



Department of Chemical Engineering

PG HANDBOOK BATCH
2022-2023

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 own responsibility that it is put to use, with cross verification if need be.

INDEX

Sn No.	Title	Page No.
1.	About the Institute	1
2.	About the Department	2
3.	Message from the HOD	3
4.	Message from Faculty Advisors	4
5.	Welcome Message from the ISCP Team	5-6
6.	Welcome Message from PGAC	7
7.	Welcome Message from the Department Coordinator	8
8.	Departmental ISCP Team	9-11
9.	Faces of the department	11-13
10.	Faculty Members and Their Areas of Research	14-25
11.	Research Labs and Equipment	26-28
12.	Know Your Seniors	29-30
13.	Online semester experience	31-32
14.	Message from Our Seniors	33-34
15.	Course Structure	35-37
16.	Placement Information and Statistics	38-40
17.	Departmental Activities	41-44
18.	Student Clubs in IITB	45-46
19.	Student Wellness Centre and Gender Cell	47-48
20.	Useful Information, Links & Apps	49-52
21.	Important Emergency contacts	54

About the Institute

Established in 1958, the second of its kind, IIT Bombay was the first to be set up with foreign assistance. 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 recognized worldwide as a leader in the field of engineering education and research. Reputed for the outstanding caliber of students graduating from its undergraduate and postgraduate programmes, the institute attracts the best students from the country for its bachelor's, masters and doctoral programmes. Research and academic programmes at IIT Bombay are driven by an outstanding faculty, many of whom are reputed for their research contributions internationally. IIT Bombay also builds links with peer universities and institutes, both at the national and the international levels, to enhance research and enrich its educational programmes. The alumni have distinguished themselves through their achievements in and contributions to 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 programmes as well as to mobilize financial support.

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 within house dining; the campus also provides excellent amenities for sports and other recreational facilities.

About the Department

Established in 1958 with assistance from the Soviet Union under UNESCO aid scheme, the Department of Chemical Engineering is recognized as a leading department in India primarily because of its strong academic programs, large faculty strength and diverse range of research areas. The Department offers various academic programs like B.Tech (Duration 4 years), M.Tech (Duration 2 years), 5-year Dual Degree and Ph.D. program. Several faculty members of the Department also actively participate in teaching and research activities of various interdisciplinary programs of the Institute.

The good experimental and computational facilities are highlights of the department which are usually funded through the Ministry of Human Resources Development, and research projects from Government Agencies and Industry. The Department has good interaction with Industry and provides service by way of consultancy projects and continuing education courses in many of areas

Message from HOD

Dear Students,

I wish to extend a very warm welcome to the new M. Tech. (Chemical) students of the 2022 batch. The department of chemical engineering at IIT Bombay has always been the most preferred destination for the bright and young minds of the country aspiring to do research, and I wish to congratulate all of you for being selected for your higher studies here with us. The recent changes in the chemical engineering eco-system both in the industrial manufacturing & research as well as in academia, has spurred a significant need for highly qualified manpower at various levels. All of you have therefore made a right decision to pursue an advanced degree in chemical engineering at IIT Bombay.

The M.Tech. program at IITB has a substantial research component that will help you get exposure to performing independent research.

The Department of Chemical Engineering at IITB is at the forefront of contemporary as well as emerging research areas such as Soft Matter, Bio-systems Engineering, Catalysis and Reaction Engineering. Process Engineering, Molecular Simulations, and Thermodynamics, Energy and Environment. The students will get an opportunity to take advanced courses and perform research in these areas.

I hope you will take all the opportunities available on campus during your two years of stay to grow both academically and in other co-curricular areas. I would like to once again extend a warm welcome to all of you to the department. We, the faculty and the staff, in the department, wish you all the very best in your program and looking forward to exciting and engaging times with all of you.



Madhu Vinjamur

Message from Faculty Advisors

Dear Students,

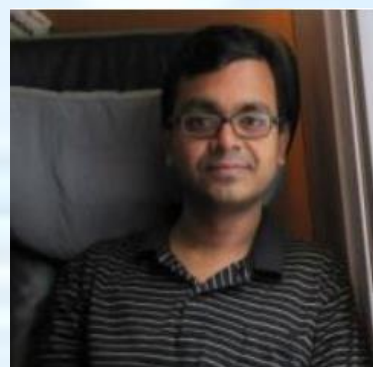
A hearty congratulation to you on making it to IIT Bombay. We wish to extend a very warm welcome to the Department of Chemical Engineering. Your department is known for its cutting-edge research and unique teaching methods.

We are your Faculty Advisors (FacAd) and will be happy to help in all kinds of academic decisions with respect to curriculum, courses, projects, withdrawal from a semester on medical advice etc. Please do not hesitate to contact us on any academic-related issues or anything else that you may feel necessary to share.

Finally, once again, congratulations and welcome to one of the most prestigious institutes of our country. Make your stay exciting, fulfilling, interactive and rewarding by utilizing all the resources available around.



Prof Abhijit Majumdar



Prof Ratul Das Gupta

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.

Institute Student Companion Programmes (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 organized 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 programmes. 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.

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.

Overall Coordinators



Prabhat Sharma
9899946039
215120018@iitb.ac.in



Abhishek Raman
8789676472
213040033@iitb.ac.in



Dipankar Kuli
8638272899
215060006@iitb.ac.in

Cabinet Members



Ananda Charan Khatua
6370574104
Charanananda55@gmail.com



Ashish Kumar Gautam
7607369675
ashishkgautam2001@gmail.com

WELCOME YOU

Welcome Message from the PGAC Team

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 in one of the prestigious institutes in the country. IIT Bombay provides best exposure to its students in all the 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 their 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!

Regards,

Mohit Meena

Institute Secretary, Academic Affairs (Masters)

Email: imr@iitb.ac.in

Contact no.: 8006080474



Welcome message from the Department Coordinator

Hearty congratulations for making it to one of the Finest Institute of India, IIT Bombay.

A warm welcome to you all on behalf of the Chemical Engineering Department at IIT Bombay. As you all know that we spend almost two years online mode because of Covid- 19 pandemic, and now we are switching to offline mode. First of all, I am so happy for you guys since you are all going to experience the campus life which is going to be a memorable phase of your life. Coming into academic life at IIT Bombay, offline classes will make more friends so you will get help from your classmates and be active in classes and ask whatever silly doubts you have professors will answer them, and don't feel shy in these things.

Chemical Engineering Department has been one of the prominent departments in the Institute right from its establishment. The technological resources available and the lab facilities are one of its kinds in the country. Apart from these, what makes our department stand out from the rest are our professors who are widely known for their research contributions in their respective fields. We have got professors working in a wide range of fields starting from molecular simulations to process control reaction engineering, AI/ML applications for chemical engineering, and computational Fluid Dynamics almost all fields are covered in our department, try to find your interest in which area you want to work.

So, get ready for the exciting roller coaster ride! The ISCP team will always be by your side to make your ride smoother and memorable. We're going to do everything not as seniors but as friends to keep you moving.

Good Luck Guys



- Lakshmi Narayana Jami
- 9063764165
- lakshminarayanajami@gmail.com

Departmental ISCP Team



Lakshmi Narayana Jami
9063764165
lakshminarayanajami@gmail.com



Akash Verma
7073859688
akashverma7871@gmail.com



Jincy George
9656230943
g.jincy@gmail.com



Pranjal
9013361531
Chem.pranjal@gmail.com



Shantanu Mohite
8309694310
Shantanumohite234@gmail.com



Ravindra Singh Girase
8600154174
Ravindraglglorious@gmail.com



Anshumali Jaiswal
7355936071
Anshumali.jai.11@gmail.com



Utkarsh Vijay Mandape
9922743482
Utkarshmandape05@gmail.com



Jaymeen Chovatiya
9974602887
Jaymeen.chovatiya@gmail.com



Kartik Chaddarwala
7434864117
Kartikchaddarwala007@gmail.com



Harish S
7708984021
sharish1152@gmail.com

Faces of the department



Astitva Mishra (M.Tech. Representative)
8081683111
99astitva@gmail.com



Nadmaan Fazeel (AURAA)
8795283220
nadmanfazeel@gmail.com



Khyati Jain (DGSec)
9465500286
dgsec@che.iit.ac.in

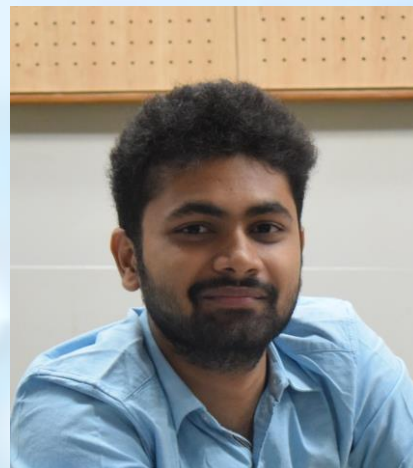


Pranay Pramod Kelzare (DPC)
8087284993
pranaykelzare@gmail.com

- **Company Coordinators**



Pranjal
9013361531
Chem.pranjal@gmail.com



Harish S
7708984021
sharish1152@gmail.com



Shantanu Mohite
8309694310
Shantanumohite234@gmail.com

Faculty Members and Their Areas of Research

Core Faculties

	<u>Name</u>	<u>Research Interest</u>
	Prof. Sharad Bhartiya Room: Che Dept 311 Email: bhartiya@che.iitb.ac.in Ph: +91(22)25767225	Optimal operation of simulated moving beds, Operation and control of fuel cells.
	Prof. Mani bhushan Room: Che Dept 311 Email: mbhushan@che.iitb.ac.in Ph: +91(22)2576 7214	Sensor network design and Audit Constrained state estimation
	Prof. Abhijit Chatterjee Room: CAD Centre 2 Email: abhijit@che.iitb.ac.in Ph: +91 (22) 2576 7242	Reaction Engineering and catalysis Thermodynamics and molecular simulations,
	Prof. Rajdip B Room: Che Dept 145 E mail: rajdip@che.iitb.ac.in Ph: +91(22)2576 7209	Nanoparticles, Water treatment, Drug Delivery, Modeling and Simulation

	<p>Prof. Jhumpa Adhikari</p> <p>Room: Che Dept 241 Email: adhikari@che.iitb.ac.in Ph: +91(22)25767245</p>	<p>Thermodynamics, Statistical Mechanics, molecular simulations</p>
	<p>Prof. Jayesh bellare</p> <p>Room: Che Dept 131 Email: jb@iitb.ac.in Ph: +91(22)2576 7207</p>	<p>Nanotechnology, Electron Microscopy, Health care, Medical devices</p>
	<p>Prof. Abhijit Majumdar</p> <p>Room: Che Dept 136 Email: abhijithm@iitb.ac.in Phone: +91-(22)-25767237</p>	<p>Cell Mechanics Micro fluidics, Soft Mechanics Biomass</p>
	<p>Prof. Anurag Mehra</p> <p>Room: Chemdept 222 Email: mehra@iitb.ac.in Ph: +91 (22) 2576 7217</p>	<p>Colloids, Coarse Grain MC simulations, Anisotropic nano structures synthesis, Multiphase Reactive</p>

	<p>Prof. Swati Bhattacharya Room: Chem Dept 122 Email: swaticb@iitb.ac.in</p>	<p>Investigation of protein dynamics and mechanism for application in genomics, kinetics of DNA translocation</p>
	<p>Prof. Sarika Mehra Room: Che Dept 112 Email: sarika@che.iitb.ac.in Phone: +91(22)25767221</p>	<p>Genomics and system Biology, Computational Biology</p>
	<p>Prof. Ateeque Malani Room: Che Dept 138 Email: malani@che.iitb.ac.in Phone: +91-22-2576 7205</p>	<p>Computational Material Science, Wetting and Super• Hydrophobicity, Interfacial and confined Fluids</p>
	<p>Prof. Ranjan K Malik Room: CAD centre 12 Email: rkmalik@che.iitb.ac.in Phone: +91 (22) 2576 7796</p>	<p>Process simulation and Optimization, Energy Analysis and Process Integration, separation Process and Process Intensification.</p>

	<p>Prof. Kannan M M</p> <p>Room: Che dept 311 Email: kannan@iitb.ac.in Ph: +91 (22) 2576 7213</p>	<p>Simulation environment and Simulation Methodologies, Control system design, Affordable labs and Virtual labs, open source software</p>
	<p>Prof. Hemant Nanavati</p> <p>Room: Che Dept 242 Email: hnanavati@che.iitb.ac.in Phone: +91 (22) 2576 7215</p>	<p>Polymer Physics and Multi scale modeling, Bio-resourced and Biodegradable Polymer Systems</p>
	<p>Prof. Rochish Taokar</p> <p>Room: Che Dept. 123 Phone: +91 (22) 2576 7241 Email: rochish@che.iitb.ac.in</p>	<p>Electro hydrodynamics, Bio membranes, vesicles and capsules</p>
	<p>Prof Santosh B Noronha</p> <p>Room: Chem Dept 123 Email: noronha@iitb.ac.in Phone: +91 (22) 2576 7238</p>	<p>Bioprocess Development, Bio systems Modeling and Data Analysis, Health net engineering, Education Technology</p>

	<p>Prof. Mahesh T</p> <p>Room: Che Dept. 151 Ph: +91 (22) 2576 7227 Email: mahesh@che.iitb.ac.in</p>	<p>Fluid Mechanics, Colloids & Interfaces, Biophysics</p>
	<p>Prof. Mukta Tripathy</p> <p>Room: Che Dept. 222 Ph: +91 (22) 25767204 Email: tripathy@che.iitb.ac.in</p>	<p>Soft Matter Systems Polymer Nano• composites; Self-Assembly</p>
	<p>Prof. Chandra Venkatraman</p> <p>Room: Che Dept.321 Ph: +91 (22) 2576 7224 Email: chandra@che.iitb.ac.in</p>	<p>Aerosol physics, chemistry and optics; simulations of air-quality and climate change; energy-emissions modeling;</p>
	<p>Prof. K V Venkatesh</p> <p>Room:Che Dept. 136 Ph: +91 (22) 25767223 Email: venks@che.iitb.ac.in</p>	<p>Bio-systems Engineering System; and Synthetic Biology; Metabolic Engineering Modeling of Metabolic Diseases</p>

	<p>Prof Madhu Vinjamur</p> <p>Room: Che Dept. HOD Office Ph: +91 (22) 25767218 Email: madhu@che.iitb.ac.in</p>	<p>Drug Delivery; Aerogels; Supercritical Carbon Dioxide; Micronization</p>
	<p>Prof. Ratul Das Gupta</p> <p>Room: Che Dept 122 Email: dasgupta.ratul@iitb.ac.in Ph: +91 (22) 2576 7235</p>	<p>Interfacial Flows; Waves in Fluids and their Stability; Mechanical Response of Amorphous Materials</p>
	<p>Prof. Ravindra Gudi</p> <p>Room: CAD Centre 243 Email: ravigudi@che.iitb.ac.in Ph: +91(22)25767231</p>	<p>Process Systems Engineering; Process Performance and energy Audit; Optimization and Control; Green Engineering</p>
	<p>Prof. Partha Sarathy Goswami</p> <p>Room: Che Dept 151 Email: psg@che.iitb.ac.in Ph: +91 (22) 2576 7230</p>	<p>Turbulent Suspensions; Inertial Migration;</p>

	<p>Prof. Venkat Gundabala</p> <p>Room: Che Dept 241 Email: venkatg@iitb.ac.in Ph: +91 (22) 2576 7208</p>	<p>Micro fluidics; Water based Coatings; Electro hydrodynamics; Micro and Nano Particles</p>
	<p>Prof. Sameer Jadhav</p> <p>Room: Che Dept 112 Email: srjadhav@che.iitb.ac.in Ph: +91(22)25767219</p>	<p>Cell Mechanics; Micro fluidic ; Liposomes ; Drug Delivery</p>
	<p>Prof. Sujit S jogwar</p> <p>Room: 100, CAD center Email: jogwar@che.iitb.ac.in Ph: +9 1(22)25767244</p>	<p>Control Design and Scheduling of Energy-integrated Process Systems; Integrated Design and Control of Divided Wall Columns</p>
	<p>Prof. Arindam Sarkar</p> <p>Room: Che Dept. 125 Email: asarkar@che.iitb.ac.in Ph: +91 (22) 25767233</p>	<p>Fuel cells, electrochemistry, electro catalysis, Nano materials</p>

	<p>Prof. Jyoti Seth</p> <p>Room Che Dept 241 Email: jyoti@che.iitb.ac.in Ph: +91 (22) 2576 7226</p>	<p>Soft Matter, Rheology, Suspensions, Bio-refining</p>
	<p>Prof. Yogendra Shastri</p> <p>Room: Che Dept 311 Email: yshastri@iitb.ac.in Ph: +91 (22) 2576 7203</p>	<p>Bio energy, Sustainability, Optimization</p>
	<p>Prof. Sachin C Patwardhan Room: CAD Centre 305 Email: sachinp@che.iitb.ac.in Ph: +91 (22) 2576 7211</p>	<p>Predictive Control, Fault Diagnosis and Fault Tolerant Control Nonlinear Bayesian State Estimation</p>
	<p>Prof. Sandip Roy</p> <p>Room: CAD Centre 131 Email: sr@che.iitb.ac.in Ph: +91(22)2576 7249</p>	<p>Risk-based Process Safety Management, Cultural Aspects of Process Safety</p>

	<p>Prof. Supreet Saini Room: 1,2nd Floor, CESE-DESE Email: saini@che.iitb.ac.in Ph: +91 (22) 2576 7216</p>	<p>Microbial evolution, dynamics of biological systems, bacterial pathogenesis</p>
	<p>Prof. Devang V Khakhar Room: Che Dept 151 Email: khakhar@iitb.ac.in Ph: +91 (22) 2576 7212</p>	<p>Flow and Mixing of Powders, Polymers ; Liposomes</p>
	<p>Prof.P Sunthar Room: Che Dept 222 Email: sunthar@che.iitb.ac.in Ph: +91 (22) 2576 7229</p>	<p>Vesicles for drug delivery, Computerized evaluation systems</p>
	<p>Prof. Sanjay M Mahajani Room: Che Dept. 125 Email: sanjaym@che.iitb.ac.in Ph: + 91 (22) 2576 7246</p>	<p>Reaction Engineering and Catalysis; Process Intensification; Coal and Biomass</p>

	<p>Prof. Ganesh Viswanathan</p> <p>Room: Che Dept. 125 Ph: +91 (22) 25767222 Email: ganeshav@iitb.ac.in</p>	<p>System; Biology; Signal Transduction ; Stochastic Dynamics; Reactor Engineering</p>
	<p>Prof. Pramod Wangikar</p> <p>Room: Che Dept 136 Ph: +91 (22) 25767232 Email: wangikar@iitb.ac.in</p>	<p>Bio fuel, Metabolic Engineering Enzyme Engineering Biotransformation</p>
	<p>Prof. Jason Picardo</p> <p>Room: Che. Dept. 224 Ph: +91(22)25767247 Email: jrpicardo@che.iitb.ac.in</p>	<p>Mucus Dynamics, Glacier: Flow instabilities, Dusty turbulence, Pattern formation in multi-scale systems</p>
	<p>Prof. Guruswamy Kumaraswamy</p> <p>Room: Che. Dept. 0 Ph: +91(22)25767239 Email: guruswamy@iitb.ac.in</p>	<p>Structure and water transport through block copolymers with a hydrophilic block, Crystallization induced structure development</p>

	<p>Prof. Vinay Juvekar</p> <p>Room: New PG Lab annex Ph: +91(22)25767236 Email: vaj@che.iitb.ac.in</p>	<p>Interfacial Engineering; Electrochemical Engineering; Conducting Polymers; Reaction Engineering</p>
	<p>Prof. Bhartkumar Suthar</p> <p>Room: Che Dept. 321 Ph: +91 (22)25767243 Email: bharat.ksuthar@iitb.ac.in</p>	<p>Li-Ion battery, fuel cells, mathematical modeling and Numerical Simulation, EIS</p>
	<p>Prof. AK Suresh</p> <p>Room: Che Dept 220 Ph: + 91(22)25767240 Email: aksuresh@iitb.ac.in</p>	<p>Mass transfer with chemical reaction, Biochemical Engineering, Polymer reaction engineering</p>

Adjunct Faculties

	<u>Name</u>	<u>Research Interest</u>
	<p>Prof S Ganeshan</p> <p>Room: Che Dept 236 Ph: +91 (22) 25726895 Email: ganeshan50@gmail.com</p>	<p>Basic and detailed engineering design of process and utility system; Process equipment design; Energy systems</p>
	<p>Prof. Mamta Mukhopadhyay</p> <p>Room: Che Dept. 302 Ph: +91 (22) 2576 7248 Email: mm@iitb.ac.in</p>	<p>Thermodynamics of Fluid Phase Equilibria, Extraction and Processing with Supercritical Fluids</p>
	<p>Prof. VM Naik</p> <p>Room: Che Dept 145 Ph: +91 (22) 2576 7210 Email: vm.naik@iitb.ac.in</p>	<p>Soft-matter & Interfacial Engineering Energy & Renewable Resources, Foods & Specialty Chemicals</p>
	<p>Prof. Y S Mayya</p> <p>Room: Che Dept 321 Email: ysmayya@iitb.ac.in Ph: +91 (22) 2576 7228</p>	<p>Modeling Aerosol nucleation and growth, Radiation Physics</p>

Research Labs and Equipments

Fluid Mechanics



Equipment

- ✚ Mini Extruder (Avanti Polar Lipids Inc.)
- ✚ Orbital Shaker
- ✚ Modular Compact Rheometer
- ✚ Sieve Shaker
- ✚ Surface Profile Measuring System
- ✚ Argon Ion Laser System
- ✚ Micro Fluidic Cell Plate
- ✚ Inverted Fluorescent Microscope, Olympus IX71
- ✚ Milli Q Water System
- ✚ Handheld Analyzer 2250
- ✚ REGLO-Z Digital Gear Pump with LED Display

Bio System Engineering



Equipment

- ✚ Table-top Refrigerated Centrifuge
- ✚ Elisa Reader
- ✚ Real-time PCR Machine
- ✚ Orbital Refrigerated Shaking Incubator
- ✚ Vacuum Centrifugal Concentrator
- ✚ PCR Machine
- ✚ Refrigerated Centrifuge
- ✚ Biosafety Cabinet
- ✚ Rotary Incubator Shaker
- ✚ Gas Chromatography Mass Spectrometer
- ✚ Nano Photo-meter TM UV/Vis Spectrophotometer

Automation Lab

26



Equipment

- ✚ Autotitrator
- ✚ Refractometer
- ✚ Multi-purpose Distillation Unit
- ✚ Gas Liquid Absorption Setup
- ✚ CSTR Setup
- ✚ TOMLAB Software
- ✚ Plug Flow Reactor Setup
- ✚ Barometer
- ✚ UV Spectrophotometer
- ✚ Matlab Software
- ✚ Bench Top 3star
Conductivity/Resistivity/TDS/
Salinity/ Temperature Meter

LAB	EQUIPMENT
Bio Molecular Engineering	<ul style="list-style-type: none"> ✚ Advanced Inverted Fluorescent ✚ Microscope: Nikon Eclipse TE 2000-S ✚ Table-top Refrigerated Centrifuge ✚ Carbon Dioxide Incubator
Cellulose Laboratory	<ul style="list-style-type: none"> ✚ Molecular Modelling Software ✚ Silicon Graphics Fuel Workstation ✚ HP Z400 Workstation ✚ Intel P4 Server
CAD Laboratory	<ul style="list-style-type: none"> ✚ GAMS/ BARON
Membrane	<ul style="list-style-type: none"> ✚ Micro Annular Gear Pump ✚ GPC Pump ✚ Syringe Pump with Static Mixing Unit

Bio Chemical Engineering Lab

- ✚ Deep Freezer
- ✚ Hybridization Chamber
- ✚ Refrigerated Centrifuge and Micro-centrifuge
- ✚ Refrigerator (-86oC)
- ✚ Table-top Refrigerated Centrifuge
- ✚ Real-time PCR Machine
- ✚ DNA SpeedVac
- ✚ Micro-array Scanner
- ✚ Gel Documentation System - Image Resolution Package
- ✚ Thermoscientific Model Biocare 20 LV2
- ✚ Multi Detection Reader-Spectra Max

Organic Process Lab

- ✚ Surface Charge Analyzer
- ✚ Stopped Flow Mixer
- ✚ Membrane Test Cell
- ✚ COMSOL Multiphysics 3.5 Software
- ✚ Stereo Zoom Microscope
- ✚ Bi-potentiostat
- ✚ Goniometer: GBX Digidrop (Contact Angle Meter)
- ✚ Static Mercury Drop Electrode
- ✚ Gas Chromatography Mass Spectrometer DSQ II
- ✚ Dynamic Surface Tensiometer
- ✚ Quartz Crystal Microbalance
- ✚ Microlitration Calorimeter 4200 TPDRO 1100

Particle and Aerosol Lab

- ✚ Syringe Pump
- ✚ Electrostatic Classifier
- ✚ Condensation Particle Counter, Model 3775, TSI
- ✚ Air-jet Atomizer, Model 3076, TSI
- ✚ Cascade Impactor, MOUDI, Model no. 110
- ✚ High Pressure Liquid Chromatography, Perkin Elmer S-200
- ✚ Grimm's Aerosol Laser Particle Spectrometer Model 1.108
- ✚ Cyclone Separator
- ✚ Hand-held Condensation Particle Counter Model 3007

Other Labs

- ✚ Soft Fluid Technology Lab
- ✚ Protein Engineering Lab
- ✚ Reaction Engineering Lab
- ✚ Silicate Engineering Lab
- ✚ Polymer Lab
- ✚ Thermodynamic Lab
- ✚ Heat Transfer Lab

Know your Seniors

Name	Project Topic	Guide	Co-guide(s)
Aman Gupta	Efficient Jacobian Computation for Nonlinear Estimation and Control	Mani Bhushan	
Astitva Mishra	Estimation of available capacity (State of Charge or SoC) of a battery	Bharatkumar Suthar	Mani Bhushan
Jaymeen Chovatiya	Development of Toolbox for Fitting Impedance Spectroscopy	Bharatkumar Suthar	
Ravindra Singh Girase	annotations of recurring metabolites in samples	Pramod P Wangikar	
Varun Pandey	Predicting pressure drop across multiple stenosis in coronary artery using machine learning	P Sunthar	
Shantanu Tukaram Mohite	Synthesis of phenol formaldehyde resin as binder for reclaimed sand	Sanjay M Mahajani	
Suhail Haque	Thermodynamic phase coexistence curves for multicomponent mixtures: A first-principles approach	Abhijit Chatterjee	
Harish Sivakumaran	Design of ice-phobic surfaces for aerospace applications: work with Honeywell Bangalore	Ratul Dasgupta	Guruswamy Kumaraswamy
Saurodeep Das	Polyurethane particle size distribution and stability in a multistep industrial reactor and dispersion system (sponsored by Pidilite Industries, Mumbai)	Rajdip Bandyopadhyaya	
Jincy George	Model predictive control of energy-integrated batch distillation	Sujit S Jogwar	
Soumya Chatterjee	Molecular simulation study of solid-fluid equilibrium: Gas Hydrate System	Jhumpa Adhikari	
Archita Mullick	Study of indoor ventilation to mitigate COVID transmission using chemical reactor model and computational fluid dynamic simulation	Sarika Mehra	Guruswamy Kumaraswamy, Krishnendu Sinha
Kushal Shah	Solid state polymerization of polyolefins	Guruswamy Kumaraswamy	
Suruchi Kumari	Stability of rivulets - Experiments and simulations	Ratul Dasgupta	Partha Sarathi Goswami
Anshumali Jaiswal	Grey box modeling : Combining mechanistic models with neural network	Sachin C Patwardhan	
Alok Kumar Singh	Leak Detection in Pipeline Networks using State and Parameter Estimation	Mani Bhushan	
Pawankumar Shyamlal Pal	Reinforcement Learning Based Methods in Control	Sharad Bhartiya	
Lakshmi Narayana Jami	Fault detection in heat exchanger networks	Sujit S Jogwar	
Kartik Dilipkumar Chaddarwala	Experiments and simulations in Agitated thin film dryer	Sanjay M Mahajani	
Subhash Yadav	Microfluidics based generation of microfibers for targeted drug delivery	Venkat Gundabala	Rajdip bandopadhyay
Mohammad Aamir	Hydrotreating: Modelling, Simulation and Tuning	Kannan M Moudgalya	Sanjay M Mahajani

Nadmaan Fazeel	Artificial Neural Network Models for Rate Processes	Swati Bhattacharya	Abhijit Chatterjee
Hasan Reza	Assessment of climate change impact on thermal power plant performance	Yogendra Shastri	
Ujjwal Kumar	Prediction of Retention Time of Metabolomics and Proteomics using Deep Learning Techniques	Pramod P Wangikar	
Kaulesh Kumar	Experimental (and/or Numerical) investigation on the role of coating/cohesiveness on spouting behavior of particles	Partha Sarathi Goswami	
Mayuresh Hiren More	Drug Delivery using Supercritical Carbon Dioxide-Assisted Impregnation of Biocompatible Polymers	Madhu Vinjamur	Mamata Mukhopadhyay
Aakash Thakur	Modelling air pollution reductions over India in 2025 under different mitigation scenarios	Chandra Venkataraman	
Akash Verma	Design, modeling and simulation of valveless piezoelectric micropump	Sameer Jadhav	
Vinay	Modeling effect of climate change on the transport processes in Raindrop formation and Lightning	Rochish Madhukar Thaokar	
Damini Shrikant Kale	Data-driven discovery of equations for laminar dispersion	Jason R. Picardo	
Tanmoy Ghosh	Pidilite Sponsored M. Tech. Project on "Flow-induced changes in the thixotropy of sealants"	Jyoti Seth	
Deepak Kumar	Simulation study on Extentional of granular materials	Devang V Khakhar	
Utkarsh Vijay Mandape	Statistical model based prediction of protein levels	Ganesh A Viswanathan	
Anuj Kumar Kataria	Integration of Occupational Health and Safety and Sustainability Principles for Development of Process Designs	Sandip Roy	Yogendra Shastri
Naveen Kumar	Role of gas bubbles in nucleation of solid solutes: A molecular simulation approach	Ateeque Malani	Sandip Roy
Kumar Gaurav	Modelling the Elastomer Matrix of Solid Propellant	Hemant Nanavati	
Pranay Pramod Kelzare	Catalytic Reforming: Modelling, Simulation and Tuning	Kannan M Moudgalya	Sanjay Mahajani
Akshat Srivastava	Reduction of iron ores using green hydrogen in HyREX process	Akkihebbal K Suresh	Bharatkumar Suthar, Arindam Sarkar
Shounak Das	Design and Development of a Biomedical Coating Device	Mahesh S Tirumkudulu	
Himanshu Pal	Simulation of the flow of dense particulate systems	Devang V Khakhar	
Pranjal	Modelling and Simulation of Sepsis	K V Venkatesh	
Parth Rakesh Brahmhatt	AI & ML based digital twin for operational excellence in process systems	Ravindra D Gudi	
Vishal Agrawal	Formation of Gold Nanorods using binary surfactant mixture	Anurag Mehra	
Umar Iqbal	Simulation and fabrication of occlusion devices for heart surgery	Jayesh Bellare	
Waleed Abdullah Mohammed Farea	(CFD) analysis of Jet flows	Devang Khakhar	
Rushabh S Kalbande	Grease based on Molybdenum disulfide	Jyoti Seth	
Sunkara Sushma	Carbon dioxide valorization to generate value added products	Ravindra D Gudi	
Vikash Agarwal	Development of a potentiostat	Arindam Sarkar	

Message from our Seniors

Hey juniors!

Congratulations on making to this prestigious institute (although most of you wouldn't be aiming it). Your batch might be the one who will resume offline scenario once again which at times can be overwhelming. But remember this journey will be worth it. Do not take much stress or load just enjoy it, and rest everything will fall into place (especially placements)

Good luck for this beautiful chapter in your life.

Shivangi Singh
Data Science Analyst
Accenture



Hi guys

Congratulations on getting an opportunity to study in the most happening institutions of India. You guys might be from different backgrounds but here you'll grow together. This 2-year journey would be full of adventures, at some point, you might be at your low or maybe your high. Just wanna say that do not explore these precious years alone, keep your friends or someone special along with you. Explore campus life, try to see the city from Sameer hills, see the sun setting at the boat house, meet snake and leopard, Invade the city with your gang, make plans and cancel "some" plans, dance in pubs and hostels, in short just have fun. Rest maintain your academics well, you came here for a specific reason so do not deviate from that. Maintain a decent CPI, and perform well in your project. If you are not interested in chemical engineering, try to explore non-core areas like ML-AI. You have got the best opportunity of your lifetime, just dive into the pool and swim.

Vishal Saini
Advance Process Automation and
Optimization Engineer
Bloom Energy



Hello, Juniors.

First of all, let's take a moment to congratulate you for making it into one of the best institutes in the country. On behalf of my entire batch, I welcome you all into the IITB family.

The coming two years at IITB will be one of the most memorable years of your life. From making new friends to preparing for placements, these years will bring a lot of hardships, challenges, and joyful moments. Below are some of the tips from my side, which will definitely lead to a soothing experience on this roller-coaster ride:

1. From the first semester onwards, try to maintain a decent CPI. Always remember that a good CPI is extremely helpful whether you want to go for placement or higher studies. In addition, the project selection process at the beginning of the 2nd semester happens based on CPI. Thus, the higher your CPI, the higher the chance of getting your preferred project.
2. You need to do an excellent job on your project. The project consists of 90 out of 156 credits, which suggests that changing only one grade can hugely impact your CPI. Moreover, you will be asked questions from your project in placement interviews.
3. If you are planning for higher studies abroad, finish the required exams (GRE, TOEFL/IELTS) before the start of the application process (generally in September for US universities). Also, it is wise to prepare the first draft of your Statement of Purpose (SOP) as soon as possible so that you get ample time for reviewing and editing.
4. Finally, don't forget to enjoy your time at IITB.

I wish you all the best for your future. If you have any doubt regarding the application process for higher studies, feel free to reach out to me.

Akash Kumar Ball
First year PhD student
Massachusetts Institute of Technology



Hello Juniors,

Congratulations to all of you for making it to IIT Bombay. From my experience, I can guarantee you that these two years at IITB will be most memorable, which you will cherish throughout your life. You will get to learn from the best minds here and you will have a lot of great learnings to carry back after two years. Try to use every possible resource at IITB, join different clubs and pursue your hobby, which also helps to refresh your mind. Maintain a good relationship with everyone, be it your lab-mates or batch mates. Take breaks and go out with your batchmates. Try to maintain your CPI high as this would help you in placements as well in selecting MTP. Have good clarity as in which field you want to pursue your career and choose your MTP accordingly.

Resume plays a crucial role in placements; it is like a queen in chess. Good PORs and projects will boost your resume. If you don't have good PORs in the past, be active and take up PORs at IITB. The same goes with projects, take up some projects in the field in which you are interested and complete them before resume submission. The placements phase would be a bit hectic, but I can assure you once you get selected, all the effort you made will be worth it. Don't lose confidence if you are not getting placed initially, keep your chin up and learn from your mistakes. Ensure you don't repeat them in the next interview. As the saying goes, "Difficult roads often lead to beautiful destinations", Placement season might be difficult but all the hard work you do is to get placed in your dream company.

I wish you all the best for your future. I am sure you all will pass out of IITB with flying colors.

Ch Sai Darshan
Management Trainee (R&T)
TATA Steel



Guidance to Juniors

Hi Juniors,

Congratulations on your decision to pursue your master's degree at this prestigious institution. Welcome to the campus of opportunities. I am sure that the two years you will spend here will always remain close to your heart.

There is a reasonable chance you will find it challenging to adapt to the IITB system initially as you are all drawn from different undergraduate colleges and many of you have been away from academia for quite some time. Do not worry, everyone will adapt within a month.

Focus on your studies but do not miss out on the enjoyment at IITB. Make use of all the opportunities IITB offers for your growth and development.

Identify your interests as early as possible and choose a career path that matches them. Take the first semester seriously as its grades have a crucial role in deciding your Master's Thesis Project (MTP). Be wise in the choice of your project topic, guide and electives.

Keep your learning spirits high and be optimistic.

All the Best!

JINCY GEORGE

Hello Juniors,

Hearty congratulations to you all for making it to IIT Bombay. You must be excited because you'll be getting the chance to be on campus from the first semester itself.

Based on my experience at IIT Bombay so far, I would like to give some suggestions to you:

- Try to attend all the lectures. You won't get the chance to go through all the recordings before the exam.
- Be active in the class and ask your doubts.
- Interact with your batchmates, this exercise will help you to relax in tough times.

Lastly, grades in the first semester play a crucial role in getting the project of your choice, so take the courses sincerely.

You can take help from your seniors anytime. Hope you guys will enjoy this new journey. All the best.

Hello, Juniors

Welcome to one of the most prestigious institutes in our country. You can very much feel proud for achieving this feat after two difficult years due to the COVID pandemic. Many might have reservations about doing higher studies in our country, but I assure you that, there is no better place to pursue your Masters than here if you are determined in your ambitions. IIT Bombay offers a plethora of opportunities and it's about how one utilizes them in their tenure here. So, make sure you decide your career path as early as possible and make use of the opportunities here to build a strong base in whatever field you wish.

The first semester is a very important part of our MTech curriculum, good grades here can help you find a project of your interest. So, focus well on your studies, especially during the first semester. Build a good rapport with the seniors, as well as with your guides to get the most experienced and valuable suggestions. Apart from academics, there are various other extracurricular activities in which you guys can participate. One of the best things about IITB is, that there is a place and identity for every one of you irrespective of how good you are in that field. So, I urge you to try new things and get yourself involved in things that you haven't already tried in your undergraduate years. Always follow your interests, and don't do something that doesn't excite you. Carpe Diem.

HARISH S

Course Structure

Semester Wise Subjects

Sem 1			
Course Code	Course Name	Credits	Credit
CL601	Advance Transport Phenomena	6	C
CL602	Mathematical and Statistical Methods in Chemical Engineering	6	C
CL605	Advanced Reaction Engineering	6	C
CL701	Computational Method in Chemical Engineering	8	C

Sem 2			
Course Code	Course Name	Credits	Credit
CL607	Advanced Thermodynamics	6	C
CL694	Seminar	4	C
CL704	Lecture series	2	N
CL899	Communication Skills	6	N
CL 610	Experimental Methods (Lab)	6	C

Sem 3			
Course Code	Course Name	Credits	Credit
CL797	I Stage Project	46	C

Sem 4			
Course Code	Course Name	Credits	Credit
CL798	II Stage Project	44	C

- ❖ Among the four courses displayed in the semester 1, an option is available to drop one of them and do the same back in 3rd semester, but for taking few other courses in the next semester or while choosing projects they might be prerequisites.
- ❖ A total of three Department Electives and one Institute Elective need to be done during 2nd to 4th semesters based on your convenience.
- ❖ Stage 1 evaluation of project generally takes place in the month of September and stage 2 in the month of June.
- ❖ Information regarding running courses is available in:
<https://portal.iitb.ac.in/asc/Courses>

- ❖ Institute Electives vary every year few of the Institute electives available last year were Philosophy, movie-making, Psychology etc.

M.Tech projects are generally floated in the month of Jan/Feb and a 3-4 weeks will be given for choosing the guide and project, the project allotment is done on the basis of your CGPA in first semester. So a good CGPA will land you in the project of your choice.

Credit Structure

In general, 1 hour of theory course carries 2 credits while 1 hour in a laboratory course carries 1 credit. Therefore, a 6 credit theory course will run for 3 hours a week while an 8 credit theory course will run for 4 hours a week. The institute follows a Continuous Evaluation System with considerable freedom being given to the course instructor in deciding the pattern of evaluation. However, a typical theory course will have a mid-semester examination, one or two quizzes and an end-semester examination. The total marks received at the end of semester are converted to a letter grade, based on the relative (and sometimes absolute) performance of the student. The grades are on a scale of 10 with the grade AA being the best and FF and FR being fail grades. Each letter grade has a grade point associated with it, as follows –

Grades	AA	AB	BB	BC	CC	CD	DD	FF	FR
Points	10	9	8	7	6	5	4	(0)Fail Grade, eligible for a reexamination	(0) Fail Grade, must repeat the course

Other grades like PP (Passed), NP (Not Passed), AU (Audit Course) do not have any grade points associated with them.

performance of a student in a particular semester is measured by Semester Performance Index (SPI), which is a weighted average of the grades secured in all the courses taken in a semester and scaled to a maximum 10. The SPI is calculated as:

$$SPI = \frac{\sum(\text{Credit points obtained} * \text{Course Credit})}{\sum \text{Course Credit}}$$

For instance, suppose a student is registered for one 8 credit course, four 6 credit courses, and one 4 credit course during the semester, i.e. a total of 36 credits. If he/she gets AB, BB, BC, CC, AA, CD respectively in these courses, the SPI is calculated as:

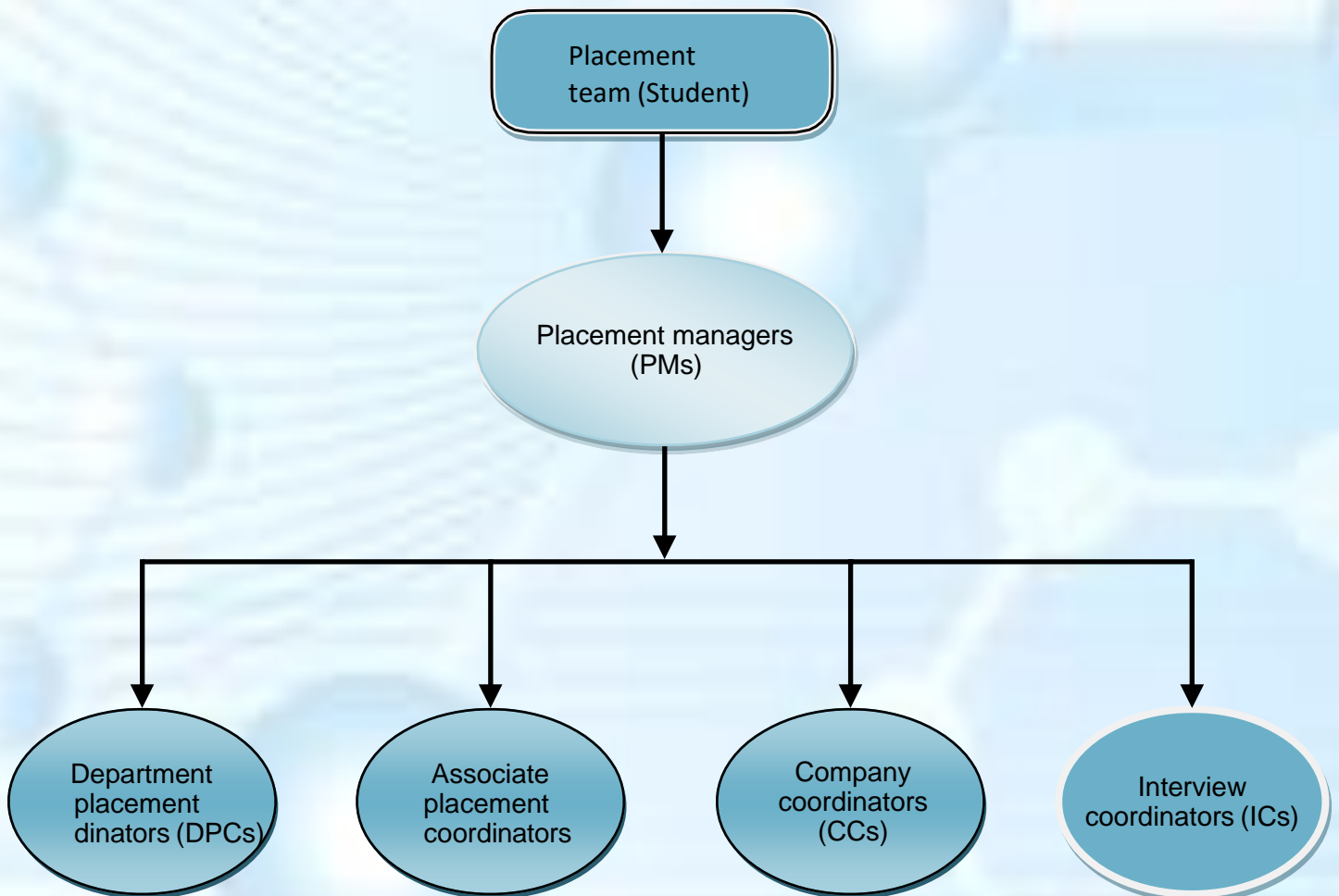
$$SPI = \frac{[(9 * 8) + (8 * 6) + (7 * 6) + (6 * 6) + (10 * 6) + (5 * 4)]}{36} = 7$$

In a very similar manner, a Cumulative Performance Index (CPI) of a student is calculated, taking into account the performance in all courses taken by a student up to the semester for which the result is last available.

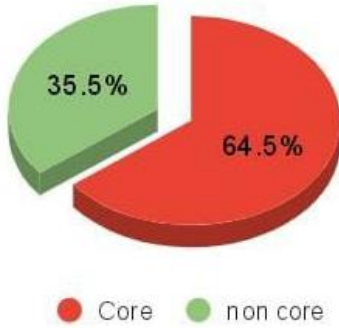
Placement Information and statistics

Placements at a glance -

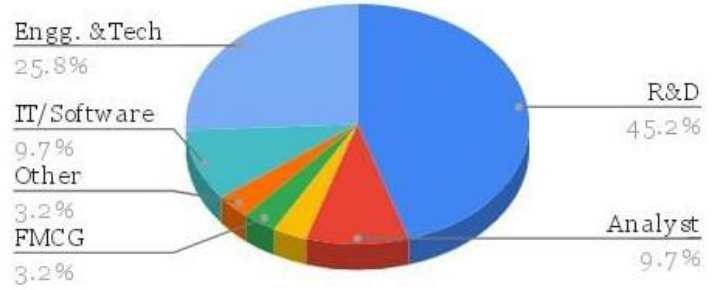
Along with its worldwide recognition as a leader in the field of research and education in engineering and science, IIT Bombay is also famous for its placement. Around 300 companies visit the campus every year, hiring 421 M.Tech students out of 575 registered students in the year 2020-21. The placement office (nodal point for placements at IITB) or the placement cell (a student body representatives) sends invitations to companies/organizations along with relevant information to conduct



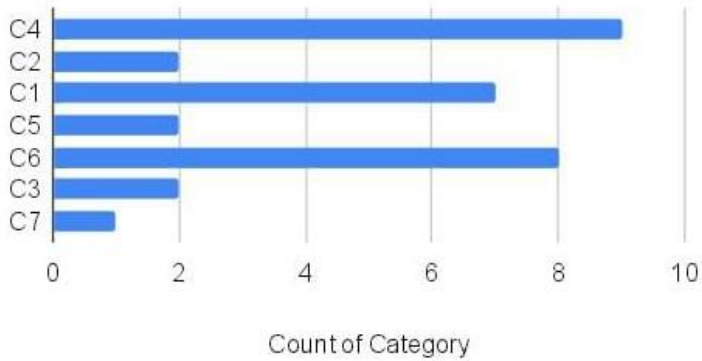
SECTOR



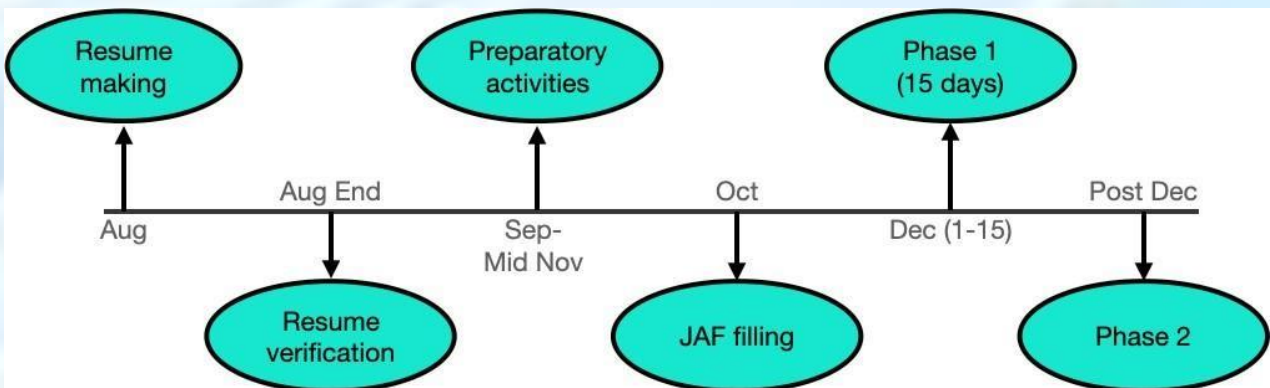
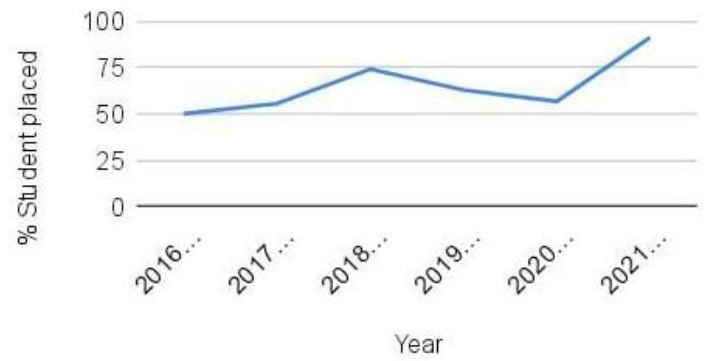
Offers made in different sectors



Count of Category



Year Wise Placement %

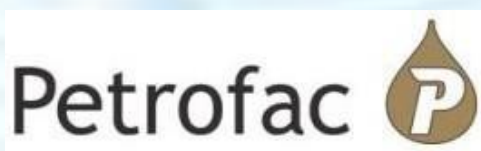


A brief description:

The placement season starts from 1st July and continues up to next year 30th June. But the main process starts from August onwards. Placement office organises many compulsory and optional placement preparatory activities at the institute and department level in order to enhance the performance of students in placements. These activities include but are not limited to preparatory workshops, coding and aptitude tests, buddy talks, other employability enhancement initiatives. The recruitment and interviews takes place in day 1 to day 15 in the month of Dec, i.e., phase 1. The phase 2 is more or like a dynamic period.

Some of the regular companies recruiting our M.Tech students are:

Exxon Mobil, NFIL, HUL, L&T, TCS RnD, Tata Steel RnD, Technip, ITC india ltd., Petrofac engg. & tech., Micron, RIL, Jay Chemicals, Johnson Matthey, Mondelez International, Dr. Reddy's laboratories ltd.



Departmental Activities

AZeotropy: <https://www.azeotropy.org/>

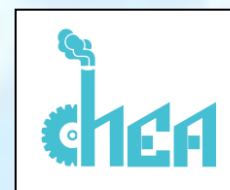


AZeotropy is conducted by students of Chemical Engineering Department, IIT Bombay. It runs over a span of two days during the month of March with a footfall of over 2000 from more than 350 colleges of chemical engineering across India. It is a non-profit student-run organization started in 2007 primarily to cater to the chemical engineering enthusiasts by providing them a competitive as well as a learning platform. It ultimately aims at learning practical applications of theoretical knowledge through its activities.

Research Scholars' Symposium (RSS): <https://www.che.iitb.ac.in/rss/>



RSS is organized under the supervision of Chemical Engineering Association (ChEA), IIT Bombay, commenced in 2007 to provide a platform for the researchers to showcase, share their innovative research ideas with the scientific community, to advance technical knowledge, and to promote Industry-Academia collaboration. This event presents an overview of the department's ongoing research projects conducted by the PhD students and witnesses the participation of industry representatives in the advisory panel and invited talks. This annual event is solely organized by PhD students of the department under the supervision of Chemical Engineering Association (ChEA), IIT Bombay.



Chemical Engineering Association (ChEA): <https://chea-iitbombay.blogspot.com/>

The Chemical Engineering Association (ChEA), established in 1965, looks back with pride with an enviable record of annual seminar organized on a diverse range of Hot Topics of current interest to the chemical engineering community. The records become even more enviable when considered in the context of the fact that such Seminars are organized almost entirely by students with a remarkably keen participation and generous support from ChEA Team. It's an association of the Alumni, Faculty, Students and Staff of the Chemical Engineering Department.

TATA CENTRE



Indian Institute of
Technology
Bombay



About Tata Centre

The TCTD, IITB was founded to provide technological solutions that address the unmet needs of resource-constrained communities in India and throughout the world. TCTD, IITB functions as a virtual hub with research and academic components, attracting staff and graduate students from diverse departments within IIT Bombay.

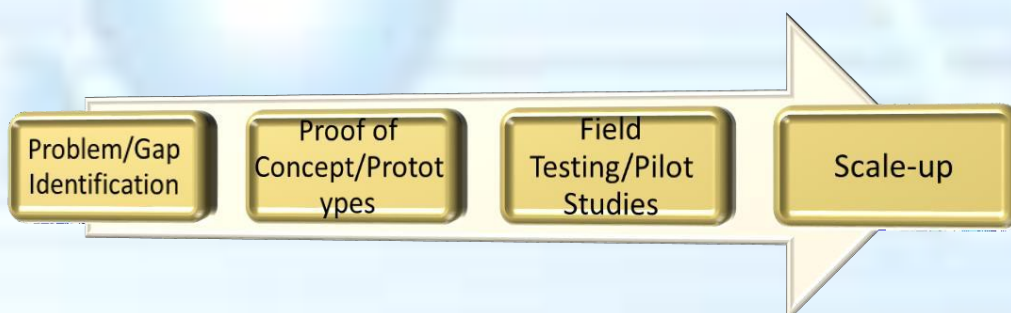
Academic Program and Courses

TCTD, IITB aims to develop human resources trained in technology, design and entrepreneurship for translating end-to-end innovations and improve access of solutions across society. The Centre enrolls and sponsors Master's students and PhD scholars every year as Tata Fellows. These Fellows selected through a written test by the Centre are trained to work on socially relevant challenges, and become future leaders in engineering, business, and design and invent technologies and system solutions that serve human needs in resource-constrained communities.



TCTD, IITB offers two seminar-based courses, Technology and Design for End-to-End Innovation (MNG 629 and MNG 630) and a lab course on technology and design (CL 724) to help students understand the challenges of designing and implementing technology solutions in the Base of the Pyramid (BoP) segments.

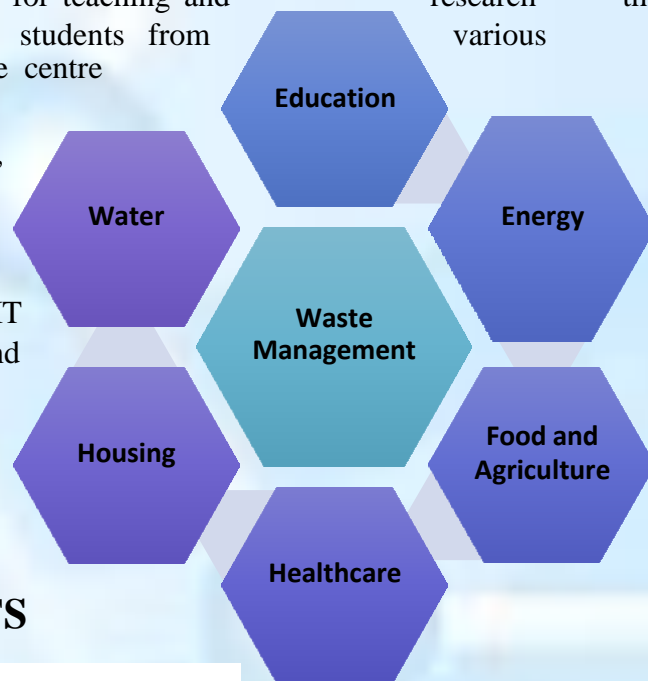
TACTIC FOR THE TATA PROJECTS



The Tata Centre acts as a virtual centre for teaching and draws faculty members and graduate students from academic units across IIT Bombay. The centre

focuses on challenges in the areas of Agriculture and Food, Education, Energy, Healthcare, Housing, Water and Waste Management. It undertakes research projects in these areas by leveraging the expertise of the research community at IIT Bombay. Tata Centre for Technology and Design at IIT Bombay closely works with its partner organizations and stakeholders across India.

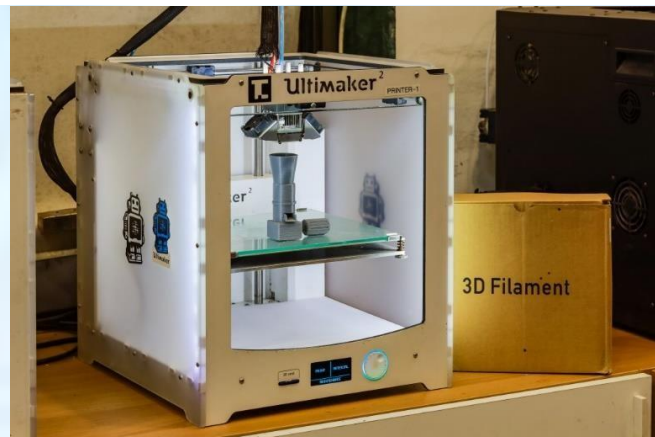
research that various



MAJOR LABS AND EVENTS

Product Realization Lab

The Product Realization Lab has the state-of-the-art fabrication equipment and enables students and faculty members from varied disciplines to work on their proof of concepts and build prototypes. With simple lab protocol, the facility's extensive collection includes an array of equipment and machines in the Mechanical and in the Electronics section. This list keeps getting upgraded as per the requirement of the various project activities. From 3D printers to the Wood Router from Shop Bot and a medley of power and hand tools include additive and subtractive devices, lathes and cutting machines, hammers, spanners and files, they all prove essential to work at solutions for a resource-constrained setting.



Heavy Metal Fabrication Lab

A supplementary facility has been set up for heavy metal fabrication. This is meant to support the Centre's projects in the Energy and Waste Management domains, and to accelerate the prototyping and product development process. Another sophisticated equipment lab is housed specially for the requirements in Healthcare and Food & Agriculture projects. The activities include organic mushroom farming, gasifier research, jaggery setup, cotton stalk research, coco-bean fermentation research and other food-related activities.



An integrated waste management facility is to house all the waste management projects at the Centre using the campus as a test bed.

The Tata Fellow's Yatra

Since 2017, the Tata Fellows, along with a few faculty and staff members, have been on a Yatra to various field settings to gain a better understanding of community living. The Tata Fellows have seen how social enterprises can scale up while maintaining maximum social impact by leveraging technology and operational efficiencies. These social leaders' organisations range from small-scale community initiatives to large-scale initiatives spanning multiple Indian states. Madurai, Hubballi, Goa, Bangalore, and Pune have all been visited so far.



Supervised Learning Course: Industry Defined Problem

SLP-IDP is a 6 credit course designed to provide solutions to live problems (quality, yield, high cost, solvent consumption etc) faced by the industries. It is one of those initiatives aimed at bridging the gap between industry and academia in India.

Companies like Coromandel, Aarti Chemicals, Deccan fine chemicals, UPL etc are involved in this course. Students are guided by industry mentors, IITB mentors in analyzing and solving the issues, further to this they get to go on a virtual or physical tour to the concerned plant during the semester.

They try to use the facilities in the campus to come up with the results. Unlike other courses, evaluation is done on the basis of mid semester and end semester viva. Last year students came up with many solutions which helped companies to solve their issues both technically and economically. Students will be divided into groups and each group handles one issue from the companies

Group consists of the following member:

- ✚ 2-3 students (M.Tech, 6th-8th semester UG and PhD)
- ✚ IITB faculty member
- ✚ Unit head/Technical person from the industry
- ✚ Mentor/Coordinator: guest faculty with industry experience

Student clubs in IITB

IITB Cultural

PG-CULT

PG-Cult is an annual cultural fest organised exclusively for post graduate students of IIT Bombay.

Its first edition was in 2008. PG cult is conducted in two phases:

Phase 1 (After month of October): Involve mostly solo or dual events.

Phase 2 (Month of March): Involve group performances.

EVENTS:

Dance, Music, Dramatics, Fine arts, Literary arts, Speaking arts, Design, Photography, Film and Media

CULTURAL CLUBS

The campus savours all forms of art in different clubs that are an integrated team of not just dexterous artists but also enthusiastic amateurs.

At IIT Bombay we undertake a variety of cultural activities, which are broadly classified under 11 genres: Dance, Dramatics, Film and Media(F&M), Literary Arts, Music, Photography and Fine Arts (PFA), Speaking, Indian Languages, Lifestyle, Design and Classical & Folk Arts.



IIT offers a diverse and welcoming atmosphere for those who enjoy sports. Everything is supplied on campus, including world-class facilities and courts for 14 various sports such as basketball, tennis, cricket, squash, and more, as well as the necessary equipment for each of them.

Throughout the winter and summer, many programs are held where professional mentors will awake the athlete within you. IITB provides its students with international-standard facilities, including fully furnished courts and high-quality equipment:

AQUATICS	ATHLETICS	ADVENTURE SPORTS
BOARD GAMES	BASKETBALL	BADMINTON
CRICKET	DARK KNIGHT	FOOTBALL
HOCKEY	INDIAN GAMES	LAWN TENNIS
RUBIKS	SQUASH	TABLE TENNIS
VOLLEYBALL	WEIGHTLIFTING	YOGA

Besides every hotel have a dedicated volleyball, badminton, and other courts.

Various institute levels competitions are organised like PGGC, Hostel GC, AAVAHAN.



Student Wellness Centre and Gender Cell

Student Wellness Centre

After securing admission at the Institute you may feel that a lot of parameters around you are different. You would have more responsibilities to handle 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, these Counselors will encourage you to approach us for any problem that you are facing- be it academic, emotional, social, or financial- without hesitation.

- To talk to a counselor over the phone, kindly contact on the given numbers during the below-mentioned timings:
- Timings: **11 am to 1 pm** and **4 pm to 6 pm**

Ms. Lavina Lewis: [9769340435](tel:9769340435)

For 1st Counseling Appointment:

- Go to site Menu ->Appointment:<https://www.iitb.ac.in/swc/en/appointment>
- If the link is not working then you can email on: wellness@iitb.ac.in



Gender Cell

IIT Bombay's Gender Cell is an institutional body that works towards promoting equality, non-discrimination, and gender justice on the campus. It enquires into complaints of sexual harassment through its Internal Complaints Committee (GC-ICC). The Gender Cell's Internal Complaints Committee enquires into complaints of sexual harassment. Sexual harassment includes any one or more of the following unwelcome acts or behavior:

1. Physical contact and advances;
 2. A demand or request for sexual favors;
 3. Making sexually colored remarks;
 4. Sending, displaying or showing of pornographic material in physical form or through any electronic media;
 5. Any other unwelcome physical, verbal or non-verbal conduct of sexual nature, and
 6. Any other acts or omissions that are of like nature to the instances above.
- Gender Cell frequently organizes training sessions, gender sensitization workshops, and talks related to gender-based issues for faculty, staff, and students. They also organize painting competitions, film screenings, and other cultural events highlighting contributions by women or related to gender issues.

Office Hours:

- Monday & Thursday: 10.00 am to 12.00 pm
- Tuesday, Wednesday & Friday: 3.00 pm to 5.00 pm

Female QRT (Quick Response Team) in-charge: 9167398598

Email Address: <http://www.gendercell.iitb.ac.in/>



Some Useful Links

<u>Academic</u>	<u>Calendar</u>	<u>Services</u>	<u>Misc</u>
<u>ASC-External</u>	<u>Academic Calendar</u>	<u>SSO Login</u>	<u>CC Access Portal</u>
<u>ASC-Internal</u>	<u>Academic Time Table</u>	<u>Webmail</u>	<u>Hospital</u>
<u>Moodle</u>	<u>Holiday List</u>	<u>Microsoft Store</u>	
<u>Placement Blog</u>	<u>Circulars</u>	<u>Using VPN</u>	
<u>Central Library</u>	<u>Course List</u>		

Chemical Engineering website : <https://www.che.iitb.ac.in/>
(Our department's website, it has the contact details of all faculty members, staff and students of our department. It also displays the academic research areas of the department.)

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

Buy and Sell : <https://www.facebook.com/groups/buysell.iitb/>

SARC : <http://www.sarc-iitb.org/#>

Some Useful Information

✚ Application Software Centre (ASC) – Administration: <https://asc.iitb.ac.in/>

This website is the main interactive website for a student for all of his/ her's administrative requirements. From paying your fees to checking your grades, all can be done on this website. The website also has links to all other websites of the institute. Some of the most important facilities offered by this website are given under

- Payment of fees
- Registration and de-registration from courses
- Checking previous years' grades awarded in any subject
- Brief contents of any subject being offered
- Own personalized timetable
- Checking of own academic performance (grades)

✚ Webmail: <https://webmail.iitb.ac.in/>

This is your personalized e-mail in IIT. Every student gets one when you enroll. Along with normal mails, here you also get alerts for registration/ de-registration of courses, fees payment any broadcast on Moodle among others. You have to regularly check (5-6 times a day) GPO to get updated.

✚ Moodle-Academics: <https://moodle.iitb.ac.in/>

This website provides academic interaction between students and faculty for all courses enrolled by a student. You can download study material/ books/ notes uploaded by a professor/ TA and also submit projects etc. here. The website also offers a interaction platform where you can interact with the Professor/ TAs/ other students on any subject related matter.

✚ Library: <https://www.library.iitb.ac.in/opac-search/>

The website for the central library offers a search engine for books available in the library. You can also check the number of books issued at any given time, renew them and "queue" up for any book already drawn by some other individual.

✚ TA work:

TA duty will begin immediately after joining the course. The faculty advisor will appoint TA duty to all the M.Tech entrants. Once allocated, the students should report to the respective TA supervisor immediately for the assigned work.

✚ Gymkhana: <https://gymkhana.iitb.ac.in/>

Gymkhana is an organization to foster and develop all student activities in the institute.

✚ M.Tech Seminar:

M.Tech Students will also have to do a seminar of 4 credits on a suitable topic as decided by the guide. Choice of guide and seminar topic and registration for the same happens in the beginning of the Spring Semester. The seminar involves preparing a report and a presentation on the chosen topic. Although not compulsory, the future Master's project is often related to the topic of the M.Tech seminar.

✚ Project:

The M.Tech project has 2 stages: Stage I and Stage II. Registration for Stage I must be done in the beginning of the Spring Semester along with the seminar. If a student has selected his/her

✚ Guide early enough and/ or has decided on the Project topic, it is advisable to consult his/her Guide for choosing electives in line with the future Project.

✚ Academic malpractices are severely dealt with. The details about Academic malpractices are available at:

www.iitb.ac.in/newacadhome/punishments201521July.pdf

Some Useful Apps

✚ InstiApp: <https://play.google.com/store/search?q=instiapp+iitb&c=apps>

Info about events, placement blog, map of the institute and mess menu are uploaded in it.

✚ InstiMap: <https://insti.app/map>

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.

✚ m-Indicator:

<https://play.google.com/store/apps/details?id=com.mobond.mindicator>

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.

✚ MYBYK App:

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

Rental cycle app used to commute easily in the campus.

Important & Emergency contacts

In the following tables, most of the numbers are reachable from outside IIT Bombay by dialing +91 (22) 2576 ABCD and replacing ABCD with the four-digit extension given below. If you are calling from a landline inside IIT Bombay, use only the 4 numbers in the brackets.

Ambulance	022 – 2576 (1110)
Hospital	022 – 2576 (7051/1110)
Main Gate	022 – 2576 (1123)
Y Point Gate	022 – 2576 (1121)
Security	022 – 2576 (1100)/9167398596
Quick Response Team	9167398598 / 9833337979 / 9833338989
Police Station(Powai)	022 – 25702690
Seven Hills Hospital	022-6767(6767/6766)
Hiranandani Hospital	022-2576(3333/3300)
Fire Control Room	022-23076111