

July - August - September 2018

<http://www.iitb.ac.in/en/activities/campus-diary>

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

## Prime Minister Shri Narendra Modi Addresses 56th Convocation Of IIT Bombay

- Hon'ble Prime Minister of India Shri Narendra Modi delivered the Convocation Address, unveiled plaque of the new building of the Department of Energy Science & Engineering and Centre for Environmental Science & Engineering
- Honoris Causa conferred upon Dr. Romesh T. Wadhwani
- Total degrees awarded: 2621, PhD degrees awarded: 380



(L-R) Prof. Devang V. Khakhar, Director, IIT Bombay, Shri Prakash Javadekar, Hon'ble Minister of Human Resource Development, Shri CH. Vidyasagar Rao, Hon'ble Governor of Maharashtra, Shri Narendra Modi, Hon'ble Prime Minister of India, Shri Devendra Fadnavis, Hon'ble Chief Minister of Maharashtra, Shri Dilip Shanghvi, Chairman, BOG, IIT Bombay and Dr. Romesh T. Wadhwani, Founder, Chairman and CEO of Symphony Technology Group on the dais during 56<sup>th</sup> Convocation 2018

The Indian Institute of Technology Bombay held its 56th Convocation at the Convocation Hall of IIT Bombay on August 11, 2018. **Shri Narendra Modi, Hon'ble Prime Minister of India** was the Chief Guest and delivered the Convocation Address. **Shri Prakash Javadekar, Hon'ble Minister of Human Resource Development, Shri CH. Vidyasagar Rao, Governor of Maharashtra, and Shri Devendra Fadnavis, Chief Minister of Maharashtra**, were Guest of Honours and graced the occasion.

The graduating students this year include 308\* PhDs, 54\* Dual Degree (MTech/MPhil+PhD) and 32\* Dual Degree (MSc+PhD). Out of these, 36 research scholars were selected for the 'Award of Excellence in PhD Thesis' for the year 2018. In addition, 29 joint PhD degrees, in association with Monash University, were also conferred by the Vice-Chancellor and President of Monash University Prof. Margaret Gardner, present on the occasion. (\*including PhD degrees awarded during interim convocation).



*The degree of Doctor of Science (Honoris Causa) bestowed on Dr. Romesh T. Wadhwani, Founder, Chairman and CEO of Symphony Technology Group*

*comparable to the best in the world and you are now ready to take greater challenges and overcome them. Continue to develop your knowledge and skills and always keep in mind how you can help society and the nation through your work. I wish you all the success in your future endeavors.*

This year, 3 students were presented the Gold medals for their exemplary performance. The '**President of India Medal**' was bestowed on **Anuj Mittal**, a student from the Department of Computer Science & Engineering. The '**Institute Gold Medal**' was awarded to **Dudhia Vashishth Shounakbhai**, a student from the Department of Electrical Engineering and the '**Dr. Shankar Dayal Sharma Gold Medal**' was conferred on **Sanghvi Yash Chetan**, a student from the Department of Mechanical Engineering. Additionally, many more students were presented with gold medals sponsored by donors.

The degree of Doctor of Science (Honoris Causa) was bestowed on **Dr. Romesh T. Wadhwani**, Founder, Chairman and CEO of Symphony Technology Group for his contributions as a technologist, a business leader and for his efforts at creating social impact through innovative uses of technology.



*Prof. Margaret Gardner, President and Vice-Chancellor, Monash University, Australia*

Besides these, 7 MSc (by Research), 6 Dual Degree (MSc+MTech), 2 Dual Degree (MSc+MPhil), 615 MTech, 63 MDes, 27 MPhil, 106 MMgt, 246 two-year MSc, 25 five-year integrated MSc, 400 Dual Degree (BTech+MTech), 651 BTech Degrees, 14 BS, and 14 PGDIT Degrees, were awarded at the Convocation.

Presenting the Institute's Report for the year 2017-18, Prof. Devang V. Khakhar, Director of IIT Bombay informed that IIT Bombay continues to be a sought-after destination for UG and PG studies. *"Among 23 IITs in the country, 47 out of top 50 rankers and 63 of top 100 rankers in JEE 2018 have joined IIT Bombay and 9 of the top 10 All-India JEE rank holders have chosen to join IIT Bombay. Similar trends are observed for the candidates qualifying in other entrance examinations as well"*, he said. Wishing the graduating students the best in life, Prof. Khakhar said, *"The education you have received at IIT Bombay is*



*'President of India Medal' was bestowed on Anuj Mittal, a student from the Department of Computer Science & Engineering*

On the occasion, the Chief Guest for the function, **Honorable Prime Minister of India Shri Narendra Modi** unveiled the plaque for new building of the Department of Energy Science & Engineering and Centre for Environmental Science & Engineering. He also visited the technology exhibition organised by the Office of Dean (R&D), IIT Bombay.

**Prof. Margaret Gardner**, President and Vice-Chancellor, Monash University, Australia, members of Board of Governors and several other distinguished guests from India and abroad attended the Convocation function, besides the graduating students and their proud parents.

Honourable Prime Minister of India Shri Narendra Modi unveiled the plaque for new building of the Department of Energy Science & Engineering and Centre for Environmental Science & Engineering



Honorable Prime Minister of India Shri Narendra Modi visited the technology exhibition organised by the Office of Dean (R&D), IIT Bombay



## MEDALS AND PRIZES

### President of India Medal (for the year 2017-18)

Anuj Mittal, Computer Sc. & Engg. (B.Tech)

### Institute Gold Medal (for the year 2016-17)

Dudhia Vashishth Shounakbhai

B.Tech /Dual Degree

Electrical Engg. (Dual Degree)

### Institute Silver Medal (for the year 2017-18)

#### BACHELOR OF TECHNOLOGY(B.Tech)

##### Aerospace Engineering

Krishna Kumar Kedia S

##### Chemical Engineering

Pranay Agarwal

##### Civil Engineering

Shubham Agrawal

##### Computer Sc.& Engineering

Sohum Dhar

##### Electrical Engineering

Salgia Sudeep

##### Mechanical Engineering

Karan Jain

#### Metallurgical Engineering & Materials Science

Vudit Gupta

##### Engineering Physics

Kalantre Sandesh Sachin

### MASTER OF SCIENCE (M.Sc.) PROGRAMME

##### Applied Geology

Birupakshya Panda

##### Applied Geophysics

Shivani Pandey

##### Chemistry

Radhika Gupta

Pritha Mondal

Akanksha Manghrani

##### Mathematics

Sachin Garg

##### Applied Statistics & Informatics

Rohit Kumar

##### Physics

Vaibhav Sharma

##### Biotechnology

Gargi Das

### DUAL DEGREE (B.Tech. + M.Tech.)

##### Aerospace Engineering

Siddharth Hari Nair

##### Chemical Engineering

Agashe Ashutosh Anant

##### Electrical Engineering

Dudhia Vashishth Shounakbhai

##### Mechanical Engineering

Nazhar Hussain

##### Met. Engg. and Mat. Sc.

Sanghavi Bhavik Jashmin

### Energy Science Engineering

Harshwardhan Alok Singh

### Engineering Physics

Saumya Shivam

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

#### PROGRAMME

##### Aerospace Engineering

Krishna Dutt

##### Chemical Engineering

Sujit Sagar Modi

##### Civil Engineering

V. S. Shaik Althaf

##### Computer Science & Engineering

Sandeep Subramanian

##### Electrical Engineering

Devdatta Kathale

Amjath Husain M.S.

##### Mechanical Engineering

Joshi Parth Sudhir

### Metallurgical Engineering and Materials Science

Bidyut Dutta

##### Biomedical Engineering

Jasleen Chhabra

##### Environmental Science & Engineering

Yash Rajendra Lalai

##### Geoinformatics and Natural Resources

Ashvitha R Shetty

##### Earth Science

Ayushi Bisht

##### Energy Systems and Engineering

Yash Samir Desai

##### Systems & Control Engineering

Somani Bhagyashri Kirankumar

##### Technology & Development

Divyanshu Jaiswal

##### IE & OR

Arun Ramamurthy

### MASTER OF DESIGN

##### Animation

Navodit Mandal

### MASTER OF PHILOSOPHY

##### Planning & Development

Chhavi Sharma

### MASTER OF MANAGEMENT

Vinay Kumar

### OTHER MEDALS

##### Miss Jayati Deshmukh Memorial Gold Medal

Anuj Mittal, Computer Sc. & Engg. (B.Tech)

##### Dr. Shankar Dayal Sharma Gold Medal

Sanghvi Yash Chetan

Mechanical Engineering (Dual Degree)

**Vidyasagar Nehra Gold Medal**

Shubham Agrawal, Civil Engg. (B.Tech)

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

Shubham Agrawal, Civil Engg. (B.Tech)

**Rajit Bhagwati Memorial Gold Medal**

Yash Rajendra Lalai, CESE (M.Tech)

**Hindi Vidya Bhavan Gold Medal**

Vinay Kumar, M.Mgt

**Sharad Maloo Memorial Gold Medal**

Kalpesh Krishna, Electrical Engineering (B.Tech)

**PRIZES**
**Prof K C Mukherji Award**

Sattwik Deb Mishra

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

Joshi Parth Sudhir

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

Kalantre Sandesh Sachin

Vaibhav Sharma

**Chandrashekhar Prize**

Himanshi Arora

**Shri R Vembu Iyer Memorial Prize**

Birupakshya Panda

**Dilip R Limaye Academic Excellence Award**

Anuj Mittal

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

Pritha Mondal

Radhika Gupta

**Dr. Gargi Vishnoi Memorial Prize**

Sisini Sasidharan

**Prof. Hiralal Memorial Award**

Akanksha Manghrani

Pritha Mondal

Radhika Gupta

**Shri Ashok Chaturvedi Memorial Prize (M.Tech)**

Joshi Parth Sudhir

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

Rohit Kumar

**Prabhulal Bhatnagar Memorial Prize**

Sudeep Kundu

Nidhin T J

**Mrs. Rama Mathur Memorial Prize**

Sachin Garg

**Ajit Shelat Award**

Sandeep Subramanian

Devdatta Kathale

Amjath Husain M.S

**Bhavesh Gandhi Memorial Prize**

Palka Puri

Dudhia Vashishth Shounakbhai

**Akshay Dhoke Memorial Award**

Bhat Ashwin Rajendra

**Prof. K.C. Khilar PhD Award**

Pritam Biswas

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

Deepankar Varshney

**R. G. Manudhane PhD Excellence Award**

Kumari Priti Sinha

Srikanth Divi

**Indira Manudhane Student Excellence Award**

Arunabh Mishra

**Mr. Pranab Ranjan Sen Award**

Gagrani Nisarg Bhushan

Abhilash Chakraborty

**Shubhada Mulekar Joshi Award**

Gargi Das

**Prof. S N Sinha memorial award**

Gagrani Nisarg Bhushan

**Dr. P.V.Sukhatme Memorial Award**

Sachin Garg

Sayan Dutta

Rohit Kumar

Rudra Prasad Das

**S C Mehrotra Prize**

Shubham Agrawal

**K Seshia Research Excellence Award**

Sonar Sameer Anil

**Ramesh Chandra Sinha Academic Excellence Award**

R. Basuhi

**Manorama Sinha Academic Excellence Award**

Gumireddy Sushmitha Sree

**Malini Vyawahare (Indore) memorial award**

Devdatta Kathale

**Digamber & Nilima Joshi Award**

Kolachana Sri Ram Aditya

**Prabhakar & Pratibha Mulekar Award**

Samir Janardan Sohoni

**Institute Academic Prizes for the year 2017-18  
II year BTech / Dual Degree (2017 Batch)**

No.	Roll No.	Name	Prize	Value of prize	Department
1	170050026	Tushar Gautam	I	Rs.3000/-	Computer Sc. & Engg.
2	170050027	Aman Kansal	I	Rs.3000/-	Computer Sc. & Engg.
3	170050041	Kushagra Juneja	I	Rs.3000/-	Computer Sc. & Engg.
4	170050090	Vijaykrishna G	I	Rs.3000/-	Computer Sc. & Engg.
5	170070022	Pranay Reddy Samala	I	Rs.3000/-	Electrical Engg.
6	170100082	Arnab Jana	I	Rs.3000/-	Mechanical Engg.
7	170070010	Soumya Chatterjee	II	Rs.2000/-	Electrical Engg.

8	17D070019	Siddharth Chandak	II	Rs.2000/-	Electrical Engg.
9	170100075	Tushar Agrawal	Additional	Rs.2000/-	Mechanical Engg.
10	170050028	Kritin Garg	Additional	Rs.2000/-	Computer Sc. & Engg.
11	170260032	Vabilisetti Mohan Abhyas	Additional	Rs. 2000/-	Engg. Physics
12	170070015	Anshul Nasery	Additional	Rs.2000/-	Electrical Engg.
13	170070005	Diwan Anuj Jitendra	Additional	Rs.2000/-	Electrical Engg.
14	17D070059	Yash Sharma	Additional	Rs.2000/-	Electrical Engg.
15	170100091	Mathews Boban	Additional	Rs.2000/-	Mechanical Engg.
16	170050009	Onkar Manik Deshpande	Additional	Rs.2000/-	Computer Sc. & Engg.
17	170020016	Trivedi Drumil Himanshu	Additional	Rs.2000/-	Chemical Engg.
18	170070051	Koustav Jana	Additional	Rs.2000/-	Electrical Engg.
19	170070007	Anshul Tomar	Additional	Rs.2000/-	Electrical Engg.

**III year B.Tech./Dual Degree/Four year BS/BDes Branchwise (2016 Batch)**
**B.Tech.**

<b>Sr.</b>	<b>Roll No.</b>	<b>Name</b>	<b>Prize</b>	<b>Value of prize</b>	<b>Department</b>
1	160010013	Sule Varun Shrikar	I	Rs.3000/-	Aerospace Engineering
2	160010034	Ankit Choudhary	II	Rs.2000/-	Aerospace Engineering
3	160020048	Ashi Gupta	I	Rs.3000/-	Chemical Engineering
4	160020098	Manan Agarwal	II	Rs.2000/-	Chemical Engineering
5	160040061	Shubham Jain	I	Rs.3000/-	Civil Engineering
6	160040097	Rohan Agarwal	II	Rs.2000/-	Civil Engineering
7	160050005	Shah Sahil Hiral	I	Rs.3000/-	Computer Sc. & Engg.
8	160050032	Utkarsh Gupta	II	Rs.2000/-	Computer Sc. & Engg.
9	160100083	Kaustubh Porlikar	I	Rs.3000/-	Electrical Engineering
10	16D170005	Bhishma Praful Dedhia	II	Rs.2000/-	Electrical Engineering
11	160100040	T Akshay	I	Rs.3000/-	Mechanical Engineering
12	160100001	Aditya Jayant Patki	II	Rs.2000/-	Mechanical Engineering
13	160110072	Ashutosh Kumar	I	Rs.3000/-	Met.Engg.& Mat.Sci
14	16D110004	Satra Taksh Jitendra	II	Rs.2000/-	Met.Engg.& Mat.Sci
15	160260018	Kartik Patekar	I	Rs.3000/-	Engineering Physics
16	160260005	Janyani Keshav Murli	II	Rs.2000/-	Engineering Physics

**III year B.Tech./Dual Degree/Four year BS/BDes Branchwise (2016 Batch)**
**DUAL DEGREE**

<b>Sr.</b>	<b>Roll No.</b>	<b>Name</b>	<b>Prize</b>	<b>Value of prize</b>	<b>Department</b>
1	160020019	Shubhang Bhatnagar	I	Rs.3000/-	Electrical Engineering
2	16D070012	Ishank Juneja	II	Rs.2000/-	Electrical Engineering
3	16D100004	Konale Aditya Gurusidhappa	I	Rs.3000/-	Mechanical Engineering
4	16D100008	Gaikwad Mayur Vinayak	II	Rs.2000/-	Mechanical Engineering
5	16D110010	Itale Anup Hanamant	I	Rs.3000/-	Met. Engg. & Mat.Sc
6	16D170007	Kumaresh Ramesh	I	Rs.3000/-	Energy Sc. & Engg
7	16D170009	Deshpande Varad Pramod	II	Rs.2000/-	Energy Sc. & Engg
8	16D260004	Manu Srivastava	I	Rs.3000/-	Engineering Physics

**4 yr. B.S.(Chemistry) (2016 Batch)**

<b>Sr.</b>	<b>Roll No.</b>	<b>Name</b>	<b>Prize</b>	<b>Value of prize</b>	<b>Department</b>
1	160100046	Valay Agarawal	I	Rs.3000/-	Chemistry

**IV year B.Tech./Dual Degree/ Four year BS Branchwise (2015 Batch)**
**B.Tech.**

<b>Sr.</b>	<b>Roll No.</b>	<b>Name</b>	<b>Prize</b>	<b>Value of prize</b>	<b>Department</b>
1	150010046	Vijeth Hebbar	I	Rs.3000/-	Aerospace Engineering
2	150010049	Anumarlapudi Akash	II	Rs.2000/-	Aerospace Engineering
3	150020042	Malu Suraj Gopal	I	Rs.3000/-	Chemical Engineering
4	150020097	Hemanth Raja	II	Rs.2000/-	Chemical Engineering
5	150020114	Taveesh Garg	II	Rs.2000/-	Chemical Engineering
5	150040003	Utkarsh Yadav	I	Rs.3000/-	Civil Engineering
6	150110020	Asha Dhaka	I	Rs.3000/-	Civil Engineering
7	150040087	Ayush Pandey	II	Rs.2000/-	Civil Engineering

8	150050001	Bharat Khandelwal	I	Rs.3000/-	Comp.Sc. & Engineering
9	150050006	Rishabh Shah	I	Rs.3000/-	Comp.Sc. & Engineering
10	150050031	Akash Trehan	II	Rs.2000/-	Comp.Sc. & Engineering
11	150070004	Shah Devansh	II	Rs.2000/-	Comp.Sc. & Engineering
12	150100017	Samarjeet Sahoo	II	Rs.2000/-	Comp.Sc. & Engineering
13	150020101	Namrata Mantri	I	Rs.3000/-	Electrical Engineering
14	150070016	Dhruv Ilesh Shah	I	Rs.3000/-	Electrical Engineering
15	150070005	Sridhar Srivatsan	II	Rs.2000/-	Electrical Engineering
16	150260022	Arkya Chatterjee	I	Rs.3000/-	Engineering Physics
17	150260006	Kulkarni Anish Kiran	II	Rs.2000/-	Engineering Physics
18	15D100009	Dhanvi S Sreenivasan	I	Rs.3000/-	Mechanical Engineering
19	150100024	Samir Wadhwa	II	Rs.2000/-	Mechanical Engineering
20	150110015	Arjun Prashant Agrawal	I	Rs.3000/-	Met. Engg. & Mat. Sci
21	150110029	Rathod Rushikesh Bhagwan	II	Rs.2000/-	Met. Engg. & Mat. Sci

**IV year B.Tech./Dual Degree/ Four year BS Branchwise (2015 Batch)**  
**DUAL DEGREE**

<b>Sr.</b>	<b>Roll No.</b>	<b>Name</b>	<b>Prize</b>	<b>Value of prize</b>	<b>Department</b>
1	15D070024	Anmol Kagrecha	I	Rs.3000/-	Electrical Engineering
1	150110019	Jain Riya Roshan	II	Rs.2000/-	Electrical Engineering
2	15D100004	Shah Nikunj Minesh	I	Rs.3000/-	Mechanical Engineering
3	15D260009	Mandar Milind Sohoni	I	Rs.3000/-	Engineering Physics
4	15D170006	Mehta Dhruvin Ketan	I	Rs.3000/-	Energy Sc & Engineering
5	15B030005	Anush Anil Ranka	II	Rs.2000/-	Energy Sc & Engineering
6	15D170019	Suditi Laddha	II	Rs.2000/-	Energy Sc & Engineering
7	15D170029	Santham Bakshi	II	Rs.2000/-	Energy Sc & Engineering
8	150110001	Viren Chetan Patel	I	Rs.3000/-	Met. Engg. & Mat. Sc

**IV year B.Tech./Dual Degree/ Four year BS Branchwise (2015 Batch)**  
**4 yr. B.S.(Chemistry)**

<b>Sr.</b>	<b>Roll No.</b>	<b>Name</b>	<b>Prize</b>	<b>Value of prize</b>	<b>Department</b>
1	15B030029	Susnata Bhowmick	I	Rs.3000/-	Chemistry
2	15B030007	Akanksha Yadav	II	Rs.2000/-	Chemistry

**V year Dual Degree/M.Sc. (Integrated) Branchwise (2014 Batch)**  
**DUAL DEGREE**

<b>Sr.</b>	<b>Roll No.</b>	<b>Name</b>	<b>Prize</b>	<b>Value of prize</b>	<b>Department</b>
1	140070014	Chadha Karan Naresh	I	Rs.3000/-	Electrical Engineering
2	14D100001	Praveen Sriram	II	Rs.2000/-	Electrical Engineering
3	14D070021	OV Shashank	II	Rs.2000/-	Electrical Engineering
4	14D170003	Rohan B Vora	I	Rs.3000/-	Energy Sc & Engineering
5	14D170010	Varma Akhil Adithya	II	Rs.2000/-	Energy Sc & Engineering
6	140100069	Chinmay Maheshwari	I	Rs.3000/-	Mechanical Engineering
7	140010054	Yashaswini K Murthy	II	Rs.2000/-	Mechanical Engineering
8	14D110008	Kewal S Bhat	I	Rs.3000/-	Met. Engg. & Mat Sci
9	14D110023	Chavan Shivani Dattatraya	II	Rs.2000/-	Met. Engg. & Mat Sc
10	14D260003	Chirame Sanket Sanjivan	I	Rs.3000/-	Engineering Physics

**II Year M.Sc.(2 year) (2017 Batch)**

<b>Sr.</b>	<b>Roll No.</b>	<b>Name</b>	<b>Prize</b>	<b>Value of prize</b>	<b>Department</b>
1	175030014	Aishanee Sur	I	Rs.3000/-	Chemistry
2	175030022	Puneet Goel	II	Rs.2000/-	Chemistry
3	175060001	Debayan Sengupta	I	Rs.3000/-	Earth Sciences
4	175060006	Arpita Das	II	Rs.2000/-	Earth Sciences
5	175120030	Shruti Gupta	I	Rs.3000/-	Physics
6	175120034	Adway Gupta	II	Rs.2000/-	Physics
7	175300013	Moulisubhro Datta	I	Rs.3000/-	Biosciences & Bioengineering.
8	175280028	Prasanjit Dubey	I	Rs.3000/-	Applied Statistics & Informatics
9	175280021	Arkaprava Roy	II	Rs.2000/-	Applied Statistics & Informatics

10	175090019	Garima Thareja	I	Rs.3000/-	Mathematics
11	175090027	Rati Ludhani	II	Rs.2000/-	Mathematics
12	175320013	Debraj Midya	I	Rs.3000/-	Applied Geophysics

**2015 Batch B.Des students for the year 2016-17**

<b>Sr.</b>	<b>Roll No.</b>	<b>Name</b>	<b>Prize</b>	<b>Value of prize</b>	<b>Department</b>
1	15U130001	Shanbhag M. Bhooshan	I	Rs.3000/-	Industrial Design Center
2	15U130029	Rohan Jhunja	II	Rs.2000/-	Industrial Design Center

**2016 Batch B.Des students for the year 2016-17**

<b>Sr.</b>	<b>Roll No.</b>	<b>Name</b>	<b>Prize</b>	<b>Value of prize</b>	<b>Department</b>
1	16U130016	Nebin Biju	I	Rs.3000/-	Industrial Design Center
2	16U130006	Richa Agrawal	II	Rs.2000/-	Industrial Design Center

**Other Prizes**

<b>Name of the Prize</b>	<b>Roll No.</b>	<b>Name of the Awardee</b>	<b>Total Amount</b>
Shri Rakesh Mathur Excellence Award	150260006	Kulkarni Anish Kiran	Rs. 1,00,000/- IV yr. UG student..
Shri T.K. Subramanian Prize For Academic Excellence	150100024	Samir Wadhwa	Rs.1000/- IV Yr. B.Tech. Mech.Engg.
Urvish Medh Memorial Prize (For Electrical Engg.)	180070002	Adway Girish	Rs.2000/- I Yr. B.Tech. Electrical Engg.
	17D070019	Siddharth Chandak	Rs.2000/- II Yr. B.Tech. Electrical Engg.
	160100083	Kaustubh Porlikar	Rs.2000/- III Yr. B.Tech. Electrical Engg.
	150070005	Sridhar Srivatsan	Rs.2000/- IV Yr. B.Tech. Electrical Engg.
Prof. M.N. Vartak Memorial Prize	175280028	Prasanjit Dubey	Rs.6000/- II yr. M.Sc. Applied Statistics & Informatics
Mrs. Rama Mathur Memorial Prize	175090019	Garima Thareja	Rs.2000/- II yr. M.Sc. Mathematics
Aditya Choubey Memorial Prizes	17D070019	Siddharth Chandak	Rs.4000/- II yr. B.Tech. Electrical
S C Mehrotra Prize	160040081	Apoorv Srivastava	Rs.10000/- II yr B.Tech Civil
	150040087	Ayush Pandey	Rs. 10000/- III yr B.Tech Civil
Prof. A.K. Mallik Award	15D110001	Som Phene	Rs.5000/- IV yr. B.Tech./Dual Degree Met. Engg. & Mat. Sc.
Shri Ram Kumar Gupta Merit Award	150020097	Hemanth Raja	Rs. 10000/- IV yr. B.Tech Chemical Engg. (Topper)
Shrimati Prakashvati Devi Gupta Merit Award	150020026	Triesha Singh	Rs. 7500/- IV yr. B.Tech Chemical Engg. (2nd highest)

## Diamond Jubilee Year Teachers' Day Celebration at IIT Bombay



(L-R) Prof. Prita Pant, Associate Dean (AP), Chief Guest Prof. Jayant Udgaoonkar, Director, Indian Institute of Science Education and Research (IISER), Prof. D.V. Khakhar, Director, IIT Bombay and Prof. P.V. Balaji, Dean (R&D) on the dais

Commemorating the birth anniversary of noted philosopher, educationist and statesman Dr. Sarvepalli Radhakrishnan, IIT Bombay celebrated Diamond Jubilee Year Teachers' Day on September 5, 2018. **Prof. Jayant B. Udgaoonkar, Director, Indian Institute of Science Education and Research (IISER),** Pune was the Chief Guest on the occasion.

Prof. Udgaoonkar conferred the Prof. S.P. Sukhatme Excellence in Teaching Awards (2018) and Dr. P. K. Patwardhan Technology Development Award (2017) as a recognition to the contribution made by the faculty members of IIT Bombay in the field of teaching and research during the function.

### Recipients of Prof. S.P. Sukhatme Excellence in Teaching Awards (2018):

1. Prof. T. K. Biswal, Department of Earth Sciences
2. Prof. C. D. Sebastian, Department of Humanities and Social Sciences
3. Prof. V. M. Gadre, Department of Electrical Engineering
4. Prof. N. N. Viswanathan, Department of Metallurgical Engineering and Materials Science
5. Prof. G. Mohan, Department of Earth Sciences
6. Prof. M. Radhakrishna, Department of Earth Sciences
7. Prof. M. C. Deo, Department of Civil Engineering
8. Prof. M. D. Atrey, Department of Mechanical Engineering
9. Prof. Raja Mohanty, IDC School of Design
10. Prof. Sibi George, Humanities and Social Sciences
11. Prof. U. N. Gaitonde, Mechanical Engineering
12. Prof. N. S. Punekar, Biosciences & Bioengineering
13. Prof. Mandar Rane, IDC School of Design
14. Prof. Kannan Iyer, Department of Mechanical Engineering
15. Prof. Ashok Joshi, Department of Aerospace Engineering

### Prof. S.P. Sukhatme Excellence in Teaching Awards (2018)



Prof. T.K. Biswal, Department of Earth Sciences



Prof. C.D. Sebastian, Department of Humanities and Social Sciences



Prof. V.M. Gadre, Department of Electrical Engineering



*Prof. N. N. Viswanathan, Department of Metallurgical Engineering and Material Science*



*Prof. G. Mohan, Department of Earth Sciences*



*Prof. M. Radhakrishna, Department of Earth Sciences*



*Prof. M.C. Deo, Department of Civil Engineering*



*Mrs. Mukta Atrey, wife of Prof. Milind Atrey receiving the award on behalf of Prof. Milind Atrey, Department of Mechanical Engineering*



*Prof. Raja Mohanty, IDC School of Design*



*Prof. Siby K. George, Department of Humanities and Social Sciences*



*Prof. Uday N. Gaitonde, Department of Mechanical Engineering*



*Prof. N.S. Punekar, Department of Biosciences and Bioengineering*



Prof. Raja Mohanty, receiving the award on behalf of Prof. Mandar S. Rane, IDC School of Design



Prof. Kannan N. Iyer, Department of Mechanical Engineering



Prof. Ashok Joshi, Department of Aerospace Engineering

### **Dr. P. K. Patwardhan Technology Development Award (2017)**



Prof. Udayan Ganguly and his team (Mr. Sunny Sadana, Mr. Piyush Bhatt, Prof. Swaroop Ganguly and Mr. Ashwin Lele), Department of Electrical Engineering



Students presented a musical treat as a mark of gratitude to the teachers

## IIT Bombay Becomes Institute of Eminence

The Ministry of Human Resource Development granted the Institution of Eminence (IoE) status to Indian Institute of Technology Bombay (IIT Bombay) along with IIT Delhi and IISc Bangalore on July 9, 2018.

**The Hon'ble Union Human Resource Development Minister Shri Prakash Javadekar** congratulated the newly-granted Institute of Eminence and tweeted the names of IIT Bombay and IIT Delhi. These Institutes will receive government grants of Rs 1000 crores in next five years. *"This will help these institutes to grow rapidly to a scale and improve quality and add new courses. Also do whatever is needed to become world-class institutions,"* the Minister said.

On receiving the status of the Institute of Eminence in the Diamond Jubilee year of the Institute, Prof. Devang Khakhar, Director, IIT Bombay said, *"Recognition of IIT Bombay as an "Institution of Eminence" by the Government of India is a matter of great pride and is a reflection of the excellence achieved in different spheres of our activity, through the continuous efforts of the faculty, staff and students of the Institute".*

The IoEs are proposed to have greater autonomy in comparison to other higher education institutions. For instance, they will be free to decide their fee for domestic and foreign students and have a flexible course duration and structure. Moreover, their academic collaborations with foreign institutions will be exempt from approvals of government or UGC except institutions based in MEA and MHA's list of negative countries.



## NGO Workshop At Aurangabad organized By RuTAG IIT Bombay



Prof. Anand B. Rao (PI, RuTAG), Centre for Technology Alternatives for Rural Areas along with the team NGO workshop at Aurangabad organized by RuTAG, IIT Bombay

40 participants from various NGOs, such as - Marathwada Gramin Vikas Sanstha (MGVS), Aurangabad; Savitribai Phule Mahila Ekatmata Samaj Mandal, Aurangabad; Samyak spice cluster, Jalna; DILASA Janavikas Pratisthan, Aurangabad; Maharashtra Center for Entrepreneurship Development, Aurangabad and Village Social Transformation Foundation (VSTF), Aurangabad. Chief Minister Rural Development Fellows working in various villages of Marathwada in association with VSTF also shared their experiences during the workshop.

**Prof. Anand B. Rao (PI, RuTAG)**, Dr. Rupali Khanolkar (Project Manager, RuTAG), Prof. Vishal Sardeshpande (Associate Professor (Adjunct), CTARA), Mr. Hitesh Mahawar and Mr Ankush Gangreddiewar (Research assistants) as well as Prof. Munish Sharma (Director General of MIT group), Prof. Santosh Bhosle (Principal, MIT), Prof. Prashant Ambad (UMA Coordinator) and many senior faculty members from MIT were also present. A variety of problems – in the areas of water, sanitation, agro-processing, health and livelihoods – were highlighted by the NGOs during the workshop. MIT Aurangabad has expressed keen interest in working on these problems in collaboration with RuTAG, IIT Bombay.

RuTAG (Rural Technology Action Group) is a project initiated and funded by the Office of the Principal Scientific Advisor to the Government of India, with an objective of designing and implementing science and technology inputs/interventions to enhance rural development. A one day workshop of voluntary organizations (NGOs) was organized by RuTAG IIT Bombay on September 25, 2018 at the campus of the Gramaudyogik Shikshan Mandal's Maharashtra Institute of Technology (MIT), Aurangabad.

The main objective of this workshop was to interact with the grass root level organizations working in the rural areas of Marathwada region to understand the field issues, and to identify the potential S&T interventions needed. The workshop was attended by

## Van Mahotsav Celebration At IIT Bombay

In an endeavour towards maintaining its green campus and spreading the message of conserving nature, Indian Institute of Technology Bombay (IIT Bombay) celebrated Van Mahotsav - the annual tree plantation drive on July 7, 2018. About 2000 saplings of 15 varieties were planted by school students and teachers of Kendriya Vidyalaya and Campus School and the students, faculty and staff of the Institute this year. The saplings were planted on the hill slope beyond the pipeline at rear side of Hostel 3 and 4 on the campus.

Speaking on the occasion, Prof. A.K. Suresh, Deputy Director (AIA), IIT Bombay said, *“IIT Bombay has completed 60 years of successful existence and the campus too has changed from a barren land to a more green environment. In the wake of the campus’s enhancement, such an initiative holds importance for all who treasure its greenery,”* he added.



*Cultural performance by the students of Kendriya Vidyalaya School*

School and Kendriya Vidyalaya, 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, which takes due care of the saplings planted at Van Mahotsav, throughout the year.



*(L-R) Shri K.P Unnithan, Superintending Engineer, Estate, Mr. N.S Dabholkar, Chief Manager Hospitality & Actg. Public Relations Officer, Prof. B.V.S. Vishwanadham, Dean of Infrastructure Planning and Support, Prof. A.K. Suresh, Deputy Director (AIA) and Mrs. Bhagwat, Principal, Campus School during Van Mahotsav celebration at the Institute*

In his address, Prof. B.V.S. Vishwanadham, Dean of Infrastructure Planning and Support, IIT Bombay spoke on the significance of trees in our lives and encouraged the student participants to develop genuine love for nature.

Prof. A.K. Suresh, Deputy Director (AIA), Prof. B.V.S. Vishwanadham, Dean (IPS), Mr. N.S. Dabholkar, Acting Public Relations Officer and Chief Manager (Hospitality) and Mr. K.P Unnithan, Supdt. Engineer, faculty members staff, students along with teachers of Kendriya Vidyalaya and the Campus School planted saplings at the venue to commemorate the event.

Cultural performances by the students of Campus



*Cultural performance by the students of Campus School*

*Students of Campus School planting a sapling*

## 18th IEEE International Conference on Advanced Learning Technologies

**ICALT2018** - 18th IEEE International Conference on Advanced Learning Technologies was held at IIT Bombay during July 9 - 13, 2018.

The conference was organized by the IDP in Educational Technology, IIT Bombay. The organizing faculty members were Prof. Sahana Murthy, Prof. Sridhar Iyer and Prof. Kannan Moudgalya.

ICALT is an annual International Conference on advanced learning technologies and technology-enhanced learning organized by

IEEE Computer Society and IEEE Technical Committee on Learning Technology. ICALT 2018 provided a forum for researchers and practitioners from academic institutions and industry to discuss the use of emerging technologies in teaching and learning. The focus was on the design, development, use and evaluation of technologies such as data analytics, cloud computing, maker spaces, 3-D printing, wearable technologies, augmented reality and intelligent systems for their potential to transform teaching, learning and assessment both in formal education at all levels and informal learning.

The conference consisted of keynote talks by eminent researchers and practitioners from academia, museum learning and industry. Topics included design of collaborative learning spaces, technology-enhanced learning in informal STEM settings and design of educational games.

### Keynote speakers:

- \* Prof. Chen-Chung Liu, National Central University Taiwan
- \* Prof. Leilah Lyons, Director of Digital Learning Research, New York Hall of Science and faculty member at University of Illinois
- \* Mr. Dejian Liu, Founder & Chairman of NetDragon Websoft, a notable online educational game company in China, and Co-dean of Smart Learning Institute, Beijing Normal University

The conference included two panel discussions :  
i) Advanced learning technology from Indian industry, and  
ii) Women in Engineering.



**ICALT2018 - 18th IEEE International Conference on Advanced Learning Technologies team**



### IIT Bombay Research Showcase:

PhD students from the IDP in Educational Technology at IIT Bombay presented a showcase of their research and PIs of National Mission in Education through ICT (NMEICT) projects in IIT Bombay presented their large-scale efforts in India.

The conference was attended by 150 international participants. In addition, participation by 30 teachers from Indian academic institutions was made possible by generous grants from national level projects.

## Abhyuday, The Social Body of IIT Bombay Initiates Various Programmes



Glimpses of programmes initiated by the Abhyuday, IIT Bombay

Abhyuday, the student social body of IIT Bombay which constantly strives hard for the betterment of the society, had organised few programmes to provide opportunities to the students of the Institute to work for a better society. They also conduct year-long events like conferences, donation drives, exhibitions and provide social fellowship, internship opportunities to the students of the Institute.

### Youth Empowerment Programme

The programme aims to empower youth to become true leaders. Mr. Niranjan Pendharkar, a Senior Technical Director in Veritas Technologies, California shared his thoughts and experiences with the students of the Institute through a unique, attractive and educative pantomime show.

### Sandesh To Soldiers

This is a programme initiated by the Hon'ble Prime Minister of India Shri Narendra Modi to urge citizens of India to send best wishes to the Indian Army. On the occasion of Independence Day, Abhyuday sent postcards penned by over 600 IIT Bombay students, Kendriya Vidyalaya school students, workers, Professors, Director and Dean of Students' Affairs to the soldiers.

### Environment Day - Beat Plastic Pollution

A 4-day interactive, thought-provoking campaign on "Beat Plastic Pollution" was organized to spread awareness about pollution created by plastic. The

Abhyuday team visited 8 NGOs with a team of more than 40 volunteers to cater to around 200 students and taught children there to make paper bags. They distributed around 350 paper bags among 15 vendors and motivated them to use these bags rather than plastic bags. 40 volunteers visited the NGO from IIT Bombay.

### Computer Literacy Campaign

In this campaign, the team is focusing on providing basic knowledge to the kids of Aman Day Care Centre about the use of computer and its implementation in our day-to-day life. Sessions are conducted on Wednesday and Saturday every week. The campaign hopes to improve written and spoken English proficiency of these children.

### Versova Beach Cleanup Campaign

Abhyuday team of IIT Bombay in collaboration with Mr. Afroz Shah, Mumbai-based lawyer, organized Versova Beach Cleanup Campaign on July 29, 2018 to clean the marine debris on the coastline. The campaign saw more than 60 student volunteers from IIT Bombay. The team also had a discussion with Mr. Shah about what students from IIT Bombay can do to maintain the beauty of our oceans and rivers.

The founder of Shraddha Rehabilitation Foundation Dr. Bharat Vatwani, a famous Dharavi band and Bollywood playback singer Bhavya Pandit graced the Abhyuday's 2k18 freshmen events.

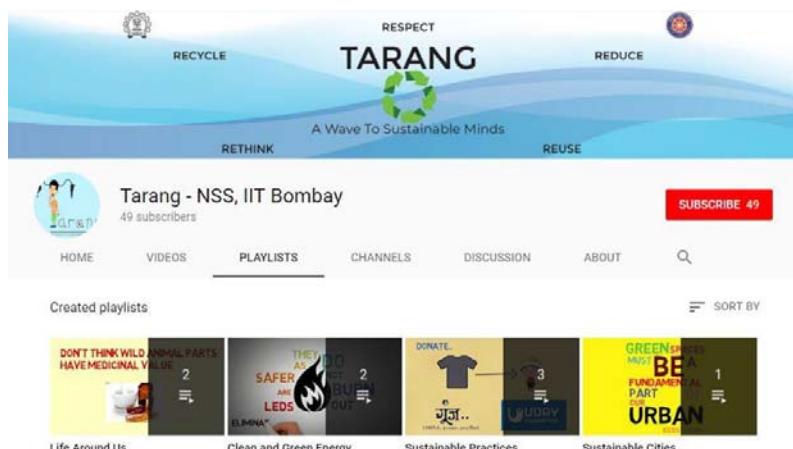
## Activities of NSS at IIT Bombay



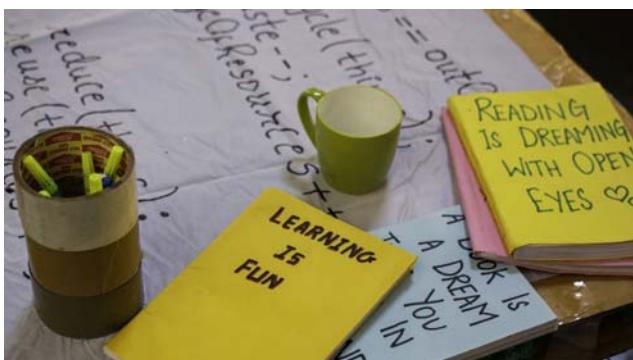
On the occasion of Van Mahotsav, an event to spread awareness about the pollution created by plastic was organised by NSS, IIT Bombay. They explained to KV School and Campus school students about harmful effects of plastic bottles and the measures to reuse these bottles. They made bottle holders for saplings and planted money plants in them, followed by photo-session at the Van Mahotsav booth. Students were very inquisitive and enjoyed doing this activity. They took away these planted saplings and promised they will take care of them. Around 20-25 such holders were made, and nearly all the students went back home with bottle holders having money plants in them. NSS also donated 25 plants for the plantation drive.

**TARANG** - A wave to sustainable minds  
 NSS, IIT Bombay started a YouTube channel named Tarang in series with its sustainable club. The channel contains simple yet engaging videos to address the issue of highlighting sustainable practices and encouraging more and more people to follow them. With the vision of promoting sustainability at the grass-root level, these videos will be shown to students of various BMC schools as a part of visits by freshmen volunteers.

The link to YouTube channel:  
<https://www.youtube.com/channel/UCskd3K0NyyHqZ1t7AMAYACQ>



**Zero Waste Week** - This was a week-long initiative presented by NSS for the very first time in the Institute. It was celebrated from September 24 -30, 2018. Zero Waste is a goal that is ethical, economical, efficient and visionary, to guide people in creating lifestyles and practices that emulate sustainable natural cycles. It was organized to make people aware of sustainability. There were various activities organized under Zero Waste Week. The first of them was to administer a pledge to reduce waste to landfill during Zero Waste Week. People were given reused wristbands and a google group was made to share daily activities during this week about various sustainability topics. It was followed by one-day, self-explanatory exhibition of 'Room of a Hostel Student', in the LH foyer, in order to create general awareness about how the supposedly 'waste' plastic bottles can be reused in order to make items of everyday use. Display of student's room was done by using flexes, bottles and cardboard. The activity received a good response, with 110+ people taking a pledge to make substantial efforts to minimize the waste around them.



**Nursery for All:** To introduce the beauty of flora and fauna present in the NSS nursery to everyone, NSS launched "Nursery for all" on the occasion of NSS day. During last year rainy season, the 'Team Green Campus' collected various saplings and preserved them throughout the year in NSS nursery under proper care. People were invited on NSS day to visit the nursery to have a look at different species of plants present in the nursery. Placards were also made for all the species present in the nursery. The nursery is maintained by the volunteers. Many students and professors took different saplings to their homes. Team GC also explained to the visitors about the plant species they have in the nursery. Around 100 people witnessed the exhibition. 40 NGO kids who visited the campus for Muskaan also visited the nursery and learned a lot about plants.



**Tackling Emergencies:** On the occasion of NSS Day, an insightful session on 'Tackling emergencies' was conducted by Dr. Surbhi Mhasde, a private practitioner. Students were taught about how to handle emergency situations which can be vital in saving someone's life. Many types of situations like sports injuries, drowning, snake bite, dehydration, burns etc were put in front of students and their immediate solutions which can help in some type of relief were also taught. This session received a good response by students.



## IIT Bombay And IBM Team Up To Accelerate AI Research In India

IIT Bombay and IBM (NYSE: IBM) announced on September 12, 2018 that the university will join the AI Horizons Network as part of a multi-year collaboration to advance AI research.

The Department of Computer Science and Engineering at IIT Bombay is one of the prominent research institutions in the world, with a long history of leadership in data mining and information retrieval systems. By joining the AI Horizons Network, IIT Bombay will pair its world-class faculty and top graduate students with leading AI scientists from IBM Research – India to advance and accelerate the application of AI, machine learning, natural language processing and related technologies to business and industry.

Teams will investigate new techniques for knowledge representation across documents, graphs, charts and other forms of multi-media content. This area of research will be critical in helping to develop new AI applications in key industries such as financial services, retail and healthcare, which rely heavily on rich, multi-modal content. The collaboration will also work to advance the field of training and building domain-specific AI agents (chatbots), which are designed to aid humans in complex decision making such as making trading and investment choices in financial services. Additionally, work is planned to explore new, domain-neutral training approaches which could enable faster, more efficient training of AI systems.

*"Over its 20-year history, IBM Research - India has been at the forefront of research advances in technologies like AI and blockchain. We have always had strong collaborations with the leading academic institutions in India,"* said Mr. Arvind Krishna, senior vice president, Hybrid Cloud and Director, IBM Research. *"Through this collaboration with IIT Bombay, we aim to accelerate the pace of innovation for AI in India, working hand-in-hand with some of the top scientists and research scholars in the country."*

Speaking on the relevance of collaboration, Prof. Devang Khakhar, Director, IIT Bombay said, *"This partnership will enable IIT Bombay faculty to work in collaboration with researchers around the world on the frontiers of Artificial Intelligence focusing on industrially relevant problems and will provide access to large data sets. We look forward to fruitful collaboration, which will make a significant impact on the field."*

With this collaboration, IIT Bombay becomes the first institution outside North America to join the IBM AI Horizons Network. Globally, eight leading universities – Massachusetts Institute of Technology, Rensselaer Polytechnic Institute, University of Illinois Urbana-Champaign, University of Michigan, Universite de Montreal, University of Maryland at Baltimore County, UC San Diego and University of Massachusetts at Amherst - are working with IBM, in key areas designed to accelerate the development of AI technologies, such as deep learning, natural language processing, computer vision, and others, as well as their application to big societal challenges, ranging from aiding the understanding of disease, education and cybersecurity.

### About IBM Research

For more than seven decades, IBM Research has defined the future of information technology with more than 3,000 researchers in 12 labs located across six continents. Scientists from IBM Research have produced six Nobel Laureates, 10 U.S. National Medals of Technology, five U.S. National Medals of Science, six Turing Awards, 19 inductees in the National Academy of Sciences and 20 inductees into the U.S. National Inventors Hall of Fame. For more information about IBM Research, visit [www.ibm.com/research](http://www.ibm.com/research).



(L-R) Prof. Soumen Chakrabarti, Department of Computer Science and Engineering, IIT Bombay, Mr. Sriram Raghavan (IBM), Mr. Arvind Krishna (IBM Research), Prof. Devang Khakhar, Director, IIT Bombay, Prof. Uday Khedker, Head, Department of Computer Science and Engineering, IIT Bombay

**Institute Colloquium / Lectures**


**Prof. Kaushik Basu**, Professor of Economics and Carl Marks Professor of International Studies at Cornell University, Ithaca (New York) and former Chief Economist of the World Bank and Chief Economic Adviser to the Indian Government delivered N. R. Kamath Chair lecture on *"What Ails the World Economy and What should India Do?"* on August 1, 2018



**Dr. Suresh M R, Director, DSRQ & DOHS ISRO HQ, Bengaluru** delivered a lecture as a part of the Steel Colloquium Series on *"Quality Practices in ISRO"* on September 19, 2018



**Justice Ruma Pal**, Former Justice, Supreme Court of India delivered the Institute Lecture Series on the Indian Constitution on *"Gender Justice and Constitutional Law"* on September 18, 2018



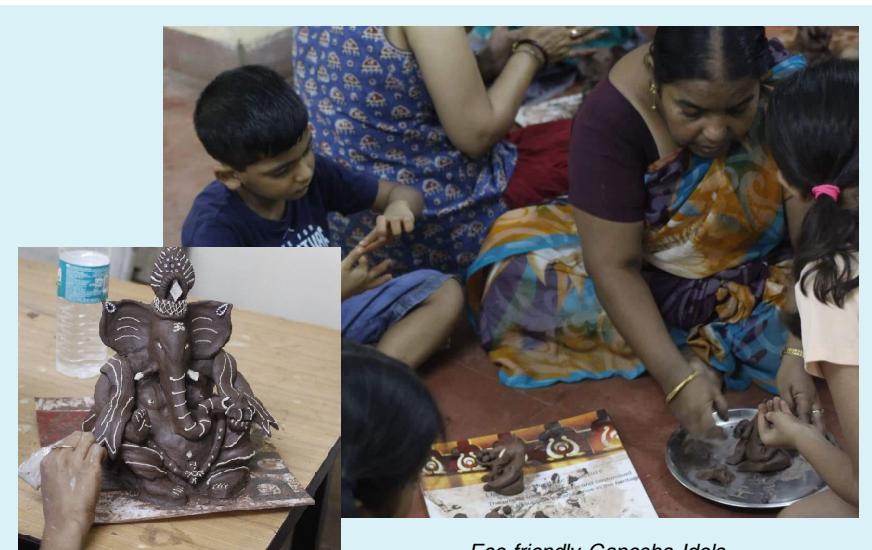
**Mr. S. Ramadorai**, Chairman of Bharathidasan Institute of Management, National Skill Development Agency NSDA, National Skill Development Corporation, AirAsia India, Tata Technologies and Tata Advanced Systems delivered Late Nani Palkhiwala Memorial lecture on *"Skill Ecosystem - Journey to Vocationalization of Education"* on September 25, 2018

**Eco-Friendly Ganesha Celebration At IIT Bombay**

Students of IIT Bombay celebrated eco-friendly Ganesh Chaturthi by worshipping clay idols of lord Ganesha instead of the conventional PoP idols in the nine hostels of the Institute. These idols contained plant seeds. Instead of immersing the idols in water, the idols were mixed with soil, thus spreading out the message of starting a new life.

The idols were made at a workshop conducted at the Staff Club of IIT Bombay where more than 100 volunteers, including NSS (National Service Scheme) students and the faculty participated. The workshop was conducted by Mrs. Chaitali Gupta.

Over the past few years, such workshops have helped instil a positive change in the Institute regarding the use of ecofriendly Ganesha idols. The awareness initiative was undertaken by the Sustainable Social Development (SSD) department of the National Service Scheme, IIT Bombay.



*Eco-friendly Ganesha Idols*

## Research in focus

Study from IIT Bombay finds that airborne pollutants affect the water available for agriculture.

Nearly two-thirds of the Indian population depends on agriculture for their livelihood. Disruptions in rainfall pattern affect them all as most of the agricultural land is rain-fed. Over the second half of the 20th century, levels of grain production have fallen due to deficiencies in rainfall. Are the errant monsoon rains linked to the rising levels of pollution? A study from the Indian Institute of Technology Bombay says so. The researchers, Mr Prashant Dave, Prof. Mani Bhushan and Prof. Chandra Venkataraman have discovered that aerosols cause aggravated breaks in the monsoon, which could significantly influence drought and impact agriculture.

Aerosols are fine solid particles, liquid droplets or a mixture of solid-liquid particles suspended in the air. Dust, sea-salt, particles emitted from burning fossil-fuels, vehicular exhaust—all contribute to the rise in aerosol levels in the atmosphere. Black carbon or soot, which absorbs sunlight, and compounds such as sulfates and nitrates, which scatter light, are the significant components of atmospheric aerosols.

Although previous studies have attributed increases or decreases in monsoon rainfall to changes in atmospheric aerosols, the relationship has not been examined, specifically in terms of causes and effects, with observational data. "The question we asked was, can we go beyond correlation and establish causation in a system as complex as the atmosphere to understand linkages between aerosols and monsoon rainfall changes using mainly observational data?" said Prof. Mani Bhushan.

In this study, published in *Scientific Reports* (from the *Nature* group), the researchers have used aerosol levels and cloud properties derived from satellite data, and rainfall measured using ground-based instruments, during the years 2000 to 2009. They analysed this data to study the regional differences between the presence of aerosols and the corresponding precipitation.

Changes in weather patterns, though seemingly chaotic, are the result of a few visible and invisible fundamental processes repeating themselves. Meteorologists divide the study of the atmosphere into four groupings---micro-, meso-, synoptic and global---depending on the scale and the duration of these processes. Microscale events such as cloud puffs or gusts occur in an area within the radius of 1 km or less, while global scale events span over 1000 km and last at least a month.

## Rueful Rainfall Linked To Aerosols



This study examines processes at the mesoscale, spanning 10 to 1000 km, in regions over India experiencing high levels of aerosol particles and low levels of rainfall. On this scale, the interplay between moving air and water is the driving force behind precipitation. The sun's radiation heats-up the earth's surface, which then heats the air just above it. Warm air rises, carrying evaporated water with it, and cools to form cloud droplets. These droplets conglomerate over time and fall to the ground under their weight.

However, the increase in the aerosol levels in the atmosphere disturbs the delicate equilibrium. Since aerosols absorb or scatter sunlight, the amount of sunlight reaching the ground decreases and the ground surface remains cool, while the layer in which absorbing aerosols are present gets heated up. As a consequence, instead of rising to form clouds, the water vapour diverges horizontally and gets dispersed. Along with this, the air stagnates leading to a loss of vertical motion of air and water; thus suppressing the rainfall.

The researchers of the study observed frequent rainfall breaks, lasting longer than seven days several times in a season, in areas with high levels of aerosols. If the pattern continues, the pauses could merge into a drought and prolong an existing drought condition. At the micro scale, a single drop of rain is formed by vapours around a nucleus such as a speck of dust. The researchers also studied if an increase in the levels of aerosols changed the size of individual raindrops in the cloud, leading to subsequent suppression of rainfall. However, they did not find a strong correlation between the two.

Thus, in regions of high levels of aerosols, the more likely reason for the repeated occurrence of low rainfall, according to the study, is the absorption of solar radiation by aerosols that prevents the upward movement of water vapour and air and increased horizontal divergence of moisture. Within a day of increase in aerosol levels, these effects manifest and last for two or more days.

"The study makes important linkages between air pollution and climate change, in regard to regional monsoon rainfall. It is important to understand how such disruptions would evolve, with expected future increases in aerosol emissions driven by human activities" concluded Prof. Chandra Venkataraman.

*Link to published work : Aerosols cause intraseasonal short-term suppression of Indian monsoon rainfall*

## Hindi Pakhwada - 2018

IIT Bombay celebrated '**Hindi Pakhwada**' during September 1-14, 2018. As part of the Hindi Pakhwada, Hindi Cell at IIT Bombay organized competitions like Hindi Essay Writing, Hindi Translation and Hindi Dictation competitions for encouraging the staff members to use Hindi in the official work. The competitions witnessed an overwhelming response from the staff members.

The prize distribution function to felicitate the winners of the competitions was organized on September 14, 2018.

**Mr. Naresh Kumar, Assistant Director,**

**Central Translation Bureau, Department of Official Language, Ministry of Home Affairs** was the chief guest on the occasion and elaborated the importance of Hindi as an official language of the nation.

Hindi Officer Ms. Vaishali Bahulkar presented a brief Report of Implementation of Hindi in the Institute, objective of Official Language Implementation Committee of the Institute, participation of Institute staff in Hindi training-typing, basic computer training in Hindi, 'Parangant' programme etc.

The certificates were presented by the chief guest Mr. Naresh Kumar and Mr. Ganesh Bhorkade, Joint Registrar (Material Management) to the winners in the various competitions.

The vote of thanks was delivered by Hindi Officer Ms. Vaishali Bahulkar.

Following winners were felicitated during the Hindi Divas Celebrations 2018 :

### Hindi Story Writing on September 4, 2018

No.	Name	Award
1.	Ms. Varsha Kosta	First
2.	Ms. Latika Shinde	Second
3.	Mr. Sandeep Chaturvedi	Third
4.	Mr. Mrityunjay Kumar Mangalam	Consolation
5.	Mr. Sanjeev Kumar Yadav	Consolation
6.	Ms. Vandana Mankar	Consolation
7.	Mr. R.D. Shinde	Consolation

### Hindi Translation Competition on September 5, 2018

No.	Name	Award
1.	Ms. Archana Joshi	First
2.	Ms. Seema Kumbhaar	Second
3.	Ms. Govind Maurya	Third
4.	Mr. Ashish Patil	Consolation
5.	Mr. Sudhir Dhoble	Consolation
6.	Ms. Varsha Kosta	Consolation
7.	Mr. Ashwini Kumar	Consolation

### Hindi Dictation Competition on September 6, 2018

No.	Name	Award
1.	Mr. Govind Maurya	First
2.	Mr. Sandeep Chaturvedi	Second
3.	Ms. Riya Jain	Third - 1
3.	Ms. Aditi Mittal	Third - 2
4.	Mr. Ashish Baranwal	Consolation
5.	Mr. Ashwini Kumar	Consolation
6.	Mr. Shikhar Deep Arora	Consolation
7.	Ms. Sony Dhochak	Consolation



Hindi book exhibition at the Central Library

Hindi book exhibition was also organized in the Central Library from September 3-8, 2018 to encourage all the staff and students to read Hindi books.

## Hindi Pustak Charcha On 'MADHUSHALA'

On the eve of Diamond Jubilee celebration of the Institute, the Hindi Cell organized a Hindi Pustak Charcha on September 26, 2018 on the book entitled **MADHUSHALA** written by Dr. Harivansh Rai Bachchan - a noted Hindi Poet. The Book 'Madhushala' has been composed in Rubai (a four line composition embedded with philosophical insight and poetic Aesthetics) form of poetry, originally adopted from an ancient Persian mathematician, astronomer and poet Omar Khaiyyam.

Dr. R. Premkumar, Registrar, IIT Bombay inaugurated the session by lighting a lamp. The Saraswati vandana was recited by Ms. Veena Sawale, the music teacher of the Institute. **Prof. Karunashankar Upadhyay**, Head, Hindi Department, Mumbai University presided over the session. Dr. Vinodkumar Prasad, Assistant Registrar (Academic) and Dr. R. K. Das, Assistant Librarian anchored the session and PhD students Ms. Garima Agarwal, Mr. Abhishek and others recited Madhushala.



(L-R) Panel members Mr. Abhishek, PhD student, Prof. Ambarish Kunwar, Department of Bioscience and Bioengineering, Dr. Karunashankar Upadhyay, Head, Hindi Department, Mumbai University, Prof. Ashutosh Kumar, Department of Bioscience and Bioengineering , Dr. R.K. Das, Assistant Librarian, Central Library, and Dr. Vinod Prasad, Assistant Registrar, Academic Section presenting a very warm discussion on the book *Madhushala* and on the life of Dr. Harivansh Rai Bachchan

## IIT Bombay Receives 'Aashirwaad' Raajbhasha Award 2018

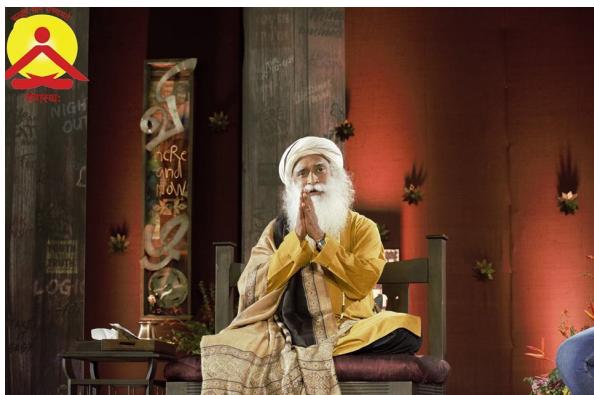


(L-R) Mr. Brijmohan Agrawal, Chairman, Aashirwad; Dr. Nandlal Pathak, Working President; Maharashtra Hindi Sahitya Akademy; Honorable MP Satyanarayan Jatiya; Dr. Umakant Bajpe, Director, Aashirwad Sanstha, Dr. R. Premkumar, Registrar, IIT Bombay (receiving the award) along with Ms Vaishali Bahulkar, Hindi Officer

IIT Bombay has been awarded for outstanding achievement in Hindi implementation in the Institute on September 27, 2018 by the Aashirwad organization.

Aashirwad organisation works to disseminate and promote the Official Language Hindi by awarding and felicitating Central Government offices, Public Sector enterprises and nationalized banks.

## Youth And Truth - Unplug With Sadhguru Program At IIT Bombay



Yogastha - The Wellness Club of IIT Bombay, in coordination with Isha Foundation volunteers and Mood Indigo student team, organized "Youth and Truth - Unplug with Sadhguru" program at IIT Bombay on September 20, 2018 at the Convocation hall of IIT Bombay.

The program was conducted to help the youth to bring clarity in life, balance the energy within themselves and to empower the young minds. This program started with a demonstration of Kalaripayattu, an Indian martial art followed by Sounds of Isha and performance by playback singer Mohit Chauhan.

milestones and, explained the Indian rich culture, tradition and resources available in the country. The program witnessed participation of students, staff, faculty and dignitaries of IIT Bombay and guests. To promote this event, flash mobs were conducted at prominent locations of the campus.



## Blood Donation Camp

Sthaniya Lokadhikar Samiti in collaboration with Abhyudaya IIT Bombay organised blood donation camp on September 29, 2018. It was organized with the association of Blood Bank of TATA hospital. Faculty, staff, students and their family members participated in the event and a total of 325 bottles of blood were collected for this noble cause. Around 100 persons gave consent to register for organ donation. Dedicated efforts by **Dr. Neelam**, TATA Hospital and their team along with **Sthaniya Lokadhikar Samiti** and team of **Abhyudaya, IIT Bombay** and **Institute authorities** made it a successful drive.



## Gender-Sensitization Orientation For 1st Year UG Students

The Women's Cell conducted workshops on gender-sensitization for undergraduate students this semester. This mandatory training covered 1061 UG first-year entrants, which included 159 women students. These 45 minutes workshop-style sessions, each for 50 students, were facilitated by our Institute's Prevention of Sexual Harassment (PoSH) champions trained by Women Cell in collaboration with PoSH@Work, an organization empanelled by Ministry of Women & Child Development, Government of India.

The themes discussed in the workshop included consent, handling rejection, the law on sexual harassment of women in the workplace (2013 Act), the working of the Women's Cell and Internal Complaints Committee at IIT Bombay, and the process of addressing complaints related to sexual harassment. These orientation workshops were a dedicated effort towards creating and maintaining a gender-sensitive, respectful, safe living and working space at IIT Bombay. The workshop was organised by **Prof. Rowena Robinson**, Convener and **Prof. Sahana Murthy**, Co-Convener of the Women's Cell.



Gender-Sensitization Orientation for first year UG students

### Awards and Distinctions

**Prof. Suryendu Dutta**, Department of Earth Science received the National Geo-science Award-2017 from the President of India

**Prof. G. K. Lahiri**, Department of Chemistry has been invited to join the Editorial Board of Journal of Chemical Sciences as an Associate Editor for a period of three years

**Prof. Jayendran Venkateswaran**, Industrial Engineering and Operation Research and **Prof. Chetan S. Solanki**, Energy Science and Engineering received the Best Poster Award in 7th edition of the World Conference on Photovoltaic Energy Conversion (WCPEC-7), in Hawaii (June 11-15, 2018), USA

**Prof. Pusphak Bhattacharyya**, Department of Computer Science and Engineering was conferred "Distinguished Alumnus of IIT Kharagpur" for 2018

The 'smart stethoscope' developed at BETiC, IIT Bombay by the team of Adarsha, Tapas and Dr. Rupesh

guided by **Prof. B. Ravi**, Department of Mechanical Engineering won the first prize of INR 1 million at Swissnex-DST AIT Programme in Zurich. Their startup company Ayu Devices is incubated in SINE.(May 2018) E, IIT Bombay. The story is prominently featured in Forbes India (May 11 issue) in a special report called 'Innovation Nation'

<http://www.forbesindia.com/article/innovation-nation/the-rugalinnovators-at-iitbombay/50065/1>

**Prof. B. Bandyopadhyay**, Convener, Systems and Control has been appointed as member of IEEE Fellow Evaluation Committee of IEEE Industrial Electronics Society for the year 2018. He also has been appointed as Associate Editor of IET Control Theory and Application(former IEE Control theory and Application,UK) for a period of three years w.e.f April 2018

**Prof. Anirudha Joshi**, IDC School of Design has been elected as the VP for Finance in the ACM SIGCHI Executive Committee. SIGCHI is the premier international Society for professionals, academics and

students in human technology and human-computer interaction (HCI)

**Prof. R. B. Sunoj**, Department of Chemistry has been invited to join as an Associate Editor of WIREs: Computational Molecular Science for a term of three years

**Prof. Santosh Gharpure**, Department of Chemistry has been chosen to receive the CRSI (Chemical Research Society of India) bronze medal for the year 2019

**Prof. Madhusudan Manjunath**, Department of Mathematics has been elected as an Associate of the Indian Academy of Sciences

**Prof. B. Ravi**, Department of Mechanical Engineering has been selected by INAE for the prestigious 'Abdul Kalam Technology Innovation National Fellowship' for a period of three years

**Prof. Neela Nataraj**, Department of Mathematics has been invited to join the Editorial board of 'Computational Methods in Applied Mathematics'

**Prof. T. N. Singh**, Department of Earth Sciences has been nominated to the Governing Council

of IIT Kanpur as a member for a period of three years in recognition for his excellent academic and research work

**Prof. Shyamprasad Karagadde**, Department of Mechanical Engineering has been elected as an Associate of the Indian Academy of Sciences

**Prof. Chandra M. R. Volla**, Department of Chemistry has been elected to receive the NASI-Young Scientist Platinum Jubilee Award

**Prof. Vikram Vishal**, Department of Earth Sciences has been elected to receive the NASI-Young Scientist Platinum Jubilee Award

**Prof. Neela Nataraj**, Department of Mathematics has been appointed as the member of the Executive Committee (EC) of International Mathematical Union (IMU) of the International Committee for Women in Mathematics (CWM) for three years, starting from January 2019

**Prof. Rohit Srivastava**, Department of Biosciences and Bioengineering has been selected to receive the NASI Reliance Industries Platinum Jubilee Award

(2018) for application oriented innovations in physical sciences

**Prof. B. Krishna Mohan**, Centre of Studies in Resources Engineering has been invited to serve as Associate Editor of the Journal of Indian Society of Remote Sensing (JISRS)

Solar Urja through Localisation for Sustainability (SoULS,) initiative of IIT Bombay has won Renewable Energy (RE) India Award 2018 for "Excellence in RE Skilling". SoULS has trained more than 5000 women in rural India SoULS has conceptualized localized Solar PV module manufacturing and established first such, all-women and owned and run factory of solar PV module, called Durga Energy. The Durga Energy won Start-up of the Year award in RE India Award SoULS has also won Skoch Environment Gold Award for 2018. So far more than 3 million solar study lamps have reached students, which is estimated to have more 140 million tons of CO2 saving.

The above is the SoULS team achievement led by **Prof. Chetan Solanki**, Department of Energy Science and Engineering and **Prof. Jayendran Venkateswaran**, Industrial Engineering and

Operations Research All these awards have been given in Delhi in September 2018

**Prof. G. G. Ray**, IDC School of Design has been presented the "IEA award for promotion of ergonomics in industrially developing countries" at the 20th Triennial Congress held in Florence, Italy

**Prof. C. M. R. Volla**, Department of Chemistry has been selected to receive the "Alkyl Amines – ICT (Institute of Chemical Technology, Mumbai) Foundation Day Young Scientist Award- 2018"

**Prof. Samir Maji**, Biosciences and Bioengineering has been invited to join the Editorial Board of the Journal of Biological Chemistry (JBC) for a five-year term beginning January 1, 2019

**Prof. Ashwin Gumaste**, Computer Science and Engineering and **Prof. Amit Agrawal**, Department of Mechanical Engineering have been awarded the prestigious "S.S. Bhatnagar award" for this year under Engineering discipline

**Prof. Ashwin Gumaste**, Department of Computer Science and Engineering has been elected as a Fellow of the Indian Academy of Engineering

## Student News

IDC School of Design MDes Student (Industrial Design) **Mr. Rishabh Singh's** Project III on "Load Carrying Aid for Sahayaks" guided by Prof Purba Joshi, has been selected for this year's Global Grad Show at the Dubai Design Week 2018, scheduled from November 12 -18, 2018 <http://www.dubaidesignweek.ae/about/about-dubai-design-week/>

## Publications

**Prof. S Narayan Rao**, SJM School of Management presented two research papers "*Empirical study of Behavioral biases in the Indian Stock Market*" and '*Is there an association between abnormal trading volumes and 52 week high and low prices?*', jointly authored with Sravani Bharandev (Research Scholar), at the 25th Annual Conference of Global Finance Association held during 3-5 July 2018 at Paris (France)

## NOTIFICATION

**Prof. Suparna Mukherji** has been appointed as the Head, Centre for Environmental Science and Engineering w.e.f. July 2, 2018

**Prof. Pramod P. Wangikar**, Department of Chemical Engineering, has been appointed as Professor-in-charge, Wadhwan Research Centre in Bioengineering (WRCB) w.e.f. August 11, 2014

## Appointments

**Prof. Biplab Banerjee**, Centre of Studies in Resources Engineering, has been appointed as an Assistant Professor w.e.f. September 20, 2018

## Retirements on July 31, 2018

**Prof. A.B. Inamdar**, Centre of Studies in Resources Engineering, retired after 42 years of service

**Mr. Edward G. Misquitta**, Astt. Technical Officer, Department of Electrical Engineering, retired after 35 years of services

**Mr. Janardan M. Bagave**, Security Guard C, Security Section, retired after 29 years of services

**Mr. Nandakumar T. Shinde**, Sr. Multi-Skilled Assistant, Department of Civil Engineering, retired after 36 years of service

## Ms. Badkadevi R. Kori, School Attdt cum Ayah, Campus School, retired after 13 years of service



## Retirements on August 31, 2018

**Mr. Abhay L. Chaudhari**, Jr. Tech. Supdt, Electrical Maintenance Division, retired after 24 years of service



**Mr. Ramchandra Varma**, Sr. Security Guard, Security Section, retired after 38 years of services



## Voluntary Retirement on September 4, 2018

**Ms. Smita S. Mahagaonkar**, Superintendent, Academic Section, retired after 39 years of service



## Retirements on September 30, 2018

**Mr. Dilip Narayan Khaire**, Sr. Multi-skilled Assistant, Department of Civil Engineering, retired after 38 years of service



**Mr. Navnit B. Khairnar**, Multi-skilled Assistant C, Department of Chemistry, retired after 29 years of service



**Mr. Shivaji R. More**, Sr.Driver, Admin. Section, retired after 37 years of services



**Mr. Bajrangi Ram Narayan**, Security Guard (SG), retired after 38 years of service



## Voluntary Retirement on October 11, 2018

**Ms. Rewa Solanki**, Superintendent, Academic Section, retired after 37 years of service



<b>CEP courses scheduled during November and December 2018</b>				
<b>Duration</b>	<b>Days</b>	<b>Course Title</b>	<b>Course Coordinator</b>	<b>Department</b>
<b>Open Programmes : (November)</b>				
12-11-2018	5 days	Electromagnetic fields and Waves :Pedagogy and Computation	Prof.S.V. Kulkarni	Electrical Engineering
15-11-2018	3 days	C-Si Solar Cells and Modules: Theory, Fabrication and Characterization	Prof. Anil Kottantharayil	Electrical Engineering
16-11-2018	2 days	Design thinking and Innovation	Prof.Battula K. Chakravarthy	Industrial Design Centre
19-11-2018	3 days	NMR spectroscopy for Biosimilars Analysis	Prof.Ashutosh Kumar	Bioscience and BioEngineering
21-11-2018	5 days	Sustainable Development and Urbanization	Prof.Pradipta Banerji	Civil Engineering
26-11-2018	2 days	State-of-the-art Power Electronics Technologies and Future Trend in Solar PV Integration	Prof. P. Baylon Godfrey Fernandes	Electrical Engineering
26-11-2018	5 days	Energy Management	Prof.Rangan Banerjee	Energy Systems Engineering
28-11-2018	3 days	Energy Storage for Solar PV	Prof.Sagar Mitra	Energy Systems Engineering
29-11-2018	3 days	Transforming Managers / Cios / Ctos As Leaders	Prof.Shivganesh Bhargava	School of Management
<b>Open Programmes : (December)</b>				
1-12-2018	2 days	Personalization and Recommendation (P&R) using AI	Prof.Rajendra M. Sonar	School of Management
10-12-2018	5 days	Advances in Urban Water Engineering and Management	Prof.Pradip P. Kalbar	Center for Urban science and Engineering
10-12-2018	5 days	Biology for Science and Engineering Students/Teachers	Prof.Ambarish Kunwar	Bioscience and BioEngineering
17-12-2018	5 days	Modern Biophysical Techniques	Prof.Ambarish Kunwar	Bioscience and BioEngineering
<b>GIAN Courses :</b>				
10-12-2018	6 days	Energy from Waste: Sustainable Approaches	Prof.Yogendra Shastri	Chemical Engineering



In the  
Wilderness



**Photo Credit :**  
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**IIT Hospital**

**salt'n Pepper**

by Dr. Arun Inamdar

**The 'Me Too' moment of Mother Earth?**

