

**Office of the Dean, Alumni & Corporate
Relations**

**INDIAN INSTITUTE OF TECHNOLOGY
BOMBAY**

Mumbai, India

FUND UTILIZATION REPORT

Financial Year 2018-19

Fund Utilization Report

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A. Introduction

A.1. Vision:

Initiate, nurture and sustain engagement with alumni and corporations as active partners in the Institute's pursuit of excellence.

A.2. Mission:

- To create programs and opportunities for alumni and corporations to contribute to the development of the Institute.
- To manage initiatives and provide support to alumni and corporations to strengthen their engagement with the Institute.
- To provide support within the Institute to promote and strengthen engagement with alumni and corporations.
- To manage utilization and enhancement of Institute's endowments and gifts from well-wishers.

A.3. Message from Dean ACR:

Dear Alum,

You will be glad to know that IIT Bombay has been ranked 1st in the Quacquarelli Symonds (QS) India Rankings on October 2018. In the QS Asia University Rankings, the Institute has moved to the 34th rank this year. Overall, the Institute improved on its 2017 performance by 40 places. The increasing recognition of achievements of our faculty and students are justly reflected in the improvement of our annual ranking. Several departments have also been ranked among the best in their group.

During 2018-19 the Institute received a total donation of **Rs. 36.71 Crores**. We express our deep gratitude and appreciation for the constant support shown by our alumni, corporates and other well-wishers to IIT Bombay.

I am also proud to inform you that 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. This means greater autonomy and funds for our Institute in comparison to other higher education institutions. We celebrated our 56th Convocation on August 11, 2018, at the Convocation Hall of IIT Bombay. 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.

To mark the momentous occasion of the Institute completing its diamond jubilee, the Foundation Day was celebrated on March 8 this year. It was presided by Prof. S.P. Sukhatme, Former Director, Indian Institute of Technology Bombay and Former Chairman, Atomic Energy Regulatory Board (AERB) as the chief guest. The Institute conferred the 'Distinguished Alumnus Award' to 14 of its alumni, for their remarkable contribution to their professions and society. Eight young alumni were awarded 'Young Alumnus Achievers Award' for having made outstanding achievements in their chosen field of work and are below the age of 40. The 'Prof. S.C. Bhattacharya Award for Excellence in Research in Pure Sciences' and the 'Prof. H.H. Mathur Award for Excellence in Research in Applied Sciences'

were conferred to faculty members to recognize their outstanding contribution to research in pure science disciplines. The celebrations also included the unveiling of the Diamond Jubilee Brochure, Infrastructure Calendar of the institute and the unveiling of a booklet on Chair professorships at IITB.

Our alumni continue to be a pillar of support and a strong well-wisher of the Institute. Thank you for making donations to IIT Bombay in the last year. The contributions towards Institute Development, Infrastructure Development, Young Faculty Awards, Chair Professorships, Hostel Development, Student Development, etc. are examples of utilization of these funds for the betterment of the Institute. We invite you to contribute to the Institute's betterment to the best of your ability. Your goodwill and support to the Institute is an essential contributor to our success.

Regards,

Suhas Joshi

Dean, Alumni and Corporate Relations

A.4. Donation Details:

During 2018-19 the Institute received a total donation of **Rs. 36.71 Crores**. We express our deep gratitude and appreciation for the constant support shown by our alumni and other well-wishers of IIT Bombay. The major corporate donors for the last financial year were Ansys, Portescap India Private Limited, Boeing and a few others. The major Alumni donations were from IITB Heritage Foundation, Mr Shailesh Mehta, Mr Bharat Desai, Mr. Mohan Kavrie, Mr. Pramod Chaudhari, Mr. Abhay Pande, Mr. Mayur Datar, Prof. S. P. Sukhatme, Dr. Veena Joshi, and Class of 1992, 1993 and 1998, among the others. The development and alumni activities of our Institute are not just a role model in India, and have been also appreciated by major international universities.

B. Student & Hostel Development

All students are informed of various available opportunities of financial support. We also work with students and alumni to identify and to apply for relevant fellowships and scholarships. Each year, numerous IITB students receive a number of prestigious awards, fellowships and scholarships enabling them to engage in a variety of activities including: spending time overseas, conducting independent research, and partial / full support for their education expenses. Our goal is to further student's academic endeavors by connecting worthy students to merit-based opportunities, to encourage self-development, and to make the application process a worthwhile learning experience. We hope you will stop by our office in person to learn more!

Various student scholarships and fellowships have been instituted by well-wishers in various departments and at Shailesh J. Mehta School of Management for enabling the students to support their education.

B.1.Scholarships:

B.1.1 Impact of the scholarships from donations on our students

1. Scholarships help lessen impact of tuition costs.
2. Scholarships help students have more time to focus on their studies.
3. Scholarships decrease the financial burden on economically weak families of students.
4. Scholarships add to the number of students that are provided financial assistance from Government funds.
5. Scholarships teach philanthropy.

Please refer to the relevant section in [Appendix J.1](#) (Page No 34) for a list of Scholarship recipients.

B.2. Fellowships:

The following Fellowships have been instituted by well-wishers of IIT Bombay for the benefit of bright and deserving students in various departments.

1. Tata Fellowships

Please refer to the relevant section in [Appendix J.2.1](#) (Page No 55) for a list of Fellowship recipients.

B.3. LoanScholarships:

Financial Aid Program

Loan Scholarships are managed by IIT Bombay Alumni Association.

No. of disbursements: 224

Total Amount disbursed: Rs.14,80,4492/-

Student benefited: 139

B.4. Awards & Prizes during Convocation 2018

We celebrated our 56th Convocation on August 11, 2018, at the Convocation Hall of IIT Bombay. 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.

For detailed list of Various Awards, Medals and Prizes given out during the Convocation, please refer to the relevant section in Appendix J.3. (Page No 57)

B.4.1 Nitesh Thakor Excellence Award in Department of Biosciences and Bioengineering

Particulars	Amount (Rs)
Opening Balance as on 01-04-2018	3,25,175.75
Endowment as on 01-04-2018	3,13,950.00
Add: Interest upto 31-03-2019	20,406.75
Less : Transfer to Endowment	Nil
Less : Expenses during the year	Nil
Closing Balance as on 31-03-2019	6,59,532.50

B.4.2 Dr. P. V. Sukhatame Prize

Particulars	Amount (Rs)
Opening Balance as on 01-04-2018	70,000.00
Endowment as on 01-04-2018	25,00,000.00
Add: Interest up to 31-03-2019	97,500.00
Less: Program Expenditure (Honorarium to the Speaker)	-5,082.00
Less : transfer	-10,35,000.00
Closing Balance as on 31-03-2019	16,27,418.00

B.5. STUDENT DEVELOPMENT FUND

Thanks to the generous support of donors to IIT Bombay, the Student Development Fund has been established to ensure that our students do not miss out on exciting opportunities.

Funds from this account are typically used for travel grants to the students, to take part in various international conferences. Sometimes, also for scholarships for needy students, etc.

The following table shows the details of the amount currently available under the 'Student Development Fund'.

Particulars	Amount (Rs)
Opening Balance as on 01-04-2018	9,47,355.00
Opening balance in Endowmwnt	1,59,82,380.68
Add: Interest up 31-03-2019/addition	10,40,739.74
Add: addition	65,500.00
Less : Expenses during the year/transfer	-1,35,634.00
Closing balance as on 31-03-2019	1,79,00,341.42

C. Faculty Development

C.1. Chair Professorships

The Chair Professorship is a distinguished academic position of the Institute and is conceived as an academic honor to recognize outstanding work of existing permanent faculty of the Institute. It can also be used to attract outstanding academicians to join the Institute as faculty members. Each Chair is supported by an endowment created from a donation to the Institute.

Establishment of new Chair Professorships is essential for IIT Bombay to attract and retain high quality research faculty, which are the key element required to fulfill the goal of the Institute to be a leading international research university. Chairs also lead to the establishment of new areas of specialization through the recruitment of accomplished researchers in the fields.

The endowment for a Chair is currently Rs.1.25 Cr (One Crore Twenty five Lakhs Only). Interest from the endowment is used to meet expenses of the Chair, which include an honorarium and contingency expenses. The salary of the Chair Professor and all other benefits (housing, medical, etc.) continues to be borne from Institute funds.

List of Named/Institute Chair Professors in the Institute can be found in the [Appendix J.4](#) (Page No 60).

C.2. Excellence in Teaching Awards

The Prof. S. P. Sukhatme Excellence in Teaching Awards was conferred on the following faculty members on Teacher's Day 2018:

Sr. No	Name of Faculty	Name of Department
1	Narayan Sudhindra Punekar	Dept. of Biosciences & Bioengineering
2	Makrand Chintamani Deo	Dept. of Civil Engineering
3	Vikram Manohar Gadre	Electrical Engineering
4	C. D. Sebastian	Dept. of Humanities & Social Sciences
5	Nurni Neelakantan Viswanathan	Metallurgical Engineering and Materials Science
6	Raja Mohanty	Industrial Design Centre
7	Gollapally Mohan	Earth Sciences
8	Milind Diwakar Atrey	Mechanical Engineering
9	Siby K. George	Humanities & Social Sciences
10	Uday Narayanrao Gaitonde	Mechanical Engineering
11	Mandar S Rane	Industrial Design Centre

12	Kannan Natesan Iyer	Mechanical Engineering
13	Tapas Kumar Biswal	Dept. of Earth Sciences
14	Ashok Joshi	Aerospace Engineering
15	M Radhakrishna	Dept. of Earth Sciences

C.3. Young Faculty Award Fund

IIT Bombay is undergoing rapid growth even as other institutions in India and abroad are planning to expand too. This creates significant challenges in attracting faculty to IIT Bombay. Given the current hiring spurt, the Young Faculty Award program was designed to have a substantial long-lasting impact on IIT Bombay and its faculty profile. YFA awards can ensure that IIT Bombay offers a more attractive package to achieve better results in recruitment. The "Young Faculty Joining Bonus", initially a Class of '82 Legacy Project, has been awarded from 2010 onwards. Class of '78, '83, '84, '85 and '88 have also joined this project. Nomura has also contributed to the YFA. The project focuses on supporting young faculty in their academic pursuits in order to attract outstanding young faculty to replace retiring faculty and to augment current faculty as a key element for IITB to maintain its long term competitiveness.

The details of young faculty who have been awarded the "Young Faculty Awards" in the last financial year can be found in the [Appendix J.5](#) (Page No 60).

C.4. Faculty Awards

List of faculty awards during the academic year 2018-19

Sr. No	Name of Faculty	Department	Name of Award
1	Prof. Arunkumar Sridharan	Department of Mechanical Engineering	Prof. A. Jaganmohan Award
	Prof. Arindarajit Chowdhury	Department of Mechanical Engineering	
2	Prof. M. Ravikanth	Department of Chemistry	Prof. S. C. Bhattacharya Award for Excellence in Pure Science
3	Prof. Aswin Anil Gumaste	Department of Computer Science and Engineering	Prof. H. H. Mathur Award for Excellence in Applied
4	Prof. Krishna A Jonnalagadda	Department of Mechanical Engineering	D. P. Joshi Teaching Award

C.5. D. P. Joshi Teaching Award

Particulars	Amount (Rs)
Opening Balance as on 01-04-2018	33,13,855.16
Additions during the year	-----
Less : Expenses during the year	50,000.00
Interest	1,81,843.16
Closing balance as on 31-03-2019	34,45,698.32

D. Infrastructure Development

D.1. Wadhvani Electronics Laboratory

IIT Bombay's Distinguished Alumnus Dr. Romesh Wadhvani is the major contributor towards the "Wadhvani Electronics Laboratory", acquiring several low-end type and a few high-end type instruments and a large number of computers. This donation from Dr Romesh Wadhvani has also supported activities such as Electronics Lab Course (analog and digital – UG – 2nd and 3rd year students), Electronic Design Lab (3rd and 4th year UG students), Microprocessor Lab Course and competition-related events in Techfest. The laboratory has significantly enhanced the activity in the Electrical Engineering Department both qualitatively and quantitatively.



Financial Report

Particulars	Amount (Rs)
Opening Balance as per 01-04-18	40,29,774.22
Addition during the year	40,000.00
Expenses during the year	-7,29,580.00
Closing balance as on 31-03-2019	33,40,194.22

D.2. Applied Materials Laboratories

'Applied Materials Exploration Center' at IITB, which was inaugurated on May 15th 2013, is the third infrastructure facility wherein Applied Materials is collaborating with IITB since the past seven years. The vision is to consolidate all ongoing Applied Materials - IITB research at a single platform. Applied Materials Exploration Center is envisioned to provide the necessary

platform to step up the Applied Materials-IITB collaboration by enabling the Center of Excellence in Materials Synthesis for next generation ALD, Solar, Display, Energy Storage and CVD technology.

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Particulars	Amount (Rs)
Opening balance as on 01-04-2018	3,32,28,737.00
Addition during the year	Nil
Less Expenditure during the year	-73,03,959.00
Closing balance as on 31-03-2019	2,59,24,778.00

D.3. National Center of Mathematics

National Centre for Mathematics has been set up as a joint centre of TIFR and IIT Bombay. The Centre's main activities include short term courses, workshops, national and international conferences for researchers in mathematics and its applications. The support of Prof Ravi Kulkarni and ARSI Foundation has been very important to NCM.

Consolidated Financial Report

Particulars	Amount (Rs)
Opening Bal. as on 01-04-2018	3,46,99,895.00
Addition during the year	Nil
Expenditure during the year	-5,05,852.00
Closing balance as on 31-03-2019	3,41,94,043.00

D.4 Wadhvani Research Centre for Bioengineering (WRCB)

Wadhvani Research Center for Bioengineering (WRCB) has been set up at IIT Bombay as an inter-departmental virtual center with a generous donation from the Wadhvani Foundation. The objective of WRCB is to promote innovation in bioengineering through translational research. WRCB is envisaged as an enabling mechanism to ramp up IIT Bombay's research and technology development efforts in bioengineering.

Consolidated Financial Report

Particulars	Amount (Rs)
Opening balance as on 01-04-2018	5,04,92,527.56
Less fund transfer to new project	-4,74,10,824.00
Less expenses committed towards research projects	-30,81,703.56
Closing balance as on 31-03-2019	NIL

D.5 Tinkerer's Laboratory

Indian Institute of Technology Bombay has established a Tinkerers' Laboratory that will provide an enabling physical environment for young engineering students to go hands on and give form and expression to their innovative and creative natures. The Lab has been established with a generous funding received from the 1975 alumni batch of the Institute, who have pledged a sum of Rs 2 Crore towards it. The '75 batch alumni team will moreover, provide mentoring, run workshops and help organize lectures by famous innovators from India and abroad, for the benefit of IIT Bombay students.

Consolidated Financial Report

Particulars	Amount (Rs)
Opening balance as on 01-04-2018	40,02,033.28
Add: Transfer /addition	10,24,794.02
Less Expenditure during the year	-24,93,286.84
Closing balance as on 31-03-2019	25,33,540.46

D.6 Tata Centre for Technology & Design

Tata Centre for Technology & Design at IIT Bombay was established in 2014 with support from the Tata Trusts. The center aims to develop solutions to challenges faced by resource-constrained communities within India and across the world using an end-to-end innovation approach. Through this process the center aims to develop human resources who are trained in technology, design and entrepreneurship by way of project work, coursework and field practice. The center nurtures next generation leaders in engineering and business fields who deal with pressing problems in society in the context of complex economic, social and environment factors.

Particulars	Amount (Rs)
Opening Balance as per 01-04-2018	24,47,86,597.00
Addition during the year	Nil
Expenses during the year	-10,02,94,612.00
Advances	-9,81,356.00
Closing Balance as on 31-03-2019	14,35,10,629.00

D.7. Desai Sethi Entrepreneurship Centre

In a major leap towards encouraging the entrepreneurship spirit among its students, Indian Institute of Technology Bombay established an Entrepreneurship Centre with a generous funding received from Syntel Co-founder and distinguished Alumnus - Mr. Bharat Desai and Ms. Neerja Sethi, under the aegis of The DS Foundation (Desai Sethi Family Foundation). The Centre is named as 'Desai Sethi Centre for Entrepreneurship' it fosters entrepreneurship and technology innovation through new programs for education and research, multi-disciplinary courses, research laboratories and partnerships. Students participating in the program receive instruction and mentorship from the IITB faculty as well as distinguished guest faculty from leading international institutions.

Consolidated Financial Report

Particulars	Amount (Rs)
Opening Balance as per 01-04-2018	89,28,000.00
Addition during the year	4,68,000.00
Expenses during the year	Nil
Closing Balance as per 31-03-2019	93,96,000.00

D.8. Shenoy Innovation Studio

Shenoy Innovation Studio has been established to create a paradigm shift in design so that student projects can be nurtured to innovation. The studio also supports industries by conducting industry workshops and collaborative projects to design innovation pedagogy and to facilitate in-house innovation. It is established with a generous funding received from Distinguished Alumni Mr. Sudhakar Shenoy & Mr Suresh Shenoy.

Consolidated Financial Report

Particulars	Amount (Rs)
Opening Balance as per 01-04-18	53,636.00
Addition during the year	63,700.00
Less Expenses during the year	Nil
Closing balance as on 31-03-2019	1,17,336.00

E. Class Projects

The Silver Jubilee tradition has included contributing back to IITB through a Class /Legacy Projects. This contribution is meant as a:

- Token of appreciation for the role that the years at IIT played in our professional and personal development of the students.
- Way of helping the Institute to advance its goals by supporting the Institute in critical areas which are underserved by Institute funding.

Following is the list of various class projects maintained by Dean ACR office –

E.1. Class of '72

Class of 1972 initiated the project towards the Hostel maintenance during their Silver Jubilee Reunion in 1997. The amount is used for the up keep of various Hostels on campus.

Particulars	Amount (Rs)
Opening Bal. as on 01-04-2018	30,50,031.51
Opening balance in Endowment	21,28,854.00
Interest During the year	1,38,375.51
Expenditure during the year	Nil
Closing balance as on 31-03-2019	53,17,261.02

E.2. Class of '75

Class of 1975 initiated the Gymkhana cum cultural complex project with the objective to establish modern infrastructure for sports and cultural activities among IITB students.

Particulars	Amount (Rs)
Opening Bal. as on 01-04-2018	9,74,208.00
Addition during the year	Nil
Expenditure during the year	NIL
Closing balance as on 31-03-2019	9,74,208.00

E.3. Class of '78

Particulars	Amount (Rs)
Opening Bal. as on 01-04-2018	1,15,000.00
Addition during the year	Nil
Expenditure amt trf to YFA	Nil
Closing balance as on 31-03-2019	1,15,000.00

E.4. Class of '80

The Batch of 1980 Alumni chose "Rejuvenation of Powai lake" project as a part of their Legacy project. Powai Lake has deteriorated over the years due to siltation, weeding, sewage and other encroachments. The funds have been used for the betterment of Powai Lake and its surroundings.

Class of '80

Particulars	Amount (Rs)
Opening Bal. as on 01-04-2018	16,28,445.00
Addition during the year	Nil
Expenses during the year	Nil
Closing balance as on 31-03-2019	16,28,445.00

E.5. Class of '81

Financial Aid Program (Legacy project of C'81) has been helping students requiring financial support with loans. The FAP is managed by IIT Bombay Alumni Association and provides loans to students for expenses such as purchase of computer.

Particulars	Amount (Rs)
Opening Bal. as on 01-04-2018	-12,03,352.05
Addition during the year	52,99,696.31
Expenses during the year	-2843464.30
Closing balance as on 31-03-2019	1252879.96

E.6. Class of '82

All new faculty members joining from June 2011 will be paid Rs. 4 lakhs over four years. The Class '82 initiated this project; Class '77, Class '83, Class' 84, Class '88 and Class of 89 have also joined into support the program.

E.7. Retired Faculty Wellness Fund

The Classes of '84, 85, 87, 88, & Class of'89 with a view to express their gratitude to their teachers, the batch initiated a legacy project which is called Retired Faculty Wellness Fund (RWF).

Particulars	Amount (Rs)
Opening Balance as on 01-04-2018	8,36,338.88
Additions during the year	2,04,274.86
Expenditure during the year	-32,74,500.00
CONTRI FOR RFWF AS PER MOU LP92	35,00,000.00
CONTRI FOR RFWF AS PER MOU LP91	40,00,000.00
RFWF-IITB ASSOC	38,35,000.00
Closing balance as on 31-03-2019	91,01,113.74

E.8. Class of '85

The Class of 1985 had their Silver Jubilee Reunion in December 2010. The Class decided to institute the C '1985 Silver Jubilee Legacy Project and have donated funds to IITB with a view to promoting academic and research activities, faculty welfare and student assistance. Their Legacy Project consists of following three schemes:

1. **Entrepreneurship Cell:** To help E-cell to foster entrepreneurship on the IITB campus and more specifically fostering entrepreneurship in the area of technology and Sustainable Development.
2. **Retired Faculty Wellness Fund:** Health benefits for faculty members who retired prior to 2003 from IITB and do not have any post – retirement medical scheme “health benefits”.
3. **Young Faculty Awards:** The Class propose to contribute to the YFA program, which provides joining bonus to young faculty members joining IITB. The objective is to assist IITB to recruit Professors of excellent quality.
4. **Chair Professorship:** The Class of 85 with a view of promoting academic pursuit and research in the area of technology and sustainable development, have dnate to IITB for the purpose of creating a Chair and the Chair shall be called the “Class of 1985 Chair in Technology & Sustainable Development”.

Particulars	Amount (Rs)
Opening Bal. as on 01-04-2018	1,05,70,774.00
Additions during the year	Nil
Interest During the year	5,07,000.00
Expenditure during the year	Nil
Closing balance as on 31-03-2019	1,10,77,774.00

E.9. Class of '86

Class of 1986 celebrated its Silver Jubilee reunion in December 2011. The tradition of past IITB batches has been to contribute back to its alma mater through a Legacy Project. 86 batch funds projects in two categories, one for providing support to needy students and second for retaining world – class faculty. Following are the projects:

1. Student Quality of Life Improvement:
 - a) **Counseling Services Program:** In order to appropriately address the emotional and physiological needs of the students, there was a desire to establish and enhance a professional counseling service program that entails the following:
Recruiting professional physiological counselor. Formalizing and providing mentoring services through alum community to help with career counseling and industry mentoring.
2. Faculty Assistance Program – Gurudakshina: Teaching / Research Excellence Awards are based on contributions made in the areas of teaching, research, lab development and selected professional activities. The Institute has proposed a program, put together by a number of professors of various levels of seniority, in which each type of contribution receives points and awards are made to respective category.

Particulars	Amount (Rs)
Opening Bal. as on 01-04-2018	41,45,000.00
Additions during the year	Nil
Interest during the year	2,69,425.00
Expenditure during the year	Nil
Closing balance as on 31-03-2019	44,14,425.00

E.10. Class of '87

The Class of 1987 had their Silver Jubilee Reunion in December 2012. The Class decided to institute the C '1987 Silver Jubilee Legacy Project and have donated funds to IITB with a view to promoting academic and research activities, faculty welfare and student assistance. Their LP consist of following three schemes:

1. **Technology and Development SolutionsCell:** This program will support a center under the CTARA that will allow IITB to carry out relevant academic and research activities as well as to accept and deliver projects that apply technology to solve developmental needs in rural areas.
2. **Retired Faculty Wellness Fund:** Health benefits for faculty members who retired prior to 2003 from IITB, and do not have any post – retirement medical scheme “health benefits”.
3. **Student Financial Assistance:** This is a student assistance project to support financial needs of the students.

Particulars	Amount (Rs)
Opening Balance as on 01-04-2018	42,23,187.89
Additions during the year	Nil
Interest during the year	2,37,668.59
Expenditure during the year	Nil
Closing balance as on 31-03-2019	44,60,856.48

E.11. Class of '88

The Class of 1988 had their Silver Jubilee Reunion in December 2013. The Class decided to institute the C '1988 Silver Jubilee Legacy Project, which consist, of the following four schemes:

1. **EE Department Laboratory Fund:** The batch has supported innovation and research and to that effect they propose to contribute Rs 40 lakhs to the EE Department to specifically support the activities of innovation laboratory of EE Department.
2. **Retired Faculty Wellness Fund:** Health benefits for faculty members who retired prior to 2003 from IITB and do not have any post – retirement medical scheme ‘health benefits’.
3. **Young Faculty Awards:** The Class has contributed to the YFA program, which provides joining bonus to young faculty members joining IITB. The objective is to assist IITB to recruit faculty members with excellent credentials

4. **Student Scholarships:** This is a student assistance project to support financial needs of the students.

Particulars	Amount (Rs)
Opening Balance as on 01-04-2018	8,80,000
Additions during the year	40,00,916.89
Transferred to Endowment Account	2,13,297.89
Closing balance as on 31-03-2019	42,14,214.78

E.12. Class of '89

The Class of 1989 had their Silver Jubilee Reunion in December 2014. The Class decided to institute the C '1989 Silver Jubilee Legacy Project, which consists of the following three schemes:

1. **Young Faculty Awards:** The Class propose to contribute to the YFA program, which provides joining bonus to young faculty members joining IITB. The objective is to assist IITB to recruit Professors with excellent credentials.
2. **Retired Faculty Wellness Fund:** Health benefits for faculty members who retired prior to 2003 from IITB and do not have any post – retirement medical scheme “health benefits”.
3. **Student Scholarships:** This is a Student assistance project to support financial needs of the students.

Particulars	Amount (Rs)
Opening Balance as on 01-04-2018	29,77,053.00
Additions during the year	NIL
Interest during the year	NIL
Expenditure during the year	NIL
Closing balance as on 31-03-2019	29,77,053.00

E.13. Class of '90

The Class of 1990 had their Silver Jubilee Reunion in December 2015. The Class decided to institute the C'1990 Silver Jubilee Legacy Project, which consists of the following three schemes:

1. **Young Faculty Awards:** The Class propose to contribute to the YFA program, which provides joining bonus to young faculty members joining IITB. The objective is to assist IITB to recruit Professors with excellent credentials.
2. **Retired Faculty Wellness Fund:** Health benefits for faculty members who retired prior to 2003 from IITB and do not have any post – retirement medical scheme “health benefits”.
3. **Student Scholarships:** This is a student assistance project to support financial needs of the students.

Particulars	Amount (Rs)
Opening Balance as on 01-04-2018	1,52,32,310.74
Additions during the year	1,56,303.05
Transfer to clean green campus	- 2,21,40,759.00
Transfer to ideas program	- 1,16,29,970.00
Transfer from scholarship	1,85,40,446.00
Closing balance as on 31-03-2019	1,58,330.79

E.14. Class of '91

The Class of 1991 had their Silver Jubilee Reunion in December 2016. The Class decided to institute the C'1991 Silver Jubilee Legacy Project, which consists of the following three schemes:

1. **Young Faculty Awards:** The Class propose to contribute to the YFA program, which provides joining bonus to young faculty members joining IITB. The objective is to assist IITB to recruit Professors with excellent credentials.
2. **Retired Faculty Wellness Fund:** Health benefits for faculty members who retired prior to 2003 from IITB and do not have any post – retirement medical scheme “health benefits”.
3. **Student Scholarships:** This is a student assistance project to support financial needs of the students.

Particulars	Amount (Rs)
Opening Balance as on 01-04-2018	1,76,03,065.69
Additions during the year	2,69,20,430.94
Transfer to Retired faculty wellness fund	-40,00,000.00
Closing balance as on 31-03-2019	4,05,23,496.63

E.15. Class of '92

Particulars	Amount (Rs)
Opening Balance as on 01-04-2018	10,291,396.00
IIT Bombay Heritage foundation	3,23,64,348.94
Other Donations	1,10,87,228
Scholarship	3,50,000
Transfer to Young Faculty Awards	50,00,000
Transfer to FAP As Per MOU LP92	40,00,000
Transfer to RFWF As per MOU LP92	35,00,000
Rural immersion Program	50,00,000
Closing balance as on 31-03-2019	3,58,92,972.94

E.16. Hostel Study Room Project

Two air-conditioned study rooms in Hostel 2 and Hostel 8 were inaugurated by Director of IIT Bombay Prof. Devang V. Khakhar on October 12, 2018 in the presence of Prof. Soumyo Mukherji, Dean (Student Affairs), Mr. Arun M. Joshi, IIT Bombay alumni, Mr. Sitapati S. Koundinya, IIT Bombay alumni, wardens of respective hostels, members of Hostel Affairs Council and respective hostel councils. Alumni batch (1964-1969) of IIT Bombay has initiated the project to provide better facilities to the students for their academic progress. The study room in the hostels would help the students prepare better for exams and projects.

Particulars	Amount (Rs)
Opening balance	27,62,998.00
Additions during the year	34,142.00
Expenditure during the year	Nil
Closing balance as on 31-03-2019	27,97,140.00

E.17. Mahendra Auto Challenge

Particulars	Amount (Rs)
Opening Balance as on 01-04-2018	6,63,172.00
Additions during the year	Nil
Expenditure during the year	Nil
Closing balance as on 31-03-2019	6,63,172.00

F. Endowments

F.1. Prof A Jaganmohan Award Endowment

Prof Jaganmohan was a Faculty member at IITB from June 1, 1958 to August 31, 1992. His brother Dr. Shivram Murty (Alumnus of IITB) has set up this award in memory of his elder brother. The criteria for this award is excellence in teaching. The award has been set-up for Faculty members in Mechanical Engineering. The awardees will be decided by Final year students of B.Tech, Dual Degree & M.Tech. There will be no more than two awards each year. Each awardee will receive Rs 50,000/- (out of interest earned). An Awardee will not be considered for the award for the next three years.

Particulars	Amount (Rs)
Opening Bal. as on 01-04-2018	28,66,867.00
Add Interest for the current year	1,34,089.74
Addition during the year	Nil
Less Expenditure during the year	-1,00,000.00
Closing balance as on 31-03-2019	29,00,956.74

F.2. Library Journals & Sci Finder Endowment

The Library endowment is funded by donation from the IIT Bombay Heritage Foundation to help with subscriptions of technical journals.

Particulars	Amount (Rs)
Opening Bal. as on 01-04-2018	2,56,03,709.73
Opening Bal. as on 01-04-2018	5,85,08,764.84
Interest during the year	21,03,663.84
Addition during the year	Nil
Expenditure during the year	Nil
Closing balance as on 31-03-2019	6,06,12,428.68

F3. Prof. S.P. Sukhatme Endowment

This fund was set up in honor of our former Director Prof. S. P. Sukhatme. Alumni and well wishers have contributed towards this fund. The expenses incurred towards the following books are paid from this account's interest. History Book, Punctuations, Salt N Pepper and Four Decades at IIT Bombay.

The money collected from the sale of the 'History Book' and 'Punctuations' is credited in this account.

Particulars	Amount (Rs)
Opening Bal. as on 01-04-2018	21,41,870
Opening balance	55,02,503.39
Expense	-3,00,015.00
Addition during the year	10,10,650.00
Interest during the year	2,70,442.12
Closing balance as on 31-03-2019	64,83,580.51

F.4. Prof. N. R. Kamath Chair Professorship Endowment

Prof. N. R. Kamath served IIT Bombay as a faculty member until his superannuation in 1973. A number of Donors who are alumni of IIT Bombay as well as a number of corporate bodies, with a view to honor the immense contributions of Prof. N. R. Kamath to the Institute, and to concurrently promote academic excellence, have committed to donate a substantial amount for the purpose of creating a chair Professorship endowment.

Particulars	Amount (Rs)
Opening balance as on 01-04-2018	1,99,32,002.00
Opening balance as on 01-04-2018	2,18,71,713.82
Addition during the year	14,11,301.46
Interest during the year	14,07,220.44
Transfer	21,96,000.00
Expenses during the year	-9,89,782.82
Closing balance as on 31-03-2019	2,58,96,452.90

F.5. Wadhvani Research Centre for Bioengineering (WRCB) Endowment

The objectives of WRCB will be to establish a new standard for research and development in India. The WRCB funds will be used primarily for topping off salaries, for hosting visiting faculty, conference expenses, post-doctoral fellows & research scholars. IITB will provide the infrastructure like facilities, labs, admin support, etc for WRCB.

Particulars	Amount (Rs)
Opening balance as on 01-04-2018	6,90,01,797.00
Opening balance as on 01-04-2018	5,04,92,527.56
Interest Addition during the year	
Transfer to other project	5,04,92,527.56
Closing Balance as on 31-03-2019	nil

G. IIT Bombay Heritage Foundation Donations

The IIT Bombay Heritage Foundation was established as a non-profit public benefit corporation and received its status as a tax-exempt organization from the IRS on July 5, 1996. The Foundation has authorization under the Federal Classification level of 170(b)(1)(A)(vi). The Foundation is not organized for the private gain of any person. It is organized under the Nonprofit Public Benefit Corporation Law for charitable purposes. The specific purposes for which the Foundation is organized are: to fund and promote education and research among students of the Indian Institute of Technology, Bombay.

The Donations received from IITBHF are to support various activities, and are accounted for under the heads mentioned above. Following is the list of some major donations granted by

IITBHF in the year 2018-19.

IITB has received \$500000 in two installments in the financial year 2018-19 for **Shailesh Mehta Executive Education Center**. Our heartfelt thanks to Mr & Mrs Mehta for their generous donation.

We are also grateful to Mr Bharat Desai & Mrs Neerja Sethi Desai for their generous pledge of US \$ 2.75 Million Dollars.

This is towards building a new facility at IIT Bombay which will also house "D. S. Entrepreneurship Center". The building

Will also include various laboratories to conduct research, testing and validation of innovative ideas.

Category	Grant 201	Grant 202	Grant 203	Grant 204	Grant 205	Total	Cumulative Total
1981 Scholarship Fund	\$173					\$173	\$60,592
1982 Young Faculty Awards (YFA)	\$25,898	\$347				\$26,244	\$5,06,129
Adil Zainulbhai Chair Professorship		\$1,50,000				\$1,50,000	\$1,50,000
Biswas Scholarship Fund	\$4,035					\$4,035	\$4,035
Class of 1986 Legacy Project	\$21,094					\$21,094	\$21,094
Class of 1990 Legacy Project	\$2,50,904	\$1,992				\$2,52,896	\$8,25,396
Class of 1992 Legacy Project				\$2,83,226.00		\$2,83,226	\$2,83,226
CTARA	\$1,500					\$1,500	\$3,000
Financial Aid Program (FAP)	\$17,096	\$1,000				\$18,096	\$38,323
Grant from Micron Foundation to support research work by Professor Souvik Mahapatra, EE Dept.			\$25,000			\$25,000	\$25,000

Grant from WIN Foundation to support a research project to be conducted by CTARA - IIT Bombay with Professor Bakul Rao			\$1,14,000			\$1,14,000	\$1,14,000
Grant from WIN Foundation to support a research project in the area of advanced development of unique and first of a kind Water Desalination Technology called "CHAKRA" conceived by IIT Bombay Chemistry Professor Chandramouli Subramaniam.					\$59,000	\$59,000	\$59,000
HATS & Hostel Renovation	\$25,319	\$484				\$25,803	\$3,78,558
Hostel Study Room Project	\$16,162	\$500				\$16,662	\$45,593
Mars Rover Project		\$3,187				\$3,187	\$3,187
Prof. N.R.Kamath Chair	\$3,817	\$990				\$4,807	\$91,337
Retired Faculty Wellness Fund (RWF)	\$6,680	\$990				\$7,670	\$7,670
Ruyintan Mehta Chair Professorship in the domain of 'Advanced Digital Education Technology'			\$1,50,000			\$1,50,000	\$1,50,000
Sameer Halepete Chair Professorship in Artificial Intelligence and Machine Learning at IIT Bombay					\$1,68,000	\$1,68,000	\$1,68,000
Student Development Fund (SDF)	\$2,000					\$2,000	\$4,47,559
Student Scholarships		\$1,000		\$1,92,602.01		\$1,93,602	507 Named Scholarships
Vmare University Research Fund					\$60,000	\$60,000	\$95,000
Wadhvani - WRCB			\$5,00,000			\$5,00,000	\$20,00,000
Water Purification Project	\$25,000					\$25,000	\$25,000
Total Grants made in 2018	\$3,99,678	\$1,60,489	\$7,89,000	\$4,75,828	\$2,87,000	\$21,11,995	

H. Lecture Series

H.1. Indira Foundation Distinguished Lecture



Speaker: Prof. Billie F. Spencer Jr. (Nathan M. and Anne M. Newmark Endowed Chair in Civil Engineering, University of Illinois at Urbana-Champaign) was the speaker for the event.

About the Lecture Series:

The Indian Institute of Technology Bombay organised Indira Foundation's Distinguished lecture on Monday, October 29, 2018 on "Advances in Computer Vision-based Civil Infrastructure Inspection and Monitoring". Prof. Billie F. Spencer Jr. (Nathan M. and Anne M. Newmark Endowed Chair in Civil Engineering, University of Illinois at Urbana-Champaign) was the speaker for the event. An overview of recent advances in computer vision techniques as they apply to problems of civil infrastructure inspection and monitoring was presented. Computer vision techniques, in conjunction with acquisition through remote cameras and unmanned aerial vehicles (UAVs) can automatically and robustly convert the image or video data into actionable information.

[H.2. Prof.C V Sheshadri Lecture](#)

The Indian Institute of Technology Bombay had organized an Institute Distinguished Lecture in Chemical Engineering (in memory of Professor C.V. Seshadri) on Monday, November 26, 2018. The details of the lecture were:

Title: "Adhesion and Fracture of Soft Materials"

Speaker: Prof. Animangsu Ghatak, Department of Chemical Engineering, IIT Kanpur

Abstract:

Fracture of soft solids like an elastomer, a gel or a biological tissue is encountered in many different applications, e.g. cutting vegetables with the sharp edge of a knife at the mundane setting of a kitchen, puncturing with a sharp object like a hypodermic syringe needle in numerous medical processes and even in nature as the sucking tool of many insects, e.g. the "proboscis" of mosquitoes. In these different situations, the ease at which the cutting or the puncturing tool incises the solid depends upon the geometry of the tool, its motion during cutting, incision or puncture and the coupled effect of these factors. These effects have been examined in the context of puncturing a soft hydrogel by a hypodermic syringe needle. Experiments conducted shows that the needle does not puncture the gel continuously but intermittently with fracture progressing via the alternate appearance of two different cracks: one ahead of the tool and the other radially away from it. In this talk, the speaker has talked about how asymmetry in the geometry of the puncturing tool and its vibration can be employed for tuning the appearance of these cracks thereby minimizing the resistance to fracture.

deas were further extended in understanding the effect of geometry on adhesion and debonding of two different materials. Particularly, there was a discussion about making soft surfaces decorated with hierarchical roughness patterns suitable for using as reusable adhesives and rewritable pads.

About the speaker: Pof. Animangsu Ghatak is the Professor and Head of the Department of Chemical Engineering at IIT Kanpur. His research interest includes Adhesion, friction, fracture at soft interfaces; and Bio-inspired engineering. Prof. Ghatak received his BTech degree from IIT Kharagpur and MTech from IIT Kanpur. He did his PhD from the Lehigh University and Postdoc. from Cambridge University, UK & Harvard University, USA.

- [H.3. Prof K.C. Khillar Lecture](#)
- [H.4. TechniGraphicSLecture](#)
- [H.5. Girish Sant Memorial Lecture](#)
- [H.6. IITB Westinghouse Lecture](#)
- [H.7. ICICI Bank GL Mehta Lecture](#)
- [H.8. Radhika Rajan Leadership Lecture](#)

H.4 to H.8. Lectures were not held in 2018-201

I. Major Events Organized By Dean ACR Office

I.1. Institute Valedictory Function

The Institute Valedictory Function took place on the April 13, 2018 at Convocation hall. The last event in the life of any graduating student, it was indeed a time of mixed emotions for everyone. The chief guests were Mr. Shantanu Rastogi, Managing Director, General Atlantic and alumnus of Electrical Engineering and Ms Roli Gupta, Founder and CEO, Oorjan and an alumnus of Chemical Engineering.

Prof Devang Khakhar, Director, IIT Bombay, Prof Soumyo Mukherjee, Dean SA, and Prof Suhas Joshi, Dean ACR, were also among the dignitaries. The program was introduced by Prof Soumyo Mukherjee, Dean SA, who congratulated the students for completing the tough journey of graduation. Prof Devang Khakhar, Director, IIT Bombay, and Prof Suhas Joshi, Dean ACR, also addressed the audience during the event. The respective representatives also shared their memories of their institute life. Mr Yash Sanghvi, UG Representative, gave a heartfelt graduating speech. Mr Tumul Rai, M. Tech Representative, also shared his experiences at IIT. Ms Neha Bhargave, PhD Representative, threw light upon the life and journey of PhD students in the institute. The gathering was also addressed by Ms Damayanti Bhattacharya, CEO, IITB Alumni Association throwing light on the activities of the Alumni Association. The proceedings included the ceremonial transfer of the student list from Prof Soumyo Mukherjee, Dean SA to the alumni list with Prof Suhas Joshi, Dean ACR. The Outstanding Contribution Awards were also given out to felicitate the members of the student alumni relations cell who have contributed substantially to the institute as members of Dean (Alumni and Corporate Relations) Office. The awardees were Deepankar Varshney, Gaurav Sinha, Harsh Sethi and Pranay Nahar.

I.2 Alumination

The 'Piece de Resistance' of SARC, Alumination is IIT Bombay's largest platform for bilateral exchange between the IITB alumni and students on a spectrum spanning Career Guidance, Corporate Exposure, Life Learning, and Motivational Talks. A career fest of a kind, Alumination is the flagship event of SARC IIT Bombay that was organized on 6-7 October 2018 offering a wide array of choices in fields ranging from core to non-core to personal level mentoring, from talks to workshops to mock interviews.

With a phenomenal ensemble of alumni lined up for talks and workshops, it began with a panel discussion with professors and alumni discussing a topic of paramount importance in the current scenario "Tech Vs Stack: Opportunities available in core and non-core". Setting a new trend by placing the first step, Alumination presented 'Entrepreneurial Epics', a session where prominent Alumni entrepreneurs share their life experiences and journey into the Capital world; Mr. Prabhkiran Singh, Co-founder of bewakoof.com graced as the first speaker. There was an interactive session with Mr. Rajnesh Domalpalli as a part of 'Beyond the Horizon', a filmmaker par excellence, a conscientious writer, an inventive painter-illustrator, who sent ripples through the film industry with his directorial debut and by receiving 33 international awards.

With Mock Interviews and Group Discussions in place to help final year students for the critical push right before their placement season, Alumination 2K18 has a piece of the delicious pie for everyone!!

For students interested in the first-hand experience, certified workshops were conducted on Quantitative and Algorithmic Trading by Siddharth Verma, former director -Deutsche Bank, Comprehensive Analysis of Consulting Sector Ketav Mehta - McKinsey, Dynamics of Entrepreneurship by Sameer Desai former director - Bristlecone, for students plagued with doubt and grappling with personal issues, there was Speed Mentoring, a marvelous chance for the students to get one to one personal mentoring from professional life coaches.

For all students registered with the Alumni Student Mentorship Program came 'Break The Ice' session, a glorious occasion for the students to get a brain to pick and an ear to listen with their mentors.

I.3. Alumni Day & Presentation of Distinguished Service Awards

The occasion was graced with the presence of 1000+ ex-students. 'Distinguished Service Awards' were bestowed upon D.C. Agrawal (batch of 1969), Dr. Rajkumar. P. Singh (1975), and Ravishankar G. (1990) for their notable contribution to the progress of the institute. The Chapter Service Awards were conferred on six alumni - R Srinivasan (1973), Sanjiv Sood (1983), Deepam Morparia (1985), Nitesh Dixit (2003), Sanjay Bhandari (2004) and Santosh Bhoosthali (2007).

A whopping total of 250 million in Indian rupees was pledged by the Silver Jubilee Batch of 1993. This magnanimous donation comes by a batch of ex-students as the single-most in the tradition of reunions. This is also one of the largest corpus donated by alumni to any alma mater in India. This fund is pledged by nearly 140 students, out of the 850 students in the batch. Abhay Pandey, General Partner at A91 Partners (CSE, B.Tech, Hostel 8) has been the largest contributor in 1993 batch with his Rs 10 crore donation.

The 1992 batch gave donations worth Rs 9.4 crores and the batch of 1998 announced that it will now give Rs 1.2 crores to the Institute.

These funds go towards a number of endeavours grand and small in the service of the Institute and the current students. A number of legacy projects related to upgrading of-study facilities for students, labs as well as student scholarships are funded through this initiative. Alumni have expressed a desire that the money should be used well and feel that students in India deserve the same kind of quality education, which they were lucky to get from their Institutes.

I.4. Alumni Reunions

The Reunion sprawled over a span of 3 days consisting of Silver Jubilee Reunions, Decennial Reunion and several other reunions of the batch of 1962, 1963, 1968, 1978, 1988, 1993, 1998, 2003, 2008 and 2013 and finally ending with the Alumni Day on December 23, 2018. It was a melting pot of plethora of exhilarating and invigorating activities and events. This included joint sports activities, hostel and department visits, networking events, cocktail dinners and a whole bunch of informal activities. The occasion also hosted some great professors from the times of the student years of the alumni to honour and felicitate them as well as reviving some hidden memories.

I.5. Diamond Jubilee celebrations IN US

As we all are heartily aware that this is our institute's Diamond Jubilee year, a number of celebrations were cherished throughout the world in the name of this momentous milestone. Multitudes of host cities sparkled under the lights of IIT-B Diamond Jubilee festivities. These events transpired to discuss a future roadmap for IIT-B and share the story of IIT-B's evolution over the years.

In the US of A, the Diamond Jubilee celebrations were orchestrated on both coasts. Along the east coast, Chicago was met with a crowd of around 100 alumni who gathered for lunch on October 20, and more than 300 Alumni attended the celebrations at New York on 21st October. Many distinguished Alumni were felicitated in recognition for their remarkable work followed by the Gala dinner. Our alumni along the west coast veritably proved how much dear our beloved institute is for them when over 600 Alumni attended the Gala Dinner at California and the Faculty Alumni Meet faced a crowd of more than a hundred.

In India, celebrations were hosted at Bangalore (26th October) and Hyderabad (27th October), while Pune and Delhi hold their breaths in anticipation where the events was hosted on 3rd and 17th November, respectively.



I.6. Foundation Day and Distinguished Alumnus & Young Alumni Achievers Award Presentations

IIT Bombay celebrated its 60th Foundation Day on Friday, March 8, 2019. Prof. S.P. Sukhatme, Former Director, Indian Institute of Technology Bombay & Former Chairman, Atomic Energy Regulatory Board (AERB) was the Chief Guest of this function. The celebrations included Unveiling of Diamond Jubilee Brochure, Infrastructure Calendar and Unveiling of Chair professorship Booklet and Launch of "Giving Back". Following awards were presented. Prof. S.C. Bhattacharya Award for Excellence in Pure Sciences, Prof. H.H. Mathur Award for Excellence in Applied Sciences, Distinguished Alumnus Awards and Young Alumni Achiever Awards.

1. Mr. Raj Nair, B.Tech. '71 Metallurgical Engineering
2. Prof. Nitin Samarth, M.Sc. '80 Physics
3. Dr. Ajei Gopal, B.Tech. '82, Mechanical Engineering
4. Dr. Das Narayandas, B.Tech. '82 Metallurgical Engineering & Materials Science
5. Mr. Kaizad Mistry, B.Tech. '84, Electrical Engineering
6. Dr. U. Kamachi Mudali, M.Tech. '84 Corrosion Science & Engineering
7. Prof. Kaivan Munshi, B.Tech. '86 Civil Engineering
8. Vice Admiral Gurtej Singh Pabby, M. Tech. '87, Systems & Control Engineering
9. Dr. Lalitesh Katragadda, B.Tech. '90, Aerospace Engineering
10. Dr. Shashidhar Thakur, B. Tech. '90 Computer Science & Engineering
11. Prof. Amol Dighe, B.Tech. '92 Physics
12. Mr. Rizwan Koita, B.Tech. '92, Electrical Engineering
13. Prof. Vishal Misra, B Tech. '92, Electrical Engineering
14. Prof. Nikhil Koratkar, B. Tech. '95, Aerospace Engineering

The 'Prof. S.C. Bhattacharya Award for Excellence in Research in Pure Sciences' was conferred on -

- Prof. M.Ravikanth, Department of Chemistry.

The 'Prof. H.H. Mathur Award for Excellence in Research in Applied Sciences' was conferred on-

- Prof. Aswin Anil Gumaste, Department of Computer Science Engineering

The Young Alumni Achiever Awards (YAAA) are for alumni who have made outstanding achievements in their chosen field of work and are below 40 years of age. These awards were instituted in the year 2011. The awardees this year include:

1. Dr. Ameet Jain, B.Tech. '01, Computer Science & Engineering
2. Mr. Shantanu Rastogi, Dual Degree (B.Tech.+M.Tech.) '02, Electrical Engineering
3. Dr. Parag Agrawal, B.Tech. '05 Computer Science & Engineering
4. Mr. Sourabh Pagaria, Dual Degree (B.Tech.+M.Tech.) '05 Mechanical Engineering
5. Mr. Pranay Jivrajka, B. Tech., '10 Chemical Engineering
6. Mr. Ankit Bhati, Dual Degree (B.Tech.+M.Tech.) '11 Mechanical Engineering
7. Mr. Manoj Meena, Dual Degree (B.Tech.+M.Tech.) '11 Electrical Engineering
8. Ms. Suhani Mohan, B.Tech. '11 Metallurgical Engineering & Materials Science

J. Appendix

J.1.Funded Scholarship Details

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
Noorali Sonawala	Mr Badruddin Sonawalla	Sonal Kumar	17D070045
Alumni @ Microsoft	IIT Alumni at Microsoft Scholarship	Kumavat Umang	160020002
Arunava Majumdar	MJ Scholarship	Tushar Chauhan	150040069
New York Chapter Alumni	Greater New York Chapter Alumni	Palak Sahu	180020061
Dev Purkayastha	David J Dunn Scholarship	Sonal Kumar	17D070045
Class of 1964	Fundasclear	Nancy Yadav	180050065
Sunil Shah	Smt. Ila Chandrakant Shah Scholarship	Mohit Kherwa	150070029
IITBHF	IITBHF Scholarship	Shilpi Agrawal	150110046
Sanjay Joshi	Narayan and Laxmibai Joshi Memorial Scholarship	Mohit Kherwa	150070029
Sudhind Dhamankar	Diwakar & Jyoty Dhamankar Scholarship	Fazal Ahmad	160070043
George Tharakan	George Tharakan Scholarship	Harshit Khariwal	15D070026
Shrimati Indumati Bakore	Ravi & Asha Apte	Majji Sai Siddhardha	15D170026

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
IITBHF	IITBHF Scholarship	Kolambe Bhagyesh Nemichand	150100046
Sukumar Thanawala	Dr. Chandrakant Thanawala Scholarship	Brahmankar Nisha Ganesh	16D070019
Dilip Limaye	Dilip Limaye Scholarship	Majji Sai Siddhardha	15D170026
Himanshu Patel	Indravadan Patel Scholarship	Ayush Raj	150050042
Sandesh Joshi	Sandesh Joshi Scholarship	Harish	180020033
Rajiv Kundalkar	Shankar Ganesh Kundalkar Scholarship	Sanjoli	17D100013
Anonymous	Anonymous	Harshit Khariwal	15D070026
Abhay Talsania	Jagjivan Ujamshi Talsania Scholarship	Sakhare Chaitanya Ravindra	170020035
Abhay Talsania	Mrs Vasant Himatlal Talsania Scholarship	Anshiv Gagneja	180020015
Sameer Kapoor	Anisbert and Kumarie Sequeira scholarship	Sakhare Chaitanya Ravindra	170020035
Sunita Parasuraman	Sri Ramana Maharshi Scholarship	Aditya Shah	170040082
Rajiv Kundalkar	Shankar Ganesh Kundalkar scholarship-1	Badal Priyadarshi	150040081
IITBHF	IITBHF Scholarshi	Brahmankar Nisha Ganesh	16D070019
Milind Mahajan	Prabhakar D. Mahajan Scholarship	Badal Priyadarshi	150040081

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
Avi Nash	The Indira Foundation Scholarship	Divyansh	150020086
Kaushal Patel	Kaushal & Shweta Patel Scholarship	Muskan Gour	180020054
Kaushal Patel	Kaushal & Shweta Patel Scholarship	Saavi Yadav	170020003
Anil Diwan	Shree Ratnakar Hariharrao Diwan Memorial Scholarship	Divyansh	150020086
Prakash Karpe	Anand and Sudha Karpe	Mayank Chittora	160020055
Prakash Karpe	Smt. Anusaya Karpe	Palak Sahu	180020061
Sandeep Desai	Pramod & Shanta Desai Scholarship	Mayank Chittora	160020055
Victor Menezes	Nina Menezes Scholarship	Palak Sahu	180020061
Tarak Goradia	Mr. Shantilal H. Goradia	Sanjoli	17D100013
Anonymous	The Electrical Engg Dept Scholarship-2	Fazal Ahmad	160070043
Chandrakant Patel	Hima & Chandrakant C. Patel Scholarship	Bandaru Sri Harsha	170070045
Himanshu Patel	Manorama I Patel Scholarship	Palak Sahu	180020061
The Indira Foundation	The Indira Foundation Scholarship	Satyam Kumar Bharti	150010027
Dev Purkayastha	Sandra Lee Purkayastha Scholarship	Sanjoli	17D100013
IITBHF	IITBHF Scholarships	Ankur Gurjar	16D100019

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
D L Shah Trust	D L Shah Trust	Ashay Vasant Wakode	170100033
Greater New York Chapter	Greater New York Chapter Alumni	Harish	180020033
Hussain Bhatia	Abbas Bhatia/John A. Martin Scholarship	Tushar Chauhan	150040069
IITBHF	IITBHF Scholarship-5	Katyayani Sharad Shinde	150110023
Anonymous	EE Alumni Scholarship	Kiran	15D070012
Vinod Menon	Dr. Remadevi Menon Scholarship	Seelam Lakshmi Anoocha	150070055
Raj Mashruwala	Miss A. J. Majmundar	Anshiv Gagneja	180020015
Shaporji Pallonji Pvt Ltd	Shaporji Pallonji Rising Star	Fazal Ahmad	160070043
Sandeep Desai	Pramod Desai Scholarship	Mayank Chittora	160020055
Anand Garde	Educator Malati Garde	Aditya Shah	170040082
Shenoy, Menezes, et al	IITB alumni at Microsoft	Ankur Gurjar	16D100019
Arun Majumdar & Aruna Joshi	M. J. Scholarship	Ankur Gurjar	16D100019
Abhay Talsania	H. J. Talsania Scholarship	Mayank Chittora	160020055
Dady Dadyburjor	Burjor S. Dadyburjor	Mayank Chittora	160020055
Niraj Shah	Chamanlal and Labhkunwar Kothary	Palak Sahu	180020061

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
Atul Thakkar	Atul Thakkar Scholarship	Aman Singhal	160070023
The Indira Foundation	The Indira Foundation Scholarship	Badal Priyadarshi	150040081
Rajiv Kundalkar	Shankar Ganesh Kundalkar Scholarship	Sanjoli	17D100013
IITBHF	IITBHF Scholarship	Pranjal Agrawal	150110072
MESARG Educational Trust	Mrs. Prabhat. R. Gokhale Scholarship	Akshata Tukaram Nagare	17D100003
Atul Thakkar	Atul Thakkar Scholarship	Manoj Bhadu	170010036
Abraham Thomas	Abraham Thomas Scholarship in Physics	Aditya Singh	150260017
Balakrishnan Subramanian	P K Seshambal Scholarship	Aditya Singh	150260017
Milind Mahajan	Prabhakar D. Mahajan Scholarship	Tushar Chauhan	150040069
Amitabh Mitra	Prof. K,K. Mitra Scholarship	Ashwini Kumar Singh	150040040
Jayant Kanitkar	Kanitkar Merit Scholarship	Thorve Rajesh Bhaskar	170070002
IITBHF	IITBHF Scholarship	Sunil B	15D100019
Samir Kapoor	Dinanath and Gayatri Nath	Katyayani Sharad Shinde	150110023
Shubham Singhal	Mr. Rajiv Singhal Memorial Scholarship	Anupradiksha Rajan	160100019
Deepak & Vinita Kamath	Kamath Family Scholarship	Anupradiksha Rajan	160100019

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
Sandeep Vijayakar	Mukund Vijayakar Scholarship	Kolambe Bhagyesh Nemichand	150100046
Noorali Sonawalla	Mr Kasamali Virani	Sunil B	15D100019
Mr. Ravi Apte	Dr. Vijaya Apte Memorial Scholarship	Mayank Gurjar	150020067
Toos Daruvala	Toos and Hira Daruvala Scholarship.	Anish Mukundlal Chaurasiya	180260007
Kaushal Patel	Kaushal & Shweta Patel Scholarship	Saavi Yadav	170020003
IITBHF	IITBHF Scholarship	Prateek Yadav	170040081
Anonymous	Anonymous scholarship	Gadhe Sanket Dinesh	15D070015
Kishor Kulkarni	Kishor M. Kulkarni Scholarship with thanks to UNESCO	Shridhar Sharma	150100052
IITBHF	IITBHF Scholarship	Saavi Yadav	170020003
Girish Kulkarni	Girish Kulkarni Scholarship	Aadish Sogani	170110069
IITBHF	IITBHF Scholarship	Richa Aggarwal	150100070
Vinod Menon	Vinod Menon Scholarship	Abhimanyu Sajeevan	170100097
Victor Menezes	Menezes Foundation Scholarship	Mohit Kherwa	150070029
Class of '85 Memorial (Shekhar Ayyar)	Samir Shah-Prakash Peres Memorial	Fazal Ahmad	160070043
Giridharan Iyengar	Mr. & Mrs. Ranganathan Scholarship	Anish Mukundlal Chaurasiya	180260007
Abhay Kulkarni	Mr. S.J. & Mrs S.S. Kulkarni	Bharatha Ram	160020069
Shenoy, Menezes, et al	IIT Alumni at Microsoft Scholarship	Saurabh Sharma	180260033
Praful Dand	Nirmalaben Vishanji Dand Scholarship	Surbhi Sahu	140020079
Bharat Shiralkar	Mr. S.S. Shiralkar	Richa Aggarwal	150100070
Neela Mudgal	Late Smt Malati & Shri Jaganath Gavankar	Sanjoli	17D100013

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
Avi Nash	Indira Manudhane	Mayank Chittora	160020055
Shenoy, Menezes, et al	IIT Alumni at Microsoft Scholarship	Muskan Gour	180020054
Gautam Advani	Gautam Advani	Sakhare Chaitanya Ravindra	170020035
Shenoy, Menezes, et al	IIT Alumni at Microsoft Scholarship	Kumavat Umang	160020002
Kumar & Susan Shah	Kumar & Susan Shah Scholarship	Saurabh Sharma	180260033
Brijesh Agarwal	radha rani agarwal schol	Lachireddy Harshitha Sri Sravya	18B090005
Nitish Thakor	Nitish Thakore	Harish	180020033
Suhas Pai	Anant Pai	Aditya Shah	170040082
Suhas Pai	Laxmi Pai	Harish	180020033
Greater New	Greater New York Chapter Alumni	Aditya Shah	170040082
IITBHF	IIT Bombay Heritage Fund Scholarship	Harshit Khariwal	15D070026
Lionel D'luna	Lionel j. D'luna	Ashwini Kumar Singh	150040040
Shenoy, Menezes, et al	IIT Alumni at Microsoft Scholarship	Toshi Parma	150260012
Prafulla Nabar	Nalini Nabar	Bharatha Ram	160020069
Anil Kumar	Virendra kumar scholarship	Majji Sai Siddhardha	15D170026
Noorali Sona walla	Mrs. Minaz Sonawalla	Brahmankar Nisha Ganesh	16D070019
Shenoy, Menezes, et al	IIT Alumni at Microsoft Scholarship	Saavi Yadav	170020003
Prafulla Nabar	Mr M. G. Nabar Scholarship	Karan Chittora	180040050
Rajeev Mundhe	Mr. Balkrishna K. Mundhe Scholarship	Abhilaksh Kumar	18D070035

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
Subodh Ghonge	Subodh Ghonge Scholarship	Harish	180020033
Anonymous	Anonymous	Katyayani Sharad Shinde	150110023
Shenoy, Menezes, et al	Alumni at Microsoft scholarship	Sneha Sunil Bhakare	150050040
Deepak Sabnis	Prof. G.N. Revankar Scholarship	Sonal Kumar	17D070045
Ravi Apte	Shri C.K. Apte Memorial Scholarship	Bharatha Ram	160020069
Shenoy, Menezes, et al	IIT Alumni at Microsoft Scholarship	Harshit Khariwal	15D070026
Dilip Limaye	R. N. Limaye Scholarship	Bharatha Ram	160020069
Dev Purkayastha	Nagesh C Chaudhuri Scholarship	Brahmankar Nisha Ganesh	16D070019
Vidyadhar Kulkarni	Vidyadhar and Radhika Kulkarni Scholarship	Harish	180020033
Sandeep Vijayakar	Lata vijayakar scholarship	Vipul Jain	160100055
Dwarika Agarwal	Madho and Radha agarwal scholarship	Nancy Yadav	180050065
Dev Purkayastha	Bijoya Chauduri Scholarship	Sunil B	15D100019
Sandeep Vijayakar	Lata vijayakar scholarship	Nancy Yadav	180050065
Suresh Nihalani	Suresh and Varsha Nihalani scholarship	Harish	180020033
Rajendra Agarwal	Roopkumar and Surajdevi Agarwal Scholarship	Bharatha Ram	160020069
Dev Purkayastha	Bibha Nandi Majumdar Scholarship	Divyansh	150020086
Suresh Nihalani	Suresh and Varsha Nihalani scholarship	Aditya Shah	170040082
IITBHF	IITBHF Scholarships	Divyansh	150020086

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
Rajesh Rajaraman	N. S. Rajaraman	Lachireddy Harshitha Sri Sravya	18B090005
Dev Purkayastha	Usha Purkayastha Scholarship	Ankur Gurjar	16D100019
Shenoy, Menezes and others	Alumni at Microsoft scholarship	Anupradiksha Rajan	160100019
Anonymous	Anonymous,	Satyam Kumar Bharti	150010027
Ravi Apte	Dr. G.V. Bakore Memorial Scholarship	Sanketkumar Sanjay Aswale	180040090
Dev Purkayastha	Himangshushekar Purkayastha Scholarship	Gadhe Sanket Dinesh	15D070015
Anonymous	Anonymous	Ankur Gurjar	16D100019
Rajesh Rajaraman	S Ramamritam Scholarship	Majji Sai Siddhardha	15D170026
Mr. Pradeep Anand	T. R.S. Anand and Bhanumati Anand scholarship	Harish	180020033
Dev Purkayastha	Gajendra Chandra Malakar Scholarship	Hardik Murarka	160110046
Raman Rao	Shri Raman K. Rao Scholarship	Karan Chittora	180040050
Girish Kamath	Electrical Engineering Dept Scholarship	Ankur Gurjar	16D100019
IITBHF	IITBHF Scholarship	Dhiraj Soni	150040050
Ruyintan E. Mehta	Ruyintan E. Mehta Scholarship	Sakhare Chaitanya Ravindra	170020035
Kumar Shah	Kumar Shah scholarship	Sunil B	15D100019
1970 batch	1970 Batch legacy Project Scholarship - 1	Brahmankar Nisha Ganesh	16D070019
IITBHF	IITBHF scholarship	Ashwini Kumar Singh	150040040

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
Kumar Shah	Kumar Shah scholarship	Lachireddy Harshitha Sri Sravya	18B090005
Ruyintan E. Mehta	Ruyintan E. Mehta Scholarship	Sakhare Chaitanya Ravindra	170020035
D L Shah Trust	D L Shah Trust	Abhimanyu Sajeevan	170100097
The Indira Foundation	The Indira Foundation Scholarship	Anupradiksha Rajan	160100019
Narendra Joshi	Shubhada Joshi Scholarship	Palak Sahu	180020061
Deepak Kotwal	Deepak Kotwal 1970 batch scholarship	Richa Aggarwal	150100070
Dev Purkayastha	Dwaraka Nath Shuklo Baidya Scholarship	Ashwini Kumar Singh	150040040
Vinod Menon	Dr. Remadevi Menon Scholarship	Aishwarya Agarwal	170040118
IITBHF	IITBHF Scholarship	Abhilaksh Kumar	18D070035
D L Shah Trust	D L Shah Trust	Aman Mishra	160100052
Anupam Tiwari	T.C.Tiwari	Anant Jain	150040042
Vinod Menon	Vinod Menon Scholarship	Ashay Vasant Wakode	170100033
Vinod Menon	Vinod Menon & Shubhada Joshi	Tiwari Aashish Rajkumar	170040109
Greater New York Chapter	Greater New York Chapter Alumni	Katyayani Sharad Shinde	150110023
IITBHF	IITBHF Scholarship	Karan Chittora	180040050
Uday Patil	Vijaya Patil	Tushar Chauhan	150040069

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
Kumar Shah	1970 Batch legacy Project Scholarship - 2	Harshit Khariwal	15D070026
IITBHF	IITBHF Scholarship	Lachireddy Harshitha Sri Sravya	18B090005
Jayant Kanitkar	Kanitkar Merit Scholarship	Thorve Rajesh Bhaskar	170070002
Ashok V. Kulkarni	Ashok V. Kulkarni Scholarship	Brahmankar Nisha Ganesh	16D070019
Yezdi Dorde & Roxane Mehta - Dordi	Dordi Family Scholarship	Brahmankar Nisha Ganesh	16D070019
Gagan Singh	J.P. Singh Scholarship	Aditya Shah	170040082
Kishor Kulkarni	Prof. Mohan M. Kulkarni Scholarship	Satyam Kumar Bharti	150010027
Gagan Singh	Gul Bhutani Scholarship	Shilpi Agrawal	150110046
Kulkarni Shashank	Shashank Kulkarni Scholarship	Richa Aggarwal	150100070
Samir Patel	Patel Scholarship	Dhiraj Soni	150040050
Vinod Menon	Dr. P Remadevi Menon	Brahmankar Nisha Ganesh	16D070019
IITBHF	IITBHF Scholarship	Aditya Singh	150260017
Ashok V. Kulkarni	Ashok Vasant Kulkarni	Aditya Shah	170040082
Himanshu Patel	Manorama I Patel Scholarship	Palak Sahu	180020061
Narendra Joshi	Aditya Joshi scholarship	Kedia Arpit Ajay	160100028
Uday Patil	Vijaya Patil	Tushar Chauhan	150040069

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
Greater New York Chapter	Greater New York Chapter Alumni	Dhiraj Soni	150040050
Sandeep Vijayakar	Mr Mukund Vijayakar Schol	Kolambe Bhagyesh Nemichand	150100046
Anonymous	Anonymous Scholarship	Sonal Kumar	17D070045
Victor Menezes	Menezes Foundation Scholarship	Saurav Choudhary	150010036
IITBHF	IITBHF Scholarship	K S Reshma	150020111
Gautam Kollu	Kollu Family Scholarship	Preeti Kumari	140020088
Mahesh Kumar Navani	Shape India Scholarship	Anish Mukundlal Chaurasiya	180260007
Rajiv Kundalkar	Shankar Ganesh Kundalkar schol-2	Sanketkumar Sanjay Aswale	180040090
Anonymous	Class of 74 Anonymous Scholarship	Tushar Chauhan	150040069
V.V.S.Laxman	Yuva Unstopabble	Thorve Rajesh Bhaskar	170070002
The Indira Foundation	The Indira Foundation Scholarship	Hardik Murarka	160110046
The DS Foundation	Desai Sethi Family Scholarship	Ms Vempati Saarvani	150100001
The DS Foundation	Desai Sethi Family Scholarship	Ms Irin Ghosh	170050072
The DS Foundation	Desai Sethi Family Scholarship	Ms Mannem Sai Varshitha	170050097
The DS Foundation	Desai Sethi Family Scholarship	Ms Manaswi Rajpurohit	170050048
The DS Foundation	Desai Sethi Family Scholarship	Ms Kavya Bhandari	160070036

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
The DS Foundation	Desai Sethi Family Scholarship	Ms Kochar Dimple Vijay	16d070010
The DS Foundation	Desai Sethi Family Scholarship	Ms Shah Sanskriti	160100005
The DS Foundation	Desai Sethi Family Scholarship	Ms Pokkuluri Mohana Madhumati	16D070050
The DS Foundation	Desai Sethi Family Scholarship	Ms Swadha Sanghvi	16D070037
The DS Foundation	Desai Sethi Family Scholarship	Ms Baviskar Riya	170050011
The DS Foundation	Desai Sethi Family Scholarship	Ms Purvi Hebbar	170050094
The DS Foundation	Desai Sethi Family Scholarship	Ms Krati Tiwari	150050051
The DS Foundation	Desai Sethi Family Scholarship	Ms Sneha Sunil Bhakare	150050040
The DS Foundation	Desai Sethi Family Scholarship	Ms Yashvi Sharma	150070032
The DS Foundation	Desai Sethi Family Scholarship	Ms Prudhvi Kavya	15D070014
The DS Foundation	Desai Sethi Family Scholarship	Ms Simi Karan	150100094
The DS Foundation	Desai Sethi Family Scholarship	Ms Parakh Meenal	180050058
The DS Foundation	Desai Sethi Family Scholarship	Ms Pathak Shreya	180050100
The DS Foundation	Desai Sethi Family Scholarship	Ms Missula Meghana	180050060
The DS Foundation	Desai Sethi Family Scholarship	Ms Kapadia Khushi	180050048

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
The DS Foundation	Desai Sethi Family Scholarship	Ms Jindal Vrinda	180050120
Dr Pinakin M Shah	Mrs. Shobha Pinakin Shah	K S Reshma	150020111
Sudarsana Yeleswarapu	Dr. Y. Srinivasa Rao Memorial Scholarship	K S Reshma	150020111
Jitu & Sarla Jhaveri	Scholarship in Excellence	K S Reshma	150020111
Swati & Kumar Vora	Shri Madhukar Kelkar Scholarship	K S Reshma	150020111
Niraj Shah	Shah & Kothary Family	Palak Sahu	180020061
Swati & Kumar Vora	Mrs Vimla Vora Scholarship	Shilpi Agrawal	150110046
IITBHF	IITBHF Scholarship-18	Kedia Arpit Ajay	160100028
Atul Thakkar	Atul Thakkar Scholarship	Agrawal Kanak Rajeshkumar	150050016
V.V.S.Laxman	Yuva Unstopabble	Thorve Rajesh Bhaskar	170070002
Girish Kamath	Electrical Engineering Department Scholarship	Mohit Kherwa	150070029
Sanjay Vinekar	R.N. Vinekar Memorial Scholarship	Prateek Yadav	170040081
Balaji Srinivasan	Preeti and Balaji Srinivasan Scholarship	Sneha Sunil Bhakare	150050040
Har Asha Foundation (Sponsored by Sandeep Kishore)	Har Asha Foundation Scholarship	Megha Venkateshan	150110064
Anonymous	Anonymous Scholarship	Shubham Kumar	140100072
Kishor Trivedi	Shridharbhai Trivedi Scholarship	Gangam Rohith Reddy	140050060
D L Shah Trust	D L Shah Trust-3	Abhay Singh Chauhan	150050034
Girish Kamath	Electrical Engineering Department Scholarship	Mohit Kherwa	150070029

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
Class of 1990	Round Memorial	Kumavat Umang	160020002
Pratap Srivastava	Anita Srivastava	Sanjoli	17D100013
D L Shah Trust	D L Shah Trust-4	Vipul Jain	160100055
Vinod Menon	Dr. Remadevi Menon Scholarship	Aishwarya Agarwal	170040118
D L Shah Trust	D L Shah Trust-5	Anurag Kumar	170100048
D L Shah Trust	D L Shah Trust-6	Subham Pirojiwala	160040045
Dr Judy Stamps	V. V. Krishnan Scholarship	Thorve Rajesh Bhaskar	170070002
Dr Judy Stamps	V. V. Krishnan Scholarship	Fazal Ahmad	160070043
Dr Judy Stamps	V. V. Krishnan Scholarship	Brahmankar Nisha Ganesh	16D070019
IITBHF	IITBHF Scholarship-19	Kumavat Umang	160020002
Gautam Kollu	Kollu Family Scholarship	Preeti Kumari	140020088
Girish Shah	Girish & Datta Shah	Toshi Parmar	150260012
Bhautik Doshi	Sponsor's payback Scholarship	Nancy Yadav	180050065
Deepak Kamath	Manohar & Sunita Kamath Scholarship	Manoj Bhadu	170010036
Anand Garde	Artist Vinayak Javadekar Scholarship	Pranjal Agrawal	150110072
Greater New York Chapter	Greater New York Chapter Alumni	Satyam Kumar Bharti	150010027
Anonymous	Anonymous	Anku Kumar Choudhary	150110078

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
Jayant Sathye	Jayant Sathye Scholarship	Saurabh Sharma	180260033
Pratap Srivastava	Anita Srivastava	Muskan Gour	180020054
Niranjan Talwalkar	Shubha and Anand Talwalkar scholarship	Ashay Vasant Wakode	170100033
Atul Athalye	Prof. S.L. Narayanamurthy Scholarship	Saavi Yadav	170020003
Victor Menezes	Menezes Scholarship	Brahmankar Nisha Ganesh	16D070019
Ruyintan E Mehta	Ruyintan & Monica Mehta Family Scholarship	Saurav Choudhary	150010036
IITBHF	IITBHF Scholarship-20	Saurav Choudhary	150010036
Mr. Gagan Singh	JP Singh Scholarship	Seelam Lakshmi Anoosha	150070055
Sanjeev Jorapur	Jorapur Family Scholarship	Shilpi Agrawal	150110046
Vinod Menon	Vinod Menon Scholarship	Divyam Bapna	160070038
The Indira Foundation	The Indira Foundation Scholarship	Aditya Singh	150260017
Greater New York Chapter	Greater New York Chapter Alumni	Saurav Choudhary	150010036
Vinod Menon	Vinod Menon Scholarship	Aman Singhal	160070023
Jagdish Iyengar	Berigai Rama Iyengar	Abhimanyu Sajeevan	170100097
Girish Kamath	M. Radhakrishna Kamath	Mohit Kherwa	150070029
Anonymous	The Electrical Engg Dept Scholarship-1	Sonal Kumar	17D070045

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
Abhay Talsania	Abhay Himatlal Talsania	Harshit Khariwal	15D070026
Narendra	Narendra Joshi	Lachireddy Harshitha Sri Sravya	18B090005
Mukul Paithane	Sandhya Paithane Hostel Scholarship	Aditya Shah	170040082
Prof A N Chandorkar Memorial Scholarship	Prof A. N. Chandorkar Memorial Scholarship	Fazal Ahmad	160070043
Anonymous	EE Alumni Sponsored Scholarship	Fazal Ahmad	160070043
Balaji Srinivasan	Lakshmi and Kadayam Srinivasan ,	Mayank Gurjar	150020067
Kaushal Patel	Kaushal & Shweta Patel Scholarship	Saavi Yadav	170020003
The Indira Foundation	The Indira Foundation Scholarship	Sanketkumar Sanjay Aswale	180040090
Dr Judy Stamps	V. V. Krishnan Scholarship	Sanketkumar Sanjay Aswale	180040090
Radhika Rajan	Mrs Amrutha Iyengar scholarship	Lachireddy Harshitha Sri Sravya	18B090005
Bhautik Doshi	Sponsor's payback Scholarship	Nancy Yadav	180050065
The Indira Foundation	The Indira Foundation Scholarship	Mayank Chittora	160020055
Ruyintan E. Mehta	Ruyintan & Monica Mehta Family Scholarship	Saurav Choudhary	150010036
Raj Singh	Ms Kamaljit K Minhas Scholarship	Divate Chandrahans Vitthal	160100015
The Indira Foundation	The Indira Foundation Scholarship	Arya Mithu Garg	160040003
Sandeep Vijayakar	Mukund Vijayakar Scholarship	Richa Aggarwal	150100070
Shashank Kulkarni	Shashank Kulkarni Scholarship	Richa Aggarwal	150100070

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Surajben Maganlal Trust	Surajben Maganlal Trust Shakti	Sanjoli	17D100013
Swati & Kumar Vora	Shri Amritlal Vora Scholarship	Divyansh	150020086
Pankaj Shah	Sharda B. Shah Scholarship	Kedia Arpit Ajay	160100028
Dr Judy Stamps	V. V. Krishnan Scholarship	Hardik Murarka	160110046
D L Shah Trust	D L Shah Trust-7	Sanjay Khatri	160020043
Class of 1974	Class of 1974 Scholarship	Manoj Bhadu	170010036
IITBHF	IITBHF Scholarships-21	Arya Mithu Garg	160040003
Atul Thakkar	Atul Thakkar Scholarship	Aishwarya Agarwal	170040118
Sandeep Desai	Saili & Sandeep Desai Scholarship	Makwana Jigar	170050003
Anil Diwan	Shreemati Manik Ratnakar Diwan Memorial Scholarship	Shilpi Agrawal	150110046
Anonymous	Anonymous Scholarship	Sunil B	15D100019
Anonymous	Undergraduate Scholarship	Pranjal Agrawal	150110072
Amol Kirtikar	Kirtikar Class of 86 Scholarship	Himanshu Singh	170110076
Anand Garde	Grandma Yesutai Garde Memorial Scholarship	Hardik Murarka	160110046
Raj Pendse	Mrs. Jyotsna Pendse	Pranjal Agrawal	150110072
Anil Kaza	K. A. L. Kameswari Scholarship	Katyayani Sharad Shinde	150110023
Shaporji Pallonji Pvt Ltd	Shaporji Pallonji Rising Star	Prateek Yadav	170040081

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
Dr Judy Stamps	V. V. Krishnan Scholarship	Kumavat Umang	160020002
MESARG Educational Trust	Ramchandra.G.Gokhale Scholarship	Vipul Jain	160100055
IITB Alumni	Dhamdhare Scholarship	Pranay Bharat Raut	150040009
V.V.S.Laxman	Yuva Unstopabble	Nama N V S S Hari Krishna	170050077
Sameer Utrankar	Sawali Scholarship	Nama N V S S Hari Krishna	170050077
Shaporji Pallonji Pvt Ltd	Shaporji Pallonji Rising Star	Jansan Shivhare	150100073
Sandeep Desai	Shanta Desai Scholarship	Mayank Chittora	160020055
Milind Mahajan	Prabhakar D. Mahajan Scholarship	Ashwini Kumar Singh	150040040
IIT UK Alumni	IIT UK	Mohit Kherwa	150070029
Aditya behari	O P Behari	Saurabh Sharma	180260033
Anonymous	Kumudini Ranadive Scholarship	Yati Sharma	170260041
Dr Judy Stamps	V. V. Krishnan Scholarship	Saurabh Sharma	180260033
MESARG Educational Trust	Mrs. Carlotta Saenz Rivera Scholarship	Harsh Jain	160040076
IITBHF	IITBHF Scholarships-22	Saurabh Sharma	180260033
Sandeep Vijayakar	Sandeep Vijayakar	Ayush Sharma	140100056
Shenoy, Menezes, et al	Alumni at Microsoft scholarship	Anupradiksha Rajan	160100019
Samir Patel	Patel Scholarship	Dhiraj Soni	150040050
Dev Purkayastha	Ashish Prasad Nandi Majumdar Scholarship	Gadhe Sanket Dinesh	15D070015

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
Vinod Menon	Dr.Remadevi Menon & Nina Menezes	Risha Agarwal	160040005
Gagan Singh	EE Alumni Scholarship & Gul Bhutani	Anagha Aneesh	18U130004
Atul Athalye	Prof S L Narayanmurthy & Shri Madhukar Kelkar	Jovina Vaswani	160020086
Balaji Srinivasan	Preeti & Balaji Srinivasan & Mrs.Vimla Vora	Vanshika Gupta	18D100022
Firoze Katrak	Class of 1974 & Anonymous	Rohit Patidar	150040076
B.N. Srinivas (Nagendra Bommadevar a)	Moon Stone Presents & Ashok V.Kulkarni	Peela Anudeep	170010046
Dr. Judy Stamps	V V Krishnan Scholarship & J.P. Singh	Cholleti Murali Venkata Sai Sreejith	170010060
Gagan Singh	IITBHF Scholarship & Gul Bhutani	Paturu Rajesh	18D070058
Jitu Jhaveri	Education Support JJ-01	Nagale Dattatraya Vilas	175090026
Vinod Menon	Vinod Menon & Grandma Saraswati Javadekar	Shubham Soni	170040094
Ashutosh Gunderia (Anonymous)	Anonymous	Siddhant Jain	150040092
Rajeev Ranadive	Mrs.Kumudini Ranadive	Devansh Sharma	150100106

Name of the Donor	Name of the Scholarship	Name of student	Roll.No
Rajiv Kundalkar	Class of 1974 & Shankar Ganesh Kundalkar	Sanjoli Manoj Bhadu	17D100013 170010036
Sanjay Vinekar	R N Vinekar Memorial & Education Support JJ-02	Makineni Bhanu Chandu	170040100
Toos Daruvala	Toss and Hira Daruvala & D'Souza-Govil Hostel/Mess Scholarship 1	Akshay Satish Mandora	17B080002
Mahesh Kumar Navani	Shape India & D'Souza-Govil Hostel/Mess Scholarship 2	Aryan Dangayach	180020021
Vinod Menon	Vinod Menon & Dilip desai	Pradhuman Singh Rathore	180020064
Ravi and Sandhya Gujar	Savali & Vasudeva Kamath Memorial	Sarthak Tripathi	180020095
vipul Deokar	vipul Deokar & Patel	Akshat Jain	18D170004
Sameer Sheorey, Mohini Sheorey	Meera and Vasant Sheorey	Anand Gaurav	150110057
Atul Thakkar	Atul Thakkar & XYZ	Ansari Mohammad Razi Mohammad Rehan	16D170003
Parag Tole	Prabhakar & Madhavi Tole & Sharda B. Shah	Nitish Tongia	170010042

J.2. Funded Fellowship Details

J.2.1. Tata Centre Fellowships

Name of the Donor	Name of the Fellowship	Name of the Student	Roll No
Sir Dorabji Tata Trust	Tata Centre Fellowship	Prasad Kulkarni	183170015
Sir Dorabji Tata Trust	Tata Centre Fellowship	Devendra Patil	183170004
Sir Dorabji Tata Trust	Tata Centre Fellowship	Sushant Narayan	183100053
Sir Dorabji Tata Trust	Tata Centre Fellowship	Aniket Sadashiv	183100026
Sir Dorabji Tata Trust	Tata Centre Fellowship	Sameer Ravindra	183350020
Sir Dorabji Tata Trust	Tata Centre Fellowship	Vrushali Gardare	183020049
Sir Dorabji Tata Trust	Tata Centre Fellowship	Shantanu Darveshi	183020057
Sir Dorabji Tata	Tata Centre Fellowship	Shiwani Pareek (Ph.D)	184116001
Sir Dorabji Tata Trust	Tata Centre Fellowship	Sayali Khare (Ph.D)	184086001

Sir Dorabji Tata Trust	Tata Centre Fellowship	Mayur Manoj Bhongade	183020032
Sir Dorabji Tata Trust	Tata Centre Fellowship	Salil Salim Mathew	183020010
Sir Dorabji Tata Trust	Tata Centre Fellowship	Susmit M Nimje	183020050
Sir Dorabji Tata Trust	Tata Centre Fellowship	Rahul Pramjeet	183300025
Sir Dorabji Tata Trust	Tata Centre Fellowship	Shreeharsha B S	18307R002
Sir Dorabji Tata Trust	Tata Centre Fellowship	Shraddha Vekhande	173350019
Sir Dorabji Tata Trust	Tata Centre Fellowship	Jahnvi Narravula	183079034
Sir Dorabji Tata Trust	Tata Centre Fellowship	Vidhya P Sawant	18307R003
Sir Dorabji Tata Trust	Tata Centre Fellowship	Rameesh Paul	18305R006
Sir Dorabji Tata Trust	Tata Centre Fellowship	Suraj Kumar	18305R008
Sir Dorabji Tata Trust	Tata Centre Fellowship	Manmohan Singh	18301T002
Sir Dorabji Tata Trust	Tata Centre Fellowship	Sneha R Iyer (Ph.D)	184026001

J.3. Awards and Prizes awarded duration Convocation 2018

Sr. No.	Name of Student	Name of Award	Roll No
12	Sudeep Kundu Nidhin T J	Prabhulal Bhatnagar Memorial Prize	124093001 10409304
13	Sachin Garg	Mrs. Rama Mathur Memorial Prize	165090029
14	Sandeep Subramanian Devdatta Kathale Amjath Husain M.S	Ajit Shelat Award	163050036 153079001 15307R008
15	Palka Puri Dudhia Vashishth Shounakbhai	Bhavesh Gandhi Memorial Prize	130260014 130070001
16	Bhat Ashwin Rajendra	Akshay Dhoke Memorial Award	13D070006
17	Pritam Biswas	Prof. K.C. Khilar Ph.D. Award	10402011
18	Deepankar Varshney	Prof. K.C. Khilar Prize (M.Tech.)	130020096
19	Sonar Sameer Anil	K Seshia Research Excellence Award	13D260007
20	Kumari Priti Shinha Srikanth Divi	R. G. Manudhane Ph.D. Excellence Award	09302037 124020017
21	Arunabh Mishra	Indira Manudhane Student Excellence Award	140020022
22	Gagrani Nisarg Bhushan Abilash Chakraborty	Mr. Pranab Ranjan Sen Award	140110021 13D110017
23	Gargi Das	Shubhada Mulekar Joshi Award	165300017
24	Gagrani Nisarg Bhushan	Prof. S N Sinha memorial award	140110021
25	Sayan Dutta Sachin Garg Rohit Kumar Rudra Prasad Das	Dr. P.V.Sukhatme Memorial Award	165090002
26	Kulkarni Anish Kiran	Shri Rakesh Mathur Excellence Award	150260006
27	Samir Wadhwa	Shri T.K. Subramanian Prize For Academic Excellence	150100024

Sr. No.	Name of Student	Name of Award	Roll No
12	Sudeep Kundu Nidhin T J	Prabhulal Bhatnagar Memorial Prize	124093001 10409304
13	Sachin Garg	Mrs. Rama Mathur Memorial Prize	165090029
14	Sandeep Subramanian Devdatta Kathale Amjath Husain M.S	Ajit Shelat Award	163050036 153079001 15307R008
15	Palka Puri Dudhia Vashishth Shounakbhai	Bhavesh Gandhi Memorial Prize	130260014 130070001
16	Bhat Ashwin Rajendra	Akshay Dhoke Memorial Award	13D070006
17	Pritam Biswas	Prof. K.C. Khilar Ph.D. Award	10402011
18	Deepankar Varshney	Prof. K.C. Khilar Prize (M.Tech.)	130020096
19	Sonar Sameer Anil	K Seshia Research Excellence Award	13D260007
20	Kumari Priti Shinha Srikanth Divi	R. G. Manudhane Ph.D. Excellence Award	09302037 124020017
21	Arunabh Mishra	Indira Manudhane Student Excellence Award	140020022
22	Gagrani Nisarg Bhushan Abilash Chakraborty	Mr. Pranab Ranjan Sen Award	140110021 13D110017
23	Gargi Das	Shubhada Mulekar Joshi Award	165300017
24	Gagrani Nisarg Bhushan	Prof. S N Sinha memorial award	140110021
25	Sayan Dutta Sachin Garg Rohit Kumar Rudra Prasad Das	Dr. P.V.Sukhatme Memorial Award	165090002
26	Kulkarni Anish Kiran	Shri Rakesh Mathur Excellence Award	150260006
27	Samir Wadhwa	Shri T.K. Subramanian Prize For Academic Excellence	150100024

Sr. No.	Name Of Student	Name of Award	Roll No
28	Prasanjit Dubey	Prof. M.N. Vartak Memorial Prize	175280028
29	Garima Thareja	Mrs. Rama Mathur Memorial Prize	175090019
30	Siddharth Chandak	Aditya Choubey Memorial Prizes	17D070019
31	Shubham Agrawal Apoorv Srivastava Ayush Pandey	S. C. Mehrotra Prize	140040083 160040081 150040087
32	Som Phene	Prof. A.K. Mallik Award	15D110001
33	Hemnath Raja	Shri Ram Kumar Gupta Merit Award	150020097
34	Triesha Singh	Shrimati Prakashvati Devi Gupta Merit Award	150020026
35	R. Basuhi	Ramesh Chandra Sinha Academic Excellence Award	140010037
36	Gumireddy Sushmitha Sree	Manorama Sinha Academic Excellence Award	140040095
37	Devdatta Kathale	Malini Vyavahare (Indore) memorial award	153079001
38	Kolachana Sri Ram Aditya	Digamber and Nilima Joshi Award	134080015
39	Samir Janardan Sohoni	Prabhakar & Pratibha Mulekar Award	114086001
40	Adway Girish Siddharth Chandak Kaustubh Porlikar Sridhar Srivatsan	Urvish Medh Memorial Prize (For Electrical Engg.)	1800070002 17D070019 160100083 150070005

J.4. List of Named/Institute Chair Professors

Sr No	Name	Department	Name of the Chair	Effective from
1	Prof. Dulal Panda	Biosciences & Bioengineering	Institute Chair Professor	03.07.2014
2	Prof. Soumyo Mukherjee	Biosciences & Bioengineering	Institute Chair Professor	01.04.2016
3	Prof Suparna Mukherji	CESE	Institute Chair Professor	09.11.2015
4	Prof B K Mohan	CSRE	Institute Chair Professor	06.04.2016
5	Prof. Jayesh Bellare	Chemical Engg	Institute Chair Professor	04.10.2017
6	Prof. A.K. Suresh	Chemical Engg	Institute Chair Professor	04.10.2017
7	Prof. Anurag Mehra	Chemical Engg	Institute Chair Professor	12.04.2018

Sr No	Name	Department	Name of the Chair	Effective from
8	Prof. K.V.Venkatesh	Chemical Engg	Institute Chair Professor	17.11.2017
9	Prof. C.P. Rao	Chemistry	Institute Chair Professor	19.06.2017
10	Prof. K. P. Kaliappan	Chemistry	Institute Chair Professor	19.06.2017
11	Prof. M. Ravikant	Chemistry	Institute Chair Professor	07.06.2017
12	Prof. G. K. Lahiri	Chemistry	Institute Chair Professor	19.06.2014
13	Prof. R.B.Sunoj	Chemistry	Institute Chair Professor	19.06.2017
14	Prof. D. N. Singh	Civil Engg	Institute Chair Professor	19.05.2017
15	Prof. M. C. Deo	Civil Engg	Institute Chair Professor	19.05.2017
16	Prof. B.V.S. Viswanadham	Civil Engg	Institute Chair Professor	02.05.2017
17	Prof. T.I. Eldho	Civil Engg	Institute Chair Professor	12.01.2018
18	Prof. Deepankar Choudhury	Civil Engg	Institute Chair Professor	18.10.2017
19	Prof. Sunita Sarawagi	Comp. Sci. & Engg.	Institute Chair Professor	19.04.2017
20	Prof. Kanchan Pande	Earth Sciences	Institute Chair Professor	19.05.2017
21	Prof. Santanu Banerjee	Earth Sciences	Institute Chair Professor	03.05.2018
22	Prof. T.N. Singh	Earth Sciences	Institute Chair Professor	04.05.2018
23	Prof. Sauvik Mahapatra	Electrical Engg	Institute Chair Professor	03.07.2017
24	Prof. D Manjunath	Electrical Engg	Institute Chair Professor	03.07.2017

Sr No	Name	Department	Name of the Chair	Effective from
25	Prof. Harish Pillai	Electrical Engg	Institute Chair Professor	09.05.2018
26	Prof. V. S. Borkar	Electrical Engg	Institute Chair Professor	02.08.2017
27	Prof V M Gadre	Electrical Engg	Institute Chair Professor	09.11.2015
28	Prof Vivek Agarwal	Electrical Engg	Institute Chair Professor	09.11.2015
29	Prof. Santanu Bandyopadhyay	Energy Science	Institute Chair Professor	19.05.2017
30	Prof. P.L .Trivedi	Humanities & Social Sciences	Institute Chair Professor	23.11.2015
31	Prof Rowena Robinson	Humanities & Social Sciences	Institute Chair Professor	09.11.2016
32	Prof B K Chakravarthy	IDC	Institute Chair Professor	24.09.2015
33	Prof. B. Bandyopadhyay	IE & OR and Sys. & Control. Engg	Institute Chair Professor	29.01.2018
34	Prof. Sudhir Ghorpade	Mathematics	Institute Chair Professor	18.05.2017
35	Prof. Amiya K. Pani	Mathematics	Institute Chair Professor	18.05.2017
36	Prof. Jugal. Verma	Mathematics	Institute Chair Professor	25.04.2018
37	Prof. K. P. Karunakaran	Mechanical Engg	Institute Chair Professor	12.06.2017
38	Prof. M. V. Rane	Mechanical Engg	Institute Chair Professor	19.09.2017
39	Prof. B. Ravi	Mechanical Engg	Institute Chair Professor	19.09.2017
40	Prof Amit Agrawal	Mechanical Engg	Institute Chair Professor	05.10.2015
41	Prof Milind Atrey	Mechanical Engg	Institute Chair Professor	04.05.2017

Sr No	Name	Department	Name of the Chair	Effective from
42	Prof. A. R. Kulkarni	Met. Engg. & Mat. Sci.	Institute Chair Professor	01.08.2017
43	Prof. V. S. Raja	Met. Engg. & Mat. Sci.	Institute Chair Professor	01.08.2017
44	Prof. I. Samajdar	Met. Engg. & Mat. Sci.	Institute Chair Professor	26.08.2017
45	Prof. B. P. Singh	Physics	Institute Chair Professor	13.08.2017
46	Prof. Punit Parmananda	Physics	Institute Chair Professor	17.11.2017
47	Prof. A. V. Mahajan	Physics	Institute Chair Professor	17.11.2017
48	Prof P Ramadevi	Physics	Institute Chair Professor	23.04.2018
49	Prof. S. Bhargava	SJMSOM	Institute Chair Professor	26.08.2017
50	Prof. Siddhartha Choudhuri, (Asstt. Prof.)	Comp. Sci. & Engg.	Institute Chair Assistant Professor	11.08.2015
51	Prof. Neena Gupta, (Asstt. Prof.)	Mathematics	Institute Chair Assistant Professor	Not Joined
52	Prof. Shyam R. Asolekar	CESE	MPCB Chair	20.11.2018
53	Prof.R. Murugavel	Chemistry	Biswas Palepu Distn. Chair	19.06.2017
54	Prof. Y. M. Desai	Civil Engg.	JK & MJ Mehta Chair	19.05.2017
55	Prof. Supratik Chakraborty	Computer Sci. & Engg.	Bajaj Chair Professor	08.07.2017
56	Prof. Anil Kumar	Computer Sci. & Engg.	Class of 1985 Chair	17.11.2017
57	Dr. Rohit Gurjar	Computer Sci. & Engg.	J. R. Issac Assistant Chair	10.09.2018
58	Prof. S. Sudarshan	Computer Sci. & Engg.	Subbarao M. Nilekani Chair	04.10.2017

Sr No	Name	Department	Name of the Chair	Effective from
59	Prof. Manoj Prabhakaran	Computer Sci. & Engg.	Vijay & Sita Vashee Chair	08.07.2017
60	Prof Krithi Ramamritham	Computer Sci. & Engg.	Major Bhagat Singh Rekhi Chair	19.04.2017
61	Prof. Preeti Rao	Electrical Engg	HAL Chair	03.07.2017
62	Prof. Subhasis Chaudhuri	Electrical Engg	Kamal Nayan Bajaj Chair	03.07.2017
63			Dhrumil Gandhi Chair	Vacant
64	Prof. R.O.Dusane	Met. Engg. & Mat. Sci.	P.K. Kelkar Chair for Excellence in Nano Technology	13.12.2016
65	Prof. Rangan Banerjee	Energy Sci. & Engg.	Forbes Marshall Chair	19.09.2017
66	Prof. Ravi Poovaiah	Industrial Design Centre	D.L. Shah Chair	28.08.2017
67			Ramakrishna Bajaj Chair	Vacant
68	Prof. Asim Tewari	Mechanical Engg.	G.K. Devarajulu Chair	12.06.2017
69	Prof. Shireesh Kedare	Mechanical Engg.	Praj Industries Chair	17.11.2017
70	Prof. Suhas Joshi	Mechanical Engg.	Rahul Bajaj Chair	12.06.2017
71	Prof. D. Parthasarathy	Humanities & Social Sciences	India Value Fund Chair	02.09.2017
72		SJMSOM	MHRD IPR Chair	Vacant
73	Prof S R Kotha	Chemistry	Pramod Chaudhari Chair for Green Chemistry & Industrial Biotechnology	19.09.2017
74		SJMSOM	Shailesh Mehta Chair	Vacant
75	Prof. Rinti Banerjee	Bio Science and Bio Engineering	Madhuri Sinha Chair	11.02.2018

Sr No	Name	Department	Name of the Chair	Effective from
76	Prof. Kannan.Iyer	Mechanical Engg	L & T Chair	03.05.2018
77			Tata Chair for Frugal Technology	Vacant
78	Prof.Sanur Mitragotri Prof. Manjul Bhargava Prof. Laushik Basu Dr. Madhu Sudan	Visiting Chair	Prof N R Kamath Visiting Chair (One Semester)	
79	Prof. Kishore Chatterjee	Department of Electrical Engineering	Institute Chair Professor	13.11.2018
80	Prof. S.A. Soman	Department of Electrical Engineering	Institute Chair Professor	13.11.2018
81	Prof. Malhar Kulkarni	Department of Humanities & Social Sciences	Institute Chair Professor	22.11.2018
82	Prof. Santhosh Gharpure	Department of Chemistry	Perfumery Chair Professor	03.12.2018
83	Prof. Ravindra Gudi	Department of Chemistry	AI&ML Chair Professor	03.12.2018
84	Prof. Kannan Moudgalya	Department of Chemical Engineering	Erach and Meheroo Mehta Advanced Education Technology Chair Professor	03.12.2018

J.5. List of Young Faculty Award Recipients

Sr No	Name Of Faculty	Department	Amount Disbursed
1	Srikanth Srinivasan	Maths Dept.	100000
2	Shivaram Kalyanakrishnan	Comp Sci & Eng	100000
3	Nikhil Karamchandani	Electrical Eng	100000
4	Venkata Delhi	Civil Eng.	100000
5	Pradeep Dixit	Mech. Eng	100000
6	Aswani Yella	M.E.M.S.	100000
7	Raghunath Chelakkot	Physics Dept	100000
8	Hrishikesh Gadgil	Aerospace Eng.	100000
9	Sourav Pal	Maths Dept.	100000
10	J. Indu	Civil Eng.	100000
11	Amrita Banerjee	Humanities & SS	100000
12	Amitabha Nandi	Physics Dept.	100000
13	Prasenjit Basu	Civil Eng.	100000
14	Swagata Basu	Civil Eng.	100000
15	Meera Raghunandan	Civil Eng.	100000
16	Arpita Mondal	Civil Eng.	100000

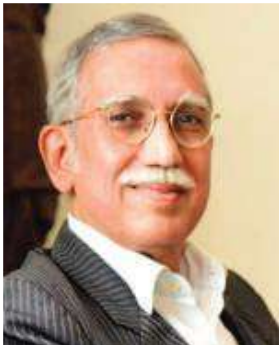
Sr No	Name Of Faculty	Department	Amount Disbursed
17	Vikram Rentala	Physics Dept.	100000
18	Bata Das	Maths Dept.	100000
19	Saurav Bhaumik	Maths Dept.	100000
20	Siddhartha Chaudhuri	Comp Sci & Eng.	100000
21	Sudarshan Gurjar	Maths Dept.	100000
22	Sandip Singh	Maths Dept.	100000
23	Sarthak Gaurav	SJM Sch of Mgnt	100000
24	Kamendra Sharma	Chemistry Dept	100000
25	Vivek Natarajan	Sys & Cntrl Eng	100000
26	Gopal Dixit	Physics Dept.	100000
27	Alankar Alankar	Mech. Eng.	100000
28	Jayesh Pillai	I.D.C	100000
29	Arnab Maity	Aerospace Eng.	100000
30	Manjesh Hanawal	I.E. & O.R.	100000
31	Vikram Vishal	Earth Sciences	100000
32	Vivek Sangwan	Mechanical Engg.	100000
33	Varun Bhalerao	Physics	100000
34	Shantanu Tripathi	Mech. Eng.	100000
35	Pradip Kalbar	Urban Sci & Eng	100000
36	Sunita Srivastava	Physics Dept.	100000
37	Preethi Jyothi	Comp Sci & Eng	100000
38	Swati Bhattacharya	Chemical Eng.	100000
39	Leela Panchakarla	Chemistry Dept	100000
40	Sharmistha Saha	Humanities & SS	100000
41	Anish Modi	Ergy Sci & Eng	100000
42	Sharayu Moharir	Electrical Eng.	100000
43	Sugandh Malhotra	I.D.C	100000

Sr No	Name Of Faculty	Department	Amount Disbursed
44	Lalit Kumar	Enrgy Sci & Eng	100000
45	Manish Kumar	Civil Eng.	100000
46	Ahona Roy	Humanities & SS	100000
47	Sujit Jogwar	Chemical Eng.	100000
48	Amber Shrivastava	Mech. Eng.	100000
49	Anush Kapadia	Humanities & SS	100000
50	Kasturi Saha	Electrical Eng.	100000
51	Nagamani Jaya Balila	M.E.M.S	100000
52	Muhammad Salman	Civil Eng.	100000
53	Neha Gupta	Humanities & SS	100000
54	Sai Vinjanampathy	Physics Dept.	100000
55	Siddharth Tallur	Electrical Eng.	100000
56	Ronnie Sebastain	Maths Dept.	100000
57	Vineeth Nair	Aerospace Eng.	100000
58	Arun Iyer	Humanities & SS	100000
59	Amritanshu Shrivastav	C.E.S.E.	100000
60	Soumya Bera	Physics Dept.	100000
61	Shobhna Kapoor	Chemistry Dept	100000
62	Sumiran Pujari	Physics Dept.	100000
63	Suddhaseel Sen	Humanities & SS	100000
64	Narendra Shiradkar	Electrical Eng.	100000
65	V.S.S. Pavan Kumar Hari	Enrgy Sci & Eng	100000
66	Sandeep Kumar	Enrgy Sci & Eng	100000
67	Jahnvi Punekar	Earth Sciences	100000
68	Janani Sree Murallidharan	Mech. Eng.	100000
69	Shashi Ranjan Kumar	Aerospace Eng.	100000
70	Sanjoy Pusti	Maths Dept.	100000
71	Ritayan Mitra	Edu. Technology	100000

Sr No	Name Of Faculty	Department	Amount Disbursed
72	Manish Pande	M.E.M.S.	100000
73	Deepak Marla	Mech. Eng.	100000
74	Rashmi Gupta	Humanities & SS	100000
75	Anshuman Kumar	Physics Dept	100000
76	Sudipta Dasgupta	Earth Sciences	100000
77	Riddhi Singh	Civil Eng.	100000
78	Balamurugan Palaniappan	I.E. & O.R.	100000
79	Prof. Chandan Dasgupta	Edu. Technology	100000
80	Prof. Anirban Patra	M.E.M.S.	100000
81	Prof. Basudev Biswal	Civil Eng.	100000
82	Prof. Achintya Dutta	Chemistry Dept	100000
83	Prof. Amrita Bhattacharya	M.E.M.S.	100000
84	Prof. Krishnendu Haldar	Aerospace Eng.	100000
85	Amuthan Ramabathiran	Aerospace Eng	100000
86	Pramod Murali	Electrical Eng.	100000
87	Prasad Bokil	I.D.C	200000
88	Vivek Kant	I.D.C	100000
89	Debanjana Mitra	Maths Dept	100000
90	Rahul Maitra	Chemistry Dept	100000
91	Amber Jain	Chemistry Dept	100000
92	Pennan Chinnasamy	C.T.A.R.A.	100000
93	Avradeep Pal	M.E.M.S.	100000
94	Avishek Ranjan	Mech. Eng.	100000
95	Karthik Sasihithlu	Enrgy Sci & Eng	100000
96	Albert Thomas	Civil Eng.	100000
97	Biplab Banerjee	C.S.R.E.	100000
98	Aditi Chaubal	Humanities & SS	100000

Sr No	Name Of Faculty	Department	Amount Disbursed
99	Mithun Chowdhury	M.E.M.S.	100000
100	Anand Singh	Earth Sciences	100000
101	Eswar Rajasekaran	Civil Eng.	100000
102	Ramkumar Rajendran	Edu. Technology	100000
103	Asish Sarangi	Enrgy Sci & Eng	100000
104	Sakthi Chinnasamy	Earth Sciences	100000
105	Avinash Bhardwaj	Mech. Eng.	100000
106	Harsha Hutridurga Ramaiah	Maths Dept.	100000
107	Rohit Gurjar	Comp Sci & Eng.	100000
108	Soham Mujumdar	Mech. Eng.	100000
109	Dipanshu Bansal	Mech. Eng.	100000
110	Swati Pal	I.D.C	100000
111	Pramod Kumar	Physics Dept.	100000
112	Amit Singh	Mech. Eng.	100000
113	Hridis Kumar Pal	Physics Dept.	100000
114	Swatantra Pratap Singh	C.E.S.E.	100000
115	Arun Mascarenhas	I.D.C	100000
116	Satish Maurya	Earth Sciences	100000
118	Karthikeyan Lanka	C.S.R.E.	100000
117	Manoranjan Sahu	C.E.S.E.	100000
118	Abhishek Chakraborty	C.E.S.E.	100000
119	Abhijit Gogulapati	Aerospace Eng.	100000
120	Saptarshi Ghosh	Humanities & SS	100000
121	Dwaipayan Mukherjee	Electrical Eng.	100000
		TOTAL	12300000

J.6.Distinguished Alumnus Awards (2019)



Mr. Raj Nair

B.Tech. (Honours), 1971, Metallurgical Engineering

Mr. Raj Nair is the Chairman of four companies - Avalon Consulting, AGR Knowledge Services, Ugam Solutions and Germinait Solutions. He is also the President of IMC Chamber of Coammerce and Industry.

After graduating from IIT Bombay in Metallurgical Engineering in 1971, Mr. Nair completed his postgraduate diploma in Business Administration from IIM Ahmedabad and LLB (Gen) from the University of Bombay. He has won merit scholarship awards at IIM Ahmedabad.

As an entrepreneur in the knowledge space, Mr. Nair has developed and participated in developing various kinds of unique intellectual properties ranging from frameworks to business solutions for assessment, diagnosis and optimization using data science, Technology and domain knowledge. He has created learning and career growth opportunities for over 2000 current employees.

Mr. Nair has 45 years of varied experience ranging from marketing of consumer durables to merchant banking, from market research to strategy consulting and from big data analytics to artificial intelligence based social media analytics. He has also served as a member on the Boards of private and public limited companies, government bodies and industry associations in India, UK and Singapore.

Mr. Nair's companies are encouraged to pursue social causes at the individual level and they spend serious CSR money on education of the under-privileged, for disaster relief etc. Under his leadership, the companies have received global and Indian awards and recognitions from various institutions, associations and rating firms like Gartner, Forrester, Nasscom, Vault, iSpirit, etc. Mr. Nair has received the Distinguished Service Award from IIT Bombay in 2016.



Prof. Nitin Samarth

M.Sc., 1980, Physics

Prof. Nitin Samarth is George A. and Margaret M. Downs brough Department Head and Professor of Physics, Penn State University. He obtained his M.Sc. degree in Physics from IIT Bombay in 1980 and Ph.D. degree in Physics from Purdue University in 1986.

Before joining Penn State University as Assistant Professor in 1998, he had worked with the University of Notre Dame from 1986 to 1987 as Postdoctoral Research Associate and Assistant Faculty Fellowship from 1987 to 92.

Prof. Samarth's research in condensed matter physics centers on experimental studies of spin-dependent phenomena in quantum materials, an area broadly known as 'spintronics'. His principal scientific contributions have involved the pioneering synthesis of a variety of thin films and nanoscale structures in this context and their study using quantum transport, magnetometry and optical spectroscopy. These materials include semiconductors, magnetic systems, topological insulators and superconductors. Working with his collaborators and students, he has contributed to key discoveries in this field, including room temperature spin coherence in semiconductors (Science, 1997), coherent spin transfer across semiconductor heterointerfaces (Nature, 2001), ultrafast coherent spin manipulation in semiconductors (Science, 2001), artificial 'spin ice' (Nature, 2006), and topological spintronics (Nature, 2014). Some of these discoveries might be useful in future quantum technologies. His work is published in over 260 journal articles and has over 16,000 citations with an h-index of 59 (Google Scholar).

Prof. Samarth is a Fellow of the American Physical Society and the American Association for the Advancement of Science. He is a recipient of Faculty Scholar Medal in the Physical Sciences, Penn State University; George W. Eisenhower Award for Teaching Excellence, Penn State University; and Outstanding Physics Alumnus Award, Purdue University



Dr. Ajei Gopal

B.Tech. 1982, Mechanical Engineering

Dr. Ajei Gopal is the President and CEO of ANSYS Inc., Pennsylvania, US. He obtained his B.Tech. degree in Mechanical Engineering from IIT Bombay in 1982, his Ph.D. degree in Computer Science from Cornell University.

Dr. Gopal began his career initially as a researcher with Bell Communications Research and later joined IBM Research, where he conducted and managed projects in distributed and clustered systems. He became a Founding Member and Chief Technology Officer of IBM's Pervasive Computing Division.

In 2000, he co-founded and served as CEO of ReefEdge Networks, a provider of managed and secure wireless LAN systems, which was sold to Symantec Corporation, the leader in cyber security software and services in 2004. He served as Chief Technology Officer and Executive Vice President at Symantec before moving to CA Technologies, where he was Executive Vice President and General Manager of products, and later to HP, where he was Senior Vice President and General Manager at HP Software.

Prior to taking his current role as President and CEO of ANSYS Inc., Dr. Gopal served as an Operating Partner at Sliver Lake Partners, the global leader in technology investing.

He has been an Independent Director of Citrix Systems, Inc. since September 2017 and a Director of ANSYS since February 2011.

During Dr. Gopal's first 18 months as CEO of engineering simulation leader ANSYS, the value of the company doubled, increasing its market capitalization by more than \$8 billion. ANSYS has revolutionized the way that products – from microchips to the rocket ships – are developed and brought to market. Dr. Gopal extended the ANSYS vision to "Pervasive Simulation," a bold idea in which engineering simulation is used throughout the product lifecycle. Pervasive Simulation has captured the imagination of the industry and helped to propel ANSYS to even greater success.

Dr. Gopal has consistently demonstrated his business and technological acumen throughout his career – from large public to small private companies. He has consistently demonstrated his ability to lead businesses by driving growth both organically and through M&A – all while

improving operating efficiency. And he is known as a technologist, with numerous patents and publications.

Dr. Gopal has 23 granted US patents to his credit. He was elected to the IBM Academy of Technology in 1998, the same year he received the prestigious IBM Outstanding Technical Accomplishment Award



Prof. Das Narayandas

B.Tech. 1982, Metallurgical Engineering

Prof. Das Narayandas is Edsel Bryant Ford Professor of Business Administration and Senior Associate Dean at External Relations and Publishing, Harvard Business School (HBS).

Prof. Narayandas earned his B.Tech. degree in Metallurgical Engineering from IIT Bombay in 1982, postgraduate diploma in management from IIM Bangalore and Ph.D. degree from Purdue University. He has been a faculty member at the Harvard Business School for the last 25 years.

Prof. Narayandas has published articles in leading academic journals in business including, among others, the Journal of Marketing Research, Journal of Marketing and Harvard Business Review and co-authored two text books in the area of business marketing and customer management. He has also published over 40 cases, notes and simulations in the area of business marketing and leadership.

Prof. Narayandas has received the award for teaching excellence from the graduating HBS MBA Class on several occasions. Other awards received by him at HBS include The Robert F. Greenhill Award for his outstanding Service to the HBS Community (two-time recipient), the Charles M. Williams Award for Excellence in Teaching and the Apgar Award for Innovation in Teaching.



Mr. Kaizad Mistry

B.Tech. 1984, Electrical Engineering

Mr. Kaizad Mistry is a Corporate Vice President and Co- Director of the Logic Technology Development group at Intel Corporation. He earned his B.Tech. degree in Electrical Engineering from IIT Bombay in 1984 and M.S. in Electrical Engineering from the University of Southern California, Los Angeles in 1986.

After completing his masters in electrical engineering in 1986, Mr. Mistry joined the semiconductor development arm of Digital Equipment Corp. At Digital Equipment Corp., he participated in the development of many generations of chip making technology, from 2um to 0.25um. In 1998, he joined Intel Corp in the Logic Technology development group and was appointed as Vice President in 2007 and Corporate Vice President in 2017.

Mr. Mistry is widely recognized as one of the world's leading experts in scaling microelectronic chips to ever-smaller transistor dimensions, advancing Moore's Law. In the late 1980's and 1990's, while at Digital Equipment Corp., he published extensively on the reliability of MOS transistors, including several papers that have become classics in the field. After joining Intel Corp in 1998, he led the development and introduction of manufacturing of many technology innovations, including the first-ever implementation of strained silicon, the world's first implementation of high-k metal gate transistors and the first implementation of FinFET transistors. He currently co-manages the Logic Technology Development Group at Intel, overseeing the research and development of future semiconductor technologies, involving thousands of engineers and over 1500 Ph.D.s.

Mr. Mistry has been the co-recipient of a number of awards, including the 2015 SEMI Award for the implementation of bulk CMOS FinFET production; the 2012 SEMI Award for the first development, integration and introduction of a successful high-k dielectric and metal electrode gate stack for CMOS IC production; the 2011 TIME Magazine citation of Intel's 22nm technology as one of the "best inventions of the year"; the 2008 SEMI Award for process integration of strain-enhanced mobility techniques for CMOS transistors; and the 2007 TIME Magazine citation of Intel's 45nm technology for one of the "best inventions of the year". He has also received several best paper awards at various conferences. In 2010, he was elected Fellow of IEEE, one of the highest professional honors for electrical

engineers, “for contributions to high performance complementary metal-oxide semiconductor technology and reliability.”



Dr. U. Kamachi Mudali

M.Tech. 1984, Corrosion Science and Engineering

Dr. U. Kamachi Mudali is a Distinguished Scientist, Chairman and Chief Executive, Heavy Water Board, Department of Atomic Energy (DAE), Government of India.

Dr. Mudali obtained his M.Tech. degree in Corrosion Science and Engineering from IIT Bombay in 1984 (awarded 2nd Rank) and Ph.D. in Metallurgy/Corrosion from Madras University in 1993.

Dr. Mudali has more than three decades of R&D experience (1984-2017) in Indian nuclear industry towards advanced materials and coating technology development and selection; corrosion testing, engineering & monitoring; and failure analysis and case studies related to steels & stainless steels, titanium, zirconium and their alloys. He has about 10 years of R&D experience on reprocessing R&D (2009-2017) relevant to nonmetallic materials and coating development; equipment development and testing; process chemistry and analysis; for fast breeder reactor spent nuclear fuel reprocessing applications.

Dr. Mudali is an internationally recognised professional in the area of corrosion science and technology, whose fundamental and applied research work has been widely recognized and cited by peers and other research groups. Dr. Mudali has pioneered many innovative R&D projects for the first time at IGCAR, Kalpakkam which has resulted in the selection of advanced materials and coatings for corrosion protection in nuclear and allied industries. Critical developments include: High nitrogen Stainless steels, Mixed Oxide Coated Titanium Anodes, DOCTOR Coating on Titanium; Ceramic Yttria Coatings for 1500°C in molten salt and Uranium; Nitric Acid Loops for long term corrosion evaluation; Nitric acid grade stainless steels.

Dr. Mudali has been recognized with prestigious awards like: Homi Bhabha Science & Technology Award from DAE; Metallurgists of the Year Award from Ministry of Steel & IIM;

VASVIK Award, Indian Nuclear Society Medal; GD Birla Gold Medal; TANSA Award; MASCOT National Award; Distinguished Faculty from HBNI, DAE; Frank Newman Speller Award from NACE International, USA; Fellow of 10 Academies/Professional Societies like: NACE International, USA; ASM International, USA; Asia Pacific Academy of Materials, China; INAE; NASI; IIM; ECSI; IE (I); IChE: TNASc. He has published 440 papers with H-index 33, co-edited 16 books/proceedings, and guided project works of 162 UG, PG and PhD students. He has delivered 6 Honour lectures of eminence.



Prof. Kaivan Munshi

B.Tech. 1986, Civil Engineering

Prof. Kaivan Munshi is currently the Frank Ramsey Professor of Economics at the University of Cambridge. He obtained his B.Tech. degree in Civil Engineering from IIT Bombay in 1986, M.S. in City Planning from University of California Berkeley in 1989 and Ph.D. degree in Economics from MIT in 1995.

He is a pioneer in the field of social economics, especially as applied to economic development. Prof. Munshi's specific contribution has been to apply rigorous theoretical and econometric methods to the analysis of informal community-based institutions.

Prior to joining the University of Cambridge in 2013, he has worked for Brown University from 2003 to 2013, University of Pennsylvania from 1998 to 2003 and Boston University from 1995 to 1998. Prof. Munshi will join the Department of Economics, Yale University in the fall of 2019.

Prof. Munshi's research has been published in the American Economic Review, Journal of Political Economy, Quarterly Journal of Economics and the Review of Economic Studies. He is a recipient of the Infosys Prize in the Social Sciences (2016).



Vice Admiral Gurtej Singh Pabby, PVSM, AVSM, VSM

Chief of Materiel, Indian Navy

M.Tech. 1987, System and Control Engineering

Admiral Gurtej Singh Pabby is presently the Chief of Materiel of the Indian Navy based at Naval Headquarters in New Delhi. He spearheads the Strategic Guidance, Apex Policy level Decision making and Future Acquisition Plan of Warships and equipment of the Indian Navy. He graduated from NIT (Erstwhile REC) Kurukshetra in 1980 and did his post-graduation in System and Control Engineering from IIT Bombay in 1987.

Admiral has steered many challenging professional issues and has left lasting footprints with his clear thought process and telescopic vision. He was promoted to the rank of Rear Admiral in 2009, and was appointed as the Chief Staff Officer (Technical) at Western Naval Command. Thereafter, he took on as Admiral Superintendent, Naval Dockyard Visakhapatnam, where he provided Technical Leadership in early completion of refits of ships and submarines. As Director General Naval Projects at Mumbai, he oversaw creation of major repair and Marine infrastructure. As a Controller of Warship Production and Acquisition, he has steered large indigenisation projects of warship and submarine construction.

At the Helm of the Materiel Branch of the Navy, the Admiral has given immense impetus towards development and induction of new technologies like Air Independent Propulsion, Magnetic Bearing for AC Compressors, Canned Motor Pumps and indigenisation of Gas Turbines. He has been at the forefront of Navy's green initiatives such as MARPOL Compliance, Diesel Exhaust Emission Control and use of biofuels.

The Admiral has also interacted extensively with professional bodies, institutes, academia and the Indian industries to encourage their participation, particularly the IITs and MSMEs, in construction of equipment for ships and submarines for the Indian Navy and, undertaking R&D as well as Indigenisation projects.

Admiral has been member of Institute of Marine Engineers (India), IMEI since the last three decades and has been holding IMEI fellowship since August 2017. In the recently-conducted IMEI event INMARCO at Mumbai, the Admiral chaired a session on “Shipbuilding in India” which saw participation of CMDs of Indian DPSU and private shipyards as well as regional Shipyards of IOR region.

Admiral was awarded Param Vishisht Seva Medal on January 26, 2019 for his distinguished service of the most exceptional order by the President of India.



Dr. Lalitesh Katragadda

B.Tech. 1990, Aerospace Engineering

Dr. Lalitesh Katragadda is the Founder of Indihood.com (Hyperlocal crowdsourcing activating communities), Founder - Swaja Labs (Affordable Smart Devices for internet access); CPO of Avanti Finance (Improving Credit Access for the neediest); and Advisor to the Ministry of Electronics & IT MEITY, Ministry of Finance and the Department of Telecommunication (DOT). He is also the Investor/ Advisor in startups impacting India with transformative technology.

Dr. Katragadda obtained his B.Tech. degree in Aerospace Engineering from IIT Bombay in 1990, M.S. in Aerospace Engineering, Design Division - Mechanical Engineering and School of Computer Science from Iowa State University, Stanford University and Carnegie Mellon, respectively. He obtained his Ph.D. from Robotics Institute, Carnegie Mellon. He was a Project Lead, CMU-NASA Lunar Rover Initiative.

His contribution to his field as Creator and Engineering Lead, Google Map Maker, has helped create a platform that crowdsourced maps for 187 countries - which had no maps before - even on paper. This brought maps to 3 Billion more, which the UN used in more than 200 disasters, saving about half a million lives, helping governments of all emerging countries plan better and sparking thousands of map-based startups in emerging regions like Ola, 108 Ambulance Service and Ushahidi.

He has helped design parts of Digital India such as authoring Open API policy, UPI 2.0, GSTN, India Stack, Data Protection and Consent architecture (MEITY). He helped nudge GSTN to empower Small and Micro Enterprise (Department of Finance, Fintech Working Group) and formulate technical and business architecture to bring 50 MBPS to every Indian and every home (DOT). He conceived and designed a detailed architecture for the world's largest Greenfield public optical network to bring broadband (15 Mbps) for less than Rs 150 to 13 Million homes (Advisor to CM of Andhra Pradesh).



Dr. Shashidhar Thakur

B.Tech. 1990, Computer Science and Engineering

Dr. Shashidhar Thakur is currently the Vice President of Engineering for Search at Google Inc. in California. He earned his B.Tech. degree in Computer Science and Engineering from IIT Bombay in 1990 and Ph.D. degree in Computer Science from the University of Texas at Austin in 1996.

At Google Inc. Dr. Thakur is responsible for building the Google Knowledge Graph in web search, enabling a representation of world knowledge, language understanding, and rich search products. He was also responsible for building Google Discover, which is the query-less modality of Search, using AI to recommend highly relevant information.

Previously, Dr. Thakur was a Distinguished Engineer, Synopsys Inc., where he was architect, developer, and manager for technologies for verification of high-level design descriptions as well as physical and logical optimization of large-scale integrated circuits.

Dr. Thakur has 11 patents in the areas of Search and Electronic Design Automation and has also published papers in refereed journals and conferences.



Prof. Amol Dighe

B.Tech. 1992, Engineering Physics

Prof. Amol Dighe is currently a Professor and Dean of Graduate Studies at the Tata Institute of Fundamental Research (TIFR) in Mumbai. He obtained his B.Tech. degree in Engineering Physics from IIT Bombay in 1992, and M.S. and Ph.D. degree in Physics from the University of Chicago in 1994 and 1997, respectively.

After completing his Ph.D. from University of Chicago, Prof. Dighe did his post-doctoral research at the International Centre for Theoretical Physics (ICTP), Trieste, Italy (1997-99); European Centre for Particle Physics (CERN), Geneva, Switzerland (1999-2001); and Max Planck Institute for Physics (MPI), Munich, Germany (2001-03). He has been working in TIFR for the last 15 years.

Prof. Dighe's area of research include particle physics and astrophysics. He has proposed and analyzed experiments at particle accelerators to understand fundamental interactions of elementary particles. His research is focused on signals of new phenomena beyond the Standard Model of particle physics. His work speaks about how one can understand how the Sun shines, and the happenings inside the stars, by observing particles called neutrinos that come from them. He has explained ways of understanding how supernovae explode through his research.

Prof. Dighe is also involved in the building of the India-based Neutrino Observatory (INO), one of the largest basic science experiments to take place in India. He and his team is building the world's largest electromagnet in India and go underground with it to look at the sky.

Prof. Dighe is interested in higher education in India, and has helped educational institutions in designing curricula. He is also involved in popularization of science by giving public lectures and writing articles in newspapers and magazines, in Marathi and English.

Prof. Dighe has won a bronze medal in International Maths Olympiad in 1989, Institute Silver Medal from IIT Bombay in 1992, Max Planck-India Partner group leader award (2005-2010),

Swarna Jayanti Fellowship by the Department of Science and Technology, Government of India in 2009, and Shanti Swarup Bhatnagar Award by CSIR, Government of India in 2013. He is Fellow of the Indian Academy of Sciences (IASc) and Indian National Science Academy (INSA).



Mr. Rizwan Koita

B.Tech. 1992, Electrical Engineering

Mr. Rizwan Koita is Co-Founder and CEO of CitiusTech. He obtained his B.Tech. degree in Electrical Engineering from IIT Bombay in 1992 and post-graduation in Electrical Engineering and Computer Science (SM), Massachusetts Institute of Technology (MIT) in 1995.

Mr. Koita co-founded CitiusTech in 2005. Under his leadership, CitiusTech became one of the fastest growing healthcare technology companies globally. Today, CitiusTech has more than 3500 employees and serves more than 100 leading healthcare organizations worldwide. In 2018, CitiusTech acquired FluidEdge Consulting, a healthcare management consulting company based in Philadelphia.

Before CitiusTech, Mr. Koita co-founded TransWorks (now Concentrix) in mid-1999 and led the company as its CEO. Subsequently renamed Minacs, the company is now part of Concentrix and has over 21,000 employees with over 35 centers across the globe.

Prior to that, Mr. Koita was a senior consultant with McKinsey & Co., a global management consulting company. Mr. Koita provided strategic and operational consulting to transnational clients.

As an entrepreneur, over the past 20 years, Mr. Koita's contribution has been towards creating value-added opportunities and jobs which includes starting one of the first BPO companies in India (TransWorks), establishing a high-end technology company (CitiusTech) with deep domain expertise in healthcare – a big focus area globally, helping create over 10,000 employment opportunities in India across TransWorks and CitiusTech, and enabling over Rs. 1,000 crores of foreign investment into India. His contributions also include providing support to NGO activities focused on adolescents and healthcare - Antarang (adolescent upliftment), Armaan (women/child health) and Magic Bus (children education). Working

with IIT Bombay as an active alumnus, CitiusTech has set up a healthcare innovation fund (HIF) with IIT Bombay's SINE in 2015. SINE HIF has invested in many healthcare/ technology start-ups till date.

Mr. Koita is honored with The Ernst & Young Entrepreneur of the Year Award (2013), the Indo-American Society's 'Young Achievers Award in Business (2002), Vinton Haynes Fellowship (1994) at MIT for highest GPA in graduating class and the IIT Bombay's Institute Gold Medal for securing first rank in Electrical Engineering in 1992.



Prof. Vishal Misra

B.Tech. 1992, Electrical Engineering

Prof. Vishal Misra is a Professor of Computer Science and Electrical Engineering (CS and EE) at Columbia University and a Visiting Scientist at Google. He obtained his B.Tech. degree in Electrical Engineering from IIT Bombay in 1992, M.S. and Ph.D. degrees in Electrical Engineering from Umass Amherst in 1996 and 2000, respectively.

After completing his Ph.D., Prof. Misra joined the Computer Science Department at Columbia University in 2001, and is a (full) Professor of CS and EE. He also co-founded (ESPN) Cricinfo as a graduate student in the early 90s. In 2011, Prof. Misra founded a data center company called Infinio, and have held visiting professorships at INRIA (Sophia Antipolis, 2009), Technicolor (Paris, 2009), Telefonica (Barcelona, 2009) and Google (2017-18). He continues as a visiting scientist at Google.

Prof. Misra's area of research is networking. As part of his Ph.D. thesis, he developed a stochastic differential equation model for Transmission Control Protocol (TCP), which has been foundational for a lot of follow on research and has made a lot of practical impact from the Internet to data centers. Some of his work of creating a congestion control mechanism is based on that model has become part of the Internet standard and runs on every cable modem in the world. Prof. Misra was led to work on Internet Economics by one of his Ph.D. student, with whom he formally started studying issues like Network Neutrality very early on. Prof. Misra plays an active part in the Network Neutrality debate in India, working with the government, regulators and citizen's activists and India now has the

strongest pro consumer regulations anywhere in the world, which mirror the definition he proposed of Network Neutrality.

Prof. Misra is a Fellow of ACM (2018), Fellow of IEEE (2016), Outstanding Young Alumni, UMass-Amherst College of Engineering (2014). Prof. Misra is a recipient of NSF Career Award, DoE Career Award, IBM Faculty Award (twice), and Google Faculty Award (twice).



Prof. Nikhil Ashok Koratkar

B.Tech. 1995, Aerospace Engineering

Prof. Nikhil Ashok Koratkar is the John A. Clark and Edward T. Crossan Endowed Chair Professor of Engineering at Rensselaer Polytechnic Institute in USA.

Prof. Koratkar obtained his B.Tech. degree in Aerospace Engineering from IIT Bombay in 1995, his M.S. and Ph.D. degree in Aerospace Engineering from the University of Maryland, USA in 1998 and 2000, respectively.

Prof. Koratkar joined the faculty of Mechanical Engineering Department at Rensselaer Polytechnic Institute in January 2001 as an Assistant Professor. In 2006, he was promoted to Associate Professor and to Full Professor in 2009. In 2011, Prof. Koratkar was also appointed a Full Professor in the Department of Materials Science and Engineering at Rensselaer. In 2012, he was appointed the John A. Clark and Edward T. Crossan Chair Professor in Engineering at Rensselaer Polytechnic Institute. He also serves as an Editor of the Elsevier Journal Carbon since 2010.

Prof. Koratkar's research has focused on the synthesis, characterization, and application of nanoscale material systems. This includes graphene, carbon nanotubes, transition metal dichalcogenides, phosphorene as well as metal and silicon nanostructures produced by a variety of techniques such as mechanical exfoliation, chemical vapor deposition, and oblique angle sputter and e-beam deposition. He is studying the fundamental mechanical, electrical, thermal, magnetic and optical properties of these one-dimensional (1D) and two-dimensional (2D) materials and developing a variety of composites, coating and device applications of these low dimensional materials. A major focus of his work is nanomaterials for energy storage (batteries) and presently Prof. Koratkar serve as science

advisor to two start-up companies (Ener-Mat Technologies and EVERON24) which are aimed at commercializing next-generation energy storage solutions.

Prof. Koratkar has received USA National Science Foundation CAREER Award (2003), Rensselaer Polytechnic Institute Early Career Award (2005), Electrochemical Society's SES Young Investigator Award (2009), Editor of CARBON (Elsevier) from 2010 to present, American Society of Mechanical Engineering (ASME) Gustus L. Larson Memorial Award for Research Excellence (2015), Elected ASME Fellow (2016), Rensselaer School of Engineering Excellence in Research Award (2017), and Highly Cited Researchers List (top 1% by citations)- Clarivate Analytics (2018).

J.7.Distinguished Service Awards (2018)



Mr. D. C. Agrawal

B. Tech. (Hons), 1969 Mechanical Engineering

Besides a B. Tech. (Honors) degree in Mechanical Engineering from IIT Bombay, Mr. Agrawal holds an M.S. (1970) in Operations Research/Economics from North Carolina State University. He has attended Northeastern University's Urban Transportation programs in 1974 and University of Pennsylvania's Wharton School's Executive Management in 1985.

Mr. Agrawal has over 46 years experience in passenger railroad and urban transportation industry, and is familiar with the key economic, operations and legal issues affecting high-speed rail operations in US and elsewhere.

Prior to establishing his firm, D. C. Agrawal Consulting in 2008, he served for over thirty years with New Jersey Transit Corporation - one of the largest transit agency in USA. Mr. Agrawal helped establish NJ Transit in 1979 and served as its Chief Financial Officer, Deputy General Manager and Assistant Executive Director. At NJ Transit, he directed acquisition of bus and rail carriers, including negotiating new labor agreements and helped it become one of US's leading and award-winning urban transportation and commuter railroad agency. In 2006, Mr. Agrawal received Transportation Leadership Award from Newark Regional Chamber of Commerce and the State of New Jersey Assembly and Senate in 2008 recognized and passed resolutions commending Mr. Agrawal for his services to the State of New Jersey.

Mr. Agrawal remembers beautiful days spent at the beautiful campus of IIT Bombay amidst lush greenery, the two lakes and the beautiful campus of some great architecture. He cherishes beautiful memories of biking up the slope late nights to go the Y- Point Halwai for Gulab-jamuns during the examination week and the mess servants strike in 1965 just before final examinations when students had to cook their own meals - and eat that food. Group travel on the Delhi-Bombay trains was fun.

Mr. Agrawal has supported IIT Bombay's Center for Policy Studies and CTARA's internship and scholarship programs and IITB's hostel renewal projects. He is also a Director of WHEELS, an NGO started by IIT graduates to bring technological innovation to support water, health, education, energy, livelihood and sustainability projects in India.

He is a Member of Board and Member of the Executive Committee of IIT Bombay Heritage Foundation since 2016; President and active member of IIT Bombay - Greater New York Chapter. He is involved in managing various alumni events such as the Annual Reunion, Diwali Dhamaka, Networking Get-togethers, Picnics and publishing GNY Point magazine. GNY Chapter is one of the larger and more engaged IIT Bombay alumni chapters.

Traveling, playing golf and reading historical books are his hobbies.



Dr. Rajkumar Prasad Singh

M. Tech., 1975 Metallurgical Engineering

Dr. Rajkumar Prasad Singh is the Senior Director of Kalyani Centre for Technology and Innovation at Bharat Forge Limited, Pune. After obtaining his M. Tech. from IIT Bombay in Metallurgical Engineering, he completed Ph.D. from IIT Madras in Metallurgical Engineering.

He has 46 years of professional experience of working with various organizations like Steel Authority of India Limited, Lloyds Steel Industries Limited, as Professor at Visvesvaraya National Institute of Technology (VNIT), Nagpur and Director General of Institute for Steel Development and Growth. His present assignment as Senior Director of Bharat Forge involves pioneering a new Centre for Technology and Innovation, solving company's problems related to processes and products, developing new products and guiding Ph.D.s and M. Tech.s in several new technology areas.

Dr. Singh is Life Fellow of Indian Institute of Metals and Indian Institute of Non Destructive Testing. He has been featured in the Marquis Book of Who is Who in Science and Engineering and in the list of 2000 outstanding scientists of 21st Century compiled by the International Biographical Centre, Cambridge, UK.

He has completed consultancy project awarded by RDCIS, SAIL, worked with Prof. N.B. Ballal, Department of Metallurgical Engineering; coordinated and completed 68 M. Tech. projects for candidates sponsored by Bharat Forge under M. Tech. (MMM); co-authored 30 technical papers with various professors at IIT Bombay; formulated MoU for sponsored Ph.D. program of Bharat Forge. He is presently co-guide for two Ph.D. programs at IIT Bombay. He was instrumental in setting up Bharat Forge Tech Park at IIT Bombay and regularly gave business to IIT Bombay through sample testing and consultancy projects. He has supported IIT Bombay in several IMPRINT and Uchchar Avishkar Yojana projects.

Dr. Singh, on his memories of the time spent at IIT Bombay, said, "IIT Bombay brought lot of transformation within me, not only in technical field but also in personality development, communication skill and self-confidence. Watching movies in the auditorium every Friday with friends and faculty helped to distress. Playing volley ball and kabaddi with hostel mates and hostel staff were experiences | cherish even today". At IIT Bombay, "I played bridge with hostel partner Mr. Prasad and was runner-up in inter-hostel bridge tournament of 1971. When all India inter-university volley ball and kabaddi tournaments were organized at IIT Bombay, we all enjoyed playing kabaddi on Sharad Poornima night," he added.

Other interesting fact about Dr. Singh is that he has developed high degree of expertise in homeopathy and has cured thousands of people free of cost.



Mr. Ravishankar G.

B. Tech., 1990 Electrical Engineering

Mr. Ravishankar G. received his B. Tech. degree in Electrical Engineering from IIT Bombay in 1990. He obtained his Post Graduate Diploma in Management from IIM Lucknow and pursued Advanced Management Program from Harvard Business School. Currently, he volunteers in local communities.

He worked with CRISIL Ltd., a credit rating firm for most of his career. During his tenure he has handled a variety of roles including credit analyst, head of research, CEO of a research subsidiary, COO of a global equity research outsourcing business and head of human resources and strategy.

Mr. Ravishankar has worked with Dean of infrastructure and Planning Office on Class of 1990 Legacy projects. The engagement involved evaluation and implementation of several 'Clean and

Green Campus' projects. The projects are aimed to adopting environment-friendly practice in the campus. The projects include installation of energy-efficient LED lights and BLDC fans, bio-gas plant based on food waste as feedstock and solar power plant.

His hobbies include fitness and cooking.

J.8.Young Alumnus Achiever Awards (2019)



Dr.Ameet Jain

B.Tech. 2001, Computer Science and Engineering

Dr. Ameet Jain is currently the Innovation Program Director at Philips for their Strategic Clinical Partnerships. He obtained his B.Tech. degree from the Department of Computer Science and Engineering, IIT Bombay in 2001, where he focused his work on Robotics. He earned his M.S. and Ph.D. degree from Johns Hopkins University in 2007 in Computer Science, focusing on Medical Robotics and Minimally-Invasive Surgery. He has also completed a 3-year program on Investment Banking at NYU in 2015, focusing on venture capital.

In 2009, Dr. Jain invented Onvision, an acoustic-GPS technology for Ultrasound interventions. It is the most accurate navigation technology and is low-cost and the easiest to use, primarily due to its smart exploitation of the acoustic fields. He led this program for many years, which led to the formation of an internal venture of Philips, a strategic partnership with B. Braun, and an eventual product launch in 2018. This technology has the potential to improve over 20M medical procedures/year. In a separate attempt, in 2010, Dr. Jain developed an electromagnetic navigation technology for use in very complex cardiac procedures on the beating heart. This work has now been adapted for complex EP-ablation procedures, and has successfully benefited tens of thousands of patients. He also spearheaded the development of a 4D self-driving ultrasound system to disrupt vascular interventions.

Previously, Dr. Jain was a research scientist at the Philips Corporate Research Labs of North America, and a Ph.D. student at Johns Hopkins University. He spent nearly two decades in the space of minimally invasive surgery. During these years, Dr. Jain invented many technologies spanning numerous clinical domains - therapy feedback for cancer patients, stem cell injections for heart repair, new navigation technologies, robotic knee surgery, precision guided prostate biopsies, low-cost orthopaedic procedures, high precision valve repair, EP navigation, self-driving systems, etc.

These innovations have led to the creation of over 175 patent ideas, of which over 75 have already been filed, and over 30 being granted. He has 65 scientific publications and 5 international publications to his credit. Dr. Jain has received outstanding achievement award, and a silver medal for his granted patents from Philips. He has also received the student of the year award from the state of Maryland. His innovations have received the Michael B. Merickel best paper awards at SPIE 2005, and the best paper on Medical Robotics, MICCAI 2011. His other publications have received best poster awards in 2003, 2007 and 2008. He had also received a Ph.D. award from the DoD Prostate cancer program. His dissertation was selected by JHU as its nomination to the ACM distinguished dissertation and CGS/UMI awards.



Shantanu Rastogi

Dual Degree (B.Tech. + M.Tech.), 2002, Electrical Engineering

Shantanu Rastogi is Managing Director of General Atlantic, Mumbai, Maharashtra. Shantanu received his dual degree (B.Tech. + M.Tech.) in Electrical Engineering from IIT Bombay in 2002. He did his MBA from Wharton School, University of Pennsylvania in 2009.

From 2002, Shantanu has worked for three years with McKinsey and Company consulting corporations across the automotive, pharmaceuticals, industrial and government sectors. In 2005, he joined General Atlantic, a global growth equity firm as an investment professional, where he was involved in funding two financial technology businesses – Sharekhan and National Stock Exchange, in his early years.

After completing his MBA, Shantanu joined Apax Partners, a global investment firm in 2011 and was deeply involved with the fund's investment in Apollo Hospitals, a leading healthcare services company in India.

Six years ago, in 2013, he re-joined General Atlantic in the firm's India leadership team. Since then, he has led investments in several growth businesses in India – KIM.S. Hospitals Group, Capital Foods, PNB Housing Finance, IIFL Wealth, Karvy Fintech, Absolute Barbecue, Think and Learn (Byjus) and House of Anita Dongre. He represents General Atlantic on the

board of several of these companies and advises them on their expansion strategy, technology and human capital plans.

On social front, Shantanu has been working as a Trustee of Swasth Foundation, a non-profit organization founded by his IIT Bombay friend and wing-mate – Sundeep Kapila. He is also working as a Director with IIT Bombay Development and Relations Foundation, with an objective to help the foundation enhance the Institute's overall engagement with Alumni. As a member of IIT Bombay's Society of Innovation and Entrepreneurship (SINE) Board of Directors, he has been helping the society on its mission of encouraging and supporting start-up enterprises on the IIT Bombay campus.



Dr. Parag Agrawal

B.Tech. 2005, Computer Science and Engineering

Dr. Parag Agrawal is the Chief Technical Officer at Twitter Inc. in California. He obtained his B.Tech. degree in Computer Science and Engineering from IIT Bombay in 2005 and Ph.D. in Computer Science from Stanford University in 2011.

At Twitter Inc., Dr. Agrawal is responsible for Twitter's technical strategy and overseeing machine learning and AI across the company. Since joining Twitter in 2011, he has led efforts on scaling Twitter Ads systems, as well as re-accelerating user growth by improving home timeline relevance. Prior to joining Twitter, Dr. Agrawal did research in large-scale data management with collaborators at Microsoft Research, Yahoo! Research, and AT&T Labs.

**Sourabh Pagaria****Dual Degree, 2005, Mechanical Engineering**

Sourabh Pagaria is the Executive Vice President and CEO of Southern Europe, Siemens Healthineers. He obtained his dual degree (B.Tech. + M.Tech.) in Computer Aided Design and Automation, Mechanical Engineering from IIT Bombay in 2005 and Master in Business Administration (MBA) from INSEAD, Fontainebleau, France in 2010.

At Siemens Healthineers, Sourabh is responsible for Siemens Healthineers business in Southern Europe covering Portugal, Spain, Greece, Italy, Cyprus and Malta. As a major Healthcare brand in Southern Europe, Siemens Healthineers serves more than 5000 healthcare providers across public and private sectors. Prior to his current role, he was the General Manager and CEO of Enterprise Services business of Siemens Healthineers based in Erlangen, Germany. Enterprise Service focused on establishing long term transformative partnerships with key Healthcare providers like NHS in England, Integrated delivery networks in USA etc. in areas of Enhancing Precision Medicine, Transforming Care Delivery, Enhancing Patient Experience and Digitalizing Healthcare.

Sourabh is passionate about driving transformation in healthcare through partnerships between Academia, Governments and Industry. He is focused on enabling a future, where Healthcare is Patient centered, digitally enabled and Health focused. He has been regularly publishing his views in leading Industry media.

In 2011, among 5 highly qualified alumni from top Business schools in the world, Sourabh was selected to join the Executive development program of Siemens called Siemens CEO Excellence Program.



Pranay Jivrajka

B.Tech. 2010, Chemical Engineering

Pranay Jivrajka is the Co-Founder of Ola and Chief Executive Officer of Foodpanda India. Pranay obtained his B.Tech. in Chemical Engineering from IIT Bombay in 2010.

After graduating from IIT Bombay, Pranay started his career with Illumine, a knowledge enablement lab based in Mumbai. He was also the co-founder of dot JPEG, a strategic branding and design firm.

As part of the Founding team at Ola, Pranay was responsible for scaling up the operations across the core mobility business and Ola's geographical expansion across India into 100+ cities. He led operations for the mobility business for the first 6 years, and helped the business achieve operational excellence.

Currently he leads Foodpanda, a growing food delivery platform and is leading the company's efforts to build India's largest cloud kitchen network.

Pranay's work has directly impacted and benefitted millions of Indians, in the way they move around in their cities. He has also contributed towards socially and economically weaker class, in a way by uplifting driver-partners, which have positively impacted their lives and that of their families.



Ankit Bhati

Dual Degree (B.Tech. + M.Tech.), 2011, Mechanical Engineering

Ankit Bhati is the Co-Founder and Chief Technology Officer at **Olacabs**. He obtained his dual degree (B.Tech. + M.Tech.) in Mechanical Engineering from IIT Bombay in 2011.

Prior to joining the founding team at Ola, Ankit was a freelancer developer. Having built one of the world's leading ridesharing companies out of India, Ola, under Ankit's leadership, has pioneered some of the world's most innovative technologies, be it the world's first connected car platform or the robust technology backend that serves various unique mobility use cases to over 150 million users. Ola has also empowered over a million driver partners by not only providing them livelihood opportunities but also enhancing their social and economic status at large. Ankit has been awarded Entrepreneur of the Year, 2017' by the Economic Times, 'Disruptor of the Year, 2017' by CNBC-TV18, Forbes 30 under 30.



Manoj Meena

Dual Degree (B.Tech. + M.Tech.), 2011, Electrical Engineering

Manoj Meena is the Founder and Chief Executive Officer (CEO) at Atomberg Technologies Pvt. Ltd., Mumbai, Maharashtra. He obtained his dual degree (B.Tech. + M.Tech.) in Electrical Engineering with specialisation in communication and signal processing, from IIT Bombay in 2011.

Manoj had a great passion for robotics and electronics since college days, and was actively involved into robotics activities including competitions – all as part of his curiosity-driven learning. Manoj founded Atomberg in 2012. For first three years, he bootstrapped in a project mode, developing data acquisition, motor control and process control systems for IITs and other research labs. In 2015, he developed first prototype of electrically-commutated energy efficient DC motor for ceiling fan. The same year, the company launched the ceiling fan product with brand name 'Gorilla' in the market. It was the turning point to foray into motor-based home appliances market in India. Currently, Manoj is working as CEO and Founder at Atomberg Technologies.

'Gorilla' fans run on a revolutionary energy efficient motor consuming only 28W power (65% less power) as compared to ordinary fan consuming 75-80W power. Today, they are a team of 230 members and have sold more than 3 lakh fans in India and other countries. Every year, using Gorilla fans instead of ordinary 75-80W fans is resulting in an approximate saving of 42000 tonnes of CO2 emission, a yearly saving of more than 3 million \$ and 45 GWH of electricity.

Manoj has received many awards and honours such as the 'National Entrepreneurship Award – 2017', 'Global Climate Solver Award', 'Global CleanTech Innovation Program' award in Energy Efficiency category, 'Champions of Change' recognition by Prime Minister and Niti Aayog, 'Forbes 30 Under 30' India 2018, 'Forbes 30 Under 30' Asia 2018, and Institute Technical Citation in 2010-11; Institute Technical Color in 2007-08; and Institute Tech Excellence Certificate in 2006-07, from IIT Bombay.



Suhani Mohan

B.Tech. 2011, Metallurgical Engineering and Materials Science

Suhani Mohan is the Chief Executive Officer and Co-Founder of Saral Designs. She obtained her B.Tech. degree from the Department of Metallurgical Engineering and Materials Science, IIT Bombay in 2011. She has completed Chartered Financial Analyst (CFA) Level 1 program from CFA Institute, USA in 2012.

Suhani has worked as an investment banker in Deutsche Bank for about two-and-a-half years. Along with working on strategic equity transactions in the Indian and Asian markets, she was also involved in Corporate Social Responsibility. This was where she first learned about the situation of menstrual hygiene, which made her take a plunge in the social enterprise sector. After years of research, learning and implementing human-centered design and making several prototypes, she co-founded Saral Designs with IIT Madras alumnus Mr. Kartik Mehta in 2015.

Her start-up Saral Designs is a Mumbai-based start-up providing access to quality affordable menstrual hygiene products to low-income women in India. As the pads are produced closer to the consumer using the decentralized technology, the number of distribution intermediaries is reduced to half, which enables Saral to offer higher distribution margins to their NGO partners and healthcare workers, who directly serve the last mile consumers yet keep the price to the consumer half of the multinational brands.

Saral Designs has also won several accolades such as the National Entrepreneurship Award by Ministry of Skill Development and Entrepreneurship, awarded by the Department of Science & Technology, Government of India. It has also been recognized as the 'top 10 good businesses of 2016' by Outlook Business Magazine and as the top 3 global hardware start-ups for social good in 2017 by ASME (American Society for Mechanical Engineers).

Suhani has been recognized as the top 30 trailblazing women by Forbes India and as 25 most powerful women in impact by Outlook India magazine in 2018; 'Top woman entrepreneur' at Empower 2016, by Department of Science and Technology & Zone Start-ups; Acumen Fellow; Indiafrica Young Visionary award by Ministry of External Affairs, India, and Goalkeeper of United Nations Global Goals, 2018 (one of 100 global leaders selected by Gates Foundation). She has been a speaker at the UBS Philanthropy Forum at Switzerland and TEDx at IIT Bombay.

J.9.Chapter Service Awards (2018)

Chapter Service Award for IIT Bombay Alumni from the Diamond Jubilee Year

Chapter Service Awards instituted during the Diamond Jubilee celebrations of IIT Bombay will be awarded to select alumni who have contributed in a very notable and sustained manner to the progress of the Chapter and also to the progress of the Institute. The award consisting of a certificate, memento and an uttaria is presented on Alumni Day, celebrated every year in December.

Six alumni will receive the award this year. They have been chosen from among the nominations received from various stakeholders such as Chapter Leaders, Chapter Members and alumni of IIT Bombay.



Mr. R. Srinivasan

B.Tech. 1973 Electrical Engineering

Mr. R. Srinivasan pursued B.Tech. in Electrical Engineering from IIT Bombay in 1973 and later pursued his Postgraduate Diploma in Management (MBA) from IIM Bangalore in 1976. After serving as Management Consultant for 30 years, he retired in 2008.

He cherishes all the memories of days spent at IIT Bombay. He said, "The most exciting thing was the late night discussions in the hostel with other batchmates. They would all pile on in my room since I had a corner room in Hostel 3. This room was bigger than other rooms. We enjoyed a few music sessions too".

Regarding the contributions made by Mr. Srinivasan for the Chapter, the President of IITBAA Hyderabad Chapter Mr. Shashi Mantrawadi said, "Srini, as Srinivasan is popularly known, is one of the founding members of the Chapter since its inception in 2002. He served the Chapter as Jt. Secretary for four years and worked hard to boost the Chapter's membership. As a dedicated volunteer, he took major efforts to organize the Chapter's inaugural get-together in the presence of the then IIT Bombay Director Prof. Ashok Misra. During the early days of the Chapter, he took initiative to organise several alumni programs including get-togethers, IIT Bombay Golden Jubilee Outreach Program etc. His major contribution was to organise a meeting in 2003 with Hyderabad CII Board for initiating IIT Bombay- Industry joint activity and to make IIT Bombay R&D presentation on behalf of IIT Bombay. Srini continues to participate in all major events and get-togethers, during which he interacts and encourages young alumni to be active in the alumni movement".

His current hobby, and also pass-time, is playing Bridge online which he learnt when he was at IIT Bombay.



Mr. Sanjiv Sood

B.Tech. 1983 Civil Engineering

Mr. Sanjiv Sood graduated from Department of Civil Engineering at IIT Bombay in 1983. He is currently serving as the Managing Director of Norquest Brands Private Limited in Gujarat. He recollects lots of memories connected to H4, wing mates and Mood Indigo.

Mr. Sood has been involved in organizing all chapter activities in Gujarat since a long time (~ 10 years). He manages the chapter mail-group as well as Whatsapp group. He has also been a regular participant in Goa Chapter conclaves. He has played a significant role in HATS H4 activities during the crucial initial years of HATS campaign.

His hobbies include walking, yoga, and watching Big Bang Theory.



Mr. Deepam Morparia

B.Tech. 1985 Chemical Engineering

Mr. Deepam Morparia is the Managing Partner at Morparia Industrials in Hyderabad. He graduated as Chemical Engineer from IIT Bombay in 1985.

Speaking on the contributions made by Mr. Morparia for the Chapter, the President of IITBAA Hyderabad Chapter Mr. Shashi Mantrawadi said, "Deepam is a stalwart volunteer for Hyderabad Chapter and has been actively working since 2006. He had stepped in twice (2010 and 2015) with leadership position to revive alumni activities and has steered the Chapter as its President for 4 years".

His memories at IIT Bombay are more associated with mountaineering/ trekking, experiences associated with Himankan 1981, 82, 84, and Expedition-1983.

"He took initiative and contributed extensively to many alumni events, such as IIT Bombay Golden Jubilee outreach, fresher's welcome, several treks and a major get-together "Meet Manu" featuring Goa Chief Minister and fellow alumnus Mr. Manohar Parrikar. Each of these events was an outstanding success. He displayed exceptional volunteering spirit and organising capacity for making of a vibrant Chapter. For his yeoman service to the chapter, he has been cop-opted into Executive Committee Volunteers for continued support and guidance".

His hobbies include mountaineering/ trekking, Triathlon (Swim, cycle, run) and long drive.



Mr. Nitesh Dixit

B.Tech. 2003 Engineering Physics

Mr. Nitesh Dixit is the Director, North America Practice Leader at Auctus Advisors.

After obtaining B.Tech. degree in Engineering Physics from IIT Bombay in 2003, Mr. Dixit completed his Master of Business Administration (MBA) in General Management from the Tuck School of Business at Dartmouth college in 2009.

Mr. Dixit, on his memories of the time spent at IIT Bombay said, "IIT Bombay has been a formative experience and there are countless memories associated with my four years at the Institute. The annual PAF event with its many night-outs, the early morning breakfast at Maddu mess, MI events, the first rock video night - all stand out".

His hobbies include spending time with family, binge watching shows on Netflix and reading.



Mr. Sanjay Bhandari

B.Tech. 2004 Chemical Engineering

Mr. Sanjay Bhandari earned his degree in Chemical Engineering from IIT Bombay in 2004. He is a technology enthusiast by training. Currently, Mr. Bhandari is the Principal Product Manager at Oracle Inc. in San Francisco Bay Area.

Recollecting memories associated with IIT Bombay, he said, "When I entered the Institute, I regularly heard alumni saying that the time they spent at the Institute was the best part of their life. Today, 14 years after graduating, when I reflect back, I couldn't agree more. Life at IIT Bombay was fun ... spending nights at the department labs in the final year, bunking classes for PAF or working day-and-night for student festivals like Techfest".

Bay Area chapter level. Participating in local chapter event and activities was a great way to connect with the fellow alumni community members in a new city. This entire experience motivated me to give back to the community by helping in whatever ways I could in making the alumni network stronger and better".

Mr. Bhandari has been the backbone of alumni service activities and initiatives in SF Bay Area for over five years working together with the President of SF Bay Area Chapter and his team. He has been serving as the Vice President of Chapter since last two and a half years.

Mr. Bhandari led more than 20 social and professional events in the valley in last five years and has helped in making SF chapter the most active alumni chapter globally connecting alumni year after year. He was the core volunteer for IITB SF Bay alumni Hackathon, which had more than 200 participants. He has also represented IIT Bombay in organizing PAN-IIT event in the Bay Area like IIT Picnic and PAN IIT Diwali Dhamaka.

Mr. Bhandari loves to hike and play tennis in his spare time.



Mr. Santosh C. Bhoosthali

M.Tech. 2007 Mechanical Engineering

Mr. Santosh C. Bhoosthali is Technology Specialist at Garrett - Advancing Motion in Bengaluru. He obtained his M.Tech. degree in Thermal and Fluids Engineering from the Department of Mechanical Engineering at IIT Bombay in 2007.

Mr. Bhoosthali, on his memories of IIT Bombay said, "...starting with interview by the panel for M.Tech. admission to Sukhatme Sir's special class on heat transfer, surprise quiz by Gaitonde Sir, expectation of perfection by M.V. Rane Sir, Fortran coding for Date Sir and experiments at Heat Pump Lab. Also, surprise visit of leopard to Heat Pump Labs and heavy raining in 2005!"

Mr. Bhoosthali was part of the organizing committee (Bengaluru Chapter) for CareerLeap 2016 event, tech talks such as Data Security, Blockchain, Machine learning, Institute Diamond Jubilee event, Fresher's night, etc.

His hobbies include playing chess and reading books.

J.10. Named Chair Professorship Reports (2018-2019)

Biswas - Palepu Distinguished Chair Professorship



Dr. Nagesh Palepu, a distinguished alumnus from the batch of 1972, is the founder of TherDose Pharma, Hyderabad, and has made outstanding contributions to Global Pharmaceutical Industry as an Entrepreneur and business leader.

The Biswas-Palepu Distinguished Chair was instituted at IIT Bombay with the donation from Palepu foundation for a professor carrying out commendable work in the field of Chemistry.

Prof. Murugavel has been appointed as Biswas-Palepu Chair Professor in the year 2017 for a period of three years.

A brief profile of Prof. Murugavel is given below.

Academic Background

Phd: Indian Institute of Science, Bangalore

M.Sc : University of Madras

B.Sc: University of Madras

Email id

rmv@chem.iitb.ac.in

Thank you message

Dear Nagesh,

As I have expressed many times to you during your visits to IIT Bombay, creation of this chair at the Department of Chemistry goes to show your love and commitment to the department. I am happy to be the second occupant of this chair after Professor H B Singh. The department and I once again thank you for this kind gesture and look forward for your continued interaction with the department in the coming years. My personal wishes to you and your family. Regards

Muruks

Research Highlights

2017 has been a good year for our research group. We not only reported during this time on one of the best molecular magnets to be ever made, but also unravelled newer soluble zeolitic building blocks which could further be used in the future to build better porous materials. Our research on the fundamental main group chemistry is thriving as before. The list of publications given below would give a sense of our research accomplishments. In the teaching front I continue to teach the 1st year BTech Chemistry course (taught for the 18th time last year) which I immensely enjoy.

Service and Public Engagements

Apart from being elevated to the Vice President of the Chemical Research Society of India, where I actively take part in the development of the discipline in the country, I continue to engage in several extension activities by traveling for about 15 days in the last year to interact with school and college students in smaller towns. There are several other profession related extension activities I carry out through SERB, INSPIRE program, academies of sciences, etc.

List of Publications

Publications:

1. Rare supramolecular assemblies of a dicopper(II)-tetracarboxylate stabilized by (methanol)₆, dimethylsulfoxide and 4,4'-azobipyridyl bridges, P. Vishnoi, D. Kaleeswaran, and R. Murugavel, *ChemistrySelect* 2017, 2, 12014–12018. DOI: 10.1002/slct.201702862
2. [Am]Mn(H₂POO)₃: A New Family of Hybrid Perovskites Based on the Hypophosphite Ligand, Y. Wu, S. Shaker, F. Brivio, R. Murugavel, P. D. Bristowe, and A. K. Cheetham, *J. Am. Chem. Soc.* 2017, 139, 16999–17002; DOI: 10.1021/jacs.7b09417.
3. Complex Structural Landscape of Titanium Organophosphonates: Mechanistic Insights and Catalysis, K. Sharma, R. Antony, A. Ch. Kalita, P. Davis, and R. Murugavel, *Inorg.Chem.* 2017, 56, 12848–12858; DOI: 10.1021/acs.inorgchem.7b01651
4. Bulky 2,6-Dibenzhydryl-4-methylaniline Derived Schiff Base Complexes of Pd(II) as Efficient Catalysts for Suzuki Coupling Reaction: Effect of Coordinated Anion on the Catalytic Activity P. Saxena and R. Murugavel, *ChemistrySelect*, 2017, 2, 9577–9585; DOI: 10.1002/slct.201702035
5. Catalysis and CO₂ capture by palladium incorporated covalent organic frameworks, D. Kaleeswaran, R. Antony, A. Sharma, A. Malani and R. Murugavel, *ChemPlusChem* 2017, 82, 1253–1265; DOI: 10.1002/cplu.201700342
6. Selective formation of discrete versus polymeric copper organophosphates: DNA cleavage and cytotoxic activity, G. A. Bhat, R. Maqbool, A. A. Dar, M. Ul Hussain and R. Murugavel, *Dalton Trans.* 2017, 46, 13409–13420; DOI: 10.1039/C7DT02763J
7. Sterically Encumbered 2,6-Dibenzhydryl-4-methylphenyl Derived Ligand Systems: Synthesis and Structures, P. Saxena, Shyam Mondal, Kamna Sharma and R. Murugavel, *J. Chem. Sci.* 2017, 129, 1499–1512; DOI: 10.1007/s12039-017-1353-8
8. Expedient Synthesis and Structures of Monoalkyl Phosphates: Single-Source Precursors for High-Yield Ceramic Phosphates, G. A. Bhat, A. Ch. Kalita and R. Murugavel, *CrystEngComm* 2017, 19, 5390–5401; DOI: 10.1039/c7ce01066d.
9. Lanthanide Organophosphate Spiro Polymers: Synthesis, Structure, and Magnetocaloric Effect in Gadolinium Polymer, S. K. Gupta, G. A. Bhat, and R. Murugavel, *Inorg. Chem.* 2017, 56, 9071–9083; DOI: 10.1021/acs.inorgchem.7b01100

10. A pyrene based azo-linked covalent organic polymer: Selective detection of picric acid and gas adsorption properties, S. K. Gupta, D. Kaleeswaran, S. Nandi, R. Vaidhyathan and R. Murugavel, *ACS Omega*, 2017, 2, 3572–3582. DOI: 10.1021/acsomega.7b00515
11. Bulky 2,6-Dibenzhydryl-4-methylaniline Derived Schiff Base Complexes of Pd(II), Cu(II) and Co(II) as Efficient Catalysts for Suzuki Coupling and Alcohol Oxidation Reactions, P. Saxena and R. Murugavel, *ChemistrySelect*, 2017, 2, 3812–3822. DOI: 10.1002/slct.201700657
12. Pentanuclear Lanthanide Mono-organophosphates: Synthesis, Structure and Magnetism, S. K. Gupta, S. K. Langley, K. Sharma, K. S. Murray and R. Murugavel, *Inorg. Chem.* 2017, 56, 3946–3960. DOI: 10.1021/acs.inorgchem.6b03014
13. Triphenylbenzene Sensor for Selective Detection of Picric Acid, S. Nagendran, P. Vishnoi, and R. Murugavel, *J. Fluorescence* 2017, 27, 1299–1305. DOI: 10.1007/s10895-017-2063-9.
14. Metal Silicate and Phosphate Nanomaterials, Pratap Vishnoi and R. Murugavel, in *Molecular Materials: Preparation, Characterization, and Applications*, Eds. Sanjay Malhotra, B. L. V. Prasad, Jordi Fraxedas, CRC Press, 2017, Chapter 7, pp. 153-188; ISBN 9781482245950
15. Five different pseudo-polymorphs of 4-aminoarylphosphate: Supramolecular aggregation in organophosphates, K. Sharma, A. Ch. Kalita and R. Murugavel, *CrystEngComm*, 2017, 19, 1058–1070. DOI: 10.1039/c6ce02215d
16. Elusive Double-Eight-Ring Secondary Building Unit, S. K. Gupta, A. Ch. Kalita, A. A. Dar, S. Sen, G. N. Patwari, and R. Murugavel, *J. Am. Chem. Soc.* 2017, 139, 59–62. DOI: 10.1021/jacs.6b11156

Presentations:

- (1)** "Rational Design of Framework Zinc Phosphates", Invited Lecture at the INST Mohali, (Jan. 16, 2017).
- (2)** "Rational Design of Framework Zinc Phosphates", Invited Lecture at IISER Mohali, (Jan. 17, 2017).
- (3)** "One organophosphate and its many roles: Reconstructing zeolite jigsaw", Plenary lecture at the International Conference on Advanced Materials, SRM University, Chennai, (Feb. 15, 2017)
- (4)** "Tuning Structure and Connectivity in Framework Zinc Phosphates through SBU Engineering", Invited Lecture at the annual International Workshop on Advanced Materials, RAK-Center for Advanced Materials, Ras-Al-Khaimah, UAE, (Feb. 22, 2017).
- (5)** "A stroll through the zeolite SBU landscape", Invited lecture at NISER, Bhubaneswar (Apr. 01, 2017).
- (6)** "Rational Design of Framework Zinc Phosphates", Plenary lecture at the RSC ISACS: Challenges in Inorganic Chemistry, Manchester, UK (April 10-13, 2017).
- (7)** "An update from RM Laboratory" Invited Lecture at the University of Göttingen,

Germany (July 10, 2017)

- (8) "A Main Group Chemist's Perspective of Porous Solids and Magnets" - CRSI Silver Medal Lecture presented during CRSI National Symposium Chemistry held in ICT Hyderabad (July 14-16, 2017).
- (9) Invited Lecture at the JNCASR Symposium on Chemistry of Materials, Taj Vivanta, Kovalam, Organized by IISER Trivandrum, Oct 1-3, 2017.
- (10) Invited Lecture at the K C Kumara Swamy 60th Birthday Symposium, October 13-14, 2017, University of Hyderabad
- (11) Invited lecture at the Special Symposium on NanoChemistry at IIT Kharagpur, Nov. 11, 2017.
- (12) Invited Lecture at IISER Kolkata Department of Chemical Sciences In-house Symposium, Nov. 18, 2017.
- (13) "Covalent Organic Frameworks – What is New?" Invited lecture at the ICMS Winter School, ICMS, JNCASR, Bangalore, Dec 04-08, 2017.

Training of Highly Qualified People (Indicate the numbers below)

	Master Students	Doctoral Students	Postdoctoral Students	Others (RA&TA)
Supervised	2	9	3	2
Co-supervised	--	---	--	--
Graduated	~30	21	7	~25

Jitendra K. & Meena J.Mehta Chair Professor of Structural Engineering



Jitendra K. & Meena J.Mehta Chair Professor was instituted at IIT Bombay with generous donation from Dr. Jitendra Mehta for a professor in the area of Structural Engineering. Dr. Mehta, who graduated in the year 1963, is the founder of Group M Engineers in Los Angeles.

Prof. Yogesh M.Desai has been appointed as the Jitendra K. & Meena J.Mehta Chair professor in 2014 and re appointed in 2017 for a period of three years.

His research team has conceived state-of-the-art mixed finite element models for analysis of laminates. A brief profile of Prof Desai is given below.

Academic Background:

- B.Tech, IIT Kharagpur
- M.Tech, IIT Kanpur
- Ph.D., IIT Bombay

Email

desai@civil.iitb.ac.in

Thank you Message from the Chair Professor

I would like to thank Jitubhai and Minaben for establishing the JK & MJ Mehta Chair Professor of Structural Engineering. The chair professorship has been very useful in adding dimension to my visibility to various national and international professional bodies. The generous financial support has been extremely useful to me in attending 20th International Conference on Composite Structures (ICCS20) held at Paris, France during 4 – 7 September 2017.

Teaching and Research Highlights

We have been conducting research in the field of computational and composite mechanics. By making use of structural engineering concepts, we have been able to develop simplified and computationally efficient procedures for analysing composite structures. We have worked extensively in characterization of composite construction and also have been able to model composites with defects. Findings from the research have been published in international journals and have also been presented at international conferences.

Our work in the field of computational mechanics has been presented at several universities in India. We have conducted few workshops on the application of Finite Element Method to teachers from various colleges and to the practicing engineers. We have also established Centre for Computational Engineering and Science.

Service and Public Engagement

1. I have been involved in Dandi Memorial project as well as proof checking of various structures at the Nalanda University, IIT Hyderabad campus.
2. Have scrutinized design and drawings of several bridges and industrial structures.
3. Was co-ordinator for a course on Finite Element Methods offered to College Teachers and industry participants.
4. Was involved in accreditation of several engineering institutes
5. Have delivered expert lectures at several places
6. Have served on various advisory committees of government organizations and educational institutes.
7. Have been reviewer for several international journals

List of Publications and Presentations**International Journal Papers**

[1] **Muthukumar, M., Prasath, J., Sathish, S., Ravikumar, G., Desai, Y. M., Naik, N. K.** "3D layer-to-layer orthogonal interlock woven composites under monotonic loading: Multiscale modeling," JOURNAL OF REINFORCED PLASTICS AND COMPOSITES, Vol.36 17:, 2017, pp.1263-285.

[2] **Rajanna, T., Banerjee, S., Desai, Y. M., Prabhakara, D. L.** "Effect of boundary conditions and non-uniform edge loads on buckling characteristics of laminated composite panels with and without cutout," International Journal for Computational Methods in Engineering Science and Mechanics ,Vol.18 1:, 2017, pp.64-76.

[3] **Rajanna, T., Banerjee, S., Desai, Y. M., Prabhakara, D. L.** "Effect of Reinforced Cutouts and Ply-Orientations on Buckling Behavior of Composite Panels Subjected to Non-Uniform Edge Loads," International Journal of Structural Stability and Dynamics, Vol.18 04:, 2017, pp.1850058-1-1850058-23.

International Conference Papers

[1] **Sawarkar, S., Pendhari, S. and Desai, Y.** "Thermo-electro-elastic Analysis of Piezoelectric Laminates in Cylindrical Bending," Engineering Mechanics Institute (EMI) Conference, 4 - 7 June,2017, University of San Diego, San Diego, USA.

[2] **Sawarkar, S., Pendhari, S. and Desai, Y.** "Semi-analytical Solutions for Thermo-electro-elastic Analysis of Piezoelectric Materials," 20th International Conference on Composite Structures (ICCS20), 4- 7 September,2017, Paris, France.

[3] **LomtePatil, Y., Kant, T. and Desai, Y.** "A Comparison of Three Dimensional Elasticity Solutions for Orthotropic Plates," 20th International Conference on Composite Structures (ICCS20), 4- 7 September,2017, Paris, France.

Training of Highly Qualified People (Indicated in numbers)

	Master Students	Doctoral Students	Postdoctoral Students	Other (RA&TA)
Supervised	27	18	-	40
Co-Supervised	-	3	-	-
Graduated	25	11	-	-

Bajaj Group Chair Professor for Computer Science and Engineering



The Charitable Trusts promoted by the Bajaj Group and Indian Institute of Technology Bombay signed an MOU to create four Chairs in various departments in IIT Bombay.

Prof Supratik Chakraborty has been appointed as the Bajaj Group Chair Professor for Computer Science and Engineering with effect from 8th July 2014 for a period of three years. The purpose of the Chair primarily is to support academic development and provide adequate compensation to the faculty appointed.

A brief profile of Prof. Supratik Chakraborty is given below.

Academic Background:

- B.Tech, I.I.T. Kharagpur
- M.S., Stanford University
- PhD, Stanford University

Email

supratik@cse.iitb.ac.in

Thank you Message from the Chair Professor

I am deeply thankful to the Bajaj Group for their generous support in setting up the Bajaj Group Chair Professor position in Computer Science and Engineering. Not only is it a matter of honour and professional recognition being awarded this Chair position, the generous nature of the award has helped me significantly in research, outreach and professional activities. The contingency and travel grant component of the award has been particularly useful in this respect. It has allowed me significant flexibility in international travel, through which I have been able to present work done by our group at premier international conferences, and also at top universities like Stanford, UC Berkeley and Rice University over the past year. Most of these visits have resulted in subsequent collaborations being initiated with research groups in these universities. The contingency grant has also been useful in supporting the short-term visit of renowned researchers, who visited us during the last year.

Teaching and Research Highlights

During the last year, my research efforts have focused on four major problems. The first concerns Boolean functional synthesis. Currently our group has one of the most competitive algorithms for this problem. The entire methodology (CEGAR-based Boolean functional synthesis) was developed in our group. The second problem concerns development of static assertion checkers for C programs. Here, we have been working on two approaches. The first approach uses multiple cooperating abstract domains using light-weight combinators. The distinguishing feature of our tool is that users can code up their own abstract domains and integrate it seamlessly in the existing framework, which already has several in-built abstract domains. The second approach concerns analyzing array manipulating programs using some new techniques to prove quantified assertions over arrays. The third problem on which I have spent time is part of an ongoing collaboration with cancer cell biologists at ACTREC. We have developed a new approach for identifying key players in cell-level signal transduction pathways, given the gene expression data from a wet-lab experiment. During the past year, we managed to pin-point the computational hardness of the problem. We also designed a novel Pareto-optimality based approach that gives strong evidence of whether a specific gene plays an important role in the collection of signal transduction pathways identified by our technique. Finally, I have been working for a few years on an open theoretical problem called the Skolem Problem. While we are nowhere close to solving it, we have some new theoretical results in this area of study. In addition to these topics, I have continued my work on constrained sampling and counting, and will be co-presenting a tutorial on this topic at the premier artificial intelligence conference, IJCAI 2018.

On the teaching front, I continued to develop the theory and lab courses on Digital Logic Design (this was my third offering of the courses). In the lab course, students implemented an almost real-life networked railway signal controller using Digilent Atlys FPGA boards. I along with a small set of TAs also spent significant additional time working with weaker students, and am very glad to report that most of them ended up completing their projects and earned good grades. Finally, my MOOCs on Introduction

to Computer Programming have been running well with significant enrolments in edX and IITBombayX.

Service and Public Engagement

I continued to serve on the Technical Advisory Board of Microsoft Research India (Pvt) Ltd during the last year. In addition, I serve on the Steering Committee of FSTTCS – the leading Indian conference in theoretical computer science. I have also been inducted as an Executive Council member of Association of Computing Machinery (ACM) India chapter in the last year. As part of Indian Association for Research in Computing Science (IARCS) and ACM India, I am also part of a core team that administers a travel grant program for computer science students from India who have papers at top international conferences. I continue to serve as an expert member of DST-SERB (Science and Engineering Research Board) proposal review committees. I have served on the program committees of several top international conferences during the last one year, including ATVA 2017, AAI 2018, FMCAD 2018 and VSTTE 2018. In addition to these, I co-organized the second Indian SAT+SMT workshop in Mysore during Dec 2017, and the workshop was a huge success. Since Nov 2017, I have also been serving as the Chairperson's Nominee of Kendriya Vidyalaya, IIT Powai, and in this role, I have initiated several activities over the past few months, including reviving and establishing a communication portal for communication between teachers and parents, holding regular workshops and meetings to abolish the practice of corporal punishment in schools, initiating the establishment and registration of an Alumni Association for the school. In addition, I co-led the end-to-end effort to develop, and operationalize an online admission portal (including conducting online lotteries for RTE based admissions) for online admissions to Std 1 in Kendriya Vidyalayas all over India. This effort has been significantly appreciated by the National Commissioner of Kendriya Vidyalaya Sangathan.

List of Publications and Presentations

Publications and presentations during the last one year, i.e. since June 2017 (note some of these were included in the report I sent in Sep 2017):

1. S. Akshay, S. Chakraborty, S. Goel, S. Kulal and S. Shah, How Hard is Boolean Functional Synthesis?, accepted for publication in Proc. of International Conference on Computer-Aided Verification (CAV), July 2018
2. S. Akshay, S. Chakraborty, A. Das, V. Jagannath and S. Sandeep, On Petri Nets with Hierarchical Special Arcs, in Proc. of International Conference on Concurrency Theory (CONCUR), pg 40:1-40:17, Sep 2017
3. S. Chakraborty, A. Gupta and D. Unadkat, Verifying Array Manipulating Programs by Tiling, in Proc. of Static Analysis Symposium (SAS), pg 428-449, Sep 2017
4. Abstract Interpretation and Program Verification, tutorial presented at the First ACM-ISOFT Winter School in Software Engineering, Pune, December 2017
5. Counterexample-guided Skolem Function Synthesis from Factored Specifications, invited talk at Annual Meeting of Kolkata Logic Circle, Kolkata, Oct 2017

7. Boolean Functional Synthesis, invited talk at
 – Stanford University, California (USA), June 2017
 – Faculty Unplugged Seminar Series, IIT Bombay (India), August 2017

8. Scaling Discrete Integration and Sampling: Foundations and Challenges, tutorial to be co-presented with Kuldeep S. Meel at [IJCAI 2018](#), July 2018

Training of Highly Qualified People (Indicated in numbers)

	Master Students	Doctoral Students	Postdoctoral Students	Other(RA&TA)
Supervised		2	2	2
Co-Supervised	1			
Graduated	1			1

Class of 1985 Chair Professorship in Technology and Sustainable Development



The alumni of class of 1985 as a part of their Legacy Project, have instituted a Chair Professorship for a professor who has done significant contribution in helping the nation's sustainable development. The Chair is named as Class of 1985 Chair in Technology & Sustainable Development.

Prof. Anilkumar is appointed as the Class of 85 Chair in Technology and Sustainable Development in the year 2017 for a period of three years.

A brief profile of Prof. Anilkumar is given below.

Academic Background:

Ph.D., Indian Institute of Science, Bangalore

M. Sc., I.I.T. Delhi

B.Sc., Delhi University

Email

anilkumar@iitb.ac.in

Thank You Message

I thank the class of 1985 for supporting this chain in sustainable development. This is an important activity for nation building and helps us in strengthening our ongoing activities in the domain of "Continuous Flow Processes for Chemical Industries". This support provides us a platform and recognition to carry out our activities with more vigour. We used these funds to visit various academic and industrial labs in order to provide them skills to move their batch production into continuous production.

Teaching and Research Highlights

We have developed a new course in "Continuous Flow Chemistry" and have started teaching the PhD level students. I have also taken the lecture in Chemical Engineering to expose their students to continuous manufacturing. We are in the process of finalizing a CEP course which will help working professional to learn about this important technology which is crucial for sustainable development of chemical industries in India. We have set up a state of the art facility in continuous flow chemical manufacturing. In this facility we have all the tools required for lab optimization to production scale optimization. We train various working scientist to convert their batch chemical manufacturing into continuous manufacturing.

Service and Public Engagement

We regularly conduct training programs for chemical industries wherein we take three to four R&D Scientists and train them in do's and donot's of continuous manufacturing. In this training we teach them theory as well as hands-on training to carry out all types of chemical reactions via continuous flow. In this last six months, we have trained teams from Metrochem API, Dr Reddys Lab, SABIC and Virupaksha Organics. We are also in the process of developing video tutorials to reach to larger number of scientists so that they can get benefited from this important technological development leading to Green Chemical Manufacturing Processes.

List of Publications and Presentations

Refereed Publications in the last 4 years

1. "Poly(vinyl alcohol) gate dielectric surface treatments with vitamin C for poly(3-hexylthiophene-2,5-diyl) based field effect transistors performance improvement" Cristiane de Col, Ali Nawaz, Isidro Cruz-Cruz, Anshu Kumar, Anil Kumar, Ivo A. Hummelgen, *Organic Electronics*, 2015, 17, 22-27
2. "Effect of electrode surface on the electrochromic properties of electropolymerized poly(3,4-ethylenedioxythiophene) thin films", Rekha Singh and Anil Kumar, *Organic Electronics*, 2016, 30, 67-75.
3. "Correlation between Photovoltaic Performance and Interchain-ordering Induced Delocalization of Electronics States in Conjugated Polymer Blends" Naresh Chandrasekaran, Eliot Gann, Nakul Jain, Anshu kumar, Sreelekha Gopinathan, Aditya Sadhanla, Richard H. Friend, Anil Kumar, Christopher R. McNeill and Dinesh Kabra, *ACS Applied Materials and Interfaces*, 2016, 8, 20243-20250
4. "High mobility organic field-effect transistors based on defect-free regioregular poly(3-hexylthiophene-2,5-diyl)" Ali Nawaz, Michelle S. Meruvia, D. L. Tarange, S. Gopinathan, Anshu Kumar, Anil Kumar, Hrishikesh Bhunia, Amlan J. Pal and Ivo A. Hümmelgen, *Organic Electronics*, 2016, 38, 89-96.

5. "ITO-Free Solution-Processed Flexible Electrochromic Devices Based on PEDOT:PSS as Transparent Conducting Electrode" Rekha Singh, Joseph Tharion, Sengottaiyan Murugan, Anil Kumar, ACS Applied Materials and Interfaces, 2017, 9, 19427-19435.
6. "Ultra-high Mobility in Defect-Free Poly(3-hexylthiophene-2,5-diyl) Field-Effect Transistors Through Supra-Molecular Alignment", Ali Nawaz, Anil Kumar, and Ivo A. Hümmelgen, Organic Electronics, 2017, 51C, 94-102.
7. "Polymer-dielectric molecular interactions in defect-free poly(3-hexylthiophene): dependence and consequences of regioregularity on transistor charge transport properties" Ali Nawaz, Isidro Cruz-Cruz, Jessica Rego, Marlus Koehler, Sreelekha Gopinathan, Anil Kumar, Ivo Hummelgen, Semiconductor Science and Technology", in press .
8. "Effect of Regioregularity on Recombination Dynamics in Inverted Bulk Heterojunction Organic Solar cells" Naresh Chandrasekaran, Amelia Liu, Anil Kumar, Chris McNeill, and Dinesh Kabra, JPhysD, in press.

Patents:

1. "Direct (Hetero)Arylation Reaction and Polymerization" Kumar Anil, Kumar Anshu, Murugan Sengottaiyan, Sandip Namadev Gavade, Sreelekha Gopinathan and Manish M Shinde, Indian Patent Application No. 3139/MUM/2015, filed on 18 August 2015.
2. "Continuous flow process for the syntheses of polyaniline and polypyrrole nanofibers" Anil Kumar and Rishab Bajpai, Indian Patent Application No 3030/MUM/2015, filed on 10 August 2015.
- 3 "Continuous Flow Process for the Transesterification of 3,4-Dimethoxythiophene" Anil Kumar, Sreelekha Gopinathan, Manish M Shinde, Indian Patent Application No 1969/MUM/2015, filed on 19 May 2015
4. "A Novel Process for the Syntheses of High Molecular Weight Polymers based on 3,4-dioxythiophenes via Direct C-H Arylation Type Reductive Polymerization" Anil Kumar, Anshu Kumar, Murugan Sengottaiyan, Sreelekha Gopinathan, Manish M Shinde, Indian Patent Application No 1968/MUM/2015, filed on 19 May 2015
5. "Continuous Flow Selective Bromination of Organic Compounds" Anil Kumar, Sreelekha Gopinathan, Manish M Shinde, Sandip N Gavade Indian Patent Application No 1967/MUM/2015, filed on 19 May 2015

Book chapter:

1. "A Handheld Explosives Detector Based on Amplifying Fluorescent Polymers" Kumar, A.; Sinha, J.; Majji, A.; Raviprakash, J.; Viswanathan, S.; Paul, J.; Mohan, S. V.; Sanjeeva, S.; Korrapati, S.; Nair, C. In Micro and Smart Devices and Systems; Vinoy, K. J., Ananthasuresh, G. K., Pratap, R., Krupanidhi, S. B., Eds.; Springer India: 2014, p 35.
2. "Poly(Oxythiophenes)" Anil Kumar, Sreelekha P. Gopinathan and Rekha Singh in "Conjugated Polymers: A Practical Guide to Syntheses" RSC Polymer Chemistry Series, Klaus Mullen, John R. Reynolds and Toshio Masuda (Eds), 2013.
3. "Electrochemical Transistors for Applications in Chemical and Biological Sensing" Anil Kumar and Jasmine Sinha, in "Organic Semiconductors in Sensor Applications" Series: Springer Series in Materials Science , Vol. 107 Bernards, Daniel A.; Owens, Róisín M.; Malliaras, George G. (Eds.) 2008, XVI, 290 p.

Training of Highly Qualified People

	Master Students	Doctoral Students	Postdoctoral Students	Other(RA&TA)
Supervised	2	8	5	7
Co-Supervised				
Graduated	2	2	--	--

Subrao M. Nilekani Chair Professorship

The Subrao M. Nilekani Chair was instituted at IIT Bombay with a generous donation given by Mr. Nandan Nilekani, our Distinguished Alumnus. He was named the 'Corporate Citizen' of the Year at the Asia Business Leaders Award (2004) organized by CNBC. In 2006, Nandan received one of India's Highest civilian honours, the prestigious 'Padma Bhushan'. The chair has been instituted for a professor in the area of Information Technology and to support R&D work and academic activities of the selected professor.

Prof. Sudarshan is appointed as Subrao M.Nilekani Chair Professor from 4.10.2014 for a period of three years and re appointed for another three years.

A short profile of Prof. Sudarshan is given below.

Academic Background:

- B. Tech, IIT Madras
- Ph.D, University of Wisconsin, Madison

Email

sudarsha@cse.iitb.ac.in

Thank you message

Occupying the Subrao M. Nilekani chair continues to be a privilege, and a recognition that I cherish deeply. Getting such recognition really makes one feel appreciated.

Teaching and Research Highlights

I have continued focused on three major areas of research this academic year. The first is on holistic optimization of database applications; this year, at the prestigious IEEE ICDE 2018 conference my student presented a new technique that allows powerful query optimization techniques to be applied to optimize imperative programs in a cost-based manner. This work combines advanced techniques from two different areas in a powerful way, which we believe will have many applications in the future. Such optimizations are key to allowing programmers to write applications in a fashion that is convenient to them, yet avoid performance issues which many implementations face in the real world today. This work is part of our DBridge project for holistic optimization of database applications.

We also demonstrated at ICDE 2018 a system that supports data generation for testing database application programs. Unlike earlier approaches, our approach generates multiple datasets to detect different potential errors. Our system combines program analysis techniques which we had developed in our DBridge system with data generation techniques developed in our XData system, which is designed to catch errors in SQL queries.

Our continuing work on the XData system this year focused on partial marking for grading student SQL queries. Such systems can not only automate grading of SQL assignments, but can also help students understand where they made mistakes. This work is to be submitted for publication.

We have also continued working on query optimization. We have made progress in two subareas, namely optimization of very large join queries, and run-time optimization of certain types of queries on streaming data.

We also continued development of our cost-based query optimizer PyroJ, integrating it in a clean manner with the widely used Spark query processing system, which lacks a cost-based query optimizer. Industry today is very interested in this, and we are currently in discussions with Flipkart to see how our techniques can be used in their data centers.

Service and Public Engagement

I have acted as Secretary, Executive Committee, CSI SIGDATA, Area Chair, Procs. VLDB (equivalent to associate editor) for 2018, PC Member ACM SIGMOD 2018

List of Publications and Presentations in the last one year

1. Cobra: A Framework for Cost Based Rewriting of Database Applications, by K. Venkatesh Emani and S. Sudarshan, IEEE International Conf. On Data Engineering (ICDE), 2018, Paris

2. Test Data Generation for Database Applications (demo), Pooja Agrawal, Bikash Chandra, K. Venkatesh Emani, Neha Garg, and S. Sudarshan, IEEE International Conf. On Data Engineering (ICDE), 2018, Paris

Training of Highly Qualified People (Indicated in numbers)

	Master Students	Doctoral Students	Postdoctoral Students	Other (RA&TA)
Supervised	5	2		
Co-Supervised				
Graduated	4	0		

Vijay and Sita Vashee Chair Professorship

Mr. Vijay Vashee is an alumnus from 1975 batch from IIT Bombay. He joined Microsoft Corporation in 1982. He is credited with running the first Windows seminar and for setting up the MIS ISV program. He instituted the Vijay and Sita Vashee Chair for a professor in the area of Information Technology.

Prof. Manoj Prahakaran is selected for Vijay and Sita Vashee Chair Professor in the year 2017 for a period of three years.

A brief profile of Prof. Manoj Prahakaran is given below.

Email

mp@cse.iitb.ac.in

Thank you Message from the Chair Professor

I moved from the University of Illinois Urbana-Champaign to IIT Bombay about a year back, and was pleasantly surprised by the opportunity to occupy a chair. Such opportunities can help IIT Bombay in attracting and retaining world class faculty.

Teaching and Research Highlights

I work in cryptography (focusing on theoretical cryptography) and its applications in computer security. After moving to IIT Bombay, I have also undertaken a long-term project to build a programming platform to translate theoretical results in Secure Multi-Party Computation into implementations.

Service and Public Engagement

Along with some of my colleagues at IIT Bombay, I have authored a whitepaper on security and other issues surrounding "Aadhaar", India's national identity scheme. I intend to continue looking into such societally relevant questions, from a cryptographer's point of view.

I am co-organizing TCC 2018, a major international conference in cryptography (to be held in India for the first time), organized a workshop on Secure Multi-Party Computation at IIT Bombay, delivered a few tutorials in workshops held in India,

have been part of program committees for conferences held in India, and have been involved in faculty recruitment at new IITs (IIT Palakkad, Goa and Dharwad). I am serving as an editor for the Journal of Cryptology and am a member of the Steering Committee for TCC.

List of Publications and Presentations

1. Towards Characterizing Securely Computable Two-Party Randomized Functions. Deepesh Data, Manoj Prabhakaran. Public Key Cryptography 2018.
2. The Bottleneck Complexity of Secure Multiparty Computation. Elette Boyle, Abhishek Jain, Manoj Prabhakaran, Ching-Hua Yu. ICALP 2018.
3. Brief Announcement: On Secure m-Party Computation, Commuting Permutation Systems and Unassisted Non-Interactive MPC. Navneet Agarwal, Sanat Anand, Manoj Prabhakaran. ICALP 2018.
4. Reconciling Non-Malleability with Homomorphic Encryption. Manoj Prabhakaran, Mike Rosulek. Journal of Cryptology 30(3), 2017.
5. On Secure m-Party Computation, Commuting Permutation Systems and Unassisted Non-Interactive MPC. (Full version). Navneet Agarwal, Sanat Anand, Manoj Prabhakaran. (Under submission)
6. Encryption with Untrusted Keys: Security against Chosen Objects Attack. Shashank Agrawal, Shweta Agrawal, Manoj Prabhakaran. (Under submission)

Training of Highly Qualified People (Indicated in numbers)

	Master Students	Doctoral Students	Postdoctoral Students	Other (RA&TA)
Supervised		1	1	5
Co-Supervised	2			
Graduated			1	

Major Bhagat Singh Rekhi Chair Professorship



Mr. Kanwal Rekhi, our alumnus graduated from EE department has donated funds for KReSIT (Kanwal Rekhi School of Information Technology) and donated funds for setting up “Major Bhagat Singh Rekhi Chair” in the department of School of Information Technology.

Prof. Krithivasan Ramamritham is selected for Major Bhagat Singh Rekhi Chair Professorship in the year 2017.

A brief profile of Prof. Krithi Ramamritham is given below.

Academic Background:

B. Tech: Indian Institute of Technology Madras

M.Tech: Indian Institute of Technology Madras

Ph.D: University of Utah

Email

krithi@iitb.ac.in

Thank you message

I truly appreciate the Donor's generosity towards this chair position, It means a lot to IIT Bombay and to me, personally

Teaching and Research Highlights

We have been examining – during the last half a dozen years – the application of CS research to solve real-world problems, using “computational thinking”. In particular, the area of “smart energy management” is being studied, where we have an operational definition for being SMART: Sense Meaningfully, Analyze and Respond Timely! Our goal is to provide solutions that make energy usage purposeful, having lower environmental impact, and yet censoring the comfort level for the user.

Details can be found at seil.cse.iitb.ac.in.

I have also been working on smart cities, and smart urban environments.

All of these also set the agenda in my teaching endeavours, where students create smart artifacts and get deployment experience as part of their coursework.

Service and Public Engagement

Until recently I was Head of CUSE, Center for Urban Science and Engineering, where the focus of our work is informed by the needs of urban areas.

I have been writing a manuscript on “Smart Energy Management” and also writing articles on several topics of general interest.

I have been invited to give keynotes in many conferences devoted to CS, EE and beyond.

List of Publications and Presentations

- For publications, please visit <http://dblp.uni-trier.de/pers/hd/r/Ramamritham:Krithi?q=words>
- Talks in several Conferences on Smart Energy Management Including
- 7th International Conference on Power Systems, December 2017, Pune
- Big Data Analytics: 5th International Conference, Hyderabad, India, December 12-15, 2017,

Training of Highly Qualified People (Indicated in numbers)

	Master Students	Doctoral Students	Postdoctoral Students	Other (RA&TA)
Supervised	4	8	0	Around 5
Graduated	5	2	0	Around 5

HAL R&D Chair Professorship



A MOU was signed between IIT Bombay and Hindustan Aeronautics Limited on May 21, 2014 for instituting a R&D Chair in IIT Bombay.

Prof. Preeti Rao is appointed as the Chair Professor from 2017 for a period of three years. Previously Prof. Shabbir N. Merchant from Electrical Engineering Department, IIT Bombay was appointed as the first HAL R&D Chair Professor on July 3, 2014 for a period of three years.

A brief profile of Prof. Preeti Rao is given below.

Academic Background:

- B.Tech (Electrical Engineering) IIT-Bombay, 1984
- M.S. (Electrical Engineering) University of Florida, 1987
- Ph.D. (Electrical Engineering) University of Florida, 1990

Email

prao@ee.iitb.ac.in

Thank you Message from the Chair Professor

The HAL R&D Chair Professorship is a prestigious award that I look forward to doing justice to via my research contributions in the speech and music processing areas and by taking up selected outreach activities such as invited talks and conference organisation. The contingency funds available with the award have been useful in the travel involved in the outreach activities. I also look forward to greater interaction with HAL scientists to see if further meaningful research collaborations can be initiated

Teaching and Research Highlights

1. Robust speech processing: Improving robustness of automatic speech recognition on noisy and reverberant speech using multi- and single-channel speech enhancement techniques. Creating meetings speech data corpus for the training and testing of the ASR system.
2. Computer-aided spoken language assessment: developing the ASR engine for achieving read text alignment, detection of lexical and prosodic disfluencies.
3. Music information retrieval: computational modeling of raga grammar, structural segmentation using rhythm features, acoustic correlates of timbre in tabla strokes

Service & Public Engagement

1. Area Chair, Interspeech 2017, Sweden.
2. Women in MIR session organizer at the International Conference on Music Information Retrieval 2017, Suzhou, China.
3. TPC Co-chair, Interspeech 2018, Hyderabad

List of Publications

1. Rao, P., Sanghvi, N., Mixdorff, H., and Sabu, K., " Acoustic correlate of focus in Marathi: Production and perception ", *Journal of Phonetics* 65C (2017) pp. 110-125.
2. Ganguli, K.K. and Rao, P., " Towards computational modeling of the ungrammatical in a raga performance ", *Proc. of the 18th International Society for Music Information Retrieval Conference (ISMIR)*, Oct 2017, Suzhou, China.
3. Ross, J.C., Mishra, A., Ganguli, K.K., Bhattacharyya, P., and Rao, P., " Identifying raga similarity through embeddings learned from compositions' notation ", *Proc. of the 18th International Society for Music Information Retrieval Conference (ISMIR)*, Oct 2017, Suzhou, China.
4. Narang, K. and Rao, P., " Acoustic features for determining goodness of tabla strokes ", *Proc. of the 18th International Society for Music Information Retrieval Conference (ISMIR)*, Oct 2017, Suzhou, China.
5. C. Gupta, D. Grunberg, P. Rao and Y. Wang " Towards automatic mispronunciation detection in singing ", *Proc. of the 18th International Society for Music Information Retrieval Conference (ISMIR)*, Oct 2017, Suzhou, China.
6. Sabu, K., Swarup, P., Tulsiani, H., and Rao, P., " Automatic Assessment of Children's L2 Reading for Accuracy and Fluency ", *Proc. of SLATE*, Aug 2017, Stockholm, Sweden.
7. Ganguli, K.K. and Rao, P., " Validating stock musicological knowledge via audio analyses of contemporary raga performance ", Invited talk at the 20th Quinquennial

Congress of the International Musicological Society: Digital Musicology Study Session, Mar 2017, Tokyo, Japan.

8. Rao, P., " North-Indian Sitar and Sarod Concerts: Visualization of the Rhythmic Structure ", Invited talk at Workshop on Cross-disciplinary and Multi-cultural Perspectives on Musical Rhythm III, Mar 2017, NYU Abu Dhabi, UAE.

9. Mohanan, N., Velmurugan, R., and Rao, P., " Speech Dereverberation using NMF with Regularized Room Impulse Response ", Proc. of ICASSP, Mar 2017, New Orleans, USA.

Training of Highly Qualified People (Indicated in numbers)

	Master Students	Doctoral Students	Postdoctoral students	Others (RA&TA)
Supervised	6	4		1
Graduated		1		

Kamalnayan Bajaj Chair Professorship for Electrical Engineering Department



The charitable Trusts promoted by the Bajaj Group and Indian Institute of Technology Bombay signed an MOU to create four Chairs in various departments in IIT Bombay.

Prof. Subhasis Chaudhuri has been appointed as Kamalnayan Bajaj Chair Professor for Electrical Engineering with effect from 3rd July 2014. The purpose of the Chair primarily is to support academic development and provide adequate compensation to the faculty appointed.

A brief profile of Prof. Subhasis Chaudhuri is given below.

Academic Background:

- B.Tech, Indian Institute of Technology, Kharagpur
- M.Sc, University of Calgary, Canada
- PhD, University of California, San Diego, USA

Email

sc@ee.iitb.ac.in

Thank you Message from the Chair Professor

It is not only a wonderful feeling to have an honorific title associated with one of the foremost industrial house in India, it also provides me with the added self-confidence, enabling me to deliver at the highest level

Teaching and Research Highlights

Over the last year I concentrated on learning a new research area called machine learning. We are investigating applications of machine learning for image and video analysis. In parallel, we have also been working in the area of computational haptics.

Service and Public Engagement

I have been serving for the last two years as a Council member of Indian National Science Academy, thus helping take decisions that strives to encourage studies and research in science and engineering. I have also been serving in the Ethics Committee for the Indian Academy of Sciences and have come up with a draft document on ethics in research. Additionally I serve as the Convener of a Sectional Committee in Indian National Academy of Engineering.

List of Publications and Presentations

1. V. Gokhale, J. Nair and S. Chaudhuri, "Teleoperation over a shared network: When does it work?", IEEE Intl Symposium on Haptic, Audio and Visual Environments and Games (HAVE), NYU, Abu Dhabi, Oct 2017.
2. A. Hati, S. Chaudhuri and V. Rajbabu, "An Image Texture Insensitive Method for Saliency Detection", J. Visual Comm. & Image Representation vol. 43, pp. 212-226, Jan 2017.
3. V. Gokhale, JK Nair and S. Chaudhuri, "Congestion Control for Network-Aware Telehaptic Communication", ACM Trans on Multimedia Computing, Communications and Applications, vol-13(2), pp 17:1-17:26, May 2017.
4. B. Banerjee and S. Chaudhuri, "Hierarchical subspace learning based domain adaptation for remote sensing image pairs", IEEE JSTAR , vol-10(11), pp 5099-5109, 2017
5. B. Chaudhuri, B. Demir, L. Bruzzone, and S. Chaudhuri, "Multi-label Remote Sensing Image Retrieval using a Semi-Supervised Graph-Theoretic Method", IEEE Trans. Geoscience and Remote Sensing, 2017.
6. Sunil TT, S. Chaudhuri and M.U. Sharma, "Sensor Selection for E-Nose Applications", in Pattern Recognition and Big Data , (Eds.) A. Pal and S.K. Pal, World Scientific, Singapore, 2017.
7. S. Chaudhuri and A. Bhardwaj, "Kinesthetic Perception - A Machine Learning Approach", Springer, NY, ISBN 978-981-10-6692-4, 2017

Training of Highly Qualified People (Indicated in numbers)

	Master Students	Doctoral Students	Postdoctoral Students	Other (RA&TA)
Supervised	3	6	--	
Co-Supervised		2	--	
Graduated	3	1	--	

1st Batch (Class of 1962) P.K.Kelkar Chair for Excellence in Nano Technology



The 1962 batch, which was also the first batch to graduate from the Institute, donated funds for creating "P.K.Kelkar Chair for Excellence in Nano Technology". The Chair is awarded to a professor who has been doing outstanding work in the field of Nanotechnology. The MOU was signed in the year 2008 and Prof. Juser Vasi was appointed as the first Chair Professor for a period of three years in the year 2009.

Prof. Rajiv O. Dusane is appointed as the Chair Professor in July 2017 for a period of three years.

A brief profile Prof. Dusane is given below

Academic Background

- M. Sc. (Physics) Nagpur (1984)
- Ph. D. (Physics) Pune (1989)

Email

rodusane@iitb.ac.in

Thank you Message

The P.K. Kelkar Chair Professorship is indeed an honour and is a prestigious event in my career. Though I have been working in the area of nanomaterials and Nanotechnology for a considerable period, this Chair provides additional opportunities to expand the horizon of my activities in this domain. Over the last one year my group has been extensively engaged in developing applications based on nanomaterials and thin films. These applications cover the areas of energy generation, storage and health care. The specific devices that are being looked into are 4th Generation solar cells, Hybrid Supercapacitor and Battery devices and Foot plantar device for diabetic foot pressure mapping. During this period two of my students completed their Ph.D. while several M.Tech. Students completed their Master's degree. Some good quality publications have come out and couple of funded projects have been sanctioned. I have also delivered invited talks in International conferences both in India as well as abroad. These activities

Will continue within the laboratory space and also new industry partners would be explored to seek possibility of technology development and translation.

Teaching and Research Highlights

1. Silicon Heterojunction (SHJ) solar cell

In the Silicon Heterojunction (SHJ) solar cell, the emphasis is on the understanding and controlling the hetero-interface between intrinsic amorphous silicon (i-a-Si:H) layer and the n-type crystalline silicon (c-Si) wafer which is a crucial aspect of the SHJ solar cell. The interface was monitored using high-resolution transmission electron microscopy (HRTEM). The HRTEM data of the c-Si/a-Si:H interface reveals a drastic dependence on the filament temperature (T_f) used during the deposition of i-a-Si:H layer. Detailed analysis of the solar cell characteristics indicates that the cells which have an abrupt crystalline/amorphous interface shows higher conversion efficiency compared to those where we have a rough and a defective interface or where there are indications of local epitaxy in the a-Si:H layer.

2. Silicon nanowires for energy storage

We have undertaken the project of developing silicon nanowire based electrodes for micro-supercapacitor and Lithium as well as Sodium battery applications. We have over the years established the process of growing SiNWs right from obtaining the Tin nanotemplate to the controlled growth of SiNW by the HWCVP. The following figures show a schematic of the proposed hybrid device for energy storage using Si Nanowires.

3. Nanocrystalline silicon thin films for diabetic patients ie. Foot plantar:

We are in the process of development of a prototype of foot plantar pressure mapping mat using arrays of piezoresistive sensor fabricated using microcrystalline silicon thin films. The existing state-of-art machine uses force resistive sensor technology which is based on conductive polymers. In contrast with Si technology such machines suffer with low robustness and reliability. Also it costs way too high (pressure mapping mat INR 6.00 lac and insole fitted shoes INR 16-18 lac).The proposed sensing array of ours uses piezoresistive sensitivity of nano crystalline silicon (nc-Si) material. The piezoresistive gauge factor of the fabricated films is reported to be as high as 43, which equals the benchmark for the gauge factor shown by polycrystalline Si material. We have been able to successfully design and fabricate building block of pressure sensor arrays which is flexible and is Si based technology.

Services and Public Engagements

I have been engaged in evaluation of Ph.D. theses of students from different Institutions. Also reviewing of journal papers is a routinely done for various international journals. I am also a member of the PAC committee of SERI, DST wherein proposals on energy generation and storage are evaluated and funded. My group also participated in the TechFest where we had a stall to demonstrate our activities to visitors from various schools and colleges

List of Publications and Presentations

1. Badgujar, A.C., Dusane, R.O., Dhage, S.R. Sonochemical synthesis of $\text{CuIn}_{0.7}\text{Ga}_{0.3}\text{Se}_2$ nanoparticles for thin film photo absorber application *Materials Science in Semiconductor Processing*, 81, pp. 17-21. (2018)

2. Kumar, R., Soam, A., Dusane, R.O., Bhargava, P. Sucrose derived carbon coated silicon nanowires for supercapacitor application (2018) Journal of Materials Science: Materials in Electronics, 29 (3), pp. 1947-1954. (2018)
3. Jangid, M.K., Lakhnot, A.S., Vemulapally, A., Sonia, F.J., Sinha, S., Dusane, R.O., Mukhopadhyay, A. Crystalline core/amorphous shell structured silicon nanowires offer size and structure dependent reversible Na-storage Journal of Materials Chemistry A, 6 (8), pp. 3422-3434. (2018)
4. Sharma, B., Kar, R., Pal, A.R., Shilpa, R.K., Dusane, R.O., Patil, D.S., Suryawanshi, S.R., More, M.A., Sinha, S. Role of hydrogen diffusion in temperature-induced transformation of carbon nanostructures deposited on metallic substrates by using a specially designed fused hollow cathode cold atmospheric pressure plasma source Journal of Physics D: Applied Physics, 50 (15), (2017)
5. Soam, A., Kavle, P., Kumbhar, A., Dusane, R.O. Performance enhancement of micro-supercapacitor by coating of graphene on silicon nanowires at room temperature Current Applied Physics, 17 (2), pp. 314-320. (2017)

Training of Highly Qualified People (Indicated in numbers)

	Master Students	Doctoral Students	Postdoctoral Students	Other (RA&TA)
Supervised	5	10	1	3
Co-Supervised	2	4	NA	NA
Graduated	3	2	NA	NA

Forbes Marshall Chair Professorship



The Forbes Marshall Chair was set up for the Department of Energy Sciences and Engineering with the generous donation from Forbes Marshall. The term of the Chair Professor is three years for full time faculty of the Institute or full time faculty employed on contract.

Prof. Rangan Banerjee was appointed as the Forbes Marshall Chair Professor for Energy Sciences and Engineering on 19.9.2011 for a period of three years and currently re appointed for a period of three years till 2020.

A brief profile of Prof. Rangan Banerjee is given below.

Academic Background:

- B.Tech, IIT Bombay
- Ph.D, IIT Bombay

Email

rangan@itb.ac.in

Thank you Message from the Chair Professor

The Forbes Marshall fellowship helps in providing recognition for my work and flexibility to pursue new research.

Teaching and Research Highlights

We have examined the impact of integration of rooftop PV in the Mumbai grid and provided a methodology for PV-thermal-hydro scheduling and illustrated this for Maharashtra. We have been looking at the integration of storage with renewable microgrids in terms of optimal sizing and sustainability. An understanding of the variability of renewable power and applying improved techniques for forecasting has been an area of interest.

I have focussed on trying to encourage learning in courses through group projects, reading assignments etc. I have tried to identify students who need help and have separate help sessions for them. I also try to relate the courses to real life. I have used active learning techniques in the classroom to try to engage with most of the students.

Service and Public Engagement

I have been active at the international level - part of the India- China dialogue, delivered a public lecture at Melbourne. At the national level was involved in the Imprint Energy selections and in TIFAC, NITI Aayog etc.. At the Institute level was involved in the Strategic plan formulation. I have been a member of the Research council of the National Institute of Wind Energy.

I have been on the editorial board of

- International Journal of Thermodynamics (2011- till date)
- Editorial Board - International Journal of Sustainable Energy (2003 - till date)
- Editorial Board - International Journal of Sustainable Engineering (2008 - till date)
- Editorial Board – Environmental Systems and Decisions (2016 - till date)
- Associate Editor - Frontiers in Energy Research - Process and Energy Systems Engineering (2015 - till date)
- Associate Editor - Energy for Sustainable Development (2008 - till date)

List of Publications and Presentations

Journal Papers:

1. Jacob, A. S., Banerjee, R., Ghosh, P. C., (2018), Sizing of hybrid energy storage system for a PV based microgrid through design space approach, Applied Energy, (212) pp. 640-653.
2. Das, J., Abraham, A. P., Ghosh, P.C. and Banerjee, R., (2018) Life cycle energy and carbon footprint analysis of photovoltaic battery microgrid system in India, Clean Technologies and Environmental Policy, Springer, (20)1, pp 65-80.
3. Debnath R., Bardhan R., Banerjee R, (2017) Taming the killer in the kitchen: mitigating household air pollution from solid-fuel cookstoves through building design', Clean Technologies and Environmental Policy', (19)3, pp 705-719.
4. Dhariwal, J. and Banerjee, R., (2017) An approach for building design optimization using design of experiments', Building Simulation, Springer Nature, (10)3, pp 323-336..
5. Singh, R., and Banerjee, R., (2017) Impact of large-scale rooftop solar PV integration: An algorithm for hydrothermal-solar scheduling (HTSS), Solar Energy, 157, pp. 988-1004.

Conference papers published:

1. Jacob, A.S., Das, J., Abraham, A.P., Banerjee, R., and Ghosh, P.C., 'Cost and Energy Analysis of PV Battery Grid Backup System for a Residential Load in Urban India', Energy Procedia, 118, 2017, Pages 88-94, 2nd International Conference on Advances on Clean Energy Research, ICACER 2017; Berlin; Germany; 7-9 April, 2017.
2. Singh R., and Banerjee, R., 'Investigation of city-level site-pair correlations of solar variability using empirical satellite data', 44th IEEE Photovoltaic Specialists Conference (IEEE PVSC-44), Washington D.C., USA, 25-30 June, 2017. **Won Best Poster Award** for this paper.
3. Das, J., and Banerjee, R., 'Estimation of long range correlations and FARIMA modelling of wind speed in Maharashtra', Proceedings of International Conference - 2017 IEEE PES Asia-Pacific Power and Energy Engineering Conference (APPEEC), Bangalore, India, 8-10 November, 2017.

Patents Applications:**Title: THERMAL MANAGEMENT OF BUILDING USING ENCAPSULATED PHASE CHANGE MATERIAL BASED HEAT EXCHANGER**

Inventors: Himanshu Garg, Brijesh Pandey, Sandip K. Saha, Suneet Singh & Rangan Banerjee

Patent Application **No. 201821001477**

Filing date: January 12, 2018

Title: LIGHT DEPENDENT RESISTOR BASED ANGULAR DAYLIGHT DISTRIBUTION MEASUREMENT DEVICE

Inventors: Marshal S Maskarenj, Gaurav J. Chawla, Prakash C. Ghosh & Rangan Banerjee

Patent Application **No. 201821007607**

Filing date: February 28, 2018

Chapters (Books):

1. Singh, A., Doolla, S., Banerjee, R., Demand Side Management, (Book Chapter) Ed. Abraham, M.A., Encyclopedia of Sustainable Technologies Elsevier, 2017, pp.487-496.
2. Sahoo L.K., Bandyopadhyay S., Banerjee R., Benchmarking Energy Consumption of Truck Haulage, Chapter 9, Ed. Awuah-Offei K., Energy Efficiency in the Minerals Industry, Green Energy and Technology, Springer, Cham, 2017, pp.159-180.

Invited Talks (National):

1. Sustainable Energy Solutions for Rural India at Nehru Science Centre, Mumbai, February 16, 2018.
2. Low Carbon Energy Options for India at AvG Kolleg Aurangabad, February 2, 2018.
3. Modelling of Energy Systems at INAE Annual Convention on December 15, 2017 at TCS, SIPCOT IT Park, Siruseri, Chennai.
4. Status of Higher Education in India at Induction Training Programme, conducted under the aegis of the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, at IIT Bombay, November 28, 2017.
5. Energy Transitions in India: A Perspective at Inauguration of new IGCS-premises, IIT Madras, November 1, 2017.
6. Energy Systems and Sustainability: a perspective at Eaton Centre of Excellence Pune, July 7, 2017.
7. Economics of Climate Change at 4th Summer School - Climate Science and Policy, IDP Climate Studies, IIT Bombay, July 6, 2017.

Invited Talks (International):

- 'Climate Change Impacts, Resilience and Urban Development in India' at The New Climate Economy, 2nd Indo-China Dialogue Opportunities for Economy, Growth and Climate Action, India Habitat Centre, New Delhi, India, January 29, 2018.

- 'The Future of India's Electricity Sector: Moving away from Coal?' Public Lecture at Melbourne Energy Institute and Australia India Institute, Australia, June 6, 2017.
- 'Microgrids in India: Status and Future', Monash University, Australia, June 7, 2017.

Education Extension Activities at IIT Bombay

- "Ethics of Policy Research," Centre for Policy Studies, PS-603 course, IIT Bombay, October 5, 2017.

"Economics of Climate Change," 4th Summer School - Climate Science and Policy, IDP Climate Studies, IIT Bombay, September 6, 2017.

Training of Highly Qualified People (Indicated in numbers)

	Master Students	Doctoral Students	Postdoctoral Students	Other (RA&TA)
Supervised	2	11	2	2
Co-Supervised	--	4	--	--
Graduated	2	1	2	2

Praj Industries Chair Professorship for Energy Sciences and Engineering



The Praj Industries Chair Professorship for Energy Sciences and Engineering was set up for the Energy Sciences and Engineering discipline for the period of ten years with the generous donation given by Praj Industries, Pune. Praj Industries is a global Bioenergy, Renewable Chemicals and Environmental Technologies Company, with references across five continents. The purpose of the Chair primarily is to support academic development and provide adequate compensation to the faculty appointed.

Prof. Shireesh Kedare from Energy Science & Engineering Department is appointed as Praj Industries Chair Professor for

Energy Sciences and Engineering for a period of three years from

17.11.2017 A brief profile of Prof. Shireesh Kedare is given below **Academic**

Background:

- B. Tech. (Mech.Engg.) from IIT Bombay, 1985
- Ph.D. from IIT Bombay, 1992

Email

sbkedare@iitb.ac.in

Thank you Message from the Chair Professor

Thanks to Praj Industries for the Chair on Energy Science and Engineering. I am sure this Chair will help in exploring new and cheaper designs of renewable energy devices, certainly in solar thermal as well as other resources.

Teaching and Research Highlights

We are now working towards development of solar thermal devices suitable for decentralized applications like solar dryers, cookers and desalinators. The design and development approach focusses on participatory technology development methods in which the user is involved in the technology development. This improves the device acceptability in long run. The participatory technology development effort also includes improvement of traditional wood fired cook stoves.

Service and Public Engagement

Working with farmers and villages of Raigad and Palghar districts presently in assessing the need and establishing the dialogue. Working with farmers and villages of Raigad and Palghar districts presently in assessing the need and establishing the dialogue..

List of Publications and Presentations

Ongoing since last 3 months.

Training of Highly Qualified People -ongoing

Rahul Bajaj Chair Professorship for Mechanical Engineering



The charitable Trusts promoted by the Bajaj Group and Indian Institute of Technology Bombay signed an MOU to create four Chairs in various departments in IIT Bombay.

Prof. Suhas S. Joshi has been appointed as Rahul Bajaj Chair Professor for Mechanical Engineering Department with effect from 2017 for a period of three years. The purpose of the Chair primarily is to support academic development and provide adequate compensation to the faculty appointed.

A brief profile of Prof. Suhas S. Joshi is given below.

Academic Background:

- B.E. (Production Engineering), V.J.T.I. Bombay
- M.E. (Manufacturing Engineering), N.I.T. Tiruchirapalli
- Ph.D. (Mechanical Engineering), IIT Bombay

Email

ssjoshi@iitb.ac.in

Thank you Message from the Chair Professor

Prof Joshi would like to acknowledge the support received for the Chair with gratitude. The support has enabled him to provide experimental as well as computing facilities to the Ph.D. and M.Tech. Students of IIT Bombay. The funding has also been used by his Ph.D. student to cover travel shortfall to attend international conference in USA.

Teaching and Research Highlights

Research Highlights include:

- Development of Electric Discharge Machining as a surface texturing methodology has been taken to new heights. In this stage of work, process is now extended to larger surfaces areas.
- These surfaces when tested showed higher protein absorption that favours cell growth on bio-implants.
- The damage in composite materials proportionately affects their life. In a new project that is initiated in association with NAL Bangalore, efforts are being made to quantify this correlation.

Service and Public Engagement

1. Invited talks / International Conference Presentations

- **Dr. S.C. Bhattacharya Memorial Lecture** on 'Textured Surfaces for MEMS Applications' on the occasion of Inaugural Function of 33rd National Convention of Mechanical Engineers, Udaipur Local Chapter, Udaipur, September 1-2, 2017.
- **Keynote Talk** on 'Machining of Titanium Alloys', Bilateral WORKSHOP on Machining of Advanced Materials for Aeronautic Sector at IITRAM, Ahmedabad, Gujarat, May 26-27, 2017.
- **Keynote Talk** on 'Design and Fabrication of Textured Surfaces', International Conference on Emerging Trends in Mechanical Engineering, G. H. Patel College of Engineering and Technology, Vallabh Vidyanagar, Gujarat, India, February 24-25, 2017.

3. Conference /workshop organised

- 'Analysis of Research Problems using Design of Experiments' **Conducted five times for Researchers/Teachers/Ph.D.** students of various engineering colleges in India during August, 2016 to March 2017.
 - o Dr. BA Technological University, Lonere, Maharashtra (Aug 13-17, 2016)
 - o Basveshwar Engineering College, Bagalkot, Karnataka (January 20-22, 2017)
 - o BVB College of Engineering & Technology, Hubballi, Karnataka (January 27-29, 2017)
 - o Government College of Engineering Jalgaon, Jalgon, Maharashtra (February 17-21, 2017)
 - o Government College of Engineering Aurangabad, Aurangabad, Maharashtra (March 17-19, 2017)

4. Membership

I.Academic Council Member of Department of Production & Industrial Eng. VIT, Pune

li. Member of Academic Council of Walchand College of Engineering, Sangli, Maharashtra

List of Publications and Presentations

International Journal Publications

1. Hemant Patne, Ankit Kumar, ShyamKaragadde, Suhas S. Joshi, Modeling of Temperature Distribution in Drilling of Titanium, International Journal of Mechanical Sciences, v133, 2017, pp. 598–610. <https://doi.org/10.1016/j.ijmecsci.2017.09.024>
2. AzharThanedar, Ganesh Dongre, R. K. Singh and Suhas S. Joshi, Surface Integrity Investigation Including Grinding Burns Using Barkhausen Noise (BNA), Journal of Manufacturing Processes, v30 (2017), pp. 226–240.
3. AnveshGaddam, K S Bharath, Suhas S Joshi, Amit Agrawal, Demarcating wetting states in textured microchannels under flow conditions by Poiseuille number, Microfluidics and Nanofluidics, v21, n137, 2017, <https://doi.org/10.1007/s10404-017-1974-8>.
4. Jithin S., Upendra V. Bhandarkar and Suhas S. Joshi, Analytical Simulation of Random Textures Generated in Electrical Discharge Texturing, Transactions of ASME, Journal of Manufacturing Science and Engineering, v139, n11, 111002-1-14, (2017), doi:10.1115/1.4037322.
5. Nilesh Varote and Suhas S. Joshi, Microstructural analysis of machined surface integrity in drilling a titanium alloy, Journal of Materials Engineering and Performance, v26, n9, pp.4391-4401 (2017), DOI: 10.1007/s11665-017-2864-7.
6. Prithvi Raj Jelia, Amit Agrawal, Ramesh K. Singh and Suhas S. Joshi, Design of Textured Surfaces for Super-hydrophobicity, Sadhana, 42(11), pp. 1915-1927 (2017). <https://doi.org/10.1007/s12046-017-0736-3>
7. Kamlesh Joshi, A Ananya, Upendra Bhandarkar, Suhas S. Joshi, Ultra-thin silicon wafer slicing using wire-EDM for solar cell application, Materials & Design, 124 (2017) , pp.158–170 doi: 10.1016/j.matdes.2017.03.059
8. Abhishek Gupta and Suhas S. Joshi, Modeling the effect of magnetic field on material removal in dry electrical discharge machining, Plasma Science and Technology, 19, n2, (2017) 025505 (10 pp)
9. Vinod Deshmukh, Raju Kadam and Suhas S. Joshi, Removal of Alpha Case on Titanium Alloy Surfaces using Chemical Milling, Machining Science and Technology, v21, n2, (2017), pp. 257-278. <https://doi.org/10.1080/10910344.2017.1284558>
10. Vivek Garg, Deepak Marla and Suhas S. Joshi, A Study on Curved Surface Laser Ablation Using Beam Profile Approach, International Journal of Additive and Subtractive Materials Manufacturing, v1, n1, (2017), pp. 42-56.
11. Nandkumar N Bhopale, Raju S Pawade, Suhas S Joshi, Surface quality analysis in ball end milling of Inconel 718 cantilevers by response surface methodology,

- Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, v231, n4, pp. 628–640, 2017.
12. Kamlesh Joshi, Gaurav Sharma, Ganesh Dongre and Suhas S. Joshi, Numerical modeling of wire-EDM for predicting erosion rate of silicon, Journal of the Institution of Engineers (India): Series C, (2017), v98, n1, pp.63-73. DOI:10.1007/s40032-016-0237-x

International Conference Publications

13. S. Jithin, Sagar S. Shetye, Jewel J. Rodrigues, Ketan S. Mhetre, Sachin A. Mastud, Suhas S. Joshi, Analysis of Electrical Discharge Texturing using Different Electrode Materials, Proc. of Advances in Mater. Proc. Technol., 11-14 Dec. 2017, VIT Chennai, India
14. Alwin Varghese, Piyush Kumar Maurya, Vinay Kulkarni, Suhas S. Joshi, Experimental Investigation of the Correlation Between Surface Roughness and Tool-Life in Micromilling, Proc. of Advances in Mater. Proc. Technol., 11-14 Dec. 2017, VIT Chennai, India
15. Kamlesh Joshi, Upendra Bhandarkar, Suhas S. Joshi, Surface integrity and wafer thickness variation analysis of ultra-thin silicon wafers sliced using wire-EDM, Proc. of Advances in Mater. Proc. Technol., 11-14 Dec. 2017, VIT Chennai, India
16. Siddharam Mane, Shyamprasad Karagadde, Suhas S. Joshi, Characterization of friction at the tool-chip interface for orthogonal cutting process of Ti-6Al-4V alloy, Proc. of Advances in Mater. Proc. Technol., 11-14 Dec. 2017, VIT Chennai, India
17. Ankit Kumar, Rajneesh Bhardwaj, Suhas S. Joshi, A Finite-element heat Transfer Model for Orthogonal Cutting, Proc. of Advances in Mater. Proc. Technol., 11-14 Dec. 2017, VIT Chennai, India
18. Makarand M. Kane, Aditya Jadhav, Mastik Kumar, S. V. Kulkarni and Suhas S. Joshi, Machining behaviour of silicon in wire-EDM for PV applications, Proc. of EU PVSEC 2017 – 33rd European PV Solar Energy Conf. and Exhibition, RAI Amsterdam, the Netherlands, 25 - 29 September 2017, pp. 333-338.
19. Pratik Khandagale, V. Kartik and Suhas S. Joshi, Force vibration response of a micro-cantilever beam under moving load, IEEE Int. Conf. titled “Advances in Mechanical, Industrial, Automation and Management Systems (AMIAMS-2017)”, MNIT, Allahabad, Feb 3-5, 2017, 8069215, pp. 220-22.

Training of Highly Qualified People (Indicated in numbers)

	Master Students	Doctoral Students	Postdoctoral Students	Other (RA&TA)
Supervised	02	12	--	--
Co-Supervised	--	02\3	--	--
Graduated	02	01	--	--

India Value Fund Chair Professorship for HSS Department



India Value Fund Chair was instituted with the generous donation by an alumnus from the batch of 1985. This Chair is meant for a professor who has a broad and interdisciplinary perspective of any of the core fields of humanities and social sciences particularly in the context of engineering and technology education.

Prof. Parthasarathy is appointed as India Value Fund Chair Professor in 2014 and continue to occupy this chair. He joined IIT in 1997. A brief profile of Prof. Parthasarathy given below.

Academic Background:

- BA, Osmania University
- MA, University of Hyderabad
- Mphil, University of Hyderabad
- PhD, University of Hyderabad

Email

dp@hss.iitb.ac.in

Thank you Message from the Chair Professor

The India Value Fund Chair Professorship has a specific objective to support a scholar who brings a “broad and interdisciplinary perspective in the fields of humanities and social sciences particularly in the context of engineering and technology education.” I have been holding this Chair since 2014, and it was renewed in October 2017. The Chair Professorship has given both prestige and recognition for my work, collaborative work with colleagues from other departments and disciplines in IIT Bombay, and with researchers from other parts of the world. It has helped me to network with researchers from engineering and science from other countries, including United Nations University, National University of Singapore, Washington University at St.Louis, University of Amsterdam, University of Goergia, Institute of Development Studies, Sussex, and Norwegian University of Life Sciences. Within IIT Bombay I am currently collaborating with researchers from Centre for Technology Alternatives in Rural Areas, Centre for Excellence in Climate Studies, Centre for Policy Studies, Centre for Study of Resources Engineering, Department of Civil Engineering, and Centre for Urban Science and Engineering. In a context where there is not much encouragement for inter-disciplinary work within my own discipline, the recognition given by the Chair Professorship makes me take pride in the kind of work that I do and to take up more collaborative research projects that are policy relevant and action oriented. I have recently taken over as Convener of IIT Bombay’s Climate Studies Inter-disciplinary Programme – the first time that a social scientist has become the head of any academic unit which largely consists of faculty from natural sciences and engineering. Hence, I am very thankful for the recognition for my efforts towards fulfilling the mandate of the IVF Chair.

Teaching and Research Highlights

- Collaborative research projects across social science and science / engineering disciplines has been sustained during the last year, and I have also been part of new collaborative research proposals some of which have been funded this year.
- India Lead Collaborator, "Contesting the Coastal Commons: The Changing Socio-legal position of Fishing populations in Tamil Nadu and Maharashtra", ICSSR-NWO Bilateral Programme (INDIAN COUNCIL OF SOCIAL SCIENCE RESEARCH and Netherlands Organisation for Scientific Research, 2016-18)
- Co-investigator, "Climate Change, Uncertainty, and Transformation", sponsored by Norwegian Research Council, in collaboration with IDS, Sussex, and Norwegian University of Life Sciences (2015-18)
- Co-investigator, Fostering Block Level Development through Technology Transfer and Diffusion, Rajiv Gandhi Science and Technology Commission, Government of Maharashtra (2015-18)
- Co-investigator, "DHARAVI NUTRITION PROJECT", Tata Centre for Technology and Design, Indian Institute of Technology Bombay (2014-17)
- Co-investigator, Project on "Integrated Impact Assessment Study for Mithi River", sponsored by Mithi River Development and Protection Authority, Mumbai (2013-17)

In addition to the following I am the India lead for the Transformations to Sustainability Project funded by the Belmont Forum –which includes partners from four other countries. This is a very prestigious grant, and is proof of recognition of the quality of our work. The grant is over one million Euros for the entire team for a period of three years. This project will begin in October 2018. 12 groups around the world have been funded. Our project is titled: "Transformation as Praxis – Exploring Socially Just and Transdisciplinary Pathways to Sustainability in Marginal Environments".

I will begin working on three research projects funded by DST, Govt of India, through the Centre for Excellence in Climate Studies at IIT Bombay.

A couple of other projects on climate change and disasters are awaiting funding from international agencies – both are inter-disciplinary projects with social scientists and non social scientists.

This year I have contributed to the design of a new introductory methodology course on Ph.D students in Policy Studies which I co-taught with faculty from policy and engineering disciplines. I also taught the Masters' level course titled 'Science and Technology in India's Development' at IIT Bombay. Though the course is meant for M.Phil students in Planning and Development, it was opened up to B.Tech and M.Tech students and has become very popular among students who seek to orient their career towards technology for development initiatives. This is addition to the Introductory course in Climate Studies that I teach every year/ Gradually my teaching is expanding beyond the HSS department to other departments

Service and Public Engagement

1. I have been one of the core group members which has led the launch of a Centre for Policy Studies at IIT Bombay, and its new Ph.D programme which admitted its first batch last year. I have also contributed to the design and proposed launch of the new Masters in Public Policy to be launched in 2019, as a member of the Policy Studies IDPC.

2. I have continued to function as Co-Convener of the Centre for Excellence in Climate Studies at IIT Bombay. I was part of the team that prepared and submitted a proposal to DST for Phase 2 of the CECS which has since been funded for a period of five years.
3. I have been appointed as the Convener of the IDP in Climate Studies for a period of three years, the first time a social science faculty has been appointed to head a largely engineering dominated academic unit in IIT Bombay.
4. I am a member of the research group in IIT Bombay which is setting up a National Centre for Earthquake Disaster Risk Reduction, sponsored by the National Disaster Management Agency, Government of India, and led by two faculty members from the Civil Engineering Department at IIT Bombay.
5. Manuscript reviewer for leading journals and publishers in areas related to social sciences, disaster management, general science, and climate change
6. Expert Reviewer for Austrian Climate Research Program
7. Examiner Ph.D dissertations from University of Hyderabad, Tata Institute of Social Sciences, Jawaharlal Nehru University, and University of Delhi
8. Head, Department of Humanities and Social Sciences (2014-17), Co-PI, Centre for Excellence in Climate Studies (2014-18) and Convener, IDP in Climate Studies (2017-20), all at IIT Bombay
9. a) Consulting Editor, Journal of Public Affairs and Change, b) Member, Editorial Committee, South Asia Research, c) Board Member, Commission on Legal Pluralism, International Union of Ethnological and Anthropological Sciences (Board Member, 2014-19), d) Member, Scientific Committee, FICCI-UNEP Indian Life Cycle Assessment and Management Conference (2012-17), e) Associate Editor, ARI-Springer Asia Series (Cities), 2009-present, f) Member, Editorial Board, Environment and Planning E (Nature and Space), Sage Publications
10. a) MOOC Soft Skills and Workplace Communication Course : Lakshya Programme, MOOCs: Jan to March 2018; course co-coordinator b) MOOC Campus to Corporate Blended MOOCs: Sep-Dec 2017 in collaboration with JP Morgan Chase; course co-coordinator
11. a) "Gender and Diversity in Higher Education: IGP-DAAD-UGC program," Organizer, IIT Bombay b)"The emerging role of India's states in environmental, energy and climate governance: Politics and challenges of decentralization: IGP DAAD UGC Workshop,"Organizer, IIT Bombay

List of Publications and Presentations

Publications

1. Swami, Deepika, Prashant Dave, and Devanathan Parthasarathy. "Agricultural susceptibility to monsoon variability: A district level analysis of Maharashtra, India." *Science of the Total Environment* 619 (2018): 559-577.
2. Chouhan, H. A., Parthasarathy, D., & Pattanaik, S. (2018). Urban at the Edges: Mumbai's Coastline Urbanisms. In Jenia Mukherjee ed. *Sustainable Urbanization in India* (pp. 279-293). Springer, Singapore.

3. Sharma, Sneha, and D. Parthasarathy. "Urban Ecologies in Transition: Contestations around Waste in Mumbai." In Jenia Mukherjee ed. Sustainable Urbanization in India, pp. 207-223. Springer, Singapore, 2018.
4. Singh, N., Parthasarathy, D., & Narayanan, N. C. (2018). Contested Urban Waterscape of Udaipur. In Jenia Mukherjee ed. Sustainable Urbanization in India (pp. 295-317). Springer, Singapore.
5. Chatterjee, Dwiparna, and D. Parthasarathy. "Gentrification and Rising Urban Aspirations in the Inner City: Redefining Urbanism in Mumbai." In Jenia Mukherjee ed. Sustainable Urbanization in India, pp. 239-255. Springer, Singapore, 2018.
6. Parthasarathy, D. "Global Flows or Rural–Urban Connections? Temporality, Public Spaces and Heterotopias in Globalising Mumbai." In N.Jayaram ed. Social Dynamics of the Urban, pp. 33-59. Springer, New Delhi, 2017.

Presentations

7. D. Parthasarathy, "India's Emerging Risk Urbanism: Cities, Commons, and Neo-liberal Transformation", paper presented in Plenary 1 on "The Urban Transformation of India:, at the 43rd All Indian Sociological Congress, Lucknow University, 9-12 November 2017
8. D.Parthasarathy, "The Missing Link between Climate Change and Disaster Governance: A Critique of India's Climate Action Plans and Missions", paper presented at the Climate Disaster Governance Conference, Asia Research Institute, National University of Singapore, 21-22 Sep 2017
9. D. Parthasarathy, "Contours of India's Coastal Urbanism: Loss of Imagination and Reimagining a Future", paper presented at the conference on: Resilient Cities: for Human Flourishing: Governing the Asia-Pacific Urban Transition in the Anthropocene, Asia Research Institute, National University of Singapore, 2-3 March2017

Training of Highly Qualified People (Indicated in numbers)

	Master Students	Doctoral Students	Postdoctoral Students	Other (RA&TA)
Supervised	Currently supervising 2	Currently supervising 14 students		
Co-Supervised		Currently supervising 3		
Graduated	2 graduated in the last one year (33 in total since joining IITB)	1 graduated in the last one year (19 total since joining IITB)		

Pramod Chaudhari Chair Professorship for Green Chemistry and Industrial Biotechnology



The Pramod Chaudhari Chair for Green Chemistry and Industrial Biotechnology is established with the generous donation given by our distinguished alumnus Mr. Pramod Chaudhari. Mr. Pramod Chaudhari is the Executive Chairman of Praj Industries, a global Bioenergy, Renewable Chemicals and Environmental Technologies Company, with references across five continents. This Chair is established in Chemistry Department and Prof. Sambasiva Rao Kotha was appointed as the Chair Professor in the year 2011. The tenure of Chair is three years and **Prof. Kotha** has been re-appointed as the "Pramod Chaudhari Chair Professor for Green Chemistry & Industrial Biotechnology" in 2014 and 2017 for a period of three years.

A brief profile of Prof. Sambasiva Rao Kotha is given below

Academic Background:

- BSc (Andhra Loyola College-Vijayawada, Nagarjuna University)
- MSc (University of Hyderabad-Hyderabad)
- Ph D (University of Hyderabad-Hyderabad)

Email

srk@chem.iitb.ac.in

Thank you Message from the Chair Professor

It is with great pleasure we thank Praj industries for establishing the Chair Professor in Green Chemistry area. We got benefited by their support and encouragement. Moreover, travel money from this scheme can be used without airline restrictions, which is very important point for an academician whereas all other government organisations has Indian Airline travel restriction.

Teaching and Research Highlights

Taught two courses on organic synthesis and methods in organic synthesis. Emphasized the importance of Green Chemistry during the lectures. Also included some relevant examples from industrial point of view. Increased the awareness of Green Chemistry for sustainable development of human progress.

Our research work involves development of new synthetic methodologies. More specifically, we are working on metathesis, Suzuki coupling, [2+2+2] cycloaddition and ronalite. We are using transition metal catalysed transformations, which avoid waste, and they are catalytic in nature. These processes are of Green in nature. We also developed useful methods based on ronalite, which is produced in India on tonne scale and extensively used in textile industry as a decolorizing agent. Ronalite is considered as a Green reagent.

Research Interests: Organic Synthesis - Development of New Synthetic Methods: Unusual amino acids, Peptide Modification, Suzuki coupling, Metathesis, [2+2+2] cycloaddition, Chemistry of benzocyclobutene, and theoretically interesting molecules.

Service and Public Engagemen

Delivered seminars at various colleges, acted as resource person for conducting symposia. Selection committee member in various universities and research labs around the country. Examined M.Sc. and Ph.D. thesis from various universities. Refreed papers from various Journals (National and International.) Evaluated proposals from various funding agencies. Member of Editorial board for various journals (National and International). Expert member for selection faculty member at NIT-Warangal. Delivered distinguished alumnus lecture at University of Hyderabad,

List of Publications in the last one year

- [1] S Kotha, M. Saifuddin, R. Ali, M. E. Shirbhate, G. Sreevani
Two directional approach to spirocycles containing bicyclo [2.2.2] octane system via a [2+2+2] co-trimerization and Diels-Alder reaction.
Indian J. Chem. 56B, 1231, **2017**. (0.353)
- [2] S. Kotha, G. Sreevani
A short synthetic route to benzosultine-sulfone using ronalite and [2+2+2]-cyclotrimerization
ChemistrySelect, 2, 10804, **2017**. (NA)
- [3] S. Kotha, S. R. Cheekatla, D. Mhatre
Ring closing metathesis approach to cage propellanes containing oxepane and tetrahydrofuran hybrid system
Synthesis, 49, 5339, **2017**. (2.650)
- [4] S. Kotha, V. R. Aswar, A. K. Chinnam
One-Pot synthesis of carbazoles from indoles via a metal free benzannulation
Tetrahedron. Lett, 58 4360, **2017**. (2.193)
- [5] S. Kotha, V. R. Aswar, G. Singhal
Synthesis of tricyclic units of indole alkaloids: Application of Fischer indolization and olefin metathesis.
Tetrahedron, 73, 6436, **2017**. (2.651)
- [6] S. Kotha, A. K. Chinnam
Synthesis of indane-based [n.3.3] propellane derivative via ring closing metathesis.
Indian J. Chem. 56B, 1065, **2017**. (0.353)
- [7] S. Kotha, S. Todeti, M. Bala Gopal, and A. Datta
Synthesis and photophysical properties of C₃-symmetric star-shaped molecules Containing heterocycles such as furan, thiophene, and oxazole.
ACS Omega, 2, 6291, **2017**. (NA)
- [8] S. Kotha, R. Gunta
Synthesis of intricate fused N-heterocycles via ring-rearrangement metathesis.
J. Org. Chem. 82, 8527, **2017**. (4.849)
- [9] S. Kotha, N. R. Panguluri, R. Ali
Design and synthesis of spirocycles
Eur. J. Org. Chem., 5316, **2017**. (2.834)
- [10] S. Kotha, S. R. Cheekatla
A new synthetic approach to C₂-symmetric octacyclic cage diol via Claisen

- Rearrangement and ring-closing metathesis as key steps
ChemistrySelect, 2, 6877, **2017**. (NA)
- [11] S. Kotha, S. R. Cheekatla, B. Mandal
Synthesis and rearrangement of cage [4.3.2] propellanes that contain a spiro linkage
Eur. J. Org. Chem. 4277, **2017**. (2.834)
- [12] S. Kotha, Ch. Chandravathi
Application of Fischer indolization under green conditions using deep Eutectic solvents.
Chemical Record. 17, 1039, **2017**. (3.855)
- [13] S. Kotha, G. Sreevani
A short synthetic route to a hybrid molecule benzosultine-sulphone via [2+2+2] cyclotrimerization
Heterocycles95, 1204, **2017**. (0.805)
- [14] S. Kotha, N. Nageswar Rao, O. Ravikumar, G. Sreevani
Isomerization and functionalization of 2:1 Diels-Alder adducts of cyclopentadiene and p-benzoquinone Application to polycycles via ring-closing metathesis and ring-opening metathesis as key steps
Tetrahedron Lett.58, 1283, **2017**.(2.193)

(NA)= Impact factor is not available as these are new journals.

List of Presentation

1. Proceeding of the 54th Annual convention of Chemists, ICS, Uka Tarsadia University, Surat, Dec 23-25, **2017**.
2. Olefin metathesis: A big deal reaction, Goa University, Dec 19-20, **2017**.
3. Organic synthesis: The science behind the art, IRCC Award Lecture, IIT-Bombay, Oct 30, **2017**.
4. Ring-rearrangement metathesis approach to polycycles, IIT-Guwahati, Oct 26-27, **2017**.
5. Ring-rearrangement metathesis approach to polycycles 18th Tetrahedron symposium Asian Edition, Melbourne, Australian, July 24-26, **2017**.
6. Synthesis of heterocycles via ring-rearrangement metathesis, ISOM XXII, ETH Zurich, Switzerland, July 09-12, **2017**.
7. Rongalite: A useful green reagent in organic synthesis, National Conference on Recent Developments in Chemical Science and Allied Technologies (RDCST-2017), NIT Warangal, Telangana, June 29-30, **2017**.
8. Applications of olefin metathesis, Telangana University, Feb 28, **2017**.
9. Motivation, NSDay-2017, RGUKT Basar, Telangana, Feb 28, **2017**.
10. Safety seminar, IRCC, IIT-Bombay, Feb 1, **2017**.

Rongalite: A useful green reagent in organic synthesis. Proceeding of international seminar on green chemistry for sustainable development: Issues, challenges and prospects, Loyola Academy Degree & PG College, Alwal, Secunderabad, Telangana, Jan 20-21, **2017**.

Training of Highly Qualified People (Indicated in numbers)

	Master Students	Doctoral Students	Postdoctoral students	Others(RA&TA)
Supervised	36	41	17	26
Graduated	36	32	14	26

Madhuri Sinha Chair Professorship**Faculty Name****Prof Rinti Banerjee****Email**

rinti@iitb.ac.in

Thank you message

The Madhuri Sinha Chair Professorship has enabled translational research and accelerated technology development and validation work in the areas of drug delivery, medical devices and nutraceuticals.

Teaching and Research Highlights

We have extended our work on micronutrient loaded cosmetics to the development of micronutrient and iron loaded body oils for infant massage. The technology has been successfully scaled up under GMP conditions and is currently being evaluated in clinical trials by our clinical partner KEM Hospital research Centre Pune.

We have also developed novel ultrasound responsive nanoparticle-nanobubble complexes for drug delivery in cancers. The technology leads to the on demand, image guided therapy in cancers and has the potential to act as an additional modality in the treatment of cancers. The off target effects are reduced by this technology.

Our research has also led to the development prototypes of a point of care device for the detection of bacteria in urinary tract infections. The device uses smart

materials to preferentially trap the bacteria and cause a visible colour change allowing a quick detection without the need for a microscope or trained personnel. A patent application has been filed for this technology.

Service and Public Engagement

I have been actively engaging with the research community in my new role as Associate Editor ACS Biomaterials Science and Engineering. I have also continued to serve as Editorial Board Member of Nature Scientific Reports. In addition I have edited a Special Issue on Nanomedicine in the journal of Therapeutic Delivery.

Gave an invited TEDx talk on A journey of innovations across boundaries. TEDx Mumbai 2018

List of Publications and Presentations

1. Chandan R, Banerjee R Pro-apoptotic platforms for ultrasound responsive drug delivery Scientific Reports 2018 In Press
2. Sandbhor P, Banerjee R Point of care diagnostics for cancer Analyst 2018 In Press
3. Banerjee R Nanotechnology for drug delivery: current status and glimpses in to the future Therapeutic Delivery 2018
4. Banerjee R Edited special issue on Nanotechnology and drug delivery Therapeutic delivery 2019
5. Kapoor M, Guha Sarkar S, Banerjee R Lipid based platforms for transdermal drug delivery Therapeutic delivery 2017
6. Rinti Banerjee Nanocosmetics: the good, the bad and the beautiful. Trichology and Cosmetology 2017
7. Kondhalkar Mrinmayee, Kishori Apte, Pradeep Parab, Anagha Dudhbhate and Rinti Banerjee Clinical Study to Evaluate Safety and Efficacy of a Topical Hair Minimizing Lotion in Healthy Human Volunteers J Clinical Trials and Patenting 2017 (2),1
8. Shruti Guha Sarkar, Prachi More, Rinti Banerjee. Urothelium-adherent, ion-triggered liposome-in-gel system as a platform for intravesical drug delivery. Journal of Controlled Release, 2017
9. Gogoi M, Jaiswal M, Bahadur D, Banerjee R Biocompatibility and therapeutic evaluation of magnetic liposomes designed for self-controlled cancer hyperthermia and chemotherapy Integrative Biology 2017
10. Kumari D, Dsouza A, Banerjee R. Nanocomposite sensors for food technology In: Nanotechnology applications in food technology, Elsevier 2017

Patents filed

1. Banerjee R et al device for point of care detection and trapping of bacteria. Indian patent filed 2017

Training of Highly Qualified People (Indicate the numbers below)

	Master Students	Doctoral Students	Postdoctoral Students	Other(RA&TA)
Supervised	4	12	6	5
Co-Supervised				
Graduated	4	2	1	2

Erach and Meheroo Mehta Advanced Education Technology Chair Professor

Prof. Kannan M. Moudgalya
Department of Chemical Engineering

Academic Background

- BTech, Chemical Engineering, IIT Madras, 1975-80
- Master of Electrical Engineering, Rice University, 1980-85
- PhD, Rice University, 1980-85

Prof. Kannan M. Moudgalya is a professor of Chemical Engineering, Educational Technology and Systems & Control at IIT Bombay. He has applied the principles of control, simulation and mathematical modelling in several engineering areas.

Prof Kannan has written two textbooks and published in refereed international journals and conferences.

Kannan has been focusing on spoken tutorials, open source software systems, virtual labs and affordable tablets and laptops. He believes that it is possible to provide high quality education to all our children through a combination of education, and information and communication technologies, making India a developed country in the process.

He has held the posts of Associate Dean (R&D), Head of Application Software Cell and Head of the Centre for Distance Engineering Education Programme, at IIT Bombay. He was a Member of the Standing Committee of the National Mission on Education through ICT, MHRD, for five years. He is a Director in the Washington DC based non-profit organisation WHEELS, which provides technology- based philanthropy.

Kannan received the Google MOOCs Research Award, while the Spoken Tutorial project received the best prize in the Reimagine Education Award 2015, instituted by QS and Wharton School, in the Nurturing Employment category.

Research Interests

1. Modelling, simulation, optimisation, control IT training, Free/Libre and open source software, skills training, large scale training
2. Education for all,
3. Crowd sourced content generation,
4. Affordable laptops, tablets

Perfumery Chair Professor**Prof. SantoshJ. Gharpure****Department of Chemistry****Academic Background**

- BSc Chemistry, V G Vaze College, University of Bombay, 1994
- MSc, Dept. of Chemistry, IIT Bombay, 1996
- PhD, Dept. of Organic Chemistry, IISc, Bangalore, 1996 - 2001
- Post-Doctoral Fellow, Dept. of Chemistry, Indiana University, 2001 – 2004

Prof. Santosh J. Gharpure has been a faculty in the Dept. Of Chemistry since 2012. His research focuses on organic chemistry pertaining to natural and unnatural product synthesis and developing new synthetic methodologies. Synthesis of molecules exhibiting flavors and fragrances is another domain of his research.

Prof Gharpure is a recipient of the INSA Medal for Young Scientists awarded by the Indian National Science Academy, New Delhi. He was presented with the IIT Madras Young Faculty Recognition Award (YFRA) for his contribution in teaching and research in 2010. He received the B. M. Birla Science Prize in Chemistry for the year 2011. He was one of the Thieme Chemistry Journal Awardees for the year 2013. He was Themis Medicare UICT Diamond Jubilee Distinguished Fellow in Pharmaceutical Science for the year 2015-16 of ICT, Mumbai. He was selected for the award of Chemical Research Society of India (CRSI) Bronze Medal in 2018.

Research Interests

1. Organic synthesis
2. New synthetic methods Asymmetric synthesis
3. Natural product synthesis Catalysis
4. Organometallic chemistry
5. Chemistry of fragrance molecules

AI&ML Chair Professor**Prof. Ravindra Gudi****Department of Chemical Engineering****Academic Background**

- B-Tech in Chemical Engineering, IIT Bombay (1985)
- M-Tech in Chemical Engineering, IIT Bombay (1987)
- PhD in Chemical Engineering, University of Alberta, Canada (1995).

Department of Chemical Engineering, University of Alberta, Canada (1997), Prof. Ravindra Gudi has served as a Visiting Professor at Department of Chemical Engineering, University of Wisconsin- Madison (2003- 04). Dr. Gudi has published over 70 papers in peer- reviewed journals and has 7 US patents to his credit, in various areas of process systems engineering.

Dr. Gudi is a recipient of several awards including the Canadian Commonwealth Fellowship by the Government of Canada (1991-1995), Lovraj Kumar Memorial Award for promotion of Industry Academia Interaction, (July 1998 - January 1999) Manudhane Applied Research Award (2006), Herdillia Award for Excellence in Basic Chemical Engineering (2009). He is also an Associate Editor of the IFAC journal of Process Control and Guest Editor for Control Engineering Practice. He serves on several technical committees of IFAC. He has also been an active consultant to the industry in India and abroad.

Dr. Gudi is currently the President of Automatic Control and Dynamic Optimization Society (ACDOS), India.

Research Interests

Process Systems Engineering (modelling, optimization, control, artificial intelligence and machine learning), Green Chemistry & Engineering with applications to Oil & Gas, Pharma, Environmental problems.

Maharashtra Pollution Control Board (MPCB) Chair for Environmental Technologies and Pollution Control



Prof. Shyam R. Asolekar

Centre for Environmental Science & Engineering

Academic Background

- BTech, Chem Engg, ICT, Mumbai, 1980
- MTech, Chem Engg, Institute of Science, Bengaluru, 1985
- MS, Environmental Engineering, Syracuse University, 1987
- PhD, Environmental Engineering, University of Iowa, 1991
- Postdoctoral research, Harvard University

Prof. Asolekar's interest is in teaching undergraduate and post-graduate students as well industrial and regulatory professionals. Some courses recently developed by him include Environmental Change and Sustainable Development, Industrial Wastewater Management and Reuse, Industrial Pollution Prevention and Cleaner Technologies, and Environmental Law and Policy for post-graduates. He contributed in developing the compulsory course for undergraduate engineering students: Environmental Studies. He is author of three books, five granted patents, policy documents, training manuals, chapters of books and several research papers in international and national journals.

Prof. Asolekar served as the Head of the Department between May 2006 and June 2009 and the President of Indian Environmental Association between 2003 and 2005. Since 1997, he has been the Member of Dahanu Taluka Environmental Protection Authority. Constituted by the Honourable Supreme Court of India.

Research Interests

1. Preventive environmental management
2. Zero Liquid Discharge
3. Reuse of treated wastewaters by combining advanced technologies and low-cost natural treatment systems
4. Technologies for decontamination
5. 'Decision Support Tools' based on life cycle assessment and costing, minimization of carbon footprint and sustainability criteria
6. Evidence-based environmental policy and regulation.

J. R. Isaac Assistant Chair



Dr. Rohit Gurjar

Department of Computer Science & Engineering

Academic Background

- BTech & MTech Dual Degree at CSE, IIT Kanpur, 2005-10
- PhD at CSE, IIT Kanpur, 2010-15
- Postdoctoral Research, University of Ulm, 2015-16
- Postdoctoral Research, Tel Aviv University, 2016-17
- Postdoctoral Fellow, California Institute of Technology, 2017-18

Prof. Rohit Gurjar is currently an assistant professor in the department of computer science and engineering at IIT Bombay. For his postdoc he was at three different places - Caltech, Tel Aviv University, and Ulm University - each for a year. Before that he was at Indian Institute of Technology Kanpur for 10 long years for his B. Tech.-M. Tech. and Ph. D. He was very fortunate to have Manindra Agrawal and Nitin Saxena as his Ph. D. supervisors. His Ph. D. thesis was chosen for the ACM India Doctoral Dissertation Award, 2017.

He is in general interested in theoretical computer science, and in particular in computational complexity and de-randomization. Some problems on which he has worked on are polynomial identity testing, perfect matching, and matrix completion. He likes hiking, cycling and listening to music.

Research Interests

1. Computational Complexity,
2. Combinatorial Optimization,
3. De-randomization and Pseudo-randomness,
4. Parallel Algorithms

Praj Industrial Chair Professorship for Energy Sciences and Engineering



Prof. Kannan N. Iyer

Department of Mechanical Engineering

Prof. Kannan Iyer has contributed to the field of Thermal Hydraulics, particularly in nuclear technology and its safety. His setting up of a facility for addressing various aspects of Advanced Heavy Water Reactor installed, at IIT Bombay, is recognized as a pioneering effort. His efforts in developing a scaled model for the demonstration of Passive Decay Heat Removal System has found adoption of this system in Indian nuclear reactors. His recent research and development focus has been on Melting, Solidification with material contraction, Contact melting, Stability of boiling systems, Surge mitigation in condenser cooling circuit of super-thermal power stations and lift irrigation systems and Modelling of supercavitation.

After joining IIT Bombay in 1986, he has executed over 25 sponsored R&D Projects, 25 industrial consultancy projects and has supervised to completion 16 Ph.D. and over 100 M.Tech. Theses.

Having over 100 publications in national and international journals and peer reviewed proceedings, he has received the Outstanding Service Award from Indian Nuclear Society (2014), the Best Faculty Award (2008-09) awarded by the Dept. of Mechanical Engineering, IIT Bombay, Excellence in Teaching Award of the Institute (2012, 2016) and Prof. S.P. Sukhatme Award for Excellence in Teaching (2018).

Academic Background

- B.Sc., (Engg), Delhi University, 1976
- Post Graduate Training Course, Nuclear Engineering, BARC, 1977
- M.S. and Ph.D., Purdue University, USA, 1985

Research Interests

1. Nuclear Reactor Thermal Hydraulics and Safety
2. Computational Fluid Dynamics and System Modelling

D.L.Shah Chair Professorship for Innovation**Prof. Ravi Poovaiah B. A.**

IDC School of Design

Academic Background

B.Tech. IIT Madras, 1975

Post Graduation Diploma in Industrial Design, IIT Bombay, 1977

Master of Arts Education, Rhode Island School of Design, USA, 1985

Prof. Ravi Poovaiah is a senior faculty member at IDC School of Design, IIT Bombay. He is credited for the major modifications in the 'Master of Design' curriculum, strengthening the Ph.D. program and co-ordinating the newly introduced Bachelor of Design (B.Des.) program at the Centre.

Currently, he is involved with building open access digital resources related to Design Learning, Folk Tales, Designing for Children, Design of Way-finding Systems and Design in India, with access to networked collaborative information. In this regard, he is involved with the MHRD sponsored project 'e-kalpa', to build an open access digital learning environment for design in India. He is also the Principal Investigator of a research project on experimenting with Social Media called 'The Centre of Social Media Innovations for Communities (COSMIC)', a collaborative initiative between IIT Bombay and the Universities from Singapore - NUS and NTU.

He has received the IBM Faculty Award Grant 2014, Microsoft Faculty Award Grant, 2004 and 'The most outstanding interface design' for Jellow and Smokeydote at Design Expo, Seattle, USA. He has been a visiting research Professor at the School of Computing, NUS, Singapore, since 2010.

Research Interests

1. Product Design; Design for Learning; Designing for Children - Play and Learn;
2. Collaborative Environments; Design, Technology and Culture; Digital Resources for Learning;
3. Information Visualization and Structuring; Smart Media Design and Interaction Design;
4. Visual Language and Communication Design; Signage, Identity and Information Systems.

G.K. Devarajulu Chair Professor**Prof. Asim Tewari**

Department of Mechanical Engineering

Academic Background

- Georgia Institute of Technology, Atlanta, GA
- Ph.D. in Materials Science & Engineering, March 1999
- Georgia Institute of Technology, Atlanta, GA
- M.S. in Materials Science & Engineering, December 1996
- Indian Institute of Technology (IIT), Kanpur, India
- B.Tech. in Materials Science & Engineering, July 1994

Prof. Asim Tewari is head of the National Center for Aerospace Innovation and Research (NCAIR) at IIT Bombay. At IIT Bombay, he set up the National Center for Aerospace Innovation and Research and Center for Technical Textiles. He has also been co-investigator in Biomedical Engineering and Technology (Incubation) Centre and Center for excellence in steel technology.

He has established several advanced state-of-the-art facilities including advanced machining excellence cell, fiber composite research laboratory, 4D x-ray microscopy laboratory with capabilities of in-situ thermo-mechanical deformation, an experimental lab for thermo-mechanical simulation and Nano-characterization texture laboratory. He has also established a research group in smart manufacturing, machine-learning, data-analytics and IoT for various sectors including manufacturing, transportation, and defense.

He has over 100 international journal & conference publications and 10 international patents. His pioneering work in 3D microscopy has been widely cited, including reproduction in ASM handbooks. He is on the editorial board of several international Journals including Metallurgical and Materials Transactions and Image Analysis & Stereology. He is an advisory committee member for various national & international research boards and has won awards and recognition for his research and teaching.

Research Interests

1. Microstructural-mechanics
2. Fiber composites and Technical Textiles
3. Advanced Manufacturing
4. Industrial Internet of Things
5. Data analytics and machine learning

K. Contact Us:

K. 1.Contact Us:

Contact Details: Office of the Dean, Alumni & Corporate Relations,
1st Floor, Main Building, IIT Bombay.
Powai, Mumbai – 400076

Phone: +91-22-25767023/4889

Email: dean.acr.office@iitb.ac.in