



## IoE progress status 2018-19

### **Indian Institute of Technology Bombay**

1. Rs. 0.67 Cr under OH 31 head and Rs. 42.3 Cr under OH 35 head were received from MoE during 2018-19.
2. Introduced a two-year master's programme in Education Technology.
3. Total number of students enrolled during 2018-19 was 10549 and number of international students was 78.
4. 88 faculty members joined during the year 2018-19. Total number of faculty members in the institute increased to 667. Faculty student ratio was 1:15.8.
5. More than 60 members of our faculties received distinguished awards, fellowships of well known institutes and academies and membership of panels in both national and international research organizations and in government agencies.
6. Total of 1186 (84.47%) students got placed in different companies / organizations during 2018- 19.
7. Total of 1133 sponsored, and consultancy projects were sanctioned during 2018-19 and the institute received R&D revenue of 332.82 Crores.
8. 114 patents were filed during this year including 97 Indian patents, 6 US patents, 6 Trademark and 13 Designs.
9. Construction of Research Park started and is in progress.
10. Number of labs available during 2018-19 were 249.
11. 132 IPDFs joined during 2018-19 and total number of IPDFs were 194.
12. IITB signed 50 MoUs with various foreign universities. It included Binghamton University, USA, Technical University of Munich, Germany, and National University of Singapore.
13. During 2018-19, 12 workshops, 21 seminars and 18 conferences were hosted / conducted.
14. Organized a month-long training programme- Leadership for academicians Programme (LEAP), initiated by Ministry of Human Resource Development.
15. SINE has collaborated with SANOFI, a global leader in healthcare and has started mentoring 8 starts up in the healthcare space.
16. CDEEP recorded 21 courses covering 11 disciplines. CDEEP also contributed 11 semester long courses to NPTEL.
17. During 2018-19, IIT B received a total donation of Rs. 36.71 Cr.

18. Major infrastructure projects namely Hostel 17, Type B housing with 78 flats( B-25) and combined building for SINE, IRCC and IDC school of design were commenced and they are progressing at fast pace.
19. The construction work of Hostel 18 (capacity: 1115) has been completed.
20. Computer center of IIT Bombay installed Cray System with 280 CPU nodes for High performance Computing facility.
21. Central library added 1739 volumes including books, theses, reports, standard pamphlets, and other reading materials. Central library also established a children section with around 1500 books.
22. 2719 papers / articles were published in different journals and conferences during 2018-19.
23. QS Ranking improved from 140-150 to 111-120 and Ranked 2nd for Atal Ranking of Institutions on Innovation (ARIIA) 2019 under government funded institutes.

#### **Awards/recognition for IITB faculty members:**

**The following faculty members have been conferred with awards/recognition as under during the year 2018-19.**

#### **2018**

##### **Shanti Swarup Bhatnagar Prize for Science and Technology**

1. Prof. Ashwin Gumaste, Department of Computer Science & Engineering
2. Prof. Amit Agrawal, Department of Mechanical Engineering

##### **Fellow of Indian National Science Academy (FNA)**

1. Prof. Soumen Chakrabarti, Department of Computer Science and Engineering
2. Prof. Gautam K. Lahiri, Department of Chemistry
3. Prof. K. Ramasubramanian, Department of Humanities & Social Science

##### **Fellow of Indian Academy of Sciences (FASc)**

1. Prof Chandra Venkataraman, Department of Chemical Engineering
2. Prof Souvik Mahapatra, Department of Electrical Engineering

##### **Fellow of the National Academy of Sciences (FNASc)**

1. Prof. M. Ravikanth, Department of Chemistry

## **Fellow of the Indian National Academy of Engineering (FNAE)**

1. Prof. Suhas S. Joshi, Department of Mechanical Engineering
2. Prof. Ashwin Gumaste, Department of Computer Science and Engineering

## **J C Bose Fellowship**

## **INAE Young Engineer Award**

## **INSA Medal for Young Scientists**

## **INFOSYS PRIZE**

## **Other Fellowships**

1. Prof. Parinda Vasa of Department of Physics has been awarded the Homi Bhabha Fellowship for a period of two years.
2. Prof. S. V. Kulkarni of Department of Electrical Engineering has been promoted to IEEE Fellow.
3. 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.

## **Awards**

1. Prof. Aparna Singh, Department of Metallurgical Engineering and Materials Science, received the prestigious "Young Metallurgist of the Year Award" instituted by the Indian Institute of Metals.
2. Prof. Rajesh Gupta of Department of Energy Science and Engineering has received Best Paper Award in R&D category along with his Ph.D. Students from Indian Society for Non-Destructive Testing, for the year 2018.
3. Prof. Ranjit Padhinhateeri, Department of Biosciences and Bioengineering has been selected to receive the National Bioscience Award for Career Development (2017-18) from DBT.
4. Prof. Rahul Patil of Shailesh J. Mehta School of Management, has received the Best Professor in supply chain management award (2018) by DNA team.
5. Prof. Ruchi Anand, Department of Chemistry, has been selected to receive the National Woman Bioscientist Award for the year 2018 from Department of Biotechnology.
6. Prof. C. Amarnath, Emeritus Professor, Department of Mechanical Engineering has been awarded a Dedicated Service Award for his love and passion for mechanisms by International Federation for the Promotion of Mechanisms and Machine Science.
7. Prof. R. Murugavel, Department of Chemistry, has been selected to receive the SASTRA-CNR Rao Award in Chemistry & Materials Science for the year 2019.
8. Prof. Manas Behera of Civil Engineering has been awarded the "Prof. R J Garde

- Research Award” by Indian Society for Hydraulics (ISH).
9. Prof. Dipendra Prasad from Department of Mathematics has been conferred with the prestigious TWAS prize.
  10. Prof. Nina Sabnani, IDC School of Design, has been awarded the 'Big Little Book Award (BLBA)' for Illustration 2018 at the prestigious Tata Lit Live 2018.
  11. Prof. Chetan Solanki, Department of 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.
  12. Prof. Parinda Vasa, Department of Physics has been awarded Young Career Award in Nano Science & Technology - 2018, by the Department of Science and Technology (DST).
  13. Prof V Jothiprakash of the department of Civil Engineering has been selected for "Academician Award" by Construction Industry Development Council, CIDC, (Established by Planning Commission, Government of India and Construction Industry)
  14. Paper titled "Design, Fabrication and Testing of Mooring Masts for remotely controlled indoor and outdoor airships" co-authored by Prof. R.K. Pant, Department of Aerospace Engineering, has been awarded the President of India's prize by the Institution of Engineers at the 32nd Indian Engineering Congress.
  15. Paper titled "On the Existence of Equilibria in Price Coupling Games" by Mr. Mathew Abraham and co-authored by Prof Ankur Kulkarni, Systems Control Engineering has received the best student paper award at the Indian Control Conference 2018 held at IIT Kanpur.
  16. Prof. K. Ramasubramanian, Department of Humanities and Social Science, has been awarded Madhava Ganita Puraska.
  17. Prof Shaibal Sarkar of Energy Science and Engg department has been selected to receive the Materials Research Society of India (MRSI) Medal for 2018.

## Other Recognitions

1. Prof. Pushpak Bhattacharya, Department of Computer Science and Engineering, has been appointed as the Chairman of the Advisory Committee to Andhra Pradesh Govt. to enable Artificial Intelligence in the Government's secretariat-cum-e office. Also, Prof. Bhattacharya shall be leading a national initiative (NITI Aayog teaming up with IITs) to create NLP-stack and virtual assistants in Indian Languages which will involve extensive use of Natural Language Processing and Machine Learning Technology.
2. Prof. Pushpak Bhattacharyya, Department of Computer Science and Engineering was conferred 'Distinguished Alumnus of IIT Kharagpur' for 2018
3. Prof. Madhusudan Manjunath of Mathematics Department has been elected as an Associate of the Indian Academy of Sciences.
4. The Vice President of India conferred the Lifetime Achievement award on Prof. Jayesh Bellare and the Young Scientist award on Prashant Chikramane (PhD-2013), representing their research group that includes Prof. A K Suresh, Dr. S G Kane, Dr. Mayur Temgire (PostDoc), Abhirup Basu (MTech-2017), Neha, Neelakshi and others.

5. We Make Images ("Hum Chitra Banate Hain") made by Prof. Nina Sabnani, Industrial Design Centre, has been selected for the year's German International Film Festival (GIEFF) to be held from May 9-13, 2018 in Koblenz, Germany.
6. Prof. Vikram Vishal, Department of Earth Sciences has been selected as the member of INSA Young Academy of Sciences.
7. Prof. Abhay Karandikar, Department of Electrical Engineering, has been appointed as a part time member of the Telecom Regulatory Authority of India (TRAI) by the Government of India, for a period of 3 years.
8. Prof. I.K. Rana, Department of Mathematics, has been elected as the President of the The Association of Mathematics Teachers of India (AMTI).
9. Prof Sudhir Ghorpade, Department of Mathematics has been elected as the President of the Indian Mathematical Society for the year 2018-19.
10. Prof Rohit Srivastava, Department of Biosciences and Bioengineering and his group's work on "Degradable NIR responsive plasmonic nanoshells for photothermal cancer therapy and diagnosis" has been adjudged as the winner for the prestigious Cancer Research Foundation, India (CRFI) Best Research Award 2018.

### **Editorial Boards**

1. Prof. Pankaj Dutta of SJMSOM has been appointed as an Associate Editor of 'OPSEARCH', published by Springer.
2. Prof. B.Bandyopadhyay, Convener, Systems and Control, 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.
3. Prof. G.K. Lahiri, Department of Chemistry has been invited to join the Editorial Board of Journal of Chemical Sciences and an Associate Editor for a period of three years.
4. Prof. Neela Nataraj, Department of Mathematics, has been invited to join the Editorial board of 'Computational Methods in Applied Mathematics'.
5. 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 3 years.
6. Prof. RB Sunoj, Department of Chemistry has joined the Editorial Advisory Board of ACS Catalysis from January 2018.
7. Prof Souvik Banerjee, Department of Civil Engineering has been appointed as Associate Editor for ASME Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering Systems.
8. Prof. Sourav Pal, Department of Chemistry, has been nominated as a member of the Editorial Advisory Board of Journal of Physical Chemistry (JPC) for 3 years, starting from January 1, 2018.

## **2019**

### **Shanti Swarup Bhatnagar Prize for Science and Technology**

1. Prof. Subimal Ghosh, Department of Civil Engineering

2. Prof. R. Sunoj, Department of Chemistry

#### **Fellow of Indian National Science Academy (FNA)**

#### **Fellow of Indian Academy of Sciences (FASc)**

1. Prof. Bijnan Bandyopadhyay, Department of Systems and Control Engineering

2. Prof. Irishi N.N. Namboothiri, Department of Chemistry

3. Prof. Rinti Banerjee, Department of Bioscience and Bioengineering

4. Prof. Vivek Agarwal, Department of Electrical Engineering

#### **Fellow of the National Academy of Sciences (FNASc)**

1. Prof. Rohit Srivastava, Department of Bioscience and Bioengineering

2. Prof. Ruchi Anand, Department of Chemistry

3. Prof. Bijnan Bandyopadhyay, Systems and Control Engineering

4. Prof. Neela Nataraj, Department of Mathematics

#### **Fellow of the Indian National Academy of Engineering (FNAE)**

1. Prof. S.A. Khaparde, Department of Electrical Engineering

2. Prof. Supratik Chakraborty, Department Computer Sciences and Engineering

3. Prof. D. Manjunath, Department of Electrical Engineering

4. Prof. Sachin Patwardhan, Department of Chemical Engineering

#### **Swarnajayanti Fellowship**

1. Prof. Gopalan Rajaraman, Department of Chemistry

2. Prof. Subimal Ghosh, Department of Civil Engineering

#### **J C Bose Fellowship**

1. Prof G.K. Lahiri, Department of Chemistry

#### **INAE Young Engineer Award**

#### **INSA Medal for Young Scientists**

#### **INFOSYS PRIZE**

1. Prof. Sunita Sarawagi, Department of Computer Science and Engineering

#### **Other Fellowships**

1. Prof. Amit Agrawal has been elected as a Fellow of the "International Society for Energy, Environment and Sustainability".

2. Prof. Rohit Srivastava, Department of Biosciences and Bioengineering has been elected as a Fellow of Royal Society of Biology.
3. Prof. Debabrata Maiti, Department of Chemistry, has been admitted to the Fellowship of Royal Society of Chemistry (FRSC), London.

### Awards

1. Prof. Parag Tandaiya, Department of Mechanical Engineering has been recognised as “Outstanding Reviewer of the year 2019” award from “Modelling and Simulation in Materials Science and Engineering”.
2. Prof. Dipti Gupta, Department of Metallurgical Engineering and Materials Science has been recognised as “Outstanding Reviewers of the year 2019” award from “Flexible and Printed Electronics”.
3. Prof. Nagamani Jaya Balila, Department of Metallurgical Engineering and Materials Science has received "Acta Materialia and Scripta Materialia" Outstanding Reviewer Award for the year 2019.
4. Prof. Devang Khakhar, Department of Chemical Engineering has been selected to receive 'Shri Om Prakash Bhasin Award 2019' in the field of Engineering, Energy and Aerospace.
5. Prof. Chetan Solanki has been awarded "Outstanding Green Activist-Jury Choice Awards" by Indian Federation of Green Energy.
6. Prof. N. N. Viswanathan, Department of Metallurgical Engineering and Materials Science, has been selected to receive 'Metallurgist of the award 2019- Ferrous category'.
7. The International Federation for Information Processing Technical Committee on Human Computer Interaction (IFIP TC13) has honoured Prof. Anirudha Joshi, IDC School of Design, with the 2019 IFIP TC13 award for his outstanding contributions in human computer interaction (HCI).
8. Prof. Debabrata Maiti, Department of Chemistry has been selected to receive the NASI Scopus Young Scientist Award for the year 2019 under Innovation in Engineering and Physical Sciences category.
9. Prof. Samir K. Maji, Department of Bioscience & Bioengineering has been selected to receive the NASI-Reliance Platinum Jubilee Award for Application Oriented Innovation for the year 2019 in Biological Sciences.
10. Prof. Sugandh Malhotra and his Ph.D. student Deepshikha Dash of IDC School of Design has won the prestigious "Joseph Jaworski's Next-Gen Foresight Award" in the Group Special Award category for their project on "Future Design Possibilities for Mobility".
11. Prof. Shyamprasad Karagadde, Department of Mechanical Engineering has been



selected by the National Academy of Sciences to receive the prestigious 'NASI-Young Scientist Platinum Jubilee Award'.

12. Prof. Rohit Manchanda, Department of Biosciences and Bioengineering has been awarded the prestigious INSA Teachers Award (2019).

13. Prof. Neela Nataraj, Department of Mathematics has been awarded the prestigious INSA Teachers Award (2019).

14. Prof. G. Rajaraman, Department of Chemistry has been selected to receive Dr. A. P. J. Abdul Kalam HPC Award-2019.

15. Prof. Tarun Kant, Department of Civil Engineering has been selected to receive "INSA Prof Brahma Prakash Memorial Medal 2019."

16. A paper from Prof. Maryam Shojaei, Department of Electrical Engineering and her team has won the best paper award in International VLSI Design Conference 2019

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

18. Prof. Subimal Ghosh of Department of Civil Engineering and Prof. Hetu Sheth of Department of Earth Sciences have been selected to receive the PRL (Physical Research Laboratory, Ahmedabad) Award for the year 2019

### **Other Recognitions**

1. Prof. Sourav Pal, Department of Mathematics has been selected as Indian Academy of Science Associates for three years from 2019

2. Prof. B. K. Das, Department of Mathematics has been selected as Indian Academy of Science Associates for three years from 2019

3. Prof. Kirankumar S. Momaya of SOM has been invited to serve as President-Elect, Global Institute of Flexible Systems Management.

### **Editorial Boards**

1. Prof. Debabrata Maiti, Department of Chemistry, has been invited to join the Editorial Board of 'Chemistry A European Journal' for a period 4 years, starting from January 2020.

2. Prof. R. B. Sunoj, Department of Chemistry, has been invited to join the Editorial Advisory Board of 'Chemical Sciences', the flagship journal of Royal Society of Chemistry (London) for a period of 2 years.

3. Prof. Sujit Jogwar, Department of Chemical Engineering has been invited to become Associate Editor of the Journal of Process Control (Elsevier Publication) from January 2019.



4. Prof. K. Ramasubramanian, Department of Humanities and Social Sciences has been appointed as the Editor of the Indian Journal of History of Science.
5. Prof. Avik Bhattacharya, Centre of Studies in Resources Engineering (CSRE) has been appointed as the Editor-in-Chief of IEEE Geoscience and Remote Sensing Letters (GRSL).