vighnesh J R	I	Rs.3000/-	Aerospace Engineering
2	210010038	Lagnesh Mahapatra	II	Rs.2000/-	Aerospace Engineering
3	210020123	Seksaria Saurish Deviprakash	I	Rs.3000/-	Chemical Engineering
4	210020138	Spruha Prabhanjan Sarnaik	II	Rs.2000/-	Chemical Engineering
5	210040137	Sanidhya Garg	I	Rs.3000/-	Civil Engineering
6	210010003	Abhishek Choudhary	II	Rs.2000/-	Civil Engineering
7	210050009	Akshat Goyal	I	Rs.3000/-	Computer Science and Engineering

Sr. No.	Roll No.	Name	Prize	Value of	Department
8	210050061	Guramrit Singh	I	Rs.3000/-	Computer Science and Engineering
9	210260037	Nilabha Saha	I	Rs.3000/-	Computer Science and Engineering
10	210050024	Ashwin Goyal	II	Rs.2000/-	Computer Science and Engineering
11	21D070079	Tamojeet Roychowdhury	I	Rs.3000/-	Electrical Engineering
12	21D070051	Pratham Kheskwani	II	Rs.2000/-	Electrical Engineering
13	210100035	Ayush Agarwal	I	Rs.3000/-	Mechanical Engineering
14	210100059	Ganesh Iyer	I	Rs.3000/-	Mechanical Engineering
15	210100144	Shubhranil Chatterjee	I	Rs.3000/-	Mechanical Engineering
16	210100048	Chavali Venkata Krishna Kaushik	II	Rs.2000/-	Mechanical Engineering
17	210110017	Ameer Hamzah	I	Rs.3000/-	Metallurgical Engineering and Materials Science
18	210110068	K Sabita	II	Rs.2000/-	Metallurgical Engineering and Materials Science
19	210260035	Navdha	I	Rs.3000/-	Engineering Physics
20	210260038	Pal Aggarwal	II	Rs.2000/-	Engineering Physics

III Year Dual Degree Branchwise (2021 Batch)

Sr. No.	Roll No.	Name	Prize	Value of	Department
1	21D070065	Savaliya Abhishek Jagdishkumar	I	Rs.3000/-	Electrical Engineering
2	21D070042	Lohitaksh Mahajan	II	Rs.2000/-	Electrical Engineering
3	21D100023	Vora Jay Bhaveshbhai	I	Rs.3000/-	Mechanical Engineering
4	21D100016	Patil Kush Shriram	II	Rs.2000/-	Mechanical Engineering
5	21D110017	Shobhit Modgil	I	Rs.3000/-	Metallurgical Engineering and Materials Science
6	21D170025	Mathukiya Meetkumar Mahesh	I	Rs.3000/-	Energy Science and Engineering
7	21D170016	Garv Gupta	II	Rs.2000/-	Energy Science and Engineering
8	21D170043	Taha S Kachwala	II	Rs.2000/-	Energy Science and Engineering
9	21D180029	Parth Kapil Sanghav	I	Rs.3000/-	Environmental Science & Engineering
10	21D180037	Sanuraag Mishra	II	Rs.2000/-	Environmental Science & Engineering

III Year BS Branchwise (2021 Batch)

Sr. No.	Roll No.	Name	Prize	Value of	Department
1	21B030019	Jay Arora	I	Rs.3000/-	Chemistry
2	21B030037	Tejas Neema	II	Rs.2000/-	Chemistry
3	21B080018	Himank Gupta	I	Rs.3000/-	H&SS
4	210040118	Priyanshi Garg	II	Rs.2000/	H&SS
5	21B090022	Om Swostik Mishra	I	Rs.3000/-	Mathematics

IV Year B.Tech. Branchwise (2020 Batch)

Sr. No.	Roll No.	Name	Prize	Value of	Department
1	200110090	Ronit Mandar Chitre	I	Rs.3000/-	Aerospace Engineering
2	200010010	Ammar Khozem Barbhaiwala	II	Rs.2000/-	Aerospace Engineering

Sr. No.	Roll No.	Name	Prize	Value of	Department
3	200020145	Sumit Kumar	I	Rs.3000/-	Chemical Engineering
4	200020111	Sahil Atul Wagh	II	Rs.2000/-	Chemical Engineering
5	200040144	Sunandinee Mehra	I	Rs.3000/-	Civil Engineering
6	200040121	Aditya Rana	I	Rs.3000/-	Civil Engineering
7	200040113	Raghav Rander	II	Rs.2000/-	Civil Engineering
8	200050050	Harshvardhan Agarwal	I	Rs.3000/-	Computer Science and Engineering
9	200050148	Vaibhav Raj	I	Rs.3000/-	Computer Science and Engineering
10	200050152	Varanasi Sai Teja	I	Rs.3000/-	Computer Science and Engineering
11	200050154	Vedang Dhirendra Asgaonkar	II	Rs.2000/-	Computer Science and Engineering
12	200070001	Aayush Rajesh	I	Rs.3000/-	Electrical Engineering
13	200070004	Aditya Sriram	I	Rs.3000/-	Electrical Engineering
14	200070078	Siddhant Midha	I	Rs.3000/-	Electrical Engineering
15	200070083	Tanmay Dokania	II	Rs.2000/-	Electrical Engineering
16	200100005	Achanti Meghana	I	Rs.3000/-	Mechanical Engineering
17	200100078	Kaivaly Sanjay Daga	II	Rs.2000/-	Mechanical Engineering
18	200110100	Satyam Rath	I	Rs.3000/-	Metallurgical Engineering and Materials Science
19	200110008	Aditya Anil Wankhade	II	Rs.2000/-	Metallurgical Engineering and Materials Science
20	200260015	Devashish Shah	I	Rs.3000/-	Engineering Physics
21	200260049	Shashwat Chakraborty	I	Rs.3000/-	Engineering Physics
22	20D170032	Reet Santosh Mhaske	II	Rs.2000/-	Engineering Physics

IV Year Dual Degree Branchwise (2020 Batch)

Sr. No.	Roll No.	Name	Prize	Value of	Department
1	20D070033	Harshit Raj	I	Rs.3000/-	Electrical Engineering
2	20D070020	Aziz Sohel Shameem	II	Rs.2000/-	Electrical Engineering
3	200020023	Ameya Vikram Halarnkar	I	Rs.3000/-	Mechanical Engineering
4	20D100022	Saksham Katiyar	II	Rs.2000/-	Mechanical Engineering
5	20D110006	Devashish Girish Bhave	I	Rs.3000/-	Metallurgical Engineering and Materials Science
6	20D180008	Anokhi Amit Mehta	I	Rs.3000/-	Energy Science and Engineering
7	20D170030	Radhika Balasubramaniam	II	Rs.2000/-	Energy Science and Engineering
8	20D180019	Manasi Pawar	I	Rs.3000/-	Environmental Science & Engineering
9	20D180037	Tharun Sidambaram M	II	Rs.2000/-	Environmental Science & Engineering

IV Year BS Branchwise (2020 Batch)

Sr. No.	Roll No.	Name	Prize	Value of	Department
1	20B030027	Omkar Dinesh Devre	I	Rs.3000/-	Chemistry
2	20B030024	Manas Nagda	II	Rs.2000/-	Chemistry
3	20B080020	Keerthana P	I	Rs.3000/-	H&SS
4	20B080029	Rudraksh Namdeo	II	Rs.2000/-	H&SS
5	20B090011	Shantanu Hrishikesh Nene	I	Rs.3000/-	Mathematics

V Year Dual Degree Branchwise (2019 Batch)

Sr. No.	Roll No.	Name	Prize	Value of	Department
1	19D070032	Malhar Ashwin Kulkarni	I	Rs.3000/-	Electrical Engineering
2	190020013	Aniket Sadashiva	II	Rs.2000/-	Electrical Engineering
3	19D100010	Lakshya Chaplot	I	Rs.3000/-	Mechanical Engineering
4	190110034	Joshi Madhav Gopal	II	Rs.2000/-	Mechanical Engineering
5	19D110003	Aditya Garg	I	Rs.3000/-	Metallurgical Engineering and Materials Science
6	19D180004	Aditi Ganpat Khode	I	Rs.3000/-	Environmental Sc. & Engg.
7	19D180007	Aniket A Patil	II	Rs.2000/-	Environmental Sc. & Engg.
8	19D170005	Behere Saahil Shashank	I	Rs.3000/-	Energy Sc. & Engineering

II Year M.Sc. (2022 Batch)

Sr. No.	Roll No.	Name	Prize	Value of	Department
1	22N0164	Nilarun Koley	I	Rs.3000/-	Chemistry
2	22N0165	Alok Apan Swatiputra	I	Rs.3000/-	Chemistry
3	22N0181	Sourav Kabari	II	Rs.2000/-	Chemistry
4	22N0218	Swastika Kanjilal	I	Rs.3000/-	Earth Sciences
5	22N0191	Megh Mandar Kanvinde	II	Rs.2000/-	Earth Sciences
6	22N0271	Amanaganti Rohan Ganesh	I	Rs.3000/-	Physics
7	22N0327	Immanuel Jeremy Christen Miranda	II	Rs.2000/-	Physics
8	22N0111	Saswata Ganguly	I	Rs.3000/-	Biosciences & Bioengineering
9	22N0118	Sayak Dhar	II	Rs.2000/-	Biosciences & Bioengineering
10	22N0048	Mayuri Vijay Wabale	I	Rs.3000/-	Applied Statistics & Informatics
11	22N0073	Esha Mandal	II	Rs.2000/-	Applied Statistics & Informatics
12	22N0243	Jaskaran Singh	I	Rs.3000/-	Mathematics
13	22N0263	Supriya Mandal	II	Rs.2000/-	Mathematics
14	22N0011	Mohit Patel	I	Rs.3000/-	Applied Geophysics

B.Des Students (2020 Batch)

Sr. No.	Roll No.	Name	Prize	Value of	Department
1	20U130006	Amisha Gopi Nair	I	Rs.3000/-	Industrial Design Centre
2	20U130030	Ishita Sharma	I	Rs.3000/-	Industrial Design Centre
3	20U130010	Nivea Choudhary	II	Rs.2000/-	Industrial Design Centre

B.Des Students (2021 Batch)

Sr. No.	Roll No.	Name	Prize	Value of	Department
1	21U130001	Samarth Dhanuka	I	Rs.3000/-	Industrial Design Centre
2	21U130025	Atharva Anil Vankundre	II	Rs.2000/-	Industrial Design Centre

B.Des Students (2022 Batch)

Sr. No.	Roll No.	Name	Prize	Value of	Department
1	22B3604	Subir Mondal	I	Rs.3000/-	Industrial Design Centre
2	22B3623	Payasvi Chhapola	II	Rs.2000/-	Industrial Design Centre

Other Prizes

Sr. No.	Name of the Prize	Roll No.	Name of the Awardee	Total Amount
1	Shri Rakesh Mathur Excellence Award	200050154	Vedang Dhirendra Asgaonkar	Rs. 100000/- IV Yr. UG
2	Shri T.K. Subramanian Prize For Academic Excellence	200100078	Kaivaly Sanjay Daga	Rs.1000/- IV Yr. B.Tech. Mech.Engg.
3	Urvish Medh Memorial Prize (For Electrical Engg.)	23B1299	Suketu Parag Patni	Rs.2000/- I Yr. B.Tech. Electrical Engg.
		22B1272	Satyam Gupta	Rs.2000/- I Yr. B.Tech. Electrical Engg. (for the year 2022-23)
		22B3913	Samar Perwez	Rs.2000/- II Yr. B.Tech. Electrical Engg.
		21D070079	Tamojeet Roychowdhury	Rs.2000/- III Yr. B.Tech. Electrical Engg.
		200070004	Aditya Sriram	Rs.2000/- IV Yr. B.Tech. Electrical Engg.
4	Prof. M.N. Vartak Memorial Prize	22N0048	Mayuri Vijay Wabale	Rs.6000/- II Yr. M.Sc. Applied Statistics & Informatics
5	Mrs. Rama Mathur Memorial Prize	22N0243	Jaskaran Singh	Rs.2000/- II Yr. M.Sc. Mathematics
6	Aditya Choubey Memorial Prize	22B3913	Samar Perwez	Rs.4000/- II Yr. B.Tech. Electrical Engg.
7	S C Mehrotra Prize	210040137	Sanidhya Garg	Rs.10000/- Topper of II Yr B.Tech Civil
		200040144	Sunandinee Mehra	Rs. 10000/- Topper of III Yr B.Tech Civil
8	Prof. A.K. Mallik Award	200110051	Joshi Soham Sagar	Rs.5000/- IV Yr. B.Tech,/ Dual Degree Met. Engg. & Mat. Sc.
9	Shri Ram Kumar Gupta Merit Award	200020145	Sumit Kumar	Rs. 10000/- IV Yr. B.Tech Chemical Engg. (Topper)
10	Shrimati Prakashvati Devi Gupta Merit Award	200020086	Palak Bhavesh Vora	Rs. 7500/- IV Yr. B.Tech Chemical Engg. (2nd Highest)
11	Praj Industries Academic Excellence Award	20d170030	Radhika Balasubramaniam	Rs. 30000/- Topper in 3rd yr (VI semester) UG Programme in Energy Sci. & Engg.
		22M1341	Aayush Tushar Gala	Rs. 30000/- Topper in 1st yr. (II semester) Masters programme in Energy Sc. & Engg.

Sr. No.	Name of the Prize	Roll No.	Name of the Awardee	Total Amount
12	Late Prof. R. Subrahmonia Ayyar Academic Excellence Award	200040144	Sunandinee Mehra	Rs. 15000/- (Topper female student in B.Tech. 3rd year Civil Engg.)
		22M0622	Anupama Ghimire	Rs. 15000/- (Topper female student in M.Tech. 1st year Civil Engg.)
13	B.K. Nilakhe award	210260038	Pal Aggarwal	Rs. 5000/- (Topper female student in B.Tech. 2nd year Civil Engg.)
14	Smt. Jayalakshmi & Sri R. Narasimhan Award	22M0575	Neduri Leela Venkata Sri Harsha	Rs. 25000/- (Topper student in M.Tech. 1st year Civil Engg.)
15	Smt. Andal & Sri N.P. Narayanan Award	22M0604	Hadiya Hardik Harilalbhai	Rs. 20000/- (2nd student in M.Tech. 1st year Civil Engg.)
16	Kanitkar 4th year Merit Award	200040144	Sunandinee Mehra	2.5 lakh (Topper student in B.Tech. 3rd year Civil Engg.)
17	Kanitkar 3rd year Merit Award	210040137	Sanidhya Garg	2.5 lakh (Topper student in B.Tech. 2nd year Civil Engg.)
18	The Chemours Future of Chemistry Award IITB	22B2403	Kadambari Umesh Bhide	Rs. 270000/- (Topper student in B.Tech. 1st year Chemical Engg.)
		210021002	Hari Ramakrishnan Sudhakar	Rs. 270000/- (Topper student in B.Tech. 2nd year Chemical Engg.)
		200020145	Sumit Kumar	Rs. 270000/- (Topper student in B.Tech. 3rd year Chemical Engg.)
19	Shri Anil Kushalchand Hirani Award	21B030037	Tejas Neema	Rs. 35000/- (2nd year B.S. Topper)
20	Shri Anil Kushalchand Hirani Award	20B030027	Omkar Dinesh Devre	Rs. 35000/- [3rd year B.S. Topper (only two semesters of 3rd year will count]
21	Shri Anil Kushalchand Hirani Award	22N0164	Nilarun Koley	Rs. 17500/- (M.Sc. 1st year Topper)
		22N0165	Alok Apan Swatiputra	Rs. 17500/- (M.Sc. 1st year Topper)

Institute's Iconic Main Building Renamed As Nandan Nilekani Main Building

IITB's ICONIC SPOTS
Nandan Nilekani Main Building

IIT Bombay **renamed** the Main Building as **Nandan Nilekani Main Building** to commemorate its distinguished alumnus **Mr. Nandan Nilekani**, Electrical Engineering, Class of 1973.

Mr. Nilekani has donated Rs. 315 crores, bringing his total donation to Rs. 400 crores to IIT Bombay.

A programme was also conducted by the Alumni and Corporate Relations, IIT Bombay to felicitate Mr. Nandan Nilekani.

IIT Bombay is sincerely grateful to Mr. Nilekani and takes immense pride in honouring his contributions through this special gesture.

QS WUR 2024: IIT Bombay Ranks 1st In India And 149th In The World

IIT Bombay has been ranked **1st in India** and has moved significantly up from 172nd rank last year to **149th rank** this year in the **Quacquarelli Symonds (QS) World University Rankings**, with an overall score of 51.7 out of 100. It is for the first time ever since its participation that IIT Bombay has been ranked within the top 150 in QS rankings. Overall, the Institution improved its 2023 performance by 23 places.

In the 2024 edition of QS World University Rankings, the Institute is placed within 10% of the world's top 1500 universities that QS considered worth ranking.

The Institute has a score of 81.9 in employer reputation, 73.1 in citation per faculty, 55.5 in academic reputation, 47.4 in employment outcome, 54.9 in sustainability, 18.9 in faculty-student ratio, 4.7 in international faculty, 8.5 in international research network and 1.4 in international students, all scores out of a maximum of 100 points. Among these nine parameters, employer reputation indicated the strongest one for IIT Bombay with a rank of 69 globally. The results were released on June 28, 2023, by QS.

Union MoS For Education Dr. Subhas Sarkar Visits IIT Bombay

The Indian Institute of Technology Bombay was delighted to host the Hon'ble Union Minister of State for Education **Dr. Subhas Sarkar** on September 11, 2023, on campus. The Minister was welcomed by the Institute's (Acting) Director **Prof. K. V. Krishna Rao** along with other Institute functionaries.

Bipartisan US Congressional Delegation Visits IIT Bombay

The Indian Institute of Technology Bombay hosted the visit of the **Bipartisan US Congressional Delegation** on August 11, 2023. The delegation was welcomed by the Institute's Director **Prof. Subhasis Chaudhuri** along with Institute functionaries including Deputy Director (Academic and Infrastructural Affairs) **Prof. S. Sudarshan**, Deputy Director (Finance and External Affairs) **Prof. K.V.K. Rao**, Dean (Research and Development) **Prof. Sachin Patwardhan**, Dean (Strategy) **Prof. K.P. Kaliappan**, Dean (International Relations) **Prof. Amit Agrawal** and Dean (Alumni and Corporate Relations) **Prof. Ravindra Gudi**.

Bipartisan US Congressional Delegation with IIT Bombay Director Prof. Subhasis Chaudhuri (c) and other Institute functionaries

The IIT Bombay functionaries made a presentation about the IIT Bombay ecosystem and R&D activities.

The delegation comprised **Rep. Ro Khanna** (D-CA), Democratic Co-Chair; **Rep. Deborah Ross** (D-NC); **Geo Saba**, Chief of Staff, Rep. Ro Khanna; **Thomas Boodry**, Legislative Director, **Rep. Mike Waltz**; **Mr. Karthik Iyer**, First Secretary in Embassy of India, DC; and **Dr. Vikram Krishnamoorthy**, Deputy Secretary (AMS), MEA.

The IIT Bombay undergraduate students demonstrated **Matsya** - *an Autonomous Underwater Vehicle (AUV)* which won the IEEE YRP Award 2020.

Prof. Raghavan B. Sunoj Wins National Award To Teachers 2023

Prof. Raghavan B. Sunoj, Department of Chemistry, IIT Bombay receiving National Award to Teachers 2023 for Higher Education at the hands of Hon'ble President of India Smt. Droupadi Murmu *during National Teachers Award 2023 function*

In a proud moment for the Institute, **Prof. Raghavan B. Sunoj** from Department of Chemistry, IIT Bombay has been awarded the **National Award to Teachers 2023 for Higher Education.** This award comes exactly 23 years after his mother, **Mrs. K. Vasantha Kumari,** received the National Award to Teachers, for her exceptional commitment to primary school education.

"*I am humbled to have been chosen for this award. It has been an amazing experience teaching some of the brightest students over last two decades, through various modes of interaction, helping them learn concepts, solve problems and to enjoy the fun of learning chemistry,*" said **Prof. Sunoj.**

The award includes a certificate of merit, cash prize of Rs. 50,000 and a silver medal, that was conferred on Prof. Sunoj by the Hon'ble President of India **Smt. Droupadi Murmu** on September 5, 2023, at Vigyan Bhawan in New Delhi.

Prof. Debabrata Maiti Wins Shanti Swarup Bhatnagar Prize

Prof. Debabrata Maiti, Department of Chemistry, has been awarded the **Shanti Swarup Bhatnagar Prize for Science and Technology 2022** for his significant contributions to developing transition metal catalysis for transforming organic molecules to prepare value-added materials by site-selective functionalization, leading impact on agrochemicals and pharmaceuticals industry.

Institute Holds 'Prof. N. R. Kamath Distinguished Institute Lecture'

The Indian Institute of Technology Bombay organised '**Prof. N. R. Kamath Distinguished Institute Lecture**' on August 16, 2023, at the Institute's Victor Menezes Convention Centre (VMCC). The Lecture was attended by students as well as faculty in large numbers.

The Lecture, presented by **Prof. Kaushik Basu,** Professor of Economics and Carl Marks Professor, Cornell University and Prof. N. R. Kamath Visiting Chair Professor, IIT Bombay, was highly informative and interactive and focused on *Group Moral Responsibility: Some Paradoxes and the Role of Leadership.*

IIT Bombay Hosts G20 RIIG Delegates

Glimpses of G20 RIIG Delegates' visit at IIT Bombay

IIT Bombay hosted delegates of the G20 RIIG Summit and Research Ministers' Meeting on July 6, 2023.

Acting Director **Prof. S. Sudarshan** presented an overview of the IITs, **Prof. Upendra Bhandarkar** spoke about the R&D ecosystem and **Prof. Asim Tewari** talked about the entrepreneurship and innovation environment at IIT Bombay followed by a brief interaction.

The delegates later visited the R&D stalls put up by various Departments and Centers of the Institute.

Van Mahotsav 2023

IIT Bombay celebrated the 32nd Van Mahotsav – the annual tree plantation drive on July 29, 2023. More than 450 saplings were planted by IIT Bombay faculty, staff and students along with students and teachers of Kendriya Vidyalaya and Campus School within the IIT Bombay campus.

On the occasion, Deputy Director (Academic and Infrastructural Affairs) **Prof. S. Sudarshan**, Deputy Director (FEA) **Prof. K.V.K. Rao** along with other Institute functionaries planted saplings of various species. **Prof. Sudarshan** spoke about the significance of trees in our lives and encouraged the students to help build a greener environment by planting more trees. **Prof. Rao** too stressed the importance of saving the ecosystem.

The Chief Guest of the function was **Mr. Jitendra Pardesi**, Superintendent of Gardens, Brihanmumbai Municipal Corporation (BMC).

Prof. Tom Mathew, Dean (Infrastructure Planning and Support), IIT Bombay was also present along with **Prof. Anurag Garg**, Associate Dean (IPS) – 3 and **Prof. Vedagiri Perumal**, Associate Dean (IPS) – 1.

Cultural performances by the students of Campus School, highlighting the importance of trees in our lives, were much appreciated by the gathering. The event was organized by the Horticulture Section of the Estate Office, IIT Bombay.

IIT Bombay Joins Chicago Quantum Exchange, Forms New Collaborative Science And Technology Partnership With University Of Chicago

On September 8, 2023, the governments of India and the United States announced that the **Indian Institute of Technology Bombay** had joined the **Chicago Quantum Exchange (CQE)**, headquartered at the University of Chicago, as an international partner. This is a new collaborative science and technology partnership between the University of Chicago and IIT Bombay, which will promote cooperation in fields such as quantum information science, climate and energy, advanced microelectronics, artificial intelligence and data science.

The quantum announcement was highlighted during a meeting of **Hon'ble U.S. President Joe Biden** and **Hon'ble Prime Minister of India Narendra Modi** at the **G20 summit** in New Delhi, India. It reaffirms the goals of the U.S.-India initiative on Critical and Emerging Technology (iCET), *"to elevate and expand our strategic technology partnership and defense industrial cooperation between the governments, businesses and academic institutions of our two countries"*.

IIT Bombay Director, **Prof. Subhasis Chaudhuri,** said, *"With a strong bond being built between India and US academia, as evident from the joint declaration by the top leaderships in both the countries, it is a great opportunity for IIT Bombay to work with the University of Chicago on some of the most critical and evolving technologies our nations are facing today. Our collective strength will help bring forth impactful breakthrough innovations benefiting the society"*.

A key component of the partnership is that IIT Bombay has joined CQE as one of only five worldwide academic partners. CQE, an intellectual hub for advancing the science and engineering of quantum information, is based at the University of Chicago and is anchored by the U.S. Department of Energy's Argonne National Laboratory and Fermi National Accelerator Laboratory, the University of Illinois Urbana-Champaign, the University of Wisconsin-Madison and Northwestern University. This follows recent University of Chicago quantum-focused announcements in Japan, the first at the G7 regarding a partnership between the University of Chicago, the University of Tokyo, IBM and Google to build the world's first quantum supercomputer and the second with Tohoku University to accelerate quantum research. IIT Bombay anchors the Quantum Information Computing Science & Technology (QuICST) Hub, one of India's leading centers for quantum research.

"Strong global partnerships provide the expertise and resources to advance breakthrough innovation and are an essential part of developing a robust quantum ecosystem. We are very excited to be engaged with IIT Bombay in such a significant way," said **David Awschalom,** Director of the Chicago Quantum Exchange, the Liew Family Professor in Molecular Engineering at the University of Chicago and senior scientist at Argonne.

In addition to quantum, UChicago and IIT Bombay will collaborate and conduct joint research in fields such as climate, energy, advanced microelectronics, artificial intelligence and data science. In these areas, there will be a host of joint research activities, joint conferences, exchanges of information as well as faculty and scholar visits. For joint conferences and researchers visiting India, the University of Chicago's Delhi Center, which will celebrate its 10th anniversary in 2024, will be a resource for these and similar collaborations.

"At the University of Chicago, our goal is to strengthen collaborations with our Indian counterparts in science, technology and engineering, where the US and India are increasingly aligned in research and development. This partnership with IIT Bombay is an outstanding opportunity to build shared US-India scientific knowledge," said **Supratik Guha,** UChicago Delhi Center Faculty Director, Professor at the Pritzker School of Molecular Engineering and senior scientist and advisor to Argonne National Laboratory's Physical Sciences and Engineering Directorate.

IIT Bombay Celebrates The 77th Independence Day

Prof. Subhasis Chaudhuri , Director, IIT Bombay saluting the national flag

IIT Bombay celebrated the 77th Independence Day near the famous arch facing the Nandan Nilekani Main Building on August 15, 2023. The celebration began with the hoisting of the national flag by the Institute's Director **Prof. Subhasis Chaudhuri** at 9.30 a.m. Later he addressed the gathering. The Institute celebrated the ongoing *'Azadi Ka Amrit Mahostav (AKAM)',* commemorating the 75 glorious years of a progressive independent India. Prof. Chaudhuri briefed the audience on the recent achievements and milestones accomplished by the Institute and urged all the attendees to strive towards a glorious future.

All the Institute functionaries, faculty, students and a large number of employees attended the function. The entire programme was broadcast live on YouTube Channel. Students also participated in a cultural programme on the occasion.

The campus was beautifully decked in *'tricolor lights'* on the occasion. Campusites gave a tremendous response to the **'Har Ghar Tiranga'** campaign by hoisting the National Flag of India in their homes fostering national pride and unity. The Director along with other functionaries planted a few saplings on campus during the event.

Institute Director Prof. Subhasis Chaudhuri (sixth from left) and Deputy Director (Academic and Infrastructural Affairs) Prof. S. Sudarshan (fifth from left) along with IIT Bombay functionaries during tree plantation on occasion of Independence Day

Activities carried out by various sections on occasion of Independence Day:

Tiranga March By NCC Unit

On the 77th anniversary of India's independence, the National Cadet Corps (NCC) unit of IIT Bombay organised a 1000-foot-long **"Tiranga March"** in a show of unity, pride and patriotism. More than 1000 participants, including NCC cadets, faculty and staff, proudly carried the tricolour flag through the sprawling campus, covering more than 3 kilometres.

The Tiranga March commenced from the iconic Nandan Nilekani Main Building of IIT Bombay and reached the NCC area.
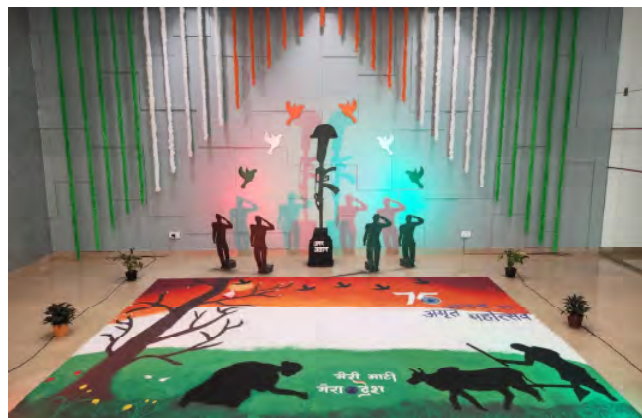
IIT Bombay community proudly carrying the 1000-foot-long Indian tricolour during the Tiranga March held on campus

National Service Scheme (NSS)

In line with Hon'ble Prime Minister **Narendra Modi's** theme of **"Meri Maati Mera Desh,"** the IIT Bombay NSS Green Campus (GC) team celebrated Independence Day by distributing Tulsi seeds. This initiative resonated with the essence of patriotism and environmental consciousness.

Padmavihar Guest House

Staff members **Mr. Umakant Kabi, Mr. Mahendra Naidu, Ms. Dhanashri Mane, Sarika Pakhare and others** created a rangoli on the theme *'Meri Maati Mera Desh'* at Padmavihar Guest House on campus on occasion of Independence Day.

Remembering Partition Victims of India

IIT Bombay observed **'Partition Horrors Remembrance Day'** on August 14, 2023, commemorating the victims and sufferings of people during the 1947 partition of India.

On this occasion, a digital exhibition, curated jointly by the **Indian Council of Historical Research (ICHR)** and the **Indira Gandhi National Centre for the Arts (IGNCA)**, was organised in the foyer of the VMCC.

1000 Days, 1000 Hopes: Action for Climate Correction

(From L-R): Prof. Chetan Singh Solanki, actor Ms. Dia Mirza, actor Ms. Prajakta Koli, Former MoS Mr. Milind Deora and MP Mr. Manoj Kotak during panel discussion on Climate Change

On August 22, 2023, the **Energy Swaraj Yatra**, a monumental journey of awareness and action against climate change, celebrated its remarkable feat of completing 1000 days on the road at the Convocation Hall of the Institute. **Prof. Chetan Singh Solanki,** a renowned environmentalist and IIT Bombay professor who spearheaded the Yatra, has emerged as a beacon of hope and enlightenment, offering profound insights into climate change and sustainable solutions that often elude conventional discourse.

Prof. Solanki, widely recognized as the Solar Man of India and Solar Gandhi, initiated and embarked on the Energy Swaraj Yatra in 2020, a resolute commitment spanning 11 years.

Distinguished personalities from various walks of life, including actors, scientists, politicians, players, professors and students, came together to commemorate the 1000-day milestone.

The UN's Goodwill Ambassador, **Ms. Dia Mirza**, gracing the occasion as the chief guest, said, *"People need to get connected with nature and generate love for it. Only then will they, as individuals, step out for climate corrective action".* She also stressed the importance of the role of environmental policy in climate change mitigation, which should voiced as a topic in general elections.

Ex-Atomic Energy Commission Chairman and Padma Vibhushan, **Dr. Anil Kakodkar**, graced the occasion as a guest of honour. He asserted that development raises questions about human existence and that stepping up for climate corrective action is unlikely to happen in business-as-usual mode.

One of the event highlights was the release of the report titled *"10 Actions for Climate Correction"*. The panel of luminaries, including **Ms. Dia Mirza**, actor and UN Goodwill Ambassador; **Ms. Prajakta Koli**, actor and Youth Climate Champion with the United Nations Development Programme (UNDP); **Mr. Milind Deora**, former Union Minister of State (MoS) for Communications and Information Technology and Shipping; **Mr. Manoj Kotak**, Lok Sabha Member of Parliament from Mumbai North-East; **Prof. Satish B. Agnihotri**, Emeritus Fellow, Centre for Technology Alternatives for Rural Areas (CTARA), IIT Bombay and **Prof. Chetan Solanki**, Department of Energy Science and Engineering, IIT Bombay, unveiled this comprehensive blueprint detailing ten vital climate corrective actions. These actions, intended for individuals, institutions, corporations, industries and governments, are poised to incite positive change on a global scale.

Elevating climate change to the forefront of political discourse, the Energy Swaraj Foundation has launched the *"This Election, Think of Climate Correction"* campaign. This initiative calls upon all stakeholders to prioritize climate correction in the 2024 elections, underlining the urgency.

In his concluding remarks, Prof. Solanki emphasized that climate change is a shared predicament necessitating a collective resolve for its resolution.

IIT Bombay And Google Cloud To Set Up A Chair Professorship In Generative AI

The Indian Institute of Technology Bombay is proud to announce the **establishment of a Chair Professorship in generative AI** in **collaboration** with **Google Cloud India**. The chair shall be named as **'Google Cloud Chair'**. 'Chair' is a term given to endowed professorships and is one of the highest honours awarded in the academic arena. It is generally reserved for the top faculty members at IIT Bombay as an acknowledgement of their contributions to research and teaching.

The endowed Chair Professorship will support and enhance research in academia and strengthen research collaborations. Through this Chair Professorship, the appointee will be expected to initiate new and consolidate existing academic courses; participate in collaborative activities with Google Cloud and provide academic and technical leadership in the broad area of their respective field. Google Cloud and IIT Bombay are expected to jointly determine the indicators to measure the impact of the Chair Professorship.

Speaking about this collaboration, **Prof. Subhasis Chaudhuri**, Director, IIT Bombay, said *"The Institute is thankful to Google Cloud India for setting up the endowment. Such Chairs are an essential constituent*

to IIT Bombay's endeavour of attracting the best and brightest students, researchers and professors and creating future leaders and innovators. I am certain that this is just the beginning of many more collaborations between both organizations".

"We're thrilled to partner with IIT Bombay in setting up this Chair. Our aim is to provide academic and technical leadership in Generative AI and initiate and provide expert guidance in R&D programs supported by government agencies and by the industry. This will enable innovators of tomorrow to be equipped with the right skills and resources," said **Mr. Anil Bhansali,** VP Engineering and Head of India Development Center, Google Cloud.

IIT Bombay Secures $18.6 Million Funding For Green Energy And Sustainability Research Hub

The Indian Institute of Technology Bombay has received a donation o**f $18.6 million** from an alumnus towards the establishment of a **Green Energy and Sustainability Research Hub**. This landmark contribution will redefine the Institute's role in addressing the global climate crisis.

To be located within a state-of-the-art academic building on the IIT Bombay campus, the focus of this hub extends to critically important areas. These include evaluating climate risks and developing effective mitigation strategies, climate change adaptation and comprehensive environmental monitoring. Additionally, the Hub seeks to advance climate solutions, fostering the adoption of renewable energy sources and energy-efficient technologies.

The hub will facilitate research in several critical areas, including, but not limited to, battery technologies, solar photovoltaics, biofuels, clean-air science, flood forecasting and carbon capture. The Hub will also serve as a nexus for learning and exploration, offering state-of-the-art infrastructure and facilities for students and researchers alike. Furthermore, the Hub will offer industry-tailored educational training and cultivate strategic

collaborations with global universities and corporations. The objective is to drive practical and transformative solutions while nurturing entrepreneurship in the realm of green energy and sustainability.

Speaking of this collaboration, **Prof. Subhasis Chaudhuri,** Director, IIT Bombay said, *"We are immensely grateful for the generosity displayed by our alumnus whose significant contribution reaffirms IIT Bombay's commitment to spearheading innovative solutions for the global climate crisis. The establishment of this hub underscores our dedication to tackling climate challenges through cutting-edge research, fostering interdisciplinary collaborations and nurturing entrepreneurial endeavours. The Green Energy and Sustainability Research Hub stands as a testament to the impact that collective efforts can achieve in paving a sustainable path for the future".* He further said, *"This is a rare occurrence in Indian academia that a philanthropist wishes to stay anonymous. I am sure this donation will motivate many others to come forward for the cause of IIT Bombay".*

IIT Bombay's Centre For Machine Intelligence And Data Science Raises Over USD 10 Million Through Alumni Commitments

The Centre for Machine Intelligence and Data Science (C-MInDS), IIT Bombay, set up in February 2020, has recently raised over USD 10 million through alumni commitments. The Centre offers a minor programme in Artificial Intelligence (AI) and Data Science (DS), an interdisciplinary dual degree programme in AI and DS and a Masters and a Ph.D. programme.

Recognising the critical need to create/ upgrade its infrastructure and secure funding for research to strengthen its commitment to advancing AI/ ML and DS in India and leveraging these domains to create societal impact, C-MInDS reached out to its alumni and was overwhelmed by their positive response. **Mr. Kashyap Deorah** *(Class of 2000, CSE)* and **Mr. Shariq Rizvi** *(Class of 2003, CSE)* spearheaded the fundraising campaign.

"The alumni we reached out to roped in a large group of alumni and spread the word around that IITB is starting C-MinDS," recalls **Prof. S. Sudarshan,** Deputy Director, Academic and Infrastructural Affairs, IIT Bombay. Furthermore, he adds, *"Within a short span of a few months, we had a solid commitment to the Centre, including infrastructure, student fellowships and other requirements. Today, the Centre is three years old and the academic programmes have been underway for two years and are going smoothly. We are also in the process of recruiting full-time faculty. The construction of the new building that will house C-MInDS will begin soon".*

The rapid progress of CMInDS has been made possible by 11 alumni who have generously committed over USD 10 million. The donors are classified into three categories: 'Founding' (the largest contributors to the Centre), 'Sponsors' (those who have sponsored specific programs or facilities at the Centre) and 'Donors' (those who have contributed towards the Centre's operations).

Founding Donors:

Presently housed at IIT Bombay Kanwal Rekhi School of Information Technology (KRESIT), C-MInDS will move to the 'Lakhamraju Building', currently in the works. The impending construction of this building has been made possible due to the generous contribution of founding donor **Mr. Mohan Lakhamraju,** Founder and CEO of *Great Learning* and Chairman of Great Lakes Institute of Management.

Mr. Lakhamraju's selfless gift to the Institute is in honour of his parents, Dr. Vijaya Lakshmi and his late father, Mr. ARR Lakhamraju, who valued education above all else.

Co-founded by **Mr. Beerud Sheth,** *Gupshup* has donated generously towards the establishment of the *'Gupshup Conversational AI Lab,'* at the Centre. This lab envisions being a hub for researchers, developers and businesses working on conversational AI technology such as large language models (LLMs), chatbots, voice assistants, multi-lingual experiences and more.

Mr. Arpit Mathur, Portfolio Manager, *Segantii Capital Management*, has generously contributed to the Centre.

Mr. Kashyap Deorah, Founder and CEO of *HyperTrack* and **Ms. Shruti Mahajan Deorah,** Director of India Energy and Climate Center, *Goldman School of Public Policy, UC Berkeley*, have donated selflessly to the Centre in honour of Mr. Kashyap's parents, Ms. Nirmala Deorah and Mr. Ashok Deorah.

Sponsors:

Mr. Shariq Rizvi, Executive Vice President of Monetization at *Reddit* and a sponsor of C-MInDS, has committed to building a Seminar Hall as part of the Centre.

Mr. Varun Kacholia, Co-Founder and CTO of *eightfold.ai* and **Dr. Shashidhar Thakur,** Vice President of *Google*, have sponsored fellowships and faculty chair at the Centre.

Donors:

This list of donors includes **Mr. Rohit Karnik,** Tata Professor, *Massachusetts Technology*; **Dr. Abhinandan Das,** Senior Director of Engineering at *Google*; **Mr. Vijay Krishnan,** Founder and CTO of *Turing.* Vijay Krishnan's company (https://www.turing.com/) has also contributed towards the Centre. The donors have made meaningful contributions towards the advancement of the Centre.

IIT Bombay Partners With HSBC To Support Innovation-Led Green Hydrogen Initiatives

(From L-R): *Mr. Mark Tucker, Group Chairman, HSBC; Mrs. Nirmala Sitharaman, Hon'ble Union Minister for Finance and Corporate Affairs; Jamshyd Godrej, Chairperson of the Board, Shakti Sustainable Energy Foundation; Mr. Hitendra Dave, CEO, HSBC India and Prof. Ravindra D. Gudi, Dean (Alumni and Corporate Relations), IIT Bombay during the partnership announcement*

IIT Bombay has partnered with **HSBC** to pursue technological advancements towards making green hydrogen production more efficient, cost-effective and scalable. The focus will be on innovative projects that will help position green hydrogen as a strategic alternate fuel; help in building a robust, green hydrogen economy and achieve the government's vision of an energy-independent nation. This partnership will help boost the government's National Green Hydrogen Mission focused on providing policy support towards achieving global leadership in green hydrogen transition. The National Hydrogen Energy Mission, announced during the Union Budget of India, 2021-22, is a significant step that will provide a roadmap for leveraging alternate sources of energy in India towards enabling a greener future.

This partnership was unveiled by **Mrs. Nirmala Sitharaman**, Hon'ble Union Minister for Finance and Corporate Affairs, at a prestigious event held in Delhi, in attendance of the leadership teams from IIT Bombay and HSBC including **Prof. Ravindra D. Gudi,** Dean (Alumni and Corporate Relations), IIT Bombay; **Mr. Mark Tucker,** Group Chairman, HSBC; **Mr. Hitendra Dave,** CEO, HSBC India and **Ms. Aloka Majumdar,** Global Head of Philanthropy and Head of Sustainability, HSBC India.

Speaking about this collaboration, **Prof. Subhasis Chaudhuri,** Director, IIT Bombay said, *"Moving towards sustainable and clean sources of energy is a crucial step in the global fight against climate change. Green Hydrogen – with its applications across industries including transportation – will occupy a vital space in global energy. I am confident that this partnership between IIT Bombay, HSBC and the Shakti Sustainable Energy Foundation will accelerate research in this space and facilitate India's transition towards wide-scale adoption of Green Hydrogen".*

Commenting on the initiative, **Mr. Hitendra Dave,** CEO, HSBC India said, *"Sustainability is a key element of our business, operations and community investments. We are delighted to work with IIT Bombay to foster innovation to make green hydrogen production more scalable and commercially feasible. We believe we have a crucial role in accelerating the development and deployment of green hydrogen technologies and driving the transition to a sustainable and low-carbon energy system".*

About the Innovation in Green Hydrogen programme

The partnership between IIT Bombay and HSBC will encourage researchers, scientists and students across IITs to develop breakthrough technologies and solutions that address key challenges in green hydrogen production, storage, transportation and utilisation. As part of this programme, IIT Bombay will invite project proposals, which will be evaluated by a steering committee comprising representatives from HSBC India, professors and faculty members from multidisciplinary areas. The committee will select the top three submissions; depending on the committee's assessment, the project's viability and its commercial readiness, the shortlisted submissions could possibly be incubated at IIT Bombay.

IIT Bombay Launches New Centre Of Excellence On Membrane Technologies For Desalination, Brine Management And Water Recycling

A new **Centre of Excellence on Membrane Technologies for Desalination, Brine Management and Water Recycling** was inaugurated at IIT Bombay on July 21, 2023. **Prof. S. Sudarshan**, Deputy Director (Academic and Infrastructural Affairs), IIT Bombay; **Prof. Milind Atrey**, former Dean (Research and Development), IIT Bombay; **Dr. Praveen Arora**, Head, Water Technologies Cell, DST and **Prof. Subhankar Karmarkar**, Head, Environmental Science and Engineering Department., IIT Bombay were present during the opening ceremony. The new Centre's advanced instrumentation facility and website were also inaugurated on the ocassion.

(From L-R) Dr. Praveen Arora, Head, Water Technologies Cell, DST; Prof. Milind Atrey, former Dean (Research and Development), IIT Bombay and Prof. S. Sudarshan, Deputy Director (Academic and Infrastructural Affairs), IIT Bombay during new Centre launch

This Centre represents a significant step towards ensuring safe, reliable and sustainable potable water sources for rural and urban India for industrial as well as domestic applications by using innovative membrane technologies. **Prof. Swatantra Pratap Singh,** Environmental Science and Engineering Department, is the Professor-In-Charge of the new Centre.

The five IITs (IIT Bombay, IIT Delhi, IIT Kharagpur, IIT Tirupati and IIT Hyderabad) will work closely with different industries, NGOs and other stakeholders to develop various desalination, brine management and water recycling technologies.

IIT Bombay And CSTT Sign MoU For Project Udaan

Prof. Girish Nath Jha, Chairman, CSTT (c) and Prof. Milind Atrey, former Dean (R&D), IIT Bombay (c) along with other dignitaries during signing of the MoU

The **Commission for Scientific and Technical Terminology (CSTT)**, the subordinate body functioning under Ministry of Education (MoE), authorised for the preparation of scientific and technical terminology in Indian languages has signed an **MoU** with **IIT Bombay**, represented through UDAAN Project, initiated by **Prof. Ganesh Ramakrishnan**.

The collaboration focuses on using the scientific and technical terms in Modern Indian languages (MIL) prepared by CSTT for machine learning, for better access to the diverse population of the country. This will result in an increased digitalisation of technical dictionaries/ textbooks/ glossary books in various modern Indian languages.

The MoU was signed by **Prof. Girish Nath Jha**, Chairman, CSTT and **Prof. Milind Atrey**, former Dean (Research and Development), IIT Bombay as head of their respective organizations along with **Dr. Shazad Ahmad Ansari**, AD(S) and **Mr. Jai Singh Rawat**, AD(S) from CSTT.

IIT Bombay And Class of 1970 Launch Translational Research Initiative

On August 23, 2023, IIT Bombay signed a **Memorandum of Understanding** with the **Class of 1970** to set up a **Translational Research Accelerator (TRA) Fund** at the Institute.

The driving force behind the Class of 1970's generous contribution is their larger goal to help India become technologically self-reliant in critical areas of national interest, including defence. They envision the TRA fund as a facilitator of research outcomes translation into real-world applications, resulting in positive changes in the lives of large segments of the Indian population.

IIT Bombay Director Prof. Subhasis Chaudhuri (c) along with other Institute functionaries and batch of 1970 during signing of MoU

The TRA initiative will identify and hone research projects with translational potential, empowering students and faculty towards entrepreneurship and enable to commercialise their technologies in the market.

The Institute is grateful to the Class of 1970 for their contribution strengthening IIT Bombay's commitment to bridging the gap between developing cutting-edge technology innovations and taking them to market with this legacy project.

IIT Bombay Signs MoU With Class of 1996 For Various Initiatives

IIT Bombay Director Prof. Subhasis Chaudhuri (c) along with other Institute functionaries and batch of 1996 during signing of MoU

On August 29, 2023, **IIT Bombay** signed a **Memorandum of Understanding (MoU)** with the **Class of 1996** towards supporting several critical initiatives at the Institute. These include promoting entrepreneurship, strengthening student and faculty welfare and enhancing the campus's infrastructure.

As part of their legacy project, the batch will be creating a **'SINE Endowment Fund'** to support the activities and programs of the Society for Innovation and Entrepreneurship (SINE). A **'Student Technology Teams Endowment Fund'** will also be established by the batch to encourage increased participation by students in technology tournaments to gain hands-on learning experiences. The batch will also contribute to the **Institute's Retired Faculty Wellness Fund and the Young Faculty Award program.**

The Class of 1996 is committed to championing these causes as they believe them to be crucial in taking IIT Bombay to the next level in its pursuit of excellence.

IIT Bombay Renames Its Lecture Hall 21 To Mohsin And Zulekha Vasi Lecture Hall

IIT Bombay dedicated its Lecture Hall 21 to the loving memory of **Mr. Mohsin** and **Mrs. Zulekha Vasi**, parents of esteemed Institue Professor Emeritus, **Prof. Juzer Vasi**. During this special event, the Lecture Hall was renamed the **'Mohsin and Zulekha Vasi Lecture Hall'**.

A distinguished alumnus (*B.Tech., Electrical Engineering, 1969)*, Prof. Vasi joined as an Assistant Professor in the Department of Electrical Engineering in 1981 and went on to lead the department as its Head from 1992 to 1994.

IIT Bombay Alumni Initiates Grove Project!

Alumnus Mr. Shirish Deodhar (c) along with other alumni and faculty members during tree plantation project initiative at Khed

On August 26, 2023, a project initiative kicked off with a heartening gathering of IIT Bombay alumni and faculty in Maharashtra's Khed, as they planted trees in honour of the esteemed faculty members. The initiative is inspired by the 14Trees Foundation towards creating a greener future through reforestation and ecological conservation led by alumnus **Mr. Shirish Deodhar** from the Class of 1980.

The vision of this initiative is to develop five acres of land and plant trees in honour of Institute current and all retired IIT Bombay faculty since the Institute's inception!

Here's saluting the spirit of collaboration, conservation and building a legacy for generations to come!

IIT Bombay Launches The SBI Foundation Hub For Data Science And Analytics

Launch of the SBI Foundation Hub for Data Science and Analytics at IIT Bombay, September 20, 2023

On September 20, 2023, the Institute formally launched the *'SBI Foundation Hub for Data Science and Analytics'* in partnership with SBI's CSR arm – the **SBI Foundation**. The ceremony was attended by SBI's leadership team including Chairman, **Mr. Dinesh Khara**; DMD (HR); CDO **Mr. Om Prakash Mishra;** DMD and Head (Digital Banking and Technology), **Mr. Nitin Chugh** as well as IIT Bombay's Director **Prof. Subhasis Chaudhuri** at IIT Bombay's campus.

This Hub will leverage the Institute's expertise in data science, analytics and artificial intelligence to address and solve real-world challenges in the Indian banking and financial services (BFS) sector. It is expected that the Hub will play a key role in fostering innovation in the digital banking space, facilitate research in emerging areas in fintech, and broaden the community of banking analytics professionals. Additionally, it will enhance competencies, expand the talent pool with expertise in banking analytics, and engage in other outreach activities. This Hub will include a dedicated lab space and is being set up under IIT Bombay's **Centre for Machine Intelligence and Data Science (C-MInDS)**.

Speaking at the event, Chairman, SBI, **Mr. Dinesh Khara** said, *"At SBI, Data and AI are not just tools*

but integral parts of our strategy, enabling us to provide greater convenience, reliability, and innovation to our customers. Together, with IIT Bombay, we endeavour to portray a new era in banking, fostering research, training, and upskilling, while enhancing our nation's AI capabilities in BFSI analytics. The setting up of the 'SBI Foundation Hub for Data Science and Analytics' at IIT Bombay is a testament to SBI's commitment to driving innovation and transformation in the BFSI sector and is a significant milestone in bringing positive change through Corporate Social Responsibility".

IIT Bombay Director **Prof. Subhasis Chaudhuri**, acknowledging the generous donation by SBI Foundation to launch this Hub, said, *"This collaboration represents a significant milestone in our commitment to harnessing the power of Data Science and AI to revolutionize the banking and financial services industry. Through this partnership, we aim to not only drive innovation and cutting-edge research but also nurture a thriving community of skilled professionals in banking analytics. Together with the SBI Foundation, we embark on a journey to shape the future of the industry, leveraging the expertise of two premier national institutions".*

WFP And IIT Bombay Sign MoU To Strengthen Ecosystems For Food Security, Nutrition, Climate And Livelihoods

The **United Nations World Food Programme (WFP) and the Indian Institute of Technology Bombay (IITB)** have signed a **Memorandum of Understanding (MoU)** for contributing towards improving food security, nutrition, climate resilience and livelihoods.

"The MoU provides a collaborative framework between WFP and IITB to leverage their collective expertise and resources for advancing and promoting technological and programmatic solutions. These solutions will enhance existing systems and facilitate the effective utilisation of evidence in the critical areas of food, nutrition, climate, and livelihoods to benefit those who need it the most," said **Prof. Sachin C. Patwardhan,** Dean (Research and Development), IIT Bombay.

"Our immediate areas of collaboration will include a micro study to understand the effect of climate change on food security, nutrition, and livelihoods of the vulnerable households in a select geography in India. We will also leverage upon the qualified senior students of IIT Bombay to support us in the data quality monitoring work for a massive evaluation of the NITI Aayog for which WFP facilitates the technical support," **Elisabeth Faure**, Representative and Country Director of the World Food Programme in India, said.

The MoU was signed in the presence of **Prof. K. V. Krishna Rao**, Deputy Director (Finance and External Affairs), IIT Bombay; **Dr. Abhay Kumar,** Head, RAM and Evaluation Unit, WFP India; **Prof. Anand B. Rao,** Head and Professor, Centre for Technology Alternatives for Rural Areas (CTARA), IIT Bombay and **Prof. Satish B. Agnihotri,** Emeritus Fellow, CTARA, IIT Bombay.

As per the Memorandum of Understanding, the WFP and IIT Bombay will work together to establish a comprehensive knowledge management system. This system will involve identifying and analysing relevant data, research, and evidence generation related to food and nutrition security. They plan to share knowledge, best practices, and insights on nutrition, food security, and sustainable agriculture through various platforms. In addition, they aim to design and deliver training and capacity-building programs for government agencies, civil society organizations, and nutrition and food security stakeholders.

Furthermore, the partnership will focus on ecosystem development for technology and innovations, where sustainable technological solutions will be identified, developed, and scaled to bolster government food safety net programs. Real-time monitoring systems and dashboards using administrative data sets will be created to generate actionable evidence concerning food and nutrition security in India.

IIT Bombay Signs MoU With DTE Maharashtra

IIT Bombay signed an **MoU** with the **Directorate of Technical Education (DTE), Government of Maharashtra** to foster a collaborative effort aimed at promoting knowledge exchange, enhancing skill development and fostering innovation in the field of education and research in July 2023.

The scope and purpose of activities under this MoU are designed to benefit students, faculty and researchers from government and government-aided DTE institutes in Maharashtra in pursuit of academic excellence and innovation. The MoU signing ceremony was graced by **Dr. Vinod Mohitkar**, Director, Technical Education, Government of Maharashtra and **Prof. Milind Atrey**, former Dean (Research and Development), IIT Bombay.

Dr. Anil Nandgaonkar and **Prof. Rajesh Zele** will be acting as coordinators for this collaborative activity from DTE and IIT Bombay, respectively.

IIT Bombay Celebrates National Sports Day

To commemorate the birth anniversary of hockey legend Major Dhyan Chand, IIT Bombay celebrated **National Sports Day** on August 29, 2023, at the Indoor Cricket Court (due to rains) at the campus.

The **Institute of Sports Council** of IIT Bombay organized a mixed hockey league for male and female players, that saw participation from all undergraduate (UG) and postgraduate (PG) students, faculty and staff members.

The players were divided into two teams - staff and students, with both groups displaying impressive teamwork and sportsmanship. The students team gave tough competition to the staff, winning the match. The winners received a trophy and a gold medal each, while the runners-up team took the silver medal.

In the concluding ceremony, all sports athletes expressed their gratitude to the coaches for their year-long efforts in training and maintaining the fitness level of students. As a token of appreciation, they presented the coaches with a bouquet and a mug.

The coaches encouraged everyone to participate in sports, exhibit punctuality and discipline during practice sessions and prepare for the upcoming Inter-IIT sports meet in 2023. The celebration culminated with a cake-cutting ceremony, marking a successful and memorable National Sports Day event.

Research in Focus

Scientists At IIT Bombay Develop New Technique That Offers Insights Into Interfacial Reactions

Researchers have come up with an innovative approach for measuring the coating performance.

How often have we not encountered corrosion in some of our devices? Although there would be some coating to prevent them, the performance of the coated material deteriorates over time. These can affect the overall performance of the device itself.

A key process responsible for this is the oxygen reduction reaction (ORR), one of the fundamental processes in electrochemistry. This is responsible for the reduction of molecular oxygen to water that occurs at the cathode in various electrochemical devices like fuel cells, metal-air batteries and electrolysers. In other words, the oxygen molecules from the surrounding environment react with electrons and hydrogen ions to form water.

Scientists have been studying the interactions at the interface between the coating and cathode. In practice, there are established methods to evaluate the viability of a coating for corrosion protection. However, an improved quantitative method to characterise the coating performance was lacking.

In a break through for electrochemical research, scientists at the Indian Institute of Technology Bombay (IIT Bombay) have combined a recently developed hydrogen potentiometry (HP) method with conventional electrochemical impedance spectroscopy (EIS) to build an innovative approach for measuring the coating performance. Their method allows quantifying buried interfacial reaction rates. This pioneering technique offers a deeper understanding of how reactions occur at the interfaces between materials, which has significant implications for various fields, including energy conversion and corrosion prevention.

"Since the interface is buried, a complementary non-destructive electrochemical technique to monitor in-situ interfacial changes and provide quantitative information to co-relate and deepen the fundamental understanding derived from the hydrogen potentiometry method was needed. My postdoctoral work on using non-linear EIS to characterise the degradation of Li-ion batteries gave me the idea to combine it with the HP technique to build a robust approach to measure ORR kinetics," says **Prof. Vijayshankar Dandapani** as the motivation behind this research.

Mr. Rasmi Ranjan Tripathy, PhD scholar and the first author of the paper notes that the choice of an alkaline electrolyte is very critical and has a two-fold purpose. *"It allows for stable steady-state hydrogen charging currents on the back side of the hydrogen permeable membrane vital for ensuring dynamic electrochemical equilibrium conditions on the front side. This was tough to achieve using an acidic electrolyte due to adsorbate-related challenges. Secondly, for real-life applications on industrial metals such as iron and zinc, only an alkaline electrolyte will work as it allows the formation of a thin passive layer and prohibits active metal dissolution typical in an acidic environment that contributes to unwanted side reactions,"* explains **Mr. Rasmi Ranjan** Tripathy.

The experiment involved a model interface made of PMMA (poly(methyl methacrylate)) and Pd (palladium) where the inhibited oxygen reduction reaction (ORR) kinetics were observed. The presence of a physisorbed polymer at the buried interface caused a cathodic shift of 50 mV in potential compared to bare Pd. This shift was clearly visible in the I(U) curve, a graphical representation of current versus potential that can be derived from the hydrogen potentiometry (HP) method. Furthermore, electrochemical impedance spectroscopy (EIS) revealed a 26-fold decrease in the RCT (charge transfer resistance) value, which reflects the inhibiting effect of the physisorbed polymer.

In a subsequent analysis of a severely inhibited interface, the scientists applied octane thiol as a self-assembled monolayer on Pd, with a topcoat of PMMA. This configuration led to an even more pronounced cathodic shift of 190 mV compared to the model PMMA/Pd interface, indicating a significantly inhibited reaction. The corresponding EIS measurement showed a 100-fold decrease in the RCT value, confirming the heightened inhibition.

The ground-breaking aspect of this combined approach lies in its interface sensitivity, which enables scientists to anchor specific functional groups to metal substrates through chemisorption. This opens avenues for quantitatively measuring ORR rates and assessing the effectiveness of protective coatings in real-world applications. For instance, thin layers of industrially relevant metals, such as iron and zinc, are currently being deposited on the exit side of the Pd membrane over which polymer coating will be bonded to mimic an interface that is of commercial interest. This will allow the technique to be used as a standalone tool for providing crucial input to simulation programs, aiding in the selection of appropriate coatings for various practical applications.

"The primary aim of these kinetic measurements is to provide input data to a computer program that can predict the corrosion rate of organic coatings. Such simulated coating lifetime will guide in appropriate choice of polymer coating for on-field application in the mobility, oil and gas pipeline, infrastructure, marine and packaging industries. More importantly, we believe this approach could go beyond corrosion-related applications and find use for example in hydrogen sensing where the ability to quantitatively measure atomic hydrogen-induced interfacial electrochemical changes can be exploited. With the growing interest in transitioning to a hydrogen-based energy economy, this work finds relevance and scope for future research in applications related to hydrogen in materials," says **Prof. Dandapani** emphasising the importance of this work.

These advancements in understanding interfacial reactions provide researchers with invaluable insights into the behavior of materials and their performance in electrochemical systems. With further refinement and application, this novel combined approach has the potential to revolutionise fields such as energy conversion, corrosion prevention and material science, contributing to more efficient and sustainable technologies.

As scientists continue to explore the hidden intricacies of interfacial reactions, we move closer to unlocking the full potential of electrochemical processes and paving the way for innovative solutions in diverse areas of science and industry

Article written by: Sudhira H S

Link to published work: https://iopscience.iop.org/article/10.1149/1945-7111/accf3c

MEMS Department Hosts Open Day for School Students

On August 26, 2023, the **Department of Metallurgical Engineering and Materials Science, IIT Bombay**, hosted an **Open Day** as part of the IOE outreach programme. More than 400 students from 10 different schools (8th grade and above) attended the event held at the Lecture Hall Complex of the Institute.

The Open Day featured a variety of exciting demonstrations, exhibits and experiments that were designed, curated and conducted by the students of the Department.

Notable amongst them were the concept of *scale and size, Heat and electricity from Motion, Music from materials, Print your own super-hero, Breakathon, Fun with ferrofluids, Peer inside an electron microscope* etc.

The programme was indeed an enlightening and memorable experience for the school students and we hope to see more students participate in future events.

Eco-Friendly Ganesh Idol-Making Workshop

To encourage the IIT Bombay community to make their own Ganesha idols and promote eco-friendly practices, **Dr. Saraswathi Krithivasan** and **Mrs. (late) Chaitali Gupta** of **Logic Center and Community Welfare Association (LCCWA)** started **Navsrujan** - the eco-friendly Ganesh idol-making workshop at the Staff club in the year 2010. Taking it forward, the Design Innovation Center, IDC School of Design and NSS, IIT Bombay jointly organized Navsrujan 2023 on the campus during September 9-10, 2023. LCCWA coordinated the event. The workshop garnered positive feedback from students, campus residents and external participants.

Alumnus News

IIT Bombay Alumnus Honoured With Shaurya Chakra

Mr. Somay Munde, an esteemed alumnus of IIT Bombay *(B. Tech., Chemical Engineering, 2013)* and an IPS officer, was awarded the prestigious ***Shaurya Chakra*** by the President of India **Smt. Droupadi Murmu**, for his exceptional bravery and unwavering commitment to combating Naxals in Gadchiroli. His courage and dedication in the face of challenges has made the Institute immensely proud.

IPS officer Mr. Somay Munde (B.Tech., Chemical Engineering, 2013, IIT Bombay) receiving the notable Shaurya Chakra award from the Hon'ble President of India Smt. Droupadi Murmu

Awards and Distinctions

Prof. Swatantra Pratap Singh, Environmental Science and Engineering Department (ESED), received the ***best oral presentation award (2nd Prize)*** under the young investigator's category at the 13th International Congress on Membranes and Membrane Processes (ICOM) 2023 in Japan.

Prof. K. Ramasubramanian, Cell for Indian Science and Technology in Sanskrit, Department of Humanities and Social Sciences, has received the **19th Annual J. C. Bose Memorial Award** for his contribution to the field of Indian Science and Technology based on ancient texts

Prof. Anirban Banerjee, Department of Biosciences and Bioengineering, has been awarded the Wellcome Trust/ DBT-India Alliance Senior Fellowship and the DST-SERB Star Award

Prof. Maheswaran Shanmugham, Department of Chemistry, has been selected to receive **CRSI bronze medal** for the year 2024 in recognition of his significant contributions to research in chemistry

Prof. Tabish Nawaz, Department of Environmental Science and Engineering, has joined the Editorial Board of *Scientific Reports* of Nature Publishing Group

Prof. Arpita Mondal, Department of Civil Engineering, has been invited to join the Editorial Board of two prestigious journals, the *Journal of Hydrology* and *Hydrological Sciences Journal*

Prof. Ganesh Ramakrishnan, Department of Computer Science and Engineering, has been appointed **a disease and economic modelling expert member of the Standing Technical Sub Committee (STSC) as well as an expert member of the Standing Working Group – Immunization and Vaccine Research and Capacity Building (SWG-IVRCB)** as part of NTAGI (National Technical Advisory Group on Immunization), Ministry of Health and Family Welfare, Govt of India.

Prof. Deepankar Choudhury, Department of Civil Engineering, has been elected as a ***Fellow of Indian National Academy of Engineering (INAE)*** effective from November 1, 2023

Prof. Vishal Dixit, Interdisciplinary Programme in Climate Studies, has been selected as the Associate Editor of the *Journal of Atmospheric Sciences (JAS)*, a very prestigious journal on theoretical atmospheric sciences

Prof. Anirban Banerjee, Department of Biosciences and Bioengineering, has been selected for the **S. Ramachandran National Bioscience Award** for Career Development of the Department of Biotechnology, Govt of India.

Prof. Kishore Chatterjee, Department of Electrical Engineering, has been elected as a ***Fellow of Indian National Academy of Engineering (INAE)***

Prof. Sanjay M. Mahajani, Department of Chemical Engineering, has been elected as a ***Fellow of Indian National Academy of Engineering (INAE)***

Prof. Prasanna Gandhi, Department of Mechanical Engineering, has been selected for **Er. M.P. Baya National Award 2023** by Institution of Engineers (India), Udaipur Local Centre

Prof. Sandeep Anand, Department of Electrical Engineering, has been elected as **INSA Associate Fellow 2023**

Prof. Achintya Kumar Dutta, Department of Chemistry, has been elected as **INSA Associate Fellow 2023**

Prof. Ankit Jain, Department of Mechanical Engineering, has been elected as **INSA Associate Fellow 2023**

Prof. Shyamprasad Karagadde, Department of Mechanical Engineering, has been elected as **INSA Associate Fellow 2023**

Prof. Kasturi Saha, Department of Electrical Engineering, has been elected as **INSA Associate Fellow 2023**

Prof. Aparna Singh, Department of Metallurgical Engineering and Materials Science, has been elected as **INSA Associate Fellow 2023**

Prof. Mayukh Mukherjee, Department of Mathematics, has been elected as **INSA Associate Fellow 2023**

Prof. Vikram Vishal, Department of Earth Sciences, has been elected as **INSA Associate Fellow 2023**

Prof. Ruchi Anand, Department of Chemistry, has been elected as a **Fellow of INSA 2024**

(Retired) Prof. Bijnan Bandyopadhyay, Systems and Control Engineering, has been elected as a **Fellow of INSA 2024**

Conferences/ Workshops

Centre for Technology Alternatives for Rural Areas, IIT Bombay conducted a one-day workshop on **"Tribal Empowerment: Challenges and Opportunities"** in remembrance of *Jan Jatiya Gaurav Diwas* on August 26, 2023.

Personnel Training and Development Cell, IIT Bombay organised a workshop on ***"Audit Sensitization"*** on July 1, 2023. **Mr. K.P. Yadaw**, Director General of Audit Central Revenue, Mumbai, conducted the workshop focussing on all aspects regarding the preparation of Annual accounts with reference to special audit reports.

Personnel Training and Development Cell, IIT Bombay organised a workshop on '*How to Prevent Heart Attack - Promoting Heart Health the Ayurveda Way*' for faculty, officers, and staff members of IIT Bombay on August 19, 2023. **Dr. Rohit Madhav Sane** - Founder and MD of Madhavbaug conducted the workshop.

Student News

Tejyas Dasa Singh, a foreign national from Guyana and an M.Tech. student of **Prof. Swathy Manohar** from the Department of Civil Engineering has been nominated for the fully funded UNESCO World Heritage Education Programme called **'World Heritage Young Professionals Forum 2023'** hosted by the Ministry of Culture in the Kingdom of Saudi Arabia during September 2-13, 2023. He has completed his M.Tech. thesis on the conservation of stone heritage monuments this year.

(i) Yash G. Mittal, Department of Mechanical Engineering, presented a paper entitled *"A Novel Analytical Model for Screw Extrusion of Thermoplastic ABS with Emphasis on Additive Manufacturing"* at the **North American Manufacturing Research Conference (NAMRC) 51** organized by SME NAMRI at Rutgers University (RU), New Jersey (NJ), USA, during June 12-16, 2023.

(ii) Yash G. Mittal, Department of Mechanical Engineering, co-authored a presented paper entitled *"Patterned Keyhole Porosity Formation in Laser Powder Bed Fusion Caused by Local Disturbances in the Shielding Gas Flow"* at the **North American Manufacturing Research Conference (NAMRC) 51** organized by SME NAMRI at Rutgers University (RU), New Jersey(NJ), USA, during June 12-16, 2023.

Utkarsh Misra, a Ph.D. student at the Centre for Research in Nanotechnology and Science (CRNTS), under the supervision of **Prof. Swatantra Pratap Singh** from the Environmental Science and Engineering Department (ESED), has won the **ICOM Best Student Poster Award** at the 13th International Congress on Membranes and Membrane Processes (ICOM) 2023 at Chiba, Japan.

Samrat Sagar, a Ph.D. student of **Prof. Darshan Kumar,** (Department of Mechanical Engineering) co-supervised with **Prof. B. Ravi** has been selected for the **"Economically Developing Countries (EDC) Travel Award"** for his work on Mandible Biomechanics. They both will be presenting their proposals at the ISB 2023 Congress.

Notifications

Prof. Sachin Patwardhan, Department of Chemical Engineering, has been appointed as Dean (Research and Development) w.e.f. August 1, 2023

Prof. Nand Kishore, Department of Chemistry, has been appointed as Dean (Administrative Affairs) w.e.f. August 7, 2023

Prof. A. M. Pradeep, has been appointed as Head, Department of Aerospace Engineering w.e.f. May 15, 2023

Prof. Mahesh Tirumkudulu, has been appointed as Head, Department of Chemical Engineering w.e.f. May 15, 2023

Prof. P. V. Balaji, has been appointed as Head, Department of Biosciences and Bioengineering w.e.f. May 15, 2023

Prof. S.V.D. Nageswara Rao, has been appointed as Head, Shailesh J. Mehta School of Management w.e.f. May 29, 2023

Prof. Pooja Purang, has been appointed as Head, Department of Humanities and Social Sciences w.e.f. June 16, 2023

Prof. Atul Sharma, has been appointed as Head, Department of Mechanical Engineering w.e.f. June 30, 2023

Prof. Subhabrata Dhar, has been appointed as Head, Department of Physics w.e.f. September 05, 2023

Prof. Ambarish Kunwar, Department of Biosciences and Bioengineering has been appointed as Warden, Hostel No. 3 w.e.f. August 19, 2023

Prof. Manasa Behera, Department of Civil Engineering, has been appointed as Warden, Hostel No. 12 w.e.f. August 17, 2023

Institute Colloquium / Lectures

US Consul General Mike Hankey, delivered the Institute Lecture on *"India-US Cooperation in Technology and Research"* on June 28, 2023

Prof. Jayant B. Udgaonkar, Department of Biology, Indian Institute of Science Education and Research, Pune, delivered the Institute Lecture on "*Protein Folding: A central problem in biology*" on July 25, 2023

Prof. Vinothan N. Manoharan, Wagner Family Professor of Chemical Engineering and Professor of Physics Harvard University, delivered the Institute Lecture on *"Braiding and weaving microscopic fibers using water"* on August 9, 2023

Prof. Nitin Saxena, N. Rama Rao Chair Professor, Department of Computer Science and Engineering, IIT Kanpur, delivered the Institute Colloquium on *"Algebra powers computation"* on September 6, 2023

Appointments

Prof. Renuka Verma, has been appointed as Assistant Professor Grade II in the Environmental Science and Engineering Department w.e.f. July 10, 2023

Prof. Chandan Biswas, has been appointed as Assistant Professor Grade I in the Department of Mathematics w.e.f. July 24, 2023

Prof. Srinivasa Rao Gangumalla, has been appointed as Assistant Professor Grade I in the Department of Earth Sciences w.e.f. July 31, 2023

Prof. Raghu Murtugudde, has been appointed as Professor in Interdisciplinary Programme in Climate Studies w.e.f. August 16, 2023

Mr. Dharmendra Chaurasia, has been appointed as Sr. Technical Officer (Scale-A) at ASC w.e.f. July 5, 2023

Mr. Sunil Vichare, has been appointed as Sr. Technical Officer (Scale-A) at Computer Centre w.e.f. July 6, 2023

Ms. Pratika Petare, has been appointed as Student Counsellor (Scale-I)at Student Wellness Centre w.e.f. August 31, 2023

Mr. Naveen Dasari, has been appointed as Technical Superintendent at Department of Mechanical Engineering w.e.f. July 6, 2023

Mr. Ankur Manjare, has been appointed as Jr. Sanitory Inspector at Public Health Office w.e.f. July 21, 2023

Mr. Nikhil Gaonkar, has been appointed as Technical Superintendent at Department of Civil Engineering w.e.f. July 31, 2023

Mr. Sourabh Kshirsagar, has been appointed as Technical Superintendent at Department of Civil Engineering w.e.f. August 1, 2023

Mr. Shankar Kumawat, has been appointed as Jr. Engineer, at Estate Office w.e.f. September 4, 2023

Retirements on July 31, 2023

Mr. Vijay U. Jadhav, Jr. Technical Superintendent, Department of Physics, retired after 33 years of service

Mr. Pradeep N. Waghmare, Sr. Multiskilled Assistant, C.R.N.T.S., retired after 37 years of service

Mr. Nandkumar G. Navele, Sr. Attendant, Industrial Design Centre, retired after 40 years of service

Mr. Khalil Y. Inamdar, Sr. Multiskilled Assistant, HR-2 (HCM-1), retired after 33 years of service

Ms. Vijayalaxmi D. Shakanthi, Multiskilled Assistant B, K. G. School, retired after 18 years of service

Mr. P Lonappan Varghese, Peon cum Canteen boy, Hostel No - 01, retired after 26 years of service

Retirements on August 31, 2023

Mr. Sanjay Manjrekar, Sr. Cook, Hostel Tansa, retired after 24 years of service
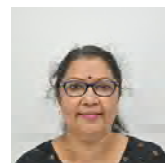
Prof. Yalamanchili S. Rao, Centre of Studies in Resources Engineering, retired after 24 years of service

Prof. Sanjeev V. Sabnis, Department of Mathematics, retired after 33 years of service

Ms. Lata P. Jagdeesh, Incharge Teacher, IIT Bombay K. G. School, retired after 28 years of service

Mr. Dinesh Kumar Dubey, Sr. Security Guard, Security Section, retired after 31 years of service

Mr. Krishna B. Kadam, Sr. Multiskilled Assistant, Materials Management Division, retired after 28 years of service

Retirements on September 30, 2023

Prof. Jugal K. Verma, Department of Mathematics, retired after 33 years of service

Mr. Ramesh M. Rajput, Jr. Superitendent, Office of Dean (R&D), retired after 35 years of service

Mr. Purushottam Gaikwad, Sr. Attendant, Department of Mechanical Engineering, retired after 39 years of service

Mr. Chhagan V. Birare, Sr. Multiskilled Assistant, Gymkhana, retired after 37 years of service

Mr. Vishwas S. Katkole, Sr. Multiskilled Assistant, Central Library, retired after 33 years of service

Mr. Kaduba Arakh, Multi Skilled Assistant C, Hostel No - 01, retired after 28 years of service

Mr. K.C. Haribahadur, Multi Skilled Assistant C, Hostel No - 03, retired after 35 years of service

Mr. C. P. Joy, Multi Skilled Assistant, Hostel No - 01, retired after 42 years of service

Mr. Vishwas N. Kewale, Sr. Mechanic, Dept. of Mechanical Engg., retired (voluntarily w.e.f. 29.09.23) after 37 years of service

In the Wilderness

Photo Credit :
Mr. Batu. S. Kambale,
Sr. Technician Medical,
IIT Bombay Hospital

No.	Course Title	Course Coordinator/ Department	Duration
CEP courses scheduled October, November and December 2023			
In House Programmes: (October 2023)			
1	Road Quality, Construction And New Technology	Prof. Dharamveer Singh Department of Civil Engineering	October 11, 2023 (3 days)
In House Programmes: (November 2023)			
2	Introduction to Deep Learning for Image Analysis	Prof. Biplab Banerjee, Centre for Studies in Resources Engineering	November 27, 2023 (5 days)
Open Programmes: (December 2023)			
3	Case Study In Development Practice	Prof. Milind Sohoni, Centre for Technology Alternatives for Rural Areas	December 1, 2023 (2 days)
4	Monsoon Course On HCI	Prof. Anirudha Joshi, Systems and Control Engineering	December 1, 2023 (12 days)
5	5G And Beyond: Looking Over The Horizon	Prof. Prasanna Chaporkar Department of Electrical Engineering	December 4, 2023 (5 days)
6	WEL-SDC: Advanced Digital System Prototyping For FPGAS And ASICS	Prof. Siddharth Tallur Department of Electrical Engineering	December 11, 2023 (12 days)
7	WEL-SDC: Development Of Multi-Layer Pcbs From Design To Prototype	Prof. Siddharth Tallur Department of Electrical Engineering	December 11, 2023 (5 days)
In House Programmes: (December 2023)			
8	Basics Of Thermal Hydraulics And Its Application In Nuclear Reactor Technology	Prof. Arunkumar Sridharan Department of Mechanical Engineering	December 4, 2023 (10 days)

campus diary

Material for publication in Campus Diary should reach PPR section by the 25th of every month

(email : campusdiary@iitb.ac.in)

BOOK POST