Indian Institute of Technology
Bombay

DEPARTMENT OF MECHANICAL ENGINEERING

DEPARTMENT HANDBOOK
2022-2023

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Institute Student Companionship Program

Disclaimer:

Though the ISCP (Institute Student Companion Program) has taken care while compiling the handbook, neither the council nor the Institute can be held responsible for errors/inadequacies that may inadvertently creep in. This handbook cannot be used as a basis for making a claim on facilities/concessions/interpretation of rules/statues or the like. If there is some critical information to which the reader of this handbook refers, it is with his or her responsibility that it is put to use, with cross verification if need be.

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About the Institute

Established in 1958, the second of its kind, IIT Bombay, was the first to be set up with foreign assistance. The funds from UNESCO came as Roubles from the then Soviet Union. In 1961 Parliament decreed the IITs as 'Institutes of National Importance.' Since then, IITB has grown from strength to strength to emerge as one of the top technical universities in the world.

The institute is recognised worldwide as a leader in the field of engineering education and research. Reputed for the outstanding calibre of students graduating from its undergraduate and postgraduate programs, the institute attracts the best students from the country for its bachelor's, master's, and doctoral programs. Research and academic programs at IIT Bombay are driven by an outstanding faculty, many of whom are internationally reputed for their research contributions.

IIT Bombay also builds links with peer universities and institutes at the national and international levels to enhance research and enrich its educational programs. The alumni have distinguished themselves through their achievements in and contributions to the industry, academics, research, business, government, and social domains. The institute continues to work closely with the alumni to enhance its activities through interactions in academic and research programs and to mobilise financial support.

Over the years, the institute has created a niche for its innovative short-term courses through continuing education and distance education programs. Faculty members of the institute have won many prestigious awards and recognitions, including the Shanti Swaroop Bhatnagar and Padma awards.

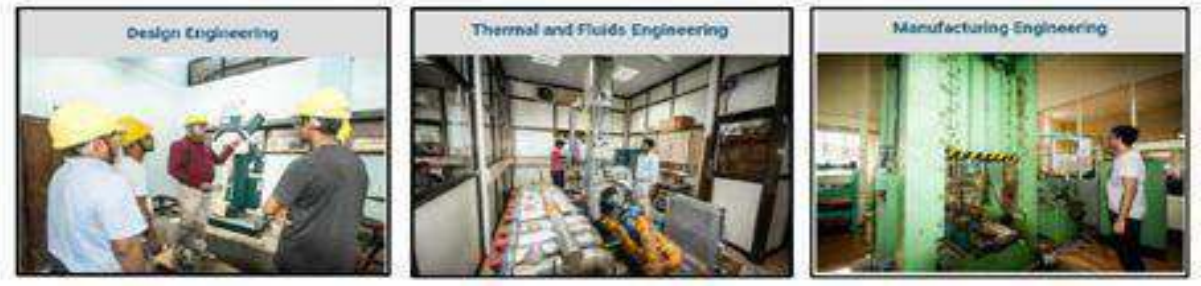
Located in Powai, one of the northern suburbs of Mumbai, the residents of the institute reap the advantage of being in the busy financial capital of India while at the same time enjoying the serenity of a campus known for its natural beauty. A fully residential institute, all its students are accommodated in its 15 hostels with in-house dining; the campus also provides excellent amenities for sports and other recreational facilities.

About the Mechanical Engineering Department

The Mechanical Engineering Department has been there from the beginning of the journey of IIT Bombay, which is from 1958. It is one of the largest in terms of faculty, students, and activities and continues to lead and expand its activities in various directions. The Department has 61 full-time faculty members, five honorary faculty members, 817 Undergraduate students, 577 Post-graduate students, and six supporting staff.

The faculty members are grouped under three broad specialisations - Design, Manufacturing, and Thermal & Fluids Engineering. They have been engaged in research in all the classical areas of Mechanical Engineering and upcoming areas too. Thirty laboratories support academic activities. Three new laboratories, Computational Fluid and Soft Matter lab, SATANIC Lab, and Micro-forming lab, were inaugurated recently. The Department has decided recently to focus significant research efforts in the following five areas: Computational Mechanics; Nuclear Thermal Hydraulics; CIM; Refrigeration, A/C, and Cryogenics; and MEMS, NEMS, and Mechatronics.

The Department is known for research and projects in robotics, fluid dynamics, heat pumps, cryogenics, nuclear engineering, fracture mechanics,
I. C. Engines, Combustion, CFD, CAD-CAM, and other areas. Experimental and computational facilities are being continuously upgraded. Industry interaction has increased with several post-graduate courses being offered to industry participants and many students working on industry-sponsored projects.



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Message from Head of Department

I welcome you, the MTech. Students of the 2022 batch to this prestigious Institute and the recognized department of mechanical engineering. I am happy to let you know that under the 'Engineering – Mechanical, Aeronautical & Manufacturing' category, our Institute has been ranked at 57 in QS ranking by the subject. The Department will be your home for the next two years, where you will ascend to new heights in your academic life, keeping abreast of the recent developments in the field through numerous elective courses and conducting cutting-edge research in a multitude of laboratories. You are fortunate that the pandemic has permitted you to come to the campus on the first day itself unlike previous 2 batches.

The Department is equipped with approximately thirty laboratories to help you follow your passion, which includes robotics, fluid mechanics, combustion, heat pumps, fracture mechanics, nuclear engineering, CFD, CAD-CAM, advanced manufacturing, and so on. The rigour of the courses taught as part of your curriculum, and the research that you conduct in the laboratories as part of your projects would transform you into a powerhouse of knowledge. If you find that there are dreams about research that keep you awake at night, we have a dual degree program that would fast-track your research towards a doctoral degree.

In addition to the academic program, do participate in numerous co-curricular activities as well to diversify your growth as a human being, learning the valuable skills of teamwork, leadership, and general approachability on the way. I sincerely wish that you make the most of your time here and graduate as a skilled engineer and a confident yet kind human being.

Prof. Sreedhara Sheshadri
Head of Department
Department of Mechanical Engineering
Indian Institute of Technology Bombay
Powai, Mumbai, Maharashtra 400076.

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Department of Mechanical Engineering
Indian Institute of Technology Bombay

Message from Faculty Advisor of Department

Dear Students,

A warm welcome to all the students joining IIT Bombay for post graduate studies. Covid pandemic has thrown unforeseen challenges and hence your success becomes even more praiseworthy. So my heartiest congratulations. We are sure that you will continue your studies and learning with the same enthusiasm. Your first semester is being held in an OFFLINE mode after a long time so we hope that you will comfortably be able to study physically in the IITB campus. We wish you all the best in your stay at IIT Bombay.

Best wishes and regards,

Prof. Shankar Krishnan (SNK) ME Department/104 A
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Thermal & Fluid Engineering (ME1)

Prof. Tanmay Bhandarkar (TKB)
ME Department/F34
Tbhanda2@iitb.ac.in
Design Engineering (ME2)

Prof. Deepak Marla
ME Department/301
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Manufacturing Engineering (ME3)

Prof. Pradeep Dixit
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Materials, Manufacturing and Modeling (MMM)

Prof. Ankit Jain
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Thermal & Fluid Engineering (ME1)

Prof. P. S. Gandhi
ME Department/ S 30
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Design Engineering (ME2)

Prof. Sushil Mishra ME Department/ S 14
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Manufacturing Engineering (ME3)

Welcome Message from the ISCP Team

Dear students,

Heartfelt congratulations for embarking on one of life's most memorable journeys—the journey of learning. The prestigious institute of IIT Bombay welcomes you aboard.

Your dedication, hard work and perseverance brought you here, and we are confident that your experience will lead you towards great opportunities. Owing to the ongoing covid-19 pandemic, the onboarding will be online. However, rest assured that we are there to assist you in any way possible, from smooth orientation to cope with academic pressure.

Institute Student Companion Programme (ISCP) is a student body with the primary objective of building a relationship of trust and comfort between the on-roll students and the incoming students of the PG programmes. We are here to help you get familiar with the ways of IITB, which is even more critical in these times. You will become a part of a culture where people want to perfect their craft and thus work day in and day out. The scope of these is not limited just to academics. Various online events will be organised by the cultural, technical, and sports clubs in IITB, like code in quarantine, fitness challenges, dance challenges and many more. Managing these along with online lectures might seem daunting at first, and hence, to help you with a world of problems, including these, we assign you a student companion.

The student companions are self-motivated volunteers who will genuinely help you in low and high tides as an act of giving back what they received from the programme. You can look up to the team for any form of support, any information before venturing out into an unknown domain, be it academics or extracurricular activities. You can reach out to us for any issue regarding the curriculum, facilities provided, your physical, social or mental health, and last but certainly not the least, reach out to have a chat with us because that is what we are for, for you.

The COVID -19 pandemic has affected all of us. For now, health concerns prevent your arrival in our beautiful lush-green IITB campus; it also prevents your participation in hostel activities, sports, cultural activities. There are many things here at IITB waiting for you, but the most important thing is the campus, and the buildings do not define IITB. It is

you. You set the culture, the activities, represent IITB to the world and make IITB what IITB is. So, knowing that time flies at IITB, we strongly suggest participating in things that happen online other than attending lectures, making memories, reaching out to us for any queries, and relaxing in the comfort of your home. At least till we get an opportunity to welcome you into the campus; let us be safe, let us be optimistic and let us keep our learning spirits high.

We welcome you to IIT Bombay— A journey where you Learn, Grow and Enjoy.

The campus of IIT Bombay awaits your presence; we will soon see you there.

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Welcome Message from Post Graduate Academic Council

Welcome Freshers!

We all have gone through a lot in these past couple of years, so firstly congratulations to all of you for securing admission to one of the prestigious institutes in the country. IIT Bombay provides the best exposure to its students in all aspects, both academically as well as non-academically. The skills you develop here, the interactions you have with people here will stay with you throughout your life. The post graduation demands something additional compared to the under graduation, more time, more effort, more determination and a ton of dedication. For meeting these primary requirements, often we find ourselves in a daunting situation.

In order to make your stay at IIT Bombay convenient, the institute has established the PGAC (Post Graduate Academic Council). Any technical necessity, any placement-related assistance, any research queries or any academic grievances, you can always reach out to us. Each department has its own AURAA (Academic Unit Representative of Academic Affairs), whom you can approach directly in case you find any difficulties. Wishing you all a really convenient and productive IIT journey!

Mohit Meena

Institute Secretary, Academic Affairs (Masters)

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Welcome Message from Department Coordinators

Welcome Junta,

Heartiest congratulations & warm welcome on making place in the IIT Bombay family. You are about to start a journey of knowledge and exploration. We know the covid situation is not on our side, and sometimes the journey can be formidable and stressful. Nevertheless, do not worry; Team ISCP mechanical is always there with you to guide you through this journey. Upcoming 2-3 years' stay in IIT will teach you many new things that will continuously reshape your perspective and make you a skilled engineer, also a confident yet kind human being.

As you are already aware that everything will start offline this semester, so you can consider yourselves fortunate to enjoy the warmth of campus life like us. Hopefully, everything has returned to normal , and you will be able to do everything you have dreamed for so long. We know that you might be accustomed to online education in your preparation and classroom environment can be overwhelming , but keep trust in the Mechanical department, your seniors, and various student bodies such as PGAC, ISCP, and Institute Council who are trying their best to make your learning experience better.

Inside the IIT Bombay campus, you will always be surrounded by the brightest minds not just in terms of academics but sports, Arts and cultural as well. IIT-Bombay is a place that not just gives importance to academics, but you will find students busy in various activities all day across campus. We suggest you participate in various sports activities, cultural activities which will help you to broaden the horizon of your mind and develop hidden talent inside you.

We know from our personal experiences how important it is to have someone as a mentor who can guide us from reaching the IIT Bombay campus to getting adapted into campus life. Our DC’s Het and Taijaswaini & the team of SC's were like first friends who helped us not just to get with orientation, registration, course selection, etc but also acclimatising with various modes of study here at IITB as we were having an online semester followed by an offline one.

Many of you, joining IIT Bombay just after finishing your bachelor's, but few will be joining after working in MNCs for 2-3 years. You will also find a few sponsored candidates from organisations such as DRDO, BARC,

ISRO, Indian Navy, and Indian Coast Guard who are returning to education after a gap of 5-6 years. So everyone must be having tons of questions in their minds related to lectures, professors, study material & exams. So, it would be best if you asked those questions; however, naïve they may be to your student companion & department coordinators. The mechanical ISCP team is always there to help you.

You are about to embark on a journey that we have already embarked on. You may not know about the obstacles that you will find in this journey, but we know from our experience. So we are here to help you avoid the mistakes we made. Feel free to contact us anytime regarding anything. We will be glad to help.

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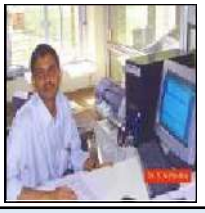
Department of Mechanical Engineering
Indian Institute of Technology Bombay

Mechanical Department Faculties

❖ Thermal & fluid Engineering:

Name	Research Interest	Photograph
Prof. Amit Agrawal (AA) ME Department/204 B amit.agarwal@iitb.ac.in	Turbulence, PIV, Heat Transfer, Rarefied Gas Flows, Microfluidics	
Prof. Milind Atrey (MA) ME Department/F 09 matrey@iitb.ac.in	Refrigeration,Cryogenic Engineering,Cryocoolers, Cryogenic Heat Exchangers, Two-phase flow heat transfer,	
Prof. Sridhar Balasubramanian (SRB) ME Department/304 B sridharb@iitb.ac.in	PIV, Flow and turbulence measurement using optical means., Experimental fluid dynamics and heat transfer, Geophysical fluid dynamics	
Prof. U. V. Bhandarkar (UVB) ME Department/303 A ubhandarkar@iitb.ac.in	Particulate Characterization and Emission Control, Heat transfer in nanofluids, Molecular Modeling and Simulations, Rarefied Gas Flows, DSMC, Appropriate Technology for Rural Areas,	
Prof. Rajneesh Bhardwaj (RNB) ME Department/S 36 rajneesh.bharadwaj@iitb.ac.in	Interfacial transport phenomena, CFD, FEA Droplets, Interfaces, Fluid-Structure Interaction, CFD	
Prof. Abhilash J.Chandy ME Department/S 37 achandy@iitb.ac.in	TFE, Turbulence, Computational Fluid Dynamics, LES/DNS for complex transitional and turbulent flows., Modelling of Turbulent Combustion, DNS/LES of reacting flows,	
Prof. Arindrajit Chowdhury (AC) **IC Engine Lab.** arindra@iitb.ac.in	Combustion Visualisation and Optical Diagnostics, Combustion of Energetic Materials (Propellants and Explosives), Homogeneous Charge Compression Ignition (HCCI) engine, Combustion and emission in practical devices	

Prof. Shivasubramanian Gopalakrishnan ME Department/S 19 sgopalak@iitb.ac.in	Fluid Mechanics, Numerical Methods, Computational Fluid Dynamics, Geophysical Fluid Dynamics, Multiphase Flows, Interface Tracking Schemes	
Prof. Muralidharan Janani ME Department/SH 17 js.murlidharan@iitb.ac.in	Heat Transfer, Computational Fluid Dynamics, Experimental fluid dynamics and heat transfer, Flow boiling in microchannels, Experimental techniques in interfacial flows,	
Prof. Shankar Krishnan (SNK) ME Department/104 A kshankar@iitb.ac.in	Heat Transfer, Thermal Management of Electronics, Non-traditional Thermal Desalination	
Prof.Neeraj Kumbhakarna IC Engine Lab. neeraj_k@iitb.ac.in	TFE, Combustion Visualisation, and Optical Diagnostics, Computational fluid dynamics and heat transfer, Thermodynamics, Combustion of Energetic Materials,	
Prof. S.V. Prabhu (SVP) ME Department/308 D svprabhu@iitb.ac.in	Fluid Mechanics, Heat Transfer, Flowmetering, Hydrokinetic turbines and wind turbines, Impinging jets (subsonic and supersonic), Premixed flame jets, Internal cooling passages	
Prof. BhalchandraPuranik (BPP) ME Department/F 40 puranik@iitb.ac.in	Compressible Fluid Dynamics and Shock Waves, High-Knudsen Number High-Speed Internal and External Flows, Convective Heat Transfer Applications	
Prof. Milind Rane (MVR) Heat Pump Lab. ranemv@iitb.ac.in	Refrigeration, Alternate Energy Resources Energy Conservation, HVAC&R, and Alternate Energy Resources	
Prof. Sandip Kumar Saha (SKS) ME Department/S 27 sandip.saha@iitb.ac.in	Cooling technologies, Heat Transfer, Computational Fluid Dynamics, Renewable energy and energy storage, Multiphase flow,	

Prof. Atul Sharma (AS) ME Department/F 31 atulsharma@iitb.ac.in	Multiphase Flow, Convective Heat Transfer, CFD, CHD	
Prof. SreedharaSheshadri (SSR) IC Engine Lab. sreedhara.s@iitb.ac.in	Computational Fluid Dynamics, Turbulent Combustion, Engine Combustion, LES/DNS of complex turbulent reacting flows, soot modelling	
Prof. Arun Kumar Sridharan (AKS) THTF Lab. arunsri@iitb.ac.in	Two-phase Heat Transfer, Experimental fluid dynamics and heat transfer, Two-phase flow and heat transfer, Nuclear Reactor Safety	
Prof. Atul Srivastava (ASR) ME Department/F 07 atulsr@iitb.ac.in	Heat and Mass Transfer, Two-phase flows, Bioheat transfer, Optical techniques for whole field measurements, Optical tomography, Crystal Growth, Biomedical applications of lasers	
Prof. R. P. Vedula (RPV) THTF Lab. rpv@iitb.ac.in	Fluid flow, heat transfer	
Prof. Dipanshu Bansal ME Department/F 40 dipanshu@iitb.ac.in	Vibrational spectroscopy, Energy transport, First-principles simulations of electronic structure.	
Prof. Ankit Jain ME Department/S 20 a_jain@iitb.ac.in	Designing next-generation materials for energy applications.	

❖ Design Engineering:

Name	Research Interest	Photograph
Prof. Tanmay Bhandarkar (TKB) ME Department/F34 Tbhanda2@iitb.ac.in	Elasticity, Analytical and numerical methods, Contact Mechanics, Fracture mechanics	
Prof. P.S. Gandhi (PSG) ME Department/S30 gandhi@iitb.ac.in	Robotics, Mechatronics, Multi-scale manufacturing using fluid instabilities,	
Prof. Anirban Guha (AGH) ME Department/S31 anirbanguha@iitb.ac.in	Design of machines for the textile industry, Tensegrity mechanisms, Structural health monitoring,	
Prof. Abhishek Gupta (AG) ME Department/S 32 Abhi.gupta@iitb.ac.in	Robotics and controls, Human-robot interaction, Assistive devices for rehabilitation.	
Prof. V. Kartik (VK) ME Department/ 301 A vkartik@iitb.ac.in	Dynamics, vibrations and control, Nano- and micro-scale devices, Electric and Hybrid Electric Vehicles,	
Prof. Krishna Jonnalagadda (KNJ) ME Department/S 22 krishnajn@iitb.ac.in	Microfabrication, Multifunctional Coatings, Experimental Mechanics, Fracture Mechanics,	
Prof. Salil S. Kulkarni (SSK) ME Department/F 38 Salil.kulkarni@iitb.ac.in	Computational Mechanics, Applied Mechanics, Finite Element Method, Boundary Element Method, Wave propagation and vibrations,	
Prof. Vivek Sangwan ME Department/S 17B Vivek.sangwan@iitb.ac.in	Robotics, Mechatronics, Dynamics, Control	
Prof. P. Seshu seshu@iitb.ac.in (Director, IIT Dharwad)	Finite element modelling, Computational Solid Mechanics,	

Prof. Dhanesh Manik (DNM) ME Department/S 41 dnmalik@iitb.ac.in	Dynamics of machine Design Engineering	
Prof. Amit Singh ME Department/S 26 amit.k.singh@iitb.ac.in	Continuum Mechanics, Multiscale methods, Statistical Mechanics, Heat conduction, Transport	
Prof. S. Suryanarayanan (SSN) ME Department/F 33 Shashin@iitb.ac.in	Mechatronics, Energy management, Control system design	
Prof. Parag U. Tandaiya (PUT) ME Department/S 18 Parag.ut@iitb.ac.in	Fracture mechanics, Finite element modelling, Computational Solid Mechanics, Mechanical Behaviour of Materials	
Prof. SripriyaRamamoorthy ME Department/S 29 ramamoor@iitb.ac.in	Acoustics, Auditory Biomechanics, Porous materials	
Prof. Shantanu Tripathi ME Department/S 06 tripathi@iitb.ac.in	Design for Reliability, Mechanical & Environmental Reliability of Electronics, Solder Joint Fatigue,	
Prof. Darshan S. Shah ME Department/S17 d.shah@iitb.ac.in	Biomechanics, Orthopaedics, Musculoskeletal system, In-vitro testing	
Prof. R. Ganesh NCAIR ganeshr@iitb.ac.in	Metamaterials, Waves and Vibrations, Applied Mechanics	

Prof. Nitesh P. Yelve ME Department / S35 nitesh.yelve@iitb.ac.in	Mechanical vibration, Composite materials, Structural health monitoring using ultrasonic waves, Damage detection using vibration-based methods, Condition-based monitoring, Active and semi-active vibration control, Ballistic impact	

❖ Manufacturing Engineering:

Name	Research Interest	Photograph
Prof. Avinash Bhardwaj ME Department/S 40 abhardwaj@iitb.ac.in	Conic (mixed) integer programming, Linear and Non-Linear Discrete Optimization, Polyhedral	
Prof. P. P. Date (PPD) ME Department/G 41 ppdate@iitb.ac.in	Metal Forming Processes, Formability, Shop Floor Metallic waste processing, Powder Metallurgy, Metal Injection Moulding	
Prof. Amitava De (AD) ME Department/S 35 amit@iitb.ac.in	Welding, LENS, DFM Joining, Additive Manufacturing, Numerical Modelling.	
Prof. S. S. Joshi (SSJ) ME Department/F 36 ssjoshi@iitb.ac.in	Modelling of Manufacturing Processes, Machining of Advanced Materials, precision manufacturing.	
Prof. K. P. Karunakaran (KPK) RM Lab. karuna@iitb.ac.in	Computer Numerical Control, Rapid Prototyping & Tooling, Computer Graphics	
Prof. S. S. Pande (SSP) ME Department/S 39 s.s.pande@iitb.ac.in	Multi-axis CNC machining, CAD, CAM, Computer Graphics	

Prof. Sushil Mishra (SKM) ME Department/S 14 sushil.mishra@iitb.ac.in	Micro forming, Sheet metal forming, Thermomechanical processing	
Prof. B. Ravi (BR) ME Department/S 34 b.ravi@iitb.ac.in	Casting, DFM, Computer-Aided Surgery, Medical device innovation, Web-based education	
Prof. Ramesh K. Singh (RKS) Machine tools lab. rsingh@iitb.ac.in	Micromachining, Precision & Hybrid machining, Laser Micromachine	
Prof. Pradeep Dixit (PD) ME Department/S 25 pradeep.dixit@iitb.ac.in	Microfabrication, MEMS,3D	
Prof. AlankarAlankar ME Department/S 23 alankar.alankar@iitb.ac.in	Multiscale Computational Mechanics of Materials, Crystal Plasticity, Integrated Computational	
Prof. Asim Tewari (AT) ME Department/S 08 asim.tewari@iitb.ac.in	Crystal plasticity, Nanocomposites, microstructural mechanics	
Prof. Shyamprasad Karagadde (SPK) ME Department/S 33 s.karagadde@iitb.ac.in	Computational & Data methods, Solidification, Microstructures, Transport phenomena X-ray Imaging and microtomography	
Prof.Rakesh G. Mote (RGM) ME Department/101 rakesh.mote@iitb.ac.in	FIB, Plasmonics, UPM, Non-conventional machining, machining of advanced materials.	

Prof. Amol Gokhale (AAG) ME Department/301 D gokhale@iitb.ac.in	Manufacturing Engineering	
Prof. Makarand S. Kulkarni (MSK) ME Department/S 10 mskulkarni@iitb.ac.in	Reliability Engineering, Maintenance Planning, Quality Engineering	
Prof. Deepak Marla ME Department/301 B dmarla@iitb.ac.in	micro/nano-manufacturing	
Prof. Amber Shrivastava ME Department/301 C a.shrivastava@iitb.ac.in	Friction Stir Welding, Sustainable Manufacturing, Modulation Assisted Machining,	
Prof. Soham Mujumdar ME Department/S 17 sohammujumdar@iitb.ac.in	Micro/nano-manufacturing, Modelling of manufacturing processes, Cutting fluid delivery	
Prof. Gurminder Singh ME Department/S 17 a.shrivastava@iitb.ac.in	Additive Manufacturing, Rapid Tooling, Powder Metallurgy, CAD/CAM, BioManufacturing, BioMaterials, Polymers and Metal foams, Composites, Bio-Implants, Non-conventional Machining	

Office Staff

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Ms. Anamika Bharankar	Junior Administrative Assistant	10001901@iitb.ac.in	
Mr. Aniket Kamble	Software Engineer	----------	
Ms. Mukta Magar	----------	----------	
Mr. Subhas Sable	Office Attendant		

Research Facilities Available

The department of Mechanical Engineering, IIT Bombay, has well-equipped facilities where research in the domains of Thermal and fluid engineering, Manufacturing, and Design engineering is conducted. There are 36 laboratories in the department, which are scattered across the entire IIT Bombay campus. In comparison to any other department in the institute, the mechanical department has the most laboratories and workshops. The department provides core central facilities that house a number of modern instruments necessary for present day research.

The Mechanical Engineering department of IIT Bombay has several Instructional and Research laboratories, listed below:

- **Thermal & Fluid Engineering:**
  1) Computational Fluid Dynamics Laboratory
  2) Geophysical Fluid Dynamics Laboratory
  3) Heat Pump Laboratory
  4) Interfacial Flow Laboratory
  5) Internal Combustion Engines & Combustion Laboratory
  6) Microfluidics Laboratory
  7) Optical instrumental Laboratory
  8) Refrigeration & Air Conditioning Laboratory
  9) Scalable Algorithms & Numerical methods in the computing laboratory
  10) Thermal energy material & system laboratory
  11) Thermal-hydraulics test facility
  12) Thermal science laboratory
  13) Water tunnel & PIV facility

- **Design Engineering:**
  1) Acoustics & Hearing Laboratory
  2) Computational Solid Mechanics Laboratory

3) Intelligent Dynamical Ubiquitous Systems Lab
4) Mechanics of Materials Laboratory
5) Robotics Laboratory
6) Solid Mechanics Laboratory
7) Suman Mashruwala Advanced Microengineering Laboratory
8) Textile Machines Laboratory
9) Vibration & Acoustics Laboratory

❖ **Manufacturing Engineering:**

1) Advanced Mechanical Testing Facility
2) Biomedical Engineering & Technology (Incubation) Centre
3) Central Workshop
4) Computer-Aided Manufacturing Laboratory
5) Electrochemical Micro fabrication Laboratory
6) High-Performance and Sustainable Manufacturing Lab
7) ICME & Materials Genome Laboratory
8) Machine Tools Laboratory
9) Metal Forming Laboratory
10) Micro-structural Mechanics & Micro forming Laboratory
11) National Centre for Aerospace Innovation and Research
12) Rapid Manufacturing Laboratory
13) Solidification Laboratory
14) Welding Laboratory

❖ **Materials, Manufacturing and Modelling (MMM):**

It is an interdisciplinary specialisation and thus provides laboratory facilities of the Mechanical engineering, MEMS and Mathematics department.

Laboratory Images:

Production Engineering Lab

Velocimetry Lab

Vibration & Instrumentation Lab

Robotics & Automation lab

Solidification Lab

Machine Tool Lab

Mood Indigo

Mood Indigo, also known as MoodI or MI, is the cultural and signature festival of Indian Institute of Technology Bombay. Mood Indigo annually entertains a footfall of more than 1,46,000 students from over 1700 colleges spanning across India. Started in 1971, it has attracted people from all over the globe. Mood Indigo has lived through decades of musical and cultural changes, not only keeping up with the times but also setting new standards for cultural fests each year. From bonfire nights, games, standups and performances by some of the biggest artists, to street competitions, workshops, and exhibitions, you will never be able to see it all, but what you do see will last a lifetime. Find yourself lost in the magic of Mood Indigo, each day better than the last, surprises at every turn and towards the end, your only wish would be to experience the best 4 days of your life all over again.

Techfest (https://techfest.org/)

Techfest is the Indian Institute of Technology Bombay's annual science and technology festival, which includes social projects and outreach programs throughout the year. With the goal of creating a forum for the Indian student community to learn and demonstrate their technological prowess, the three-day event attracts visitors from all over the world, including students, academics, corporations, and the general public.

Techfest hosted a variety of online competitions for participants from all around the world in 2020-21. These competitions covered a wide range of topics, including artificial intelligence (AI) under RecogniSign and Email Classifier, software development under Smart UI and Site developer, and application-based challenges such as Design for Defence, Computational Agriculture, and Corp Comp. Covideate, Ujjwal Bharat, and Aero Vaccine, which require participants to come up with innovative solutions to real-world challenges. This was held in online mode.

Be a part of this event not only to explore your horizon but also to meet and share information with people all over the world.

Mech Glories

IITB Racing:

A group of students from IIT Bombay who are united by their passion for engineering, and the desire to fulfil a common goal of putting India on the world map of race all-terrain car manufacturers. It started on a journey in June 2007. They participated in Formula SAE 2008, held in Michigan, USA, in May 2008. IIT Bombay was proud to be the only Indian team participating in the event. Since its inception in 2008, IITB Racing has targeted excellence at the premier SAE Collegiate Design Competitions: Formula SAE (formula race car competition), and the Baja SAE (all-terrain vehicle competition). IITB Racing's formula car 'Vayu' won the SAE Perseverance award for the Best Rookie Team at the FSAE Michigan 2008 event, held at Michigan International Speedway in May 2008.

The second vehicle,' Prithvi,' an all-terrain vehicle, won 5 awards (including Best Engineering Design and Maximum Acceleration) at the Baja SAE India 2009 event, held at NATRIP, Pithampur in January 2009. The 3rd vehicle 'Agni,' a formula car, was the 2nd best Asian entry at the FSUK competition, held at the famous Silverstone Formula One Circuit, U.K., in July 2009. In Baja SAE 2011, Prithvi 2.0 won the Raftar Award of 1 Lakhs INR for being the Lightest and the Fastest Vehicle in the competition.

Radiance:

The Annual Research and Technology Festival of the Department of Mechanical Engineering of IITB, or Radiance was first initiated in the year 2007. Over the years, it has built its legacy and reputation of being a platform for fostering brotherhood amongst theMechanical Engineering fraternity across the nation. It is a stage for the discussion of the challenges plaguing Mechanical Engineering, of the full world of opportunities that lies before us, and of the innovative and creative ideas that just strike people, in the "Radiance" and guests from over 100 colleges and corporate companies, Radiance is just getting bigger and bigger. Thrilling competitions, innovative and fresh paper presentations, exciting hands-on workshops, and exhibitions that are a treat to the eyes and many inform.

M.Tech Projects of 2021 Batch

1) Thermal & Fluid Engineering:

Name	Category	Project Area / Title	Guide	Email id/Contact no.
Dibyajyoti Chakraborty	TA	Neural Networks for CFD	Prof. Shiva Gopalkrishnan	213100011@iitb.ac.in 7209894399
Onkar Balasaheb Patil	TA	Design & Development of Medical waste Combustor	Prof. Arindrajit Chowdhury	213100016@iitb.ac.in 7057780901
Mahima Bunker	TA	Machine learning applied to biomedical studies	Prof. Amit Agarwal	213100028@iitb.ac.in 8319676717
Shivank Sharma	TA	Prediction of meso-scale weather systems and their extremes using state of art deep learning technique	Prof. Sridhar Balasubramanian	213100006@iitb.ac.in 7078005060
Devendra kumar Koushal	TA.	Molecular Dynamics Simulation for Chemical Reaction	Prof. Upendra Bhandarkar	213100029@iitb.ac.in 6260121475
Shadab Alam	TA	Thermal Conductivity using 1st principle	Prof. Ankit Jain	213100010@iitb.ac.in 8584960111
JNC Ramola	Navy	Study and modification of Nozzle Design of NBC pre wetting system of active IRSS of a particular class of Ship	Prof. Sandip Kumar Saha	213104008@iitb.ac.in 8006533152

Agale Sagar Ashok	Navy	Optimization of surface profiles for reduction of drag on underwater appendages	Prof. Amit Agarwal	213104007@iitb.ac.in 9923707992
Preetesh Srivastava	Navy	Design optimisation and fitment of TEG(Thermo Electric Generator) of higher capacity on Diesel Engine at Shivaji	Prof. Atul Shrivastava	213104003@iitb.ac.in 8605104588
Surej Pillai	Navy	Modelling and Simulation study of an engine room of any ship towards identification of hotspots, its effect on overall temperature of the engine room and measure to mitigate hotspots and reduction of temperature of engine room through optimization and reorientation of ventilation	Prof. Arunkumar Sridharan	213104002@iitb.ac.in 7741062326
Abhilash Cherian	Navy	Simulation Study of Droplet evaporation pattern of a hybrid IRSS for a Gas Turbine Propelled Ship	Prof. Atul Shrivastava	213104006@iitb.ac.in 7304797743
Mohit Kapoor	Navy	Simulation Study of effects of installation of fins on boss of Propeller on its efficiency and performance	Prof. Neeraj Kumbhakarna	213104004@iitb.ac.in 7093762459
Sehaj Shah Singh	Navy	Modelling and Simulation of GT exhaust system of ship to assess effects of obstruction in flow path rendered by fitment of WHRS and its effects on temperature drop, back pressure and	Prof. Sreedhara Sheshadri	213104005@iitb.ac.in 8297735580

		performance of GT.		
Anas Ahmed Elamin Ahmed	Foreign	Thermal Energy Storage	Prof. M V Rane	213101003@iitb.ac.in 8097735322
Bor Abubakalsedig Bor	Foreign	Two-phase heat transfer phenomena under atmospheric and sub-atmospheric conditions	Prof. Atul Srivastava	213101004@iitb.ac.in 8097735320
Mohamed Fadol Orsod Ornasir	Foreign	Micro-Wind Power Generators	Prof. M V Rane	213101005@iitb.ac.in 8097735311
Shekhar Singh	Institute Staff	CFD and Experimental Study of Pump Sump Flow	Prof. S. V .Prabhu	203045001@iitb.ac.in 9045863542

2) Design Engineering:

Name	Category	Project Area / Title	Guide	Email id/Contact No.
Yogesh S. Sale	TA	Electric motor noise and vibration	Prof. V. Kartik	213100061@iitb.ac.in 9167874193
Deepak Kumar Thakur	Foreign Candidate	Artificial Intelligence in Vibration-based condition monitoring	Prof. Dhanesh N Manik	213101001@iitb.ac.in 9843833483
Ankita Shrimali	Sponsored Candidate	Harmonic Drive Gear Transmission	Prof. Prasanna S. Gandhi	213104017@iitb.ac.in 9421974513
Thirumalasetty Sravan Sai Kumar	TA	3D Microprinting	Prof. Prasanna S. Gandhi	213100053@iitb.ac.in 9110730008
Ayush Pandya	TA	Peridynamics	Prof. Tanmay Bhandarkar	213100037@iitb.ac.in 9879894360
K S S N A Deekshit	Sponsored Candidate	Analysis and control of compliant mechanisms	Prof. Prasanna S. Gandhi	213104010@iib.ac.in 9177758389
Rohan Manohar Kulkarni	RAP	Simulations of the hyper-velocity impact on the conventional spacecraft shields	Prof. Parag U. Tandaiya	21310r001@iitb.ac.in 7387708587
Galla Rama Srinivas	Sponsored Candidate	Enhancing Mobility in Remotely Operated Vehicles using Design optimization techniques.	Prof. Anirban Guha	213104014@iitb.ac.in 9427851798

Sameer Rawal	Foreign Candidate	Design and development of artificial knee joint	Prof. Darshan S Shah	213102008@iitb.ac.in 9755886282
Himanshu Singhal	TA	Fracture analysis in composites using phase-field method	Prof. Tanmay Bhandarkar	213100001@iitb.ac.in 7988284144
Munna Kumar Sah	Foreign Candidate	Reverse Ankle arthroplasty	Prof. Darshan S Shah	213102004@iitb.ac.in +918683922196
Ravi Narayan Sah	Foreign Candidate	Design and Fabrication of a Bipedal Walking Robot Test Bed	Prof. Vivek Sangwan	213102001@iitb.ac.in 7540961716
Nagaraja M	Sponsored Candidate	Integration of sensor for a Robotic refuelling system	Prof. Anirban Guha	21310416@iitb.ac. in 8431406499
Sonam Mishra	Sponsored Candidate	Object detection and sensor data fusion	Prof. Anirban Guha	213104015@iitb.ac.in 7030478268
Vishal Hemraj Ukey	TA	Computational quantification of MCL strain	Prof. Darshan Shah	213100059@iitb.ac.in 8275721932
Vigneshwar K S	Sponsored Candidate	Automation in Onion Harvesting	Prof. Anirban Guha	213104011@iitb.ac.in 9884679177
Mujahed Patil	RA	Multidisciplinary design optimization and optimal control using dymos and OpenMDAO	Prof. Salil Kulkarni	193109009@iitb.ac.in 8180866114

3) Manufacturing Engineering:

Name	Category	Project Area / Title	Guide	Email id/ Contact No.
Apurv Mishra	RA	Machine Learning model for HPDC	Prof. Shyamprasad Karagadde	203109004@iitb.ac.in 8871197575
Amber Verma	RA	Multimodal data analysis for fault detection in electric motor.	Prof. Soham Mujumdar	ambery2j@iitb.ac.in 8586823408
Dushyant Patil	RA	Vibration Condition Monitoring using ML	Prof. Asim Tewari	203170020@iitb.ac.in 9850082256
Soumya Ranjan Mishra	TA	Repairable system reliability prediction	Prof. Makarand S Kulkarni	213100072@iitb.ac.in 7377687341
Ashutosh Pathak	TA	Digital Twin enabled Smart Machines catering to changing demands of Industry 4.0	Prof. Makarand S Kulkarni	213100073@iitb.ac.in 7792936143
Revanth Regulavalasa	TA	Multi-physics study of solidification of superalloys in Vacuum arc remelting process	Prof. Shyamprasad Karagadde	213100070@iitb.ac.in 7675023284
Prateek Kumar Singh	TA	Hierarchical model on Human activity detention	Prof. Asim Tewari	213100075@iitb.ac.in 9315585970

Akshay Bhandarkar	TA	Laser-Assisted Machining of Titanium Alloys	Prof. Deepak Marla	213100065@iitb.ac.in 8976012044
Devang Karuskar	TA	Machine to human communications using NLP	Prof. Asim Tewari	karuskar.devang@gmail.com 9924660210
Akash Biradar	TA	Laser colour predictability using deep learning	Prof. Deepak Marla	mailakashbiradar@gmail.com 9538209632
Parmal Chouriya	TA	Recycling of Technological waste into product manufacture.	Prof. Prashant P. Date	213100078@iitb.ac.in 9893550050
Subhasree Nayak	Sponsored	Intelligent and Industry 4.0 ready assets	Prof. Makrand S Kulkarni	213104021@iitb.ac.in 7278345596
Busra Ansari	Self Sponsored	'Dynamics of Titania Nanotubes (TNT) Growth on Additively Manufactured Biomedical Implants'	Prof. Rakesh Mote	213104001@iitb.ac.in 9561153001
Bimlesh Kumar Shah	Foreign Candidate	Sintering through machine learning/ powder metallurgy, AI/ML	Prof. Prashant P. Date	213102007@iitb.ac.in 8686590871
Bijay Kumar Shah	Foreign Candidate	ML-based approach for curvature estimation	Prof. Shyamprasad Karagadde	bijayshah726@gmail.com 8295293289
Rajiv Ranjan	Foreign Candidate	Structural Property Correlation of Material using ML	Prof. Alankar Alankar	213102003@iitb.ac.in 8797061070

4) Materials, Manufacturing and Modelling:

Name	Category	Project Area / Title	Guide	Email id/Contact no.
Shivansh Singh	TA	Electrochemical etching of Al foil for capacitor application	Prof. S.Parida	213370004@iitb.ac.in 6265070744
Manish Kumar	TA	Estimation of defects in additive Manufacturing	Prof. Amitava De	213370005@iitb.ac.in 7985526584
Ashish Kumar	TA	3D printing of graphene -polymer composite	Prof. Shobha Shukla	213370007@iitb.ac.in 7054180704
Bathini Nikhil Goud	TA	PHASE FIELD MODELLING	Prof. M.P. Gururajan	213370006@iitb.ac.in 7981905155
Dipanshu Vijay Banote	TA	Effect of Hashing on Warpage during Additive Manufacturing	Prof. Asim Tewari	213370001@iitb.ac.in 9527922657

Department of Mechanical Engineering
Indian Institute of Technology Bombay

Department Council PG Representative

The department council is a student association who is responsible for fostering and developing all academic as well as non-academic student activities of the department. They are responsible for increasing the social interaction between the faculties and students as well as among the students of different batches. The Department council PG representative comprises PG Nominee Academic Affairs, PG sports nominee & PG cultural nominee who coordinate with the Department general secretary to organise various academic & non-academic events for postgraduate students.

Parag Bajaj
General Secretary
Contact No.:93064 43772
Email id:paragbajaj14@gmail.com

Amber Verma
P.G. Nominee
Academic Affairs
85868 23408
ambery2j@gmail.com

Mansingh Yadav
PhD Nominee
Academic Affairs
884189 41418
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Department of Mechanical Engineering
Indian Institute of Technology Bombay

Bijay Kumar Shah

P.G. Sports Nominee

8295293289

bijayshah726@gmail.com

Karuskar Devangkumar Dhanshukbhai

P.G. Cultural Nominee

99246 60210

karuskar.devang@gmail.com

Placements

Placement Cell, IIT Bombay has catered to the dreams of many and will continue to do so. It organises various department and institute-level activities to build technical, and interpersonal skills to prepare them well. Please refer to the link for more info: https://campus.placements.iitb.ac.in/

PLACEMENT TEAM:

Institute Placement Manager (IPM)

Nikhil Parpay
213100079@iitb.ac.in
nikhil8rohan@gmail.com
8668302892

Company Coordinator(CC)

Bushra Ansari
213104001@iitb.ac.in
ansaribushra1012@gmail.com
9561153001

Department Placement Coordinators (DPC)

Himanshu Singhal
213100001@iitb.ac.in
hsinghal1999@gmail.com
7988284144

Revanth Regulavalasa
213100070@iitb.ac.in
revanth6789@gmail.com
7675023284

PAST RECRUITERS:

Cultural Council (PG Cult)

(https://gymkhana.iitb.ac.in/~cultural/pg-cult)

IITB traditional day celebrations:

IIT Bombay allows you to participate in a vast cultural community. Apart from academics, you get chances to showcase your talents and develop new passions in various genres like dance, dramatics, film and media, literary arts, photography and fine arts, music, speaking, Indian languages, lifestyle, design, classical and folk arts. We encourage all the students to come forward and participate in these events to make your time at IIT an enriching experience.

Following are different cultural events and participations:

Name of the person	Event	Phase	Points
Sanjeet Kumar	Open_mic(Literary Arts)	1	2
Bushra Ansari	Zentangles(Fine Arts)	1	2
Danjeet Kumar	Abhivyakti: Poetry Writing	1	10(1st prize)
Bijay Kumar Shah	Philtering(Speaking Arts)	1	2
Bijay Kumar Shah	The usual suspect	1	2
Adarsh Mathai	Cartoon It Event	2	1st Prize
Apakrita Tayade	Kalakriti	2	1st Prize

Among above, Mr. Adarsh Mathai achieved 1st prize in Cartoon It Event for following work:

Mr. Neeraj K. Mishra was a Senior Dramatics convener in the PG Convener team. Following are some of the photos of phase 2 dance events:



There are exclusive events for the PG community. PG Cult is the annual cultural festival targeted exclusively at the postgraduate community of IIT Bombay. Be a part of this to explore and make your time here most memorable.



Mechanical in Sports & Cultural

Being the best institute in India, our campus is enriched with the best sports and cultural facilities. The Department not only stands out in research but also in sports & culture. Our Department is full of sports & cultural enthusiasts. At the end of the academic year, the points of formal and informal events are summed up. In sports, we were 3rd position overall, & 1st position among boys out of 21 departments in PGGC 2019-20. The department stood 7th during the academic year 2018-19 for cultural. On the other hand, we organise events such as the Faculty Vs PG cricket match where PG students & department faculty get once in a year the opportunity to play together under the same roof. Kurta day is the day when faculties & students showcase their hidden talent in activities such as dancing, singing, mimicry, etc. Through these competitions, we aim to promote interaction among faculty members and students to reduce the communication gap. IITB also organises camps for beginners where your interest is the only prerequisite. So, you are always welcome to pursue the sport & culture that you always wanted to give a try.

Achievements in

Sports Gold Medals - 2020

KHO-KHO (Boys)

Divyaj Shah | Parth Parmar | Vishal Mahale

Rohan Chavan | Keyur Borad | Prakash Suthar

Rohtash Beniwal | Ammar | Kuljeet Singh

Aniket Adsule | Shani Saha | Navneeth

Football (Boys)

Saptarshi Jana | Nishit Sen

Aakash Chiwal |Jnana| Ram

More Kuljeet Singh | Kunwar |

Ajay Raj Abhijeet Bhardwaj | John

❖ Basketball

Pratik Marvar | Ajay raj | Shubhanshu | Anirudh | Gaurav Shrivastava | Jnana | Nishith sen | Kuljeet Singh | Mandeep

Bronze Medals

Chess (Boys)

Neel Kamal Gupta | Amey Suryawanshi Yash Shinde | Shani Saha | Pratik Dangar

Badminton (Boys)

Shantanu | Saurabh Dash Himanshul | Alwin

Badminton (Girls)

Shaily Bansal | Lavanya | ApakritaTayade

Lawn Tennis - 2021 (Men's)

Arunjoy - Silver medal

Online Events in 2020-21:

1. Bronze medal, Men's cross country, Navneetha sarvanan
2. Girls chess team participant, Taijaswaini Agarwal | Jyoti Nayak
3. Boys Chess team, 5th position, Neel Kamal Gupta | Amey Suryawanshi | YashShinde | ShaniSaha | Pratik Dangar

Sports 2021-2022

Cricket - 2022 (Boys)

CRICKET PGGC 2022

Vinay Chandraker | Kunwar Abhikeeran | Anish Ranjan | Tushar Ner | Het Mewada |Upendra Yadav | Nikhil Gaikwad | Akhilesh Goyal | Pratik Bagal | Rajesh Kapoor | Aditya Kulkarni | Amir Hamza Siddiqui | Kushagra Tiwari | Aman Kukreja | Kshitij Kumar Choudhary

Badminton (Boys)

Gold
UTKARSH GODWAL AND VIKRAM BISHT

Silver
Preetesh Srivastava and Suej Pillai

Bronze
Bebhash S Raj and Saptarshi Jana

Badminton (Girls)

Apakrita Vinayak Tayade, Neelima, Taijaswaini Agarwal, Yugandhara

Table Tennis (Boys)

Singles
Prakash Sutar | Gaurav Pandey | Apurv Mishra

Double
Apurv Mishra and Ravichandra Murthy | Sunny Kumar and Prakasha Sutar | Prateesh Shrivastav and Harsh Modi

Online Inter Department Events in 2021-22:

Achievements in Cultural :

2019-20:

Arcade Mania, Fashion Show

Yash Shinde

Winner

Colours of Life

PG Cult Photography Competition

Vivek P. Revi, Winner

Classical & Folk Dance Competition

Apakrita Tayade

Runner-up

Annual Insync Dance Show

AIDS 2020

Jainil Shah | Saurabh M. | Jalaj G. Participants

2020-21:

Groovy Night (solo) 2020, Dancing

Dhileeban Nagarajan

Mathai Runner Up

Scribble it out (solo) 2020, Arts

Adarsh

Runner Up

Freshezzia (Solo) 2021, Dancing

Dhileeban Nagarajan

Namratha Winner

PG Cult Dancing (Duet) (Solo) 2021

Dhileeban Nagarajan |

Runner Up

Essay Competition 2nd Oct 2020, Literary Genre

S Ravi Chandra Murty - Winner

To Help Us All

❖ Student Wellness Centre (http://www.iitb.ac.in/swc/en)

After securing admission at the Institute and starting your stay here, you may feel that a lot of parameters around you are different. You would have more responsibilities to handle at the hostel and at the academic level. Take heart, you will not be the only one. There are a few issues that almost everyone in the Institute faces initially like academic concerns, social (family and peer) pressure etc, leading to feelings of loneliness, low confidence, anxiety, stress, anger and sadness, to name a few.

To help you refrain from losing focus and being unhappy, the counsellors of SWC encourage you to approach them for any problem that you are facing- be it academic, emotional, social or financial without hesitation.

Counselling provides an opportunity for individuals to learn to make better choices, improve interpersonal skills, develop confidence and increase educational effectiveness. In a one-on-one meeting with a counsellor, students are helped to explore and express feelings, examine beliefs and ways of thinking about their present situation, reflect on patterns of behaviour, and work toward making healthier and happier changes.

❖ SWC and Covid-19

(https://www.iitb.ac.in/swc/en/contact-during-lockdown)

The COVID-19 epidemic had an impact on people from many walks of life, as people were advised to self-quarantine in their homes to prevent the virus from spreading. The lockdown has a negative impact on mental health, resulting in frustration, stress, and depression.

The education industry has not been left out and the impact of COVID-19 on student life is visible. While at home, with their families, or away from them, many of them suffered from behavioural and mental illnesses. For instance: Anxiety, depression, loneliness, lack of attention, panic, fear, foreboding about the future, financial stress, and the list goes on.

To fight these stressful situations, SWC counsellors are always there to support students. SWC has begun TELEPHONE COUNSELLING DURING LOCKDOWN to assist students who are having difficulties. If you'd like to speak with a counsellor over the phone, please call at the following numbers during the hours listed below:

Timings: 11 am to 1 pm and 4 pm to 6 pm.

❖ Gender Cell (http://www.gendercell.iitb.ac.in/)

IIT Bombay's Women's Cell has been in existence since 2002. With the enactment of theInstitute's policy on sexual harassment, the Cell has been renamed the Gender Cell (GC). Inrecognition of the Institute's belief that its employees and students have a right to be treatedwith dignity and respect, the Cell works proactively towards developing a safe and secureenvironment for employees, and to ensure that all students may gain their education withoutfear of prejudice, gender bias, hostility or sexual harassment.

Important Information You Should Know

1. LDAP ID: It is the unique identification of each individual in IIT Bombay. By default, the LDAP ID assigned to you will be your roll number, and the associated password will be generated after you have come to the institute, and the requisite registration processes are completed.

2. Moodle: It is the website which provides for academic interactions between faculty and students in IIT Bombay. From Moodle, you can download all the course materials uploaded by the Course Instructor for the course you have registered for and also interact with the faculty, and it is a forum for academic discussions. **Link:** http://moodle.iitb.ac.in

3. Webmail: This is your personalised email in IIT B. You will get your Id when you get enrolled in IITB. **Link:** https://webmail.iitb.ac.in

4. Leave - A total of 30 days of casual leave will be available for the entire course duration. Leave can be applied in mechanical engineering leave access systems. Permission of the guide is required for the leave approval. https://www.me.iitb.ac.in/~mefac/.

5. Computer Centre- Computer centre manages all the network activity within the Institute. It also provides licensed software required in academics https://www.cc.iitb.ac.in/

6. Central Library – Central library website provides a search engine for the books available in the library. https://opac.library.iitb.ac.in/

7. Application Software Centre (ASC) - ASC is the first interactive website for all the administrative requirements of a student. It includes payment of fees, registration, and deregistration from courses, checking grades awarded in subjects, brief contents of all the subjects being offered, timetable, and a lot more information. For more information, please visit https://asc.iitb.ac.in/

Useful Links

ISCP: https://gymkhana.iitb.ac.in/~scp/scp/index.html

Students activities -: https://gymkhana.iitb.ac.in/

Hostel affairs: https://gymkhana.iitb.ac.in/hostels/

Cultural: https://gymkhana.iitb.ac.in/~cultural/web/login_form.php

Sarc: https://sarc-iitb.org/

CDEEP (Centre For Distance Engineering Education Programme): http://www.cdeep.iitb.ac.in/index.php

IITBombayx: https://www.iitbombayx.in/about

Gendercell IITB: http://www.gendercell.iitb.ac.in/

Ph.D. and M.Tech Thesis Abstract: http://etd.library.iitb.ac.in/etd/Etd_View.jsp

Placement Blog: http://placements.iitb.ac.in/blog/

Application Management System: https://ams.iitb.ac.in/pages/login

Some Useful Apps

1) InstiApp:

InstiApp is an Android App that helps you navigate through the IIT Bombay Campus. It is a one-stop solution for all the queries above and beyond. An app of the insti, for the insti, and by the insti, it connects all the aspects of one's insti life, weaving around hostels, academics, co-curricular activities,
and
recreation.**https://play.google.com/store/apps/details?id=app.insti&hl=en_IN**

2) Instimap:

InstiMap is a searchable map of the campus, specially designed for first-time visitors and new entrants, to find their way around IIT Bombay with ease. It is available on instiApp - an Android App that helps you navigate through the various events on IIT Bombay Campus. It is available at **https://insti.app/map**

3) m-Indicator:

This app contains the Local Train Timings of Mumbai and also details the local train routes for IIT Bombay. One can also find the various bus routes and the bus numbers on this app.
https://play.google.com/store/apps/details?id=com.mobond.mindicator

4) OpenVPN Connect App:

OpenVPN Connect is the official VPN application for Android developed by OpenVPN, Inc. It is a universal client serving the following OpenVPN products:

- AccessServer – server solution for businesses
- OpenVPN Compatible Server–solution for self-hosted servers

It can be used for connecting with IITB Internal sites using a VPN. **https://play.google.com/store/apps/details?id=net.openvpn.openvpn&hl=en_IN**

5) MYBYK App:

Whether you want to ride a cycle at home or use it to commute within your campus, whenever you need a cycle, find an MYBYK near you. Unlock using your smartphone and pedal your way to a healthy life.

https://play.google.com/store/apps/details?id=in.greenpedia.mybyk

6) SHIRU CAFÉ:

Order your free drink in the app. Simply launch the app and tap the drink you would like to order.

https://play.google.com/store/apps/details?id=jp.co.enrission.shirucafe

7) Aarogya Setu:

Aarogya Setu is a mobile application developed by the Government of India to connect essential health services with the people of India in our combined fight against COVID-19. The App is aimed at augmenting the initiatives of the Government of India, particularly the Department of Health, in proactively reaching out to and informing the users of the app regarding risks, best practices, and relevant advisories about the containment of COVID-19.

https://play.google.com/store/apps/details?id=nic.goi.aarogyasetu

8) Useful apps for online study:

Live lectures may be conducted on any of the following apps: Microsoft Teams, Cisco Webex, Zoom and Google meet. Apart from these recorded lectures by professors maybe provided on Youtube.

A reminder of things before coming to IIT Bombay

1. The following documents are necessary for the completion of the admission process:

1) Gate Score Card
2) 10th and 12th mark sheet
3) Semester wise grade sheet or mark-sheet / Final transcript
4) Provisional Degree Certificate / Degree Certificate
5) Migration / Transfer Certificate
6) Passport size photograph (at least 12).
7) ID and Address proof (PAN card, Driving Licence, Passport, Voter ID)
8) Category Certificate (if applicable)
9) Also, bring at least two photocopies of each of the documents and bring at least 12 copies of your passport size photograph.

Note: Moreover, if you are unable to produce the final transcripts, you can submit them till September by producing an undertaking.

2. Make your luggage light. The campus has a variety of shops (like Y-point or IIT Market) where you can purchase all the basic required things. Each hostel has a general store for other essentials. There are a couple of supermarkets (D-Mart, Haiko) within 1 km from the main gate. Try to avoid bringing things like mattress, pillow, buckets, etc. small shops with these things will be put up on the campus itself during a few initial days. Bed dimensions are 6ft * 3ft. So, you can bring bed sheets accordingly. Otherwise, you can buy it here, and it is readily available.

3. You can come to IITB at any time. The main gate will remain open 24*7. But try to avoid late night arrivals as you may find it difficult to reach IITB as at that time auto rickshaw or cab facilities will not be frequently available. Newcomers while coming to IITB, show the security staff the intimation mail or screenshot or print out of the same.

Reaching IIT Bombay

IIT Bombay is located at Powai, which is in the North-Eastern part of Mumbai. One can travel by auto-rickshaws or taxis to reach IIT from the nearest stations. The nearest stations for Central Railway are KanjurMarg or Vikhroli. The nearest station for Western Railway is Andheri. International flights land at Sahar Airport which is about 7kms from IIT. The Domestic Airport SantaCruz is about 11 kms from IIT Bombay, and auto rickshaws/prepaid cabs are readily available from there for IIT.

From the Airport:

Those travelling by air can take **taxis/auto-rickshaws** from the domestic **(40-60 min travel time)/international (20-40 min travel time) airport** to reach IIT Bombay.

From Central Railway:

Suppose travelling by the central railway line [**with tickets to Kalyan/Thane/Kurla/Dadar/CST**, get down at **Kalyan/Thane/Dadar** and take a local train to **Kanjur Marg/Vikhroli**, which are **the nearest stations to IIT Bombay**. Come out through the western-side gate and **take a bus or auto-rickshaw** to **IIT main gate**.

From Western Railway:

If you are coming by the western railway line, **get down, preferably at Borivali/Bandra/Andheri**. **From Bandra (local railway station) west,** you can **take the 422 bus to IIT Bombay's main gate**. From **Borivali East and Andheri East, several buses come to the IIT main gate**. Alternatively, **you can take a three-wheeler or taxi from these stations. If you get down at Mumbai Central, then travel in a reverse direction to Dadar** (Western Railway). From **Dadar Western Railway, you will have to change to Dadar Central Railway. To reach IIT Bombay from Dadar Central Railway, follow the instructions given under Central Railway.**

Reaching IIT Bombay Guest House (Van Vihar/Jal Vihar):

There are **three gates to IIT Bombay**. **It is advised to enter through the main gate. If you are coming by an auto-rickshaw/taxi, enquire from the security at the main gate for the directions to IIT B Guest House (Van Vihar/Jal Vihar Guest House).**

Reaching IITB Hostels:

There are three gates to IIT Bombay. It is advised to enter through the main gate. If you are coming by an auto-rickshaw/taxi, enquire from the security at the main gate for directions.

SEARCH BY GROUPS AND SERIAL NUMBERS

Academic, Non academic and Lab's

Aerospace Engg.	D5	1
Bio-diesel Lab.	B4	4
Bio-science & Bio-energy 1	C4	5
Bio-science & Bio-energy 2	C5	6
Bio-science & Bio-energy 3	B4	7
Central Library	B3	12
Centrifugal Lab.	B4	14
CESE	C5	15
Chemical, Chemistry	D4	16
Civil Engg.	C4	17
Computer Science & Engg.	D3	18
Computer Science Dept.	B4	19
Construction Div.	C5	20
CSRE	C4	22
Cummins Engine Research facility	B5	23
Earth Science	C4	26
Electrical Engg.	C4	27
Electrical Engg. Annex	C4	28
Ele. Maintenance Dept.	C5	29
Energy Systems Lab.	B4	30
Estate Stores	C5	31
Heat Pump Lab.	B4	36
Heat Transfer Lab.	B4	37
Heavy Structure Lab.	B4	38
Hostel 1	A3	H1
Hostel 2	A2	H2
Hostel 3	A2	H3
Hostel 4	A2	H4
Hostel 5	B2	H5
Hostel 6	B1	H6
Hostel 7	B1	H7
Hostel 8	B2	H8
Hostel 9	B1	H9
Hostel 10 Girls' Hostel	D3	H10
Hostel 11 Girls' Hostel	C2	H11
Hostel 12	A1	H12
Hostel 13	B1	H13
Hostel 14	B1	H14
Humanities and Social Sciences (HSS)	D4	40
Hydraulics Lab.	B4	41
Hydraulics Lab (new)	B4	42
IC Engine Lab.	B4	43
IDC	C4	44
Inter-disciplinary Prog. in Systems and Control Engg.	B4	7
IRCC	C3	45
KReSIT Building	D3	18
Lecture Hall Complex-1	D4	47
Lecture Hall Complex-2	D4	48
Machine Tool Lab.	C5	49
Main Building	C3	50
Mathematics	B4	53
Mechanical Engg.	C4	54
Medical Store	E5	55
Metallurgical Engg.	D4	56
Micro Fluidics Lab.	B5	57
NanoTech. & Science Research Centre (ACRE)	B4	58
NASA	C5	59
ONGC Research Centre	D5	62
OrthoCad Lab.	B5	63
Physics	D4	65
Power House	B5	67
Printing Press	C5	68
SAC	B3	69
SAMEER	A4	70
SEMT Lab.	C5	73
STAC	B4	74
Solar Lab.	B4	75
SOM	C3	45
Sophisticated Analysis Instrument Facility (SAIF)	B4	58
Steam Power Lab.	B4	80
Stores and Estate office	C5	81
Thermal Hydraulic Test Facility	B5	87
UG Lab/S2 Bay	C5	88

Residential

Ananta	A4	2
Director's Bungalow	E3	24
DRDO	A3	25
Guest House/ Jalvihar	D2	33
Guest House/ Vanvihar	D3	34
Staff Hostel	C3	76
Tansa House (Proj. Staff)	B2	84
Vihar House	B5	90
White House	F2	91

Auditoriums and Halls

Convocation Hall	C3	21
G Gaitonde Lecture Hall	C4	32
Lecture Hall Complex-1	D4	47
Lecture Hall Complex-2	D4	48
PC Saxena Auditorium (LT)	C4	64
Seminar Hall	C4	72
Victor Menezes CC	C4	89

Food

Brewberry Cafe	B2	9
Gulmohar Restaurant	D3	35
Nestle Cafe (Coffee Shack)	C3	61
Staff Canteen	C3	77

Banks and ATMs

ATM - Canara Bank	B1	ATM
ATM - Canara Bank	D3	ATM
ATM - State Bank	B2	ATM
Canara Bank	D3	10
State Bank	F3	79

School

Campus School	E4	11
Central School	E5	13
Kendriya Vidyalaya (KV)	E5	13

Activities and Sports

Badminton Court	B2	3
SAC	B3	69
Staff Club	D3	78
Swimming Pool	B3	82
Swimming Pool (new)	B2	83
Tennis Court	C3	86

Others and Medical

Boat House	D1	8
Lake Side Gate	F1	46
Hospital	C3	39
Main Gate	F3	51
Market Gate	E5	52
Medical Store	E5	55
NCC Office	B3	60
Post Office	E5	66
Sarovar Udyan	F2	71
Temple (Padmavati Devi)	E1	85

Map Design
Shishir Bhagade, IDC, IITB

Project Guide
Prof. Mandar Rane, IDC, IITB

Link to this map:

http://www.iitb.ac.in/sites/default/files/article/images/IITB-Map---2D_E NG-PRINT.jpg

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