# **USCP** DEPARTMENT OF CHEMISTRY PG HANDBOOK 2020-21



..Chemistry is at once, a science and an art.



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 used basis for cannot be as а 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.





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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.

Over the years, the institute has created a niche for its innovative short-term courses through continuing education and distance education programs. Members of the faculty 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 18 hostels with in-house dining; the campus also provides excellent amenities for sports and other recreational facilities.





# About The Department

From a small department started in 1965, the Department of Chemistry has grown into a major centre for teaching and research in Chemical Sciences in India. Today our academic program includes Masters in Chemistry (2 years), Ph.D. Program and a new 4 Year BS program has been initiated to mark the completion of 50 years of the department in 2014. Not drifting away from the original mandate of providing undergraduate chemistry education, the department has taken conscious efforts over the last 50 years to nurture high-quality research in all areas of chemistry. Alongside this, we have also built good research infrastructure. Today the department consists of 37 research groups and 250 Ph.D. students apart from 200+ M.Sc. students, project staff, and postdoctoral fellows. Our research is published in the best of the chemistry journals and cited at impressive rates. Thus, it is not surprising that we have been able to attract some of the best students and faculty even at a time when a large number of new institutes have been established all over the country, which offer excellent new infrastructure and large start-up grants.

Official Website: http://www.chem.iitb.ac.in





# **Message from the HOD**

Dear Students,

Welcome to Department of Chemistry, IIT Bombay.

We are delighted that you have chosen to come here and promise that your studentship in our department will be enriching as well as enjoyable. You have entered the most exciting phase of your student life so far. We are sure that you will emerge not only as a more knowledgeable and learned Chemist, but also as an even more confident, independent and mature individual than what you are today. Please do interact widely with your peers and teachers. Let us assure you that we are only an email away and that our doors are always open for you. Please do not hesitate to knock on them.

This year, unfortunately, is special in an unpleasant way. All of us are grappling with the pandemic that has denied you the complete IITB experience, at least for this semester. While we have no control over this, we will try and make the best of this situation. Let us see how sweet a lemonade we can make out of this lemon that has been thrown at us.

Even though you would not be here in person for some time, you are very much a part of IITB Chemistry family now. We look forward to a lifelong association with you.

Best wishes,



Anindya Datta Professor and Head, Department of Chemistry Indian Institute of Technology Bombay Powai, Mumbai 400 076, India Phone: +91 22 2576 7150/ 7151 web: <u>www.chem.iitb.ac.in</u>





# Faculty Advisors: Your Mentors & Guides

Faculty Advisors (FacAd), as the name suggests, are professors from your department, who will help you out in making academic decisions. FacAds keep track of your progress and will guide you properly. Each semester, the courses you take will be finalized only with the consent of the FacAds. Changes in the program, such as dropping of courses, withdrawal from a semester on medical advice etc., can be effected only with the consent of the FacAd. The FacAd might play a limited role in the first year. But as you grow older in the IIT system, you might have to make some tough decisions regarding coursework and programmes in order to choose a career path suitable to your interests. You may also have to seek the FacAd's permission to participate in inter-collegiate competitions/Internships etc.. The FacAd is an important link between you and your department. Do not hesitate to talk to them regarding any academic issue.

This Year, the following Professors will play the role of your Faculty Advisors:

#### Prof. Debabrata Maiti



Associate Professor Department of Chemistry, Indian Institute of Technology Bombay Powai, Mumbai-400076, India E-mail: <u>dmaiti@chem.iitb.ac.in</u> <u>dmaiti@iitb.ac.in</u> Phone: 022-2576-7155 (Off.), 8155 (Res)

# Prof. Pradeepkumar P.I. 🚬



Professor Department of Chemistry, Indian Institute of Technology Bombay Powai, Mumbai-400076, India Room 330, Chemistry Bldg. Email : <u>pradeep@chem.iitb.ac.in</u> Phone: +91 22 2576 7184

Feel free to contact your faculty advisors for any academic issue.





# Welcome Message from the ISCP Team

Dear New Entrants,

These are tough times, but you are not alone.

We welcome you to one of the most prestigious institutes in the nation. Congratulations on having achieved this incredible feat. You are about to become part of a culture that will leave its traces within you for a long, long time, even if it begins 'untraditionally.' You will be the ones witnessing the first term to happen entirely online in the history of IIT-Bombay. It might feel overwhelming, and for all the right reasons, we must say. There will be several things you might be worried about, from coping up with the academics in online mode to missing out on things; however, as we said, "You are not alone."

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Institute Student Companion Programme (ISCP) is a student body with the primary objective of building a relationship of trust and comfort between the final year students and the incoming students of the PG programmes. We are here to help you in getting familiar with the ways of IIT-B, 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 at it. The scope of these is not limited just to academics. Various online events are and will be organized by the cultural, technical, and sports clubs in IITB, like Code in Quarantine, Fitness challenges, Dance Challenges, etc. 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 IIT-B campus; it also prevents your participation in hostel activities, sports, cultural activities. There are many things here at IIT-B waiting for you, but the most important thing is the campus, and the buildings do not define IIT-B. It's you. You set the culture, the activities, you represent IIT-B to the world, and you make IIT-B what IIT-B is. So, knowing that time flies at IITB, we strongly suggest participating in things that happen online other than attending lectures, make memories, reach out to us for any queries, and relax with the comfort of your home. At least till we get an opportunity to welcome you into the campus, let's be safe, let's be optimistic and let's keep our learning spirits high.





Looking forward to getting to know you. Giving out some motivation for these difficult times, we end with a quote by Albus Dumbledore: "Happiness can be found, even in the darkest of times, if one only remembers to turn on the light."

Stay Safe!



Overall Coordinators,

Institute Student Companion Programme (2020-21)

IIT Bombay

Email: iscp@iitb.ac.in

Aakrit Anshuman 8904059856 aakritanshuman1@gmail.com Satyam Rathore 7389102399 er.satyamrathore@gmail.com





# Welcome Message from the Post Graduate Academic Council

#### Dear freshmen,

Congratulations to all freshmen for making it to one of the premier institutes of the country. Despite the stiff competition, you all managed to come out with flying colours. So on behalf of the PG students of IIT Bombay, it is my honour to welcome you all here.

So now all of you are a part of the IIT Bombay PG community or "PG JUNTA" as we call them. The institute has a wide range of facilities and services to offer to all its students. This will not only ensure a fruitful educational experience but also promote overall skill development. In the institute, there are several student-run bodies that focus on the development of skills, sports, and extracurricular activities such as music, dance, drama, etc. Along with academics, we urge you all to explore and make the most of the excellent facilities that the institute has to offer.

As the Institute Master's Representative, my entire team and I aim to address your grievances and help you to the best of our abilities. This time since the first semester for you all is going to be online, you might have a lot of queries in your mind. Please feel free to contact us at any time. Our council PGAC is one that is for the PG students, of the PG students and most importantly by the PG students. So whenever you face a problem, we are always there to help you out. Supporting the students in their academic endeavour is also our foremost priority and we will try to improve the IITB experience in all the ways we can. On this note, I once again welcome you all to IIT Bombay, hoping to welcome you all back in the campus as soon as the situation gets better, and wishing you every success in your future endeavours.



Institute Masters Representative (2020-2021) Post Graduate Academic Council Sohini Dasgupta

imr@iitb.ac.in



# Welcome message from the Department **Coordinator**

Welcome juniors,

Heartiest congratulations on having made it to the finest institute in India. You are about to embark on a journey of knowledge and exploration. I know the current situation is not on our side and sometimes the journey can be really daunting and stressful. But don't worry; we are here to guide

you through this journey. Together we will thrive and make this journey a memorable one.

This journey will teach you things that will constantly reshape your perspective and make you a better version of yourself. You will learn to realize that however good you may be at something, there will always be someone equally good or better than you. IIT-B harbours the finest minds of the nation and throughout your journey, you will see how fortunate you are to be in such a great environment. You will learn to broaden the horizon of your mind and constantly strive for knowledge.

As you are already aware that everything will happen online this semester, so at times you may feel unlucky to miss the warmth of the campus life. But hopefully, things will return to normal soon and you will be able to do everything you have dreamed for so long.

I know first-hand how important it is for the new entrants to have a mentor who can guide them through the transition period. For me, my ISCP companion and the DC were like the guiding stars without whom I am not sure if my journey would have been this smooth. For the first time in the history of IIT-B, it's going to start the academic session in a distinctly untraditional way. We know you will have lots of questions ranging from online registrations, lectures, and study materials to exams. So it is imperative that you ask questions however naive that may be. Our ISCP team is always there for you to clear your doubts.

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. I end with a quote by Surak "May we together become greater than the sum of both of us".

Bon Voyage People!

Achyut Ranjan Gogoi Department Coordinator, ISCP Phone: 9958431365 WhatsApp: 9706970811 Mail: achyutrone@gmail.com





ОМВАУ



## **DEPARTMENT ISCP TEAM**



## Achyut Ranjan Gogoi (195030016)

Achyut is the prodigy of our class. He is well aware of all the things of your benefit happening in insti, or in the world to be honest. A kind-hearted person, always there to help and has his goals set.

Phone: 9958431365 WhatsApp: 9706970811 Mail: <u>achyutrone@gmail.com</u>

## Ankush Goyal (195030009)

Ankush is the perfect balance of sincere and fun. He is the person to look up to for making your stay at insti, fun. When it comes to chemistry, he is fierce and hard-working.

> Phone: 9560864198 WhatsApp: 7814323598 Mail: <u>ankushgoyal78143@gmail.com</u>





## Shweta Gaikwad (195030001)

Shweta is the busy bee of our class. She always has a hundred things on her plate, and manages all with ease. She is the best person to-goto for academic advices and light-hearted chats.

Phone: 9987678934 WhatsApp: 9987678934 Mail: gaikwadshweta199728@gmail.com

## Rajesh Kushwaha (195030029)

Rajesh is your human guide to all the matters related to insti. His humor is just perfect to cheer up a mundane person/chat/meeting. His dedication for chemistry is pure.

> Phone: 7379758457 WhatsApp: 7379758457 Mail: rajeshkush121@gmail.com







## Aashi Kasera (195030005)

Aashi is a people person, thus approachable 24 X 7. She is the one you should be looking for every time the tourist in you wishes to explore Bombay. Her love for chemistry, NYC and waffles is invincible.

Phone: 9711337200 WhatsApp: 9711337200 Mail: <u>aashikasera@gmail.com</u>

## Yeshvi Tomar (195030008)

Yeshvi is sincerely dedicated to achieving her goals. She likes to try new things and is always up for a friendly banter. She is the one to approach for sports related queries and every time you are feeling low in your time here.

> Phone: 7289046590 WhatsApp: 7289046590 Mail: <u>yeshvit@gmail.com</u>





## Debasree Mandal (195030041)

Debasree is a free-spirit. She is always up for a game (even the night before an end-sem exam). The best thing about her is her comforting and friendly nature. Wait for her to open up; you'll see an entirely different person.

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#### Satyabrata Behera (195030010)

Satya is a hidden gem. He is the organic prodigy of our class, and also the game-changer when it comes to volleyball. His patience is something you'd love to acquire. Be it chemistry, or sports, he gives everything his 100%.

> Phone: 7978071973 WhatsApp: 7978071973 Mail: <u>beherasatyabrata0@gmail.com</u>







# **DEPARTMENT COUNCIL MEMBERS**



Mrinal Agarwal General Secretary 9314235448 <u>mrinalagarwal99@gmail.com</u>



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# Sur Ar



Aashi Kasera

**Department Placement Coordinator** 

9711337200



**PLACEMENT CELL MEMBERS** 

Shweta Gaikwad Internship Coordinator 9987678934 gaikwadshweta199728@gmail.com



Sahil Singh Company Coordinator 8076508423 troubleshotsahil12@gmail.com



# **FACULTY MEMBERS**

# **Inorganic Chemistry**

Name	<b>Research Interests</b>
Prof. R. Murugavel Room 355, Chemistry Bldg. <u>rmv@chem.iitb.ac.in</u> +91 22 2576 7163 <u>https://rmuruks.wixsite.com/rmurugavel</u>	<ul> <li>Organometallic Chemistry</li> <li>Materials</li> <li>Catalysis</li> <li>Synthesis</li> </ul>
Prof. G.K. Lahiri Room 319, Chemistry Bldg. <u>lahiri@chem.iitb.ac.in</u> +91 22 2576 7159 <u>http://ether.chem.iitb.ac.in/~lahiri/</u>	<ul> <li>Synthetic Inorganic</li> <li>Physical Inorganic</li> <li>Organometallic Chemistry</li> <li>Catalysis</li> </ul>
Prof. M.S. Balakrishna Room 333, Chemistry Bldg. <u>krishna@chem.iitb.ac.in</u> +91 22 2576 7181 <u>http://ether.chem.iitb.ac.in/~krishna/msb/Home.html</u>	<ul> <li>Organometallics</li> <li>Transition Metals</li> <li>Catalysis</li> <li>Inorganic rings, cages and clusters and their transition metal chemistry</li> </ul>
Prof. Debabrata Maiti Room 215, Chemistry Bldg. dmaiti@chem.iitb.ac.in +91 22 2576 7155 https://www.dmaiti.com/	<ul> <li>Remote C-H Functionalization</li> <li>Bioinspired Catalysis</li> <li>Heterocyclic Chemistry</li> <li>Quantum Dots (QD) Photoredox Catalysis</li> <li>Lignin Valorization</li> </ul>
Prof. Maheswaran S. Room 4XZ, Chemistry Bldg. <u>eswar@chem.iitb.ac.in</u> +91 22 2576 7187 <u>https://kamal1607.wixsite.com/mysite</u>	<ul> <li>Coordination Chemistry</li> <li>Molecular nanomagnets</li> <li>Small Molecule activation</li> <li>Functionalization of molecules on surfaces for electronic device application</li> </ul>
Prof. Arnab Dutta Room No. 339, Chemistry Bldg. <u>arnabdutta@chem.iitb.ac.in</u> +91 22 2576 7162	<ul> <li>Bioinspired catalyst design</li> <li>Chemical Synthesis</li> <li>Electrochemistry</li> <li>Photocatalysis</li> <li>First-row transition metal- based molecular catalysts</li> </ul>





Prof. Gopalan Rajaraman Room 4XY, Chemistry Bldg. <u>rajaraman@chem.iitb.ac.in</u> +91 22 2576 7183 <u>http://ether.chem.iitb.ac.in/~rajaraman/</u>	<ul> <li>Surface Chemistry</li> <li>Spectroscopy</li> <li>Catalysis</li> <li>Molecular Magnetism</li> </ul>
Prof. M. Ravikanth Room 338, Chemistry Bldg. ravikanth@chem.iitb.ac.in +91 22 2576 7176 http://ether.chem.iitb.ac.in/~ravikanth/homepage/ Prof. Prasenjit Ghosh	<ul> <li>Porphyrin and Macrocyclic Chemistry</li> <li>Inorganic rings as a scaffold for multi-chromophore assemblies</li> <li>Designing new cationic and anionic fluorescent Sensors</li> <li>Non-N-heterocyclic carbene</li> </ul>
Room 363 B, Chemistry Bldg. <u>pghosh@iitb.ac.in</u> +91 22 25767178 <u>http://ether.chem.iitb.ac.in/~pghosh/</u>	Chemistry <ul> <li>Biomedical applications</li> <li>Chemical Catalysis</li> </ul>
Prof. Pradeep Mathur Ground floor. CESE, <u>mathur@chem.iitb.ac.in</u> <u>http://ether.chem.iitb.ac.in/~mathur/</u>	<ul> <li>Organometallic Chemistry</li> <li>Metal mediated transformations of acetylenes</li> <li>Metal-acetylide and metal-oxo chemistry</li> <li>Synthesis of mixed-metal clusters</li> </ul>
Prof. L.S. Panchakarla Room 435, Chemistry Bldg. <u>panchakarla@chem.iitb.ac.in</u> +91 22 2576 7175 <u>https://nivasuoh.wixsite.com/panchakarla</u>	<ul> <li>Low-Dimensional Materials for Energy Conversion</li> <li>Studies on Nanoscale Meta-Stable Compounds</li> <li>Self-Assembly of Nanostructures</li> </ul>
Prof. Harkesh B. Sing Room 430, Chemistry Bldg. <u>chhbsia@chem.iitb.ac.in</u> +91 22 2576 7190 <u>http://ether.chem.iitb.ac.in/~chhbsia/</u>	<ul> <li>Organochalcogen (S, Se, and Te) Chemistry; Stabilization of Unusual Species</li> <li>Selenoenzyme Mimics; Chalcogen based HYBRID Multidentate Ligands (chiral and macrocyclic) and Role in Catalysis</li> </ul>
Prof. Sanjog S. Nagarkar Room ###, Chemistry Bldg. <u>sanjog.na@chem.iitb.ac.in</u> +91 22 2576 xxxx	<ul> <li>Molecular Materials</li> <li>Coordination Cages</li> <li>Coordination Polymers</li> </ul>





# **Organic Chemistry**

Name	<b>Research Interests</b>
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Prof. Santosh J. Gharpure Room 440, Chemistry Bldg. sjgharpure@chem.iitb.ac.in +91 22 2576 7171 http://ether.chem.iitb.ac.in/~sjgharpure/research.htm	<ul> <li>Organic synthesis</li> <li>New synthetic methods</li> <li>Asymmetric synthesis</li> <li>Natural product synthesis</li> <li>Catalysis</li> </ul>
Prof. Rodney A. Fernandes Room 404, Chemistry Bldg. <u>rfernand@chem.iitb.ac.in</u> +91 22 2576 7174 <u>http://ether.chem.iitb.ac.in/~rfernand/default.htm</u>	<ul> <li>Asymmetric synthesis of natural products.</li> <li>Total synthesis of natural products and analogs.</li> <li>Organometallic chemistry</li> <li>Heterocyclic chemistry.</li> </ul>
Prof. Sambasivarao Kotha Room 425, Chemistry Bldg. srk@chem.iitb.ac.in +91 22 2576 7160 http://ether.chem.iitb.ac.in/~srk/	<ul> <li>New Synthetic methods</li> <li>Unusual amino acids</li> <li>Suzuki coupling reaction</li> <li>Metathesis</li> <li>Peptide modifications</li> <li>Nanotechnology</li> </ul>
Prof. Suvarn S. Kulkarni Room 211, Chemistry Bldg. <u>suvarn@chem.iitb.ac.in</u> +91 22 2576 7166 <u>http://ether.chem.iitb.ac.in/~suvarn/</u>	<ul> <li>One-pot methods for glycomics</li> <li>Synthesis of cell-surface carbohydrates</li> <li>Study of carbohydrate recognition in infectious diseases and Cancer</li> </ul>
Prof. I.N.N. Namboothiri Room 409, Chemistry Bldg. <u>irishi@chem.iitb.ac.in</u> +91 22 2576 7196 <u>http://ether.chem.iitb.ac.in/~irishi/</u>	<ul> <li>Organic Synthesis</li> <li>Physical Organic Chemistry</li> <li>Reaction Mechanisms</li> <li>Development of new synthetic methods</li> </ul>
Prof. Raghavan B. Sunoj Room 418A, Chemistry Bldg. <u>sunoj@chem.iitb.ac.in</u> +91 22 2576 7173 <u>http://ether.chem.iitb.ac.in/~sunoj/</u>	<ul> <li>Organocatalysis</li> <li>Transition metal Catalysis</li> <li>Solvent effects in Chemical Reactivity</li> <li>Weak interaction</li> <li>Main group organometallics</li> </ul>





Prof. Chandra M. R. Volla Room 418B, Chemistry Bldg. <u>chandra.volla@chem.iitb.ac.in</u> +91 22 2576 7188 <u>https://chandravolla.wixsite.com/volla</u>	<ul> <li>Transition-metal Catalysis</li> <li>Organocatalysis</li> <li>Asymmetric Synthesis</li> <li>Natural product synthesis</li> <li>Heterocyclic chemistry</li> </ul>
Prof. Pradeepkumar P. I. Room 330, Chemistry Bldg. pradeep@chem.iitb.ac.in +91 22 2576 7184 http://ether.chem.iitb.ac.in/~pradeep/	<ul> <li>RNA modifications for therapeutic as well as functional studies.</li> <li>Stabilization and sensing of G Quadruplex nucleic acids.</li> <li>Molecular modeling and dynamic Studies of functional nucleic acids.</li> </ul>
Prof. Anil Kumar Room 443, Chemistry Bldg. <u>anilkumar@iitb.ac.in</u> +91 22 2576 7153 http://ether.chem.iitb.ac.in/~akumar/	<ul> <li>Continuous Flow Chemistry</li> <li>Green Chemistry</li> <li>Catalysis</li> <li>Synthesis</li> </ul>
Prof. Nandita Madhavan Room 426, Chemistry Bldg. <u>nanditam@chem.iitb.ac.in</u> +91 22 2576 7164 <u>https://sites.google.com/view/nanditaresearch</u>	<ul> <li>Peptide Synthesis</li> <li>Self-Assembly - Design of robust three-dimensional peptide derived pores.</li> <li>Function – Design of selective and gated synthetic ion channels.</li> </ul>
Prof. Chidambar Kulkarni Room 4YY, Chemistry dept. 3rd-floor annex <u>chidambark@chem.iitb.ac.in</u> +91 22 2576 7186	<ul> <li>Organic Synthesis</li> <li>Materials Science</li> <li>Synthesis and Characterization of Non-Covalent Systems</li> </ul>

# **Physical Chemistry**

Name	<b>Research Interests</b>
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Prof. Sandip Kar Room XXX, DESE-CESE Building <u>sandipkar@chem.iitb.ac.in</u> +91 22 2576 7193 <u>https://sandipkar8.wixsite.com/sandip-kar</u>	<ul> <li>Theoretical Systems Biology</li> <li>Nonlinear dynamics</li> <li>Modeling cell-specific effect of signalling pathways to cell cycle and cancer</li> </ul>
Prof. Nand Kishore Room 344, Chemistry Bldg. <u>nandk@chem.iitb.ac.in</u> +91 22 2576 7157 <u>http://ether.chem.iitb.ac.in/~nandk/</u>	<ul> <li>Bio thermodynamics</li> <li>Protein-folding and protein solvent interactions</li> <li>Drug-protein interactions</li> <li>Building block-solvent interactions</li> </ul>
Prof. Y.U. Sasidhar 308, Chemistry Bldg. <u>sasidhar@chem.iitb.ac.in</u> +91 22 2576 7179 http://ether.chem.iitb.ac.in/~sasidhar/	<ul> <li>Biophysical Chemistry</li> <li>Protein Folding and Dynamics</li> <li>Protein Dynamics in the design of agonists and antagonists.</li> </ul>
Prof. G. Naresh Patwari Room 206, Chemistry Bldg. <u>naresh@chem.iitb.ac.in</u> +91 22 2576 7182 <u>https://chemphysgrpiitb.wixsite.com/chemphysgrp</u>	<ul> <li>Experimental Spectroscopy</li> <li>Chemical dynamics</li> <li>Weak intermolecular interactions</li> <li>Bio-conjugate Chemistry</li> </ul>
Prof. Chandramouli Subramaniam Room 17, Ground floor, Physics Bldg. <u>csubbu@chem.iitb.ac.in</u> +91 22 2576 7194 <u>http://ether.chem.iitb.ac.in/~csubbu/</u>	<ul> <li>Electrochemistry</li> <li>Nanochemistry</li> <li>Structure-property relations of nano-form of carbon allotropes - Carbon nanotubes (CNTs), Graphene</li> </ul>
Prof. Kamendra P. Sharma Room 322, Chemistry Bldg. <u>k.sharma@chem.iitb.ac.in</u> +91 22 2576 7170 <u>http://ether.chem.iitb.ac.in/~k.sharma/</u>	<ul> <li>Multifunctional Nanomaterials</li> <li>Soft Nano biomaterials</li> <li>Liquid Crystals</li> <li>Polymers and Proteins</li> </ul>
Prof. Rajarshi Chakrabarti Room 408 B, Chemistry Bldg. <u>rajarshi@chem.iitb.ac.in</u> +91 22 2576 7192 https://rajarshichakrabarti.wixsite.com/rajarshichakrabarti	<ul> <li>Theory of active polymers</li> <li>Statistical Mechanics</li> <li>Chemical Physics</li> <li>Internal friction and polymer dynamics</li> </ul>





Prof. Shobhna Kapoor Room 21, Physics Bldg. shobhnakapoor@chem.iitb.ac.in +91 22-2576 7161 https://shobhnakapoor.wixsite.com/skapoorImage: Comparison of the state of the st	<ul> <li>Molecular Biophysics and Chemical Biology with focus on lipids and lipid-induced signalling pathways</li> <li>Cellular signalling pathways involved in infectious diseases</li> <li>Ultrafast Spectroscopy</li> <li>Excited-state dynamics for photovoltaic applications</li> <li>Photophysics of fluorescent molecules and their application in the study of microenvironments</li> <li>Single-Molecule Spectroscopy</li> <li>Imaging, spectroscopy, and dynamics of single fluorescent molecules/luminescent nanocrystals</li> <li>Proton tunnelling</li> <li>Catalysis</li> <li>Chemical Dynamics simulations</li> </ul>
amberj@chem.iitb.ac.in +91 22 2576 7180 https://amberj74.wixsite.com/quantumdynamics Prof. Achintya Kumar Dutta Room 380, Chemistry Bldg. achintya@chem.iitb.ac.in +91 22 2576 7156 https://achintyachemist.wixsite.com/achintya	<ul> <li>Chemical Dynamics simulations</li> <li>Physics and Chemistry of Anions</li> <li>Lower Scaling Excited-state Methods</li> <li>Environmental effects on</li> </ul>
Prof. Rahul Maitra         Room 325, Chemistry UG Lab. Transit Bldg.         rmaitra@chem.iitb.ac.in         +91 22 2576 7185         https://rahulmaitra.wixsite.com/theomolscilab	<ul> <li>excited states</li> <li>Theoretical Quantum Chemistry</li> <li>Multi-Reference (MR) effects inclusive Single Reference (SR) Coupled Cluster (CC) theories for strongly correlated molecular systems</li> </ul>
Prof. Ishita Sengupta Room 4ZZ, Chemistry Bldg., 3rd-Floor Annex ishita@chem.iitb.ac.in +91 22 2576 7167 https://www.iitk.ac.in/new/ishita-sengupta	<ul> <li>Protein Structure and dynamics</li> <li>Biomolecular NMR spectroscopy</li> <li>Protein biophysics</li> </ul>



# **Research Facilities Available**

The department of chemistry IIT Bombay boasts well-equipped laboratories with ongoing research in the fields of Organometallic chemistry, Nanomaterials and Polymers, Spectroscopy, Physical chemistry, Inorganic chemistry, Catalysis, Biochemistry, and Synthetic Organic Chemistry. The department provides core central facilities housing several modern instruments necessary for present-day research.

- Single Crystal X-ray Diffractometer
- Differential Scanning Calorimeter
- Fluorescence Spectrophotometer
- Gas Chromatography-Mass Spectrometry (GCMS)
- Circular Dichroism Spectrophotometer
- Thermogravimetric Differential Thermal Analyser
- Elemental Analyser (C, H, N, and S)
- Nanosecond Laser Facility
- Atomic Force Microscopy (AFM)
- HPLC
- ATR-IR Spectrometer
- NMR Spectrometer (500 MHz)
- NMR Spectrometer (400 MHz)
- Electron Paramagnetic Resonance (EPR) (X-band and Q-band)
- Superconducting Quantum Interference Device (SQUID) and iHelium3 setup
- High-Performance Computing (HPC) Cluster
- High-Resolution Mass Spectrometry
- Surface Area Analyzer
- UV-Vis-NIR Spectrophotometer
- Single crystal X-ray diffraction for Macro Molecules







**Circular Dichroism spectrophotometer** 



Single Crystal X-ray Diffractometer



**Surface Area Analyser** 



Elemental Analyser (C, H, N and S)



## Nanosecond Laser Facility



Superconducting Quantum Interference Device (SQUID) and iHelium3 setup

# **Course Structure and Grading Policy**

IITs follow a totally different pattern of examination and grading. In the first and second semesters, students have 5 theory courses including one programming course (in the 2<sup>nd</sup> semester only) and 3 labs, with a total of about 40 credits per semester. All courses are compulsory for every student. In the third and fourth semesters, students have to take 8 courses (4 compulsory+ 4 departmental electives) along with master year projects in both semesters.

# **Grading Policy**

For every course taken by a student, he/she is assigned a grade based on his/her combined performance over the semester in all the assessments in that course. These grades are described by the letters AP, AA, AB, BB, BC, CC, CD, DD, FF, FR and DX, each of which not only indicates a qualitative assessment of the student's performance but also carries a quantitative (numeric) equivalent called the grade point as given below.

AP	10
AA	10
AB	9
BB	8
BC	7
CC	6
CD	5
DD**	4
FF**	0 Fail (Eligible for one re-
FF '	exam)
FR**	0 Fail (Repeat the course)
DX***	Fail (Lack of attendance -
DX	Repeat the course)
#	Incomplete (on health
11#	grounds)
DR	Dropped
РР	Passed
NP	Not Passed
AU	Audit

\*DD Grade Minimum passing grade in a course is DD





#### \*\*FR and FF Grade

The letter grades FF and FR shall be treated as failing grades. FR grade will be awarded in cases wherein the opinion of the instructor, the student hasn't had adequate academic exposure to the course and should, therefore, repeat the course. FR grade may also be awarded in cases of minor malpractice in examinations/assessments. A student, whose insemester performance is very poor, maybe awarded the 'FR' grade by the instructors, even if he/she had missed the end-semester examination due to any reasons. If a student either does not submit his seminar report by the prescribed date or he/she is absent for presentation on the scheduled date he/she shall be awarded FF grade unless he/she is given an extension by the coordinator under exceptional circumstances. Re-examination may be permitted for a course if he/she obtains FF grade. After such re-examination, if the student passes in that course, he/she will be awarded the maximum grade of DD in that course. If a student getting an FR grade has to re-register for the same course if it is a core subject. If this course is an elective course, he/she may register for an alternative course as prescribed by the DPGC/IDPC/SPGC, without this being counted as an additional course.

#### \*\*\*DX Grade

The grade DX in a course is awarded if a student does not maintain the attendance requirement in the Lecture/Tutorial classes. The DX grades may also be awarded to the students having bad or incomplete in-semester records on non-medical reasons. The DX grade will be declared in the first week of November for the Autumn Semester Courses and in the first week of April for Spring Semester Courses (in general one week before the semester end exams). A student with DX grade in a given course is not permitted to take the semester-end examination in that course. She/he is also not eligible for 50% marks re-examination in that course. Such a student has to re-register for the same course whenever offered. DX Given to students with attendance shortage. This does not count in the SPI / CPI. However, it will be counted as a backlog.



#### # Incomplete Grade (II)

Grade 'II' is awarded in a lecture/lab course if a student has satisfactory in-semester performance but has not appeared for the end-semester examination on medical grounds. The student is entitled to 50 marks re-examination given at the end of the particular semester. 'II' grade will be converted into a performance grade (depending on the overall performance in the course) after the re-examination.

#### ##Audit Grade (AU)

The student registered for a course as an audit shall be awarded the grade AU if they fulfill the requirement of a minimum of 80% attendance and duly satisfactory in-semester performance as prescribed by the Instructor. The Instructor shall include such AU grades in the final grade report for that course. If the student does not qualify for the grade AU, it will be assumed that the course has been dropped by that student.

#### Dropping of course(s)

If any student finds his course load to be too heavy then he can drop one or more of his/her courses within a stipulated time. Even the core courses can also be dropped in a condition that she/he will complete the dropped course(s) within his degree tenure. In the case of electives, the students need not take the same courses, she/he can select any other elective(s) as well. Such courses will appear in the transcripts and final grade card with a 'W' grade (withdrawn grade). These courses will have no impact on SPI/CPI. The last date for dropping a course by the student will be two weeks after the mid-semester examination for the semester-long courses and one week after the mid-semester examination for the half-semester courses. The last date for course drop will be included in the Academic Calendar.



#### **Grade Improvement**

1. A student in a PG Programme, where minimum CPI for coursework is 6.0, will be eligible for repeating a course for grade improvement if he/ she has a CPI less than 6.0 and has been permitted by PGAPEC to continue in the Programme on Academic Probation.

2. For Grade improvement, a student has to re-register in the course in a subsequent semester if the course is offered. The grade obtained in the re-registered course will supersede the earlier grade and the same will be reflected in the Semester Grade Card and the Final Transcript.

3. The student can avail this option only for TWO courses in the entire programme and only once for a specific course.

# Attendance:

Attendance in classes is compulsory and will be monitored. A student not having 80 percent attendance may be debarred from appearing in the semester-end examination and given DX grade and such student has to re-register for the same course. In general, the institute expects 100% attendance. The 80% attendance is permitted only for health or another emergency situation. A medical certificate from IITB hospital or Government hospital is necessary for getting leave on health grounds. The mode of taking attendance for every class in a course is decided by the course instructor and can be either manual or bio-metric.

Link for Course Curriculum: https://www.chem.iitb.ac.in/2msc-courses-new





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\*\*Internships were not completed due to COVID19 Outbreak.

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Picture Taken From Freshmen Orientation 2019-20



#### CHEMISTRY IN ACTION

Being the best institute in India, our campus is enriched with the best of sports facilities. The Department not only stands out in research but also in sports. Our Department is full of sports enthusiasts. We were in the top 10 out of 21 departments in PGGC .On the other hand, we also organize intra-department competitions where the entire department comes under one roof to participate. Through these competitions, we aim to promote interaction among faculty members and students to reduce the communication gap. IITB also organizes camps for beginners where your interest is the only prerequisite. So you are always welcome to pursue the sport, you always wanted to give a try.

## **MESSAGE TO FRESHERS**

#### Sourav Mondal - Dept. Sports Secretary

IIT-B is the prime institute in India. Besides its high-class academic reputation, it also prioritizes the sports and health of students which mesmerizes me a lot. I would request all the students to be involved in sports which surely will make you physically as well as mentally healthy.

#### Ajit Yadav- Inter IIT CRICKET Team Player

It was a very good experience for me that I played a lot of indoor and outdoor matches in the institute for preparation of INTER-IIT 2019, the most interesting fact about sports in our institute is that it provides experienced coaches for every game so that we can ace techniques as well. You are going to find a top-class facility in every sport so enjoy your time here and participate enthusiastically.

#### Debasree Mondal- Climbathon 2019 Winner

I have participated in most of the PGGC events. Excellent sports facilities and enthusiastic teammates always encouraged me to give my best. The level of competition is very challenging over here but the good thing is that if you are passionate enough and practice regularly, it's very exciting and fun.

#### Arnab Sadhukan

Institute is loaded with top-notch sports facilities. I have seen great enthusiasm in students for sports here. I just want to say that "juniors do take part in all kinds of sports in IITB when you get the chance and do not hesitate to play". That is the only way to keep yourself healthy and your mind fresh.

#### Simran- PG Sports Events Coordinator

In IIT-B, the whole semester is enriched with different sports activities, and getting involved in them gives a burst of happiness and relaxation. I have participated in many sports activities that kept me both physically and socially active. The distinguished sports facilities and the enthusiastic PG-Sports council cheered me a lot to participate in PG-GC and other sports events.



#### Satyabrata - Inter IIT VOLLEYBALL Team Player

The sports facilities at IIT-B are excellent. It encouraged me to play regularly which improved my skills under the guidance of trained coaches. PG-GC was a great platform where I participated in various sports competitions. It was a great feeling to play for my department. Sport is the best getaway from the hectic life of IIT.

# PARTICIPATION IN SPORTS

#### Intra-Department Tournament

SPORT	WINNER	RUNNER UP
BADMINTON (men's single)	Prof. Anil Kumar	Prof. Sandip Kar
BADMINTON (men's double)	Pankaj & Deepak	Prof. Sandip Kar & Maheshwaran
BADMINTON (women's single)	Poulomi Nandi	Aarti Sindhu
CARROM (men's)	Priyam Kumar De	Rohit Oraon
CARROM (women's)	Debasree Mandal	Sharddha
CHESS (men's)	Prof. Amber Jain	Prof. Sandip Kar
FOOSBALL (men's )	Rishi & Abhinav	
TABLE TENNIS (men's single)	Priyam Kumar De	Sourav Mondal
TABLE TENNIS (men's double)	Priyam Kumar De & Saikat	Mahesh Yadav & Sourav
TABLE TENNIS (women's single)	Debasree Mandal	Nishu

## **Miscellaneous Competitions**

SPORT	POSITION	Medal Winners
KHO-KHO (PGGC)	П	Saurav, Shiv Kumar, Rahul, Amit, Sachin, Vinod, Aakash, Vikas, Hansraj, Rakesh, Ankush
CLIMBATHON	I	Debasree Mandal
BIATHLON	П	<mark>Simr</mark> an





# **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 personalized email in IIT B. You will get your Id when you get enrolled in IITB.

#### Link: https://webmail.iitb.ac.in

**4. ASC:** This is the main website for all your administrative needs. You can pay your fees, register for courses, check syllabi of various courses, and also check your own academic performance and many other things.

Link: http://asc.iitb.ac.in

- 5. CAMP: The following things will be available in CAMP Website
- Changing Password
- Changing UserID (Only Once)
- Modifying Personal Details
- Set / Reset mail Auto Reply Text
- Set / Reset mail Forwarding Address
- Department Sys-Ads List
- Hostel Sys-Ads List
- Find your UserID from Roll number / Employee Number

Link: <u>https://camp.iitb.ac.in/</u>



## Links for other miscellaneous purposes

1. Accessing IITB Internal Sites with VPN

https://www.cc.iitb.ac.in/page/services-vpnssh

- 2. Configuring IITB-Wireless in laptop/android/desktop: https://www.cc.iitb.ac.in/page/configurewireless
- 3. Access GPO mail on mobile mail: http://homepages.iitb.ac.in/~yatindestel/docs/GPO%20in%20Gmail.pdf
- 4. Free Licensed Software <u>https://www.cc.iitb.ac.in/page/services-software</u>
- 5. How to forward GPO mail to Gmail http://camp.iitb.ac.in/cgi-bin/index.cgi
- 6. Rules and Regulations for M.Sc. http://www.iitb.ac.in/newacadhome/rulesPG.jsp
- 7. Link for External ASC site https://portal.iitb.ac.in/asc/Login
- 8. Link for Central Library https://www.library.iitb.ac.in/
- 9. Link for Internship Portal

http://placements.iitb.ac.in/internship/login.jsp

10. Link for placement portal

http://placements.iitb.ac.in/placements/login.jsp

11. Link for the academic calendar

http://www.iitb.ac.in/newacadhome/toacadcalender.jsp

12. Link for academic timetable

http://www.iitb.ac.in/newacadhome/timetable.jsp

13. Link for IITB Holiday List

http://www.iitb.ac.in/en/about-iit-bombay/iit-bombay-holidays-list

14. Link for circulars

http://www.iitb.ac.in/newacadhome/circular.jsp





## Some Important Terms

**Course Credit :** Weighted sum of the number of Lecture hours (L), Tutorial hours (T), and Practical hours (P) associated with the course.

**Registration :** Semester wise enrollment for courses as per the prescribed curriculum.

Semester Credits: Sum of credits of courses registered by the student in a semester.

**Credits Earned** : Sum of credits earned by passing a course registered during the semester.

**Grade** :Qualitative assessment of the student's performance in a course indicated by the letters, AP, AA, AB, BB, BC, CC, CD, DD, II, FF, FR, DX, PP or NP Grade. DX or FR indicates that the student has to repeat the course. W indicates course withdrawn.

**Grade point :** Number equivalent of the letter grades given by 10, 9, 8, 7, 6, 5, 4, corresponding to AP and AA, AB, BB, BC, CC, CD, and DD, respectively. FR, DX carry zero grade points, PP, and NP do not carry any grade points. Il is a placeholder, gets converted to an appropriate grade after semester end reexamination. DR is just a position holder

Instructor : Member of faculty who teaches courses/labs.

**Semester Grade Points** : The sum of the products of credits and Grade Points for each course registered by a student in a semester.

**SPI**: Semester Performance Index which is obtained by dividing the Semester Grade Points by the Semester Credits.

**Cumulative Credits :** Sum of the Semester Credits for all the semesters taken together, wherein the credits of a course is not counted if an alternative course has been taken in lieu of it.

**Cumulative Grade Points** : Sum of the Semester Grade Points for all the semesters taken together, wherein the credits of a course is not counted if an alternative course has been taken in lieu of it.

**CPI**: Cumulative Performance Index which is obtained by dividing the Cumulative Grade Points by the Cumulative Credits.

**Transcript :** Consolidated statement of the Academic Performance of a student for all the semesters completed.



# Some Useful Apps

#### • 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.

Download Link: https://play.google.com/store/apps/details?id=app.insti&hl=en\_IN

#### • 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

#### 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. **Download Link:** https://play.google.com/store/apps/details?id=com.mobond.mindicator

#### • 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:

⇒ Access Server – 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. Detailed instructions are on page 30. **Download Link:** <u>https://play.google.com/store/apps/details?id=net.openvpn.openvpn&hl=en\_IN</u>

#### • 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.

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

#### • SHIRU CAFÉ:

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

## Download Link: <u>https://play.google.com/store/apps/details?id=jp.co.enrission.shirucafe</u>

#### 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 pertaining to the containment of COVID-19.

Download Link: <u>https://play.google.com/store/apps/details?id=nic.goi.aarogyasetu</u>





## A reminder of things for whenever you come to IITB\*\*

- 1. The following documents are necessary for completion of the admission process
  - Gate/JAM/CEED scorecard
  - > <u>10th and 12th mark sheet</u>
  - Semester wise grade sheet or mark-sheet / Final transcript
  - Provisional Degree Certificate / Degree Certificate
  - Migration / Transfer Certificate
  - Passport size photograph (at least 12).
  - ID and Address proof (PAN card, Driving License, Passport, Voter ID)
  - > <u>Category Certificate (if applicable)</u>

Also, bring at least two photocopied 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 later by producing an undertaking.

- 2. The room allotment process in the hostel starts 1-2 days before the orientation. This is on a first come first serve basis. If you come early, you will have more room options to choose from.
- 3. Definitely bring an umbrella or raincoat with you even though they are available in campus shops, it's raining continuously in Mumbai. 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 couples 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. It is easily available.

**\*\***Information given in this section is to be used only when you are called into the campus

# **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 Kanjur Marg 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 Santa Cruz is about 11kms from IIT Bombay and autorickshaws/prepaid cabs are easily available from there for IIT.

## From the Airport

Those traveling 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

If traveling 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

lf by the western railway line, get down preferably you are coming 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 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 the 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 form the security at the main gate for the directions to IIT B Guest House (Van Vihar/Jal Vihar Guest House).

#### **Reaching IIT B 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 the direction.



#### Link to this map: http://www.iitb.ac.in/sites/default/files/article/images/IITB-Map---2D\_ENG-PRINT.jpg



#### A FEW ACCOMPLISHMENTS BY FACULTY & STUDENTS IN THE LAST ACADEMIC SESSION

- Prof. Rajarshi Chakrabarti has been appointed as an Associate Editor of the International Journal of Chemical Kinetics, published by Wiley, for a period of three years.
- Prof. Rodney A. Fernandes recognized as an Outstanding Reviewer for ChemComm.
- Prof. Pradeepkumar P.I, Prof. Anil Kumar, and Prof. Kamendra Sharma are the recipient of the IIT Bombay Research Awards-2018.
- Prof. Ruchi Anand awarded the Senior (Basic) Fellowship of The Wellcome Trust/DBT India Alliance, for 60 months.
- Prof. Santosh J. Gharpure, joins the International Advisory Board of the European Journal of Organic Chemistry, EurJOC
- Research from Prof. Sunoj group published in PNAS (Proceedings of the National Academy of Sciences, USA). More here. <u>https://www.pnas.org/content/early/2020/01/07/1916392117</u>
- Prof. Irishi N. N. Namboothiri inducted into the Fellowship of Indian Academy of Science.
- Prof. Rajaraman selected for the prestigious SwarnaJayanti Fellowships Award for the year 2018-19 in Chemical Sciences
- Prof. Debabrata Maiti awarded the Humboldt Research Fellowship for Experienced Researchers.
- Prof. Debabrata Maiti invited to join the Editorial Board of Chemistry A European Journal
- Prof. Anindya Datta nominated for membership to the 2020 Journal of Physical Chemistry Editorial Advisory Board for 3 years, starting from January 2020.
- Prof. Rodney Fernandes and Prof. Santosh Gharpure are awarded the Excellence in Teaching award for the year 2019-2020
- Prof. D. Maiti, selected winner of NASI Scopus Young Scientist Awards 2019 Innovation in Engineering and Physical Sciences
- Prof. R. B. Sunoj awarded the most prestigious Shanti Swarup Bhatnagar Prize in Chemical Science this year.





- Prof. Rajarshi Chakrabarti awarded an IOP Publishing Top Cited Author Award (India) in mathematical sciences for the article "Chain reconfiguration in active noise", https://ioppublishing.org/india-top-cited-author-award/top-articles-math...
- Prof. G. Rajaraman received Dr. A.P.J Abdul Kalam HPC Award 2019 (under researcher category from Dr. Madhavan Nair Rajeevan, Secretary, MOES & Dr. Shekhar C Mande, Secretary, DSIR and DGCSIR) at IITM Pune
- Prof. Sunoj invited to join the editorial advisory board of "Chemical Science", the flagship journal of the Royal Society of Chemistry (London) for a period of 2 years starting from June 2019
- Prof. Sunoj, invited to join the editorial advisory board of "Chemical Science", the flagship journal of the Royal Society of Chemistry (London) for a period of 2 years starting from June 2019
- A paper by Sayan, Sreenithya, and Prof. Sunoj, one of their first on Machine Learning, selected as a Hot Article in Phys. Chem. Chem. Phys
- Prof. M. Ravikanth awarded the prestigious Prof. S.C. Bhattacharya Award for Excellence in Pure Sciences.
- Prof. Lahiri conferred the highly prestigious J C Bose Fellowship by SERB, DST, Government of India
- Prof. Ruchi Anand received the National Women Bioscientists Award of Department of Biotechnology, Government of India
- Prof. Murugavel selected for the SASTRA-CNR Rao Award in Chemistry & Materials Science for the year 2019.
- Prof. Sambasivarao Kotha conferred Prof. Sethna memorial lecture award for the year 2016-17
- Prof. Chandra M. R. Volla receives IIT Bombay "Early Research Achiever Award" for the year 2017
- Prof. Chandramouli Subramaniam receives IIT Bombay "Impactful Research Award" for the year 2017
- Prof. Gopalan Rajaraman receives IIT Bombay "Research Publication Award" for the year 2017
- Prof. M. Ravikanth selected for Fellowship of National Academy of Science, India





- Prof. Chandra M.R. Volla selected for the Alkyl Amines Young Scientist Award 2018.
- Prof. Pradeepkumar P. I. and Prof. Arindam Chowdhury received the "Excellence in Teaching Awards" for the year 2018, selected by students.
- Prof. Chandra M.R. Volla was chosen for NASI-Young Scientist Platinum Jubilee Award-2018.
- Prof. Santosh J. Gharpure has been chosen to receive the CRSI (Chemical Research Society of India) bronze medal for the year 2019.
- Prof. Anindya Datta selected by students to receive the "Excellence in Teaching Awards" for the year 2017.
- Ms. Ananya Sha for being awarded the Best poster award at the Bengaluru India Nano 2020 for her research on nanostructured carbon for heavy metal scavenging.
- Ms. Jayeeta Saha, Ph. D. student of Prof. C. Subramaniam, has been selected to attend Lindau Nobel Laureates Meeting in Germany 2020.
- Shri Sivasankara C., of Prof. I. N. N. Namboothiri's research group, for having received the CRSI-ACS-best poster award in 26th-CRSI symposium in VIT Vellore.
- Ms. Ritutama Ghosh, Ph. D. student of Prof. Nand Kishore, for having received the best poster prize in the 22nd DAE-BRNS Workshop and Symposium on Thermal Analysis (THERMANS-2020) held during 28th January- 1st February 2020 at BARC Mumbai.
- Ms. Namitha Brijit Bejoy (Ph.D. student of Prof. G. Naresh Patwari) has been selected as the recipient of the Prestigious SPM Fellowship of CSIR, India, 2019 in the field of Chemical Sciences.
- Shri S. Jagadeesan, Ph. D. student of Prof. Santosh J. Gharpure, has received the Certificate for best Poster presentation in XV J-NOST 2019 for Research Scholars, held in University of Delhi
- Ms. Shalini Tripathi, Ph. D. student with Prof. Maheshwaran Shanmugam, has been awarded the best poster prize in "Modern Trends in Molecular Magnetism" held in IISER Bhopal from Nov 27 to 30, 2019.





## **STUDENT WELLNESS CENTRE**

Mental health is as important as physical health. After securing admission at the Institute and starting your time here, you may feel that a lot of parameters around you are different. You would have more responsibilities to handle at the academic level and as well as at the non-academic level. 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.

Especially these are tough times for all of us and "Mental health repercussions regarding what is happening during this pandemic for people, today and beyond, will really be a problem in general, In general, stress behavior for many, many people brings a lot of problems.

So it is very normal for any of us to feel depressed and anxious. It is important to understand that students often lose their focus and give in to these pressures. If not attended to at the right time, this could lead to poor performance -- both academically and personally.

To help you refrain from losing focus and being unhappy, SWC has a team of experienced Counselors whom you can approach for any problem that you are facing- be it academic, emotional, social, or financial- without hesitation.

Student Wellness Centre has an experienced team of counselors and Counseling 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 counselor, students are helped to explore and express feelings, examine beliefs and ways of thinking about their present situation, reflect on patterns of behavior, and work toward making healthier and happier changes.

Visit us at http://www.iitb.ac.in/swc/en

The Student Wellness Centre is with you at this time of global pandemic.

In case you wish to talk to a counselor over the phone, kindly contact SWC on the given numbers during the below-mentioned timings:

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

Ms. Angali Gadgeel – 9920289195

Follow the Student Wellness Centre on Facebook here: <u>http://www.facebook.com/icareiitb</u>



## **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.

#### Who can contact Gender Cell for help?

Any student, faculty, staff member, or a service provider who is associated with IITB may contact the Gender Cell.

Any woman who comes to IIT Bombay for work-related reasons may also contact the Gender Cell.

Visit the site at <a href="http://www.gendercell.iitb.ac.in/en">http://www.gendercell.iitb.ac.in/en</a>

You may write to gender cell at <u>gendercell@iitb.ac.in</u> and they will get back to you within 48 hours.





# A BRIEF OVERVIEW OF THE CLUBS IN IIT-B

## **IITB Sports**

IIT Bombay Sports boasts of rich culture, thriving on immense participation across 18 hostels and the kind of infrastructure most colleges can only dream of. Under its vast umbrella, we have sports at several levels. From Intra-hostel to Inter hostel, and of course, the crowning glory for every sportsperson here at IIT Bombay, the Inter IIT Sports meet

Visit our site here: https://gymkhana.iitb.ac.in/~sports/

# **IITB Cultural**

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. Names of a few clubs are:

- 1. Fourthwall: The Dramatics Club
- 2. InSync: The Dance Club
- 3. Symphony: The Music Club
- 4. Literati: The Literary Arts Club
- 5. WeSpeak: The English Speaking Arts Club

Visit the site here: <a href="https://gymkhana.iitb.ac.in/~cultural/web/">https://gymkhana.iitb.ac.in/~cultural/web/</a>

## Tech@IITB

IIT-B being the premier technical institute in India boasts of a very active & enthusiastic technical council. The technical council consists of various clubs from the Aeromodelling club, Chemistry Club to Mars Rover Team. These clubs and teams continuously organize various competitions, events, and workshops. Feel free to join any of the activities organized by the Technical Council. Your interest and enthusiasm is the only prerequisite in any of the events.

Visit the site here: <u>https://www.tech-iitb.org/</u>

You can find many other interesting clubs here:

http://www.iitb.ac.in/en/activities/student-clubs



Etc.



# **Gallería de Fotos**

**In-House Symposium** 



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Dept Open Day





