DEPARTMENT
Handbook

METALLURGICAL ENGINEERING AND MATERIAL SCIENCE

2020-21

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.

Contents

Welcome Note from the Head of Department

Dear grad students,

It gives me a great pleasure in welcoming you to the Department. Our M.Tech. program with different specializations have courses designed to impart advanced technical skills. We host the center for excellence in steel technology with an emphasis on current research in steel and process engineering. We also host an industry oriented program called Materials Modelling and Manufacturing. The Ph.D. program is broad based and will cater to wide range of Materials interests. You will find the area of interest to your liking and thus hone your preferred technical skills. In recent times our research output has increased significantly and it is seen that our grad students are contributing to this effort.

Increased funding has resulted in augmenting our laboratory facilities in the Department which will give you hands-on experience on the state of the art facilities.

You have made the right choice in joining the grad program of the Department of Metallurgical Engineering & Materials Science, IIT Bombay. Please interact with our faculty members to learn more about the exciting opportunities the Department offers to you and thus further your career.

Welcome to MEMS, IIT Bombay and best wishes for your various academic pursuits.

PROF. K. NARASIMHAN
Head of the Department

Message from IMR, Post Graduate Academic Council (PGAC)

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 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 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 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 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 situation gets better, and wishing you every success in your future endeavours.

SOHINI DASGUPTA
Institute Masters Represesentative (2020-2021)
Post Graduate Academic Council
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Welcome Note from Post Graduate Academic Council (PGAC)

To the new students of IITB!!

Firstly, let me take this opportunity to congratulate you for your successful admission at one of the premier academic institutions of India i.e. IIT Bombay. While you are reading this, it is our way of saying Congratulations and Thank you for choosing to be a part of the IITB Student fraternity. Now, for the coming 2 years, this campus will be a part of your life and hope that the bonds formed and the experiences acquired may help you shape your career and propel it to the next level.

In the coming weeks, you will be introduced to the academic system at IIT Bombay and how it is unique from the other educational institutions. The curriculum is by design to keep you occupied throughout and the presence of various clubs and student-run associations will help you to balance your load accordingly.

On the behalf of the Post-Graduate Academic Council (PGAC), I duly welcome you and would be honoured to introduce you to the activities of the same. PGAC is a student run body responsible for collecting and reporting the academic grievances of the PG students to the higher authorities of the institute. Apart from this, our motivation is to conduct workshops promoting development of technical and soft skills at the department as well as the institute level. We are a motivated team of nearly 35 people in the master's level who work towards these goals. For knowing about our activities and events, I urge you to check your Webmail for regular updates and for further queries, we will be available to listen to you via email promptly.
So, welcome to this fascinating journey and hope that the campus benefits you in your future activities and endeavours.

Abhijith Menon
MTech. Materials Science 2nd year
Executive Member- Post-Graduate Academic Council (2020-21)
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Welcome Note from Institute Students Companion Program (ISCP)

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."

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-

Welcome Note from Institute Students Companion Program (ISCP)

-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)
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Welcome Note from Department Coordinator, MEMS

"Alone we can do so little, together we can do so much." --Helen Keller

Dear Junta,
I hope you are reading my message in the best of your health.We are ready to start a great year of adventures in learning!

I offer you a warm welcome to our IITB family of learners. IITB is an institute staffed with energetic, caring and qualified adults who encourage and support all of our students.We welcome students of determination and ensure that each one receives a high quality of education. Along with intellectual diversity, the differing life experiences and approaches our professors bring to our department help us understand and meet their needs and the needs of our work's ultimate beneficiaries - our students. With diversity and inclusion as priorities, we work towards achieving our mission.

Young people are at the very heart of the department and although we value academic performance, we believe that students should enjoy their time at school and achieve across a whole range of areas. We provide a happy and safe environment within which students can experience opportunities beyond the classroom so that they can become independent learners and responsible and confident adults. We foster values of courtesy, consideration and individual responsibility and offer a high level of challenge accompanied by equally high levels of support.

I firmly believe that a strongly led department is strongly led by many. I know that with the excellent staff team and volunteers we have here, we have the ability to ensure that you achieve the very best.Cooperation, a good bonding, interaction,enthusiasm is what will be needed, so that we continue to enhance and strengthen the success of our department in particular and IITB in general.

Our student handbook will provide you with useful information and should help answer questions about our department and the facilities and important institute policies.

Welcome Note from Department Coordinator, MEMS

Frankly speaking, it's very unfortunate that we have to interact with you people this way due to the pandemic scenario worldwide. All I can assure you is that, ISCP team is with you and our volunteers will try to fill the gap of interaction and provide you all the helping hand needed. You will never feel alone and helpless,me and my team and every individual of our department will try to sort out your problems and various queries related to academics courses and whatsoever, feel free to contact us.

I wish this pandemic scenario would end soon and I along with my team take the pleasure to interact with you people, show you the campus, take you all on a department tour, show what IITB have to offer you, facilities and cutting edge technology and equipment MEMS department have,develop a lovely bonding with you all in the due course of time.

Till then stay at home, focus on your coursework,academics and pray that all this ends soon.

"When going gets tough, the tough get going"
Sincerely on behalf of all of us at IITB MEMS department.
Stay happy,Stay Safe, Stay healthy, Stay positive.

RAJESH KUMAR
Department Coordinator
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ISCP Members from MEMS

DEPARTMENT COORDINATOR

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Department Sports Secretary

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About the Institute

IIT Bombay is recognised worldwide as a leader in the field of engineering education and research. Reputed for the outstanding calibre of students graduating from its undergraduate and postgraduate programmes, the institute attracts the best students from the country for its bachelor's, master's 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 mobilise 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.

Goals of the Institute

1. Enhance engagement with society and industry
2. Broaden educational areas
3. Improve internal support systems
4. Enhance student experience
5. Broaden funding base
6. Attract international students and faculty
7. Advance frontiers of knowledge
8. Enhance diversity
9. Enhance alumni engagement
10. Develop a cleaner and greener campus

About the Campus

IIT Bombay is a small township in itself. Rich in natural flora and fauna to begin with, the campus' green cover has been maintained and even increased over the years. An island of green in the otherwise concrete jungle that is Mumbai, the campus at Powai nestles among hills and is flanked by the Powai and Vihar lakes. It is special both in terms of its physical beauty and location — a place where you can be away from the busy world, yet still be a part of it. Education and research are the twin pillars of this institute and the ambience is one in which new ideas and creativity can flourish.

The campus is connected to the city proper — an hour's distance — by buses and local trains. However, most facilities are available on campus itself, including banks, a shopping centre, two excellent schools for children, and a well-equipped hospital. All students and most faculty live on campus, in student hostels and IIT staff quarters. The peaceful atmosphere of the campus belies the wide range of activities that complement academic life.

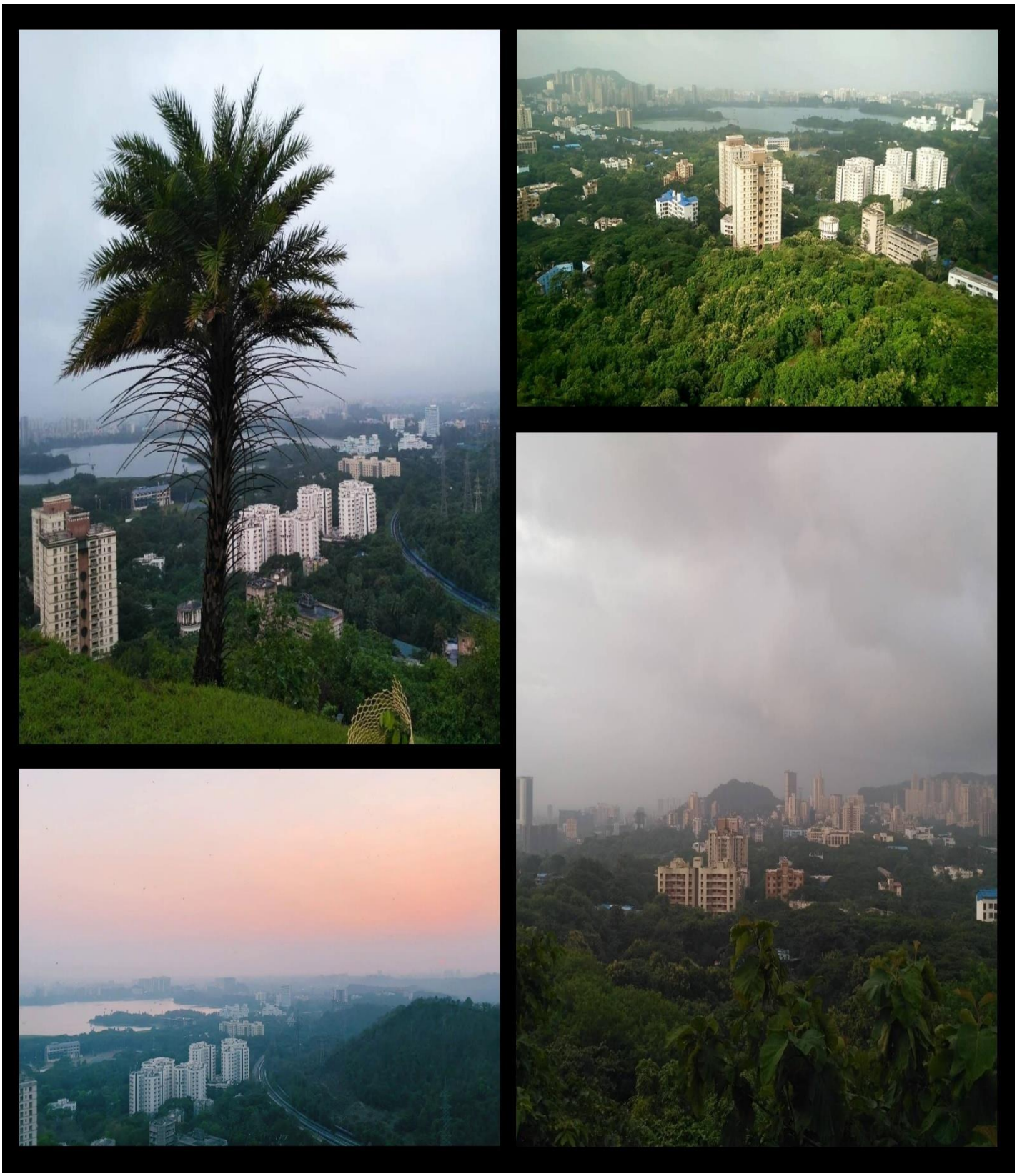
Gallery

IIT Bombay Main Building

Glimpse of Library, classroom, Computer Centre & Auditorium

Technical Fest & Mood Indigo

Lake Side View



Sameer Hill's View Point

Sports Activities

About the Department

The Department of Metallurgical Engineering was set up in the early 1960s under the leadership of Late Prof. G. S. Tendolkar. During the early days, the Department was endowed with grants to acquire equipment and quickly established itself as preferred destination for students seeking to do quality research in metallurgy. Mid-nineties saw an expansion of the Department to encompass areas in materials science. This expansion includes several fields of studies like polymers, composites, semiconductors and computational materials science which ultimately has taken the worship of knowledge to the next level. The Department of Metallurgical Engineering and Materials Science is devoted to the design, creation and fundamental understanding of materials by understanding relationships between processing, structure, properties and performance in engineering applications. The Department is well known for its broad based academic program, its highly regarded faculty, and the high caliber of its students. Its continuing record of pioneering advances in engineering sciences and technologies stems from its ability to relate new developments and advances to engineering practices, and its close relationship with industry. These advances are then incorporated in current teaching and research programs.

For details, refer: http://www.iitb.ac.in/mems/en

ACADEMIC OVERVIEW

The Department of Metallurgical Engineering and Material Science, IIT Bombay offers various academic programs and has a large research activity spanning many areas. The Department offers the following degree programs:

(i) BTech – 4-year program
(ii) Dual Degree (BTech + MTech) – 5-year program
(iii) Post Graduate (MTech) – 2-year program
(iv) Doctorate (PhD)

The curriculum for these programs has been developed keeping in view the present technological status and future needs. It provides a strong background in conventional materials like ferrous and non-ferrous alloys as well as advanced materials like electronic materials, ceramics, composites, and polymers.

About the Department

The four semester MTech program is designed for students with BTech/MSc background. The Department offers five specializations for MTech program:

(i) Material Science
(ii) Process Engineering
(iii) Steel Technology
(iv) Corrosion Science and Engineering, and
(v) MMM- Materials, Manufacturing, and Modelling

Strong inter-disciplinary research encompassing a broad range of materials with focus on 'Make in India' concept is at the core of the Department. The Department has a strong base in material synthesis, processing, theory and computational material science.

LAB FACILITIES

Execution of the research plans requires both personnel and facilities. The Department has achieved major strides in acquiring as well as developing state of the art facilities for materials processing and characterization. The Department has over 25 laboratories and is considered one of the best in India.

Some of the major materials processing facilities include:

1. Multi chamber cluster tool unit for Semiconductor thin film processing
2. Electro-slag Refining
3. High Temperature and Energy Material
4. MOCVD
5. Micro-compounder & extraction
6. Plasma spray
7. Tape casting
8. Horizontal continuous casting
9. Pulsed laser deposition

Some of the important materials characterization facilities available in the Department

1. SEM/ EDAX
2. XRD with high temperature
3. DSC/ DTA
4. OIM/ SEM/ XRD (National facility)

About the Department

5. Mechanical Testing systems
6. FTIR, UV-Visible, AAS
7. Surface area analyzer
8. Microscopes

Apart from the above, MEMS Department also houses a high performance computing (HPC) cluster to assist in modelling and simulation based studies. Apart from above, Students can also use the facilities under SAIF, IRCC, CEN, NCPRE.

OTHER FACILITIES IN THE DEPARTMENT DEPARTMENT

LIBRARY

The Department of MEMS at IIT Bombay boasts of having one of the finest collections of books in the field of Metallurgy and Materials Science. We have various journals from all round the world to satisfy the ever growing curiosity of our students. We have an exquisite collection of books which is open to all the students and faculty for referencing and providing useful insights into the cutting edge technology in the world of Materials Science. It is located in the first floor of MEMS Department (opposite to elevator). The library also contains a collection of doctoral and master's thesis of students passing out every year. The Department library is open from 9:30 am to 5:30 pm. Research Scholars can issue the books available in the library.

COMPUTER ROOM

MEMS Department has a computer room equipped with the latest hardware and software to handle the needs of the students as well as the faculty. The computer room is located on the firstfloor of the Department opposite the Department library. Prof. Amartya Mukhopadhyay is the in-charge faculty of the computer room. The computer room is open from 8:30 am to 12:00 am.

About the Department

ACADEMIC RESOURCES

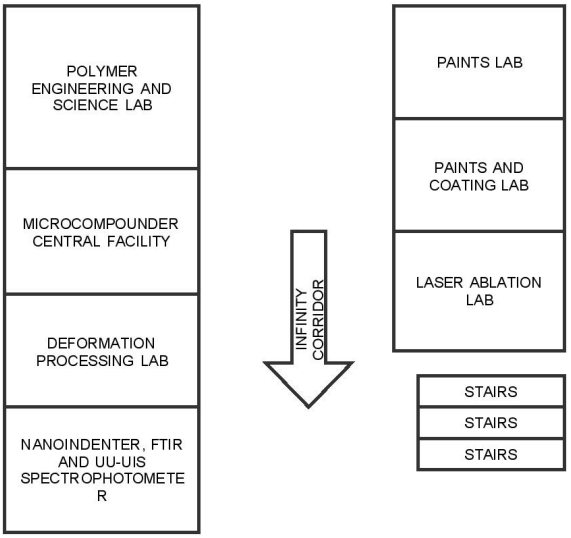
Access to DoITPoMS micrograph library, video library and study modules, Complete access to ASTM standards, Access to ASTM journals, articles, reports and booklets, Springer journals and articles, Wiley journals and articles, Science Direct Online research paper repository etc.

ROOM BOOKING SYSTEM

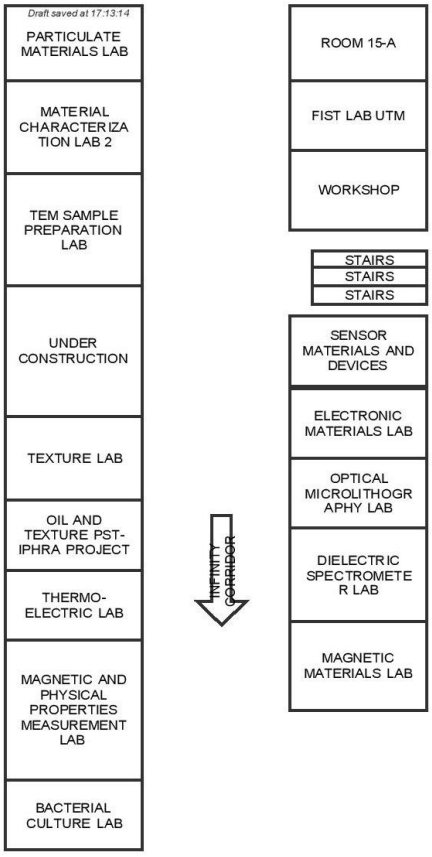
Rooms in the Department can be booked for various purposes like group meetings and seminars. The rooms should be booked well in advance and should not conflict with any regular meetings. The booking can be done through the Department office by faculty and office people only (Mr. Tarish Bairam).

DEPARTMENT FLOOR LAYOUT

Basement Floor Layout

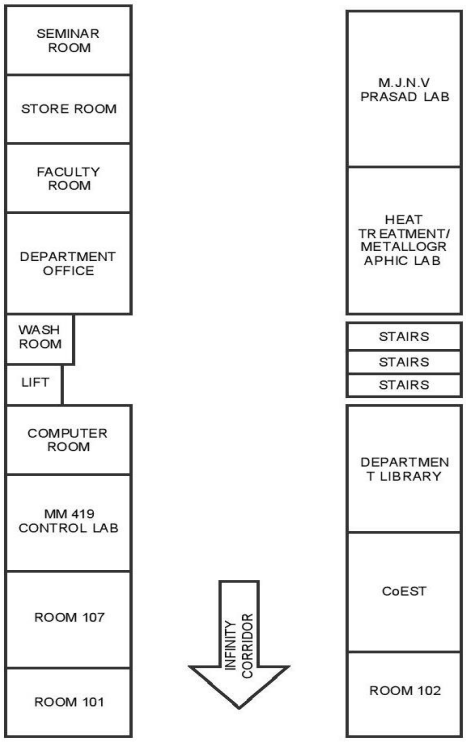


Ground Floor Layout

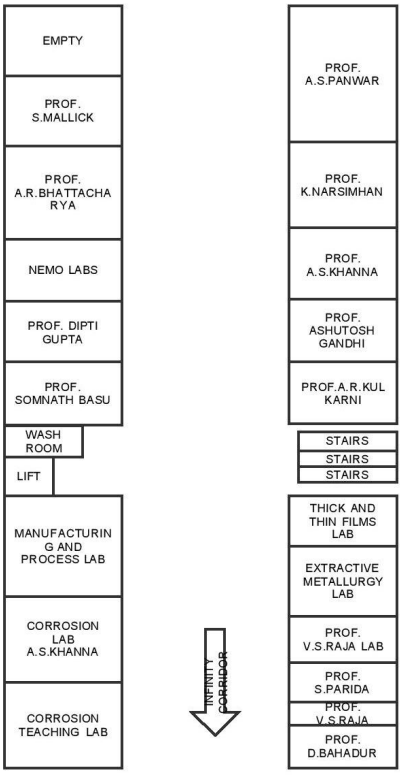


About the Department

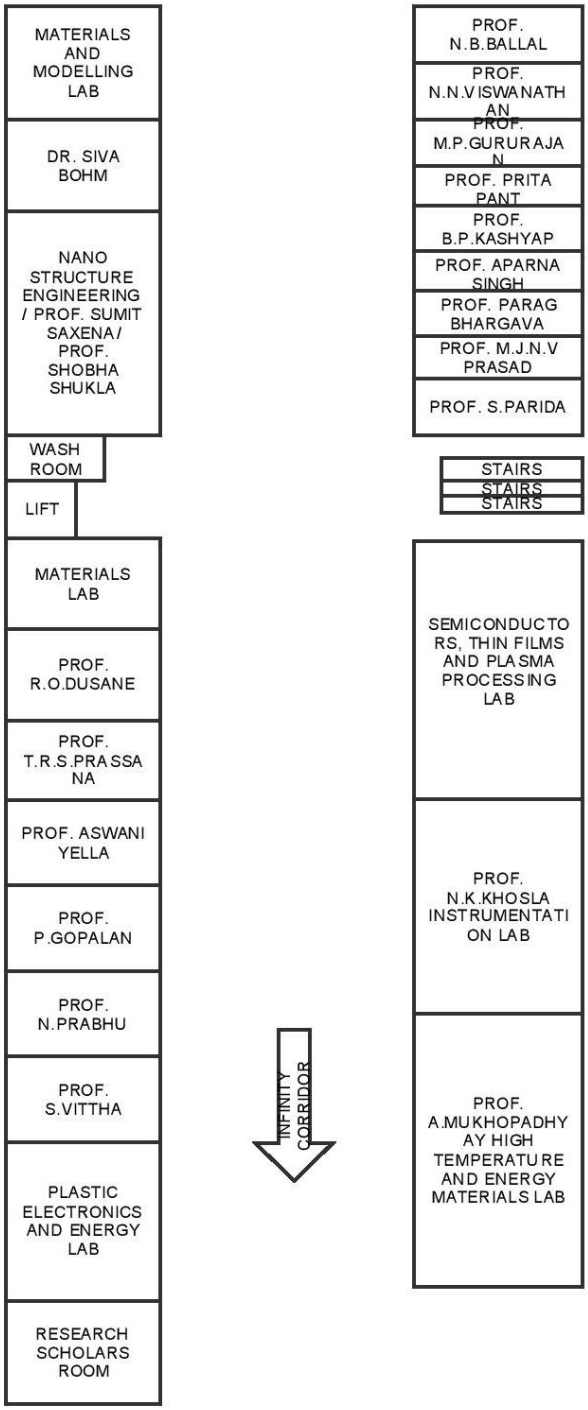
First Floor Layout



Second Floor Layout



Third Floor Layout



Faculty Members

PERMANENT FACULTY

www.iitb.ac.in/mems/en/people/faculty

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Hina Amol Gokhale	

FACULTY ADVISORS

MM 1 – Materials Science:	Prof. Mithun Chowdhury
MM 2 –Process Engineering:	Prof. M.P. Gururajan
MM 3 – Steel Technology:	Prof. Somnath Basu
MM 4 –Corrosion Science & Engineering:	Prof. V.S. Raja
MMM: Material, Modelling and Manufacturing:	Prof. MJNV Prasad
Faculty Coordinator for Ph.D.:	Prof N.Prabhu

LIST OF DPGC (DEPARTMENT POST GRADUATE COMMITTEE)

Prof. K. Narasimhan
Prof. Titas Dasgupta
Prof. R.O.Dusane
Prof. A.S. Panwar
Prof. A.Patra
Prof. Amrita Bhattacharya
Prof. I.Samajdar

Faculty (MEMS)

Head of Department

Prof. K. Narasimhan

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Research Interests
Sheet metal forming,
Superplasticity,
Modelling and Simulation

Faculty Members

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Research Interests
Metal refining
Thermodynamics
Slag- Metal Interaction
Continous casting

Prof. Parag Bhargava

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Research Interests
Powder Processing, Gel casting, Rapid Prototyping,
Near net shape forming of advanced ceramics,
Rheology of suspensions, Ceramic composites,
Indentation cracking of ceramics, Quantitative microscopy

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Research Interests
Computational materials science
Charge and heat transport
Defects in semiconductors
Strongly correlated materials
Machine learning

Prof. Arup Ranjan Bhattacharya

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Research Interests
Polymer blends
Polymer Nanocomposites

Prof. Mithun Chowdhury

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Research Interests
Nanostructured polymers and polymer/ nanocomposite thin films.
Order (disorder) in glassy and semicrystalline polymers.
Structure-property-performance nexus in electroactive & electronic polymers.
Thermodynamic & mechano-rheological properties of polymers.
Frugal way (s) to characterize soft materials.

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Research Interests
Metal-Ceramic interfacial stress corrosion cracking.
Corrosion and organic coating delamination.
Hydrogen permeation to quantify oxygen reduction kinetics.
Non-linear frequency response analysis (NFRA) of Lithium-ion batteries.
Nanorough Silica Coatings

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Research Interests
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Thermoelectric metrology and instrumentation,
Physics of heavily doped semiconductors

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Research Interests
Synthesis and characterization of amorphous and nanocrystalline thin films of semiconductors and alloys
Silicon nanodevices for thin film solar cells and transistors for flat panel displays
MEMS devices, Nuclear detection
Plasma processing and surface nano-engineering

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Research Interests
High temperature protective coatings (environment and barrier coatings)
Materials for Energy systems (Fuel cells and SOFCs),
Phase stability and Transformations, Surface Engineering,
Zirconia ceramics, Metastable effects and amorphous phases

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Research Interests
Flexible/Plastic Electronics based on Organic semiconductors, metal oxides and Graphene,
Devices for Energy and Biomedical applications,
Devices under focus: Solar Cells, Thin film transistor and sensors,
Printed Electronics

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Research Interests
Modelling of microstructural evolution
Atomistic (Monte Carlo and Molecular dynamics) and continuum (phase field modelling) models
Phase transformations
Deformation and phase transformation induced microstructural changes

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Mineral processing, Instrumentation

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Fracture, fatigue and tribology
Synthesis methods of nanostructured materials in bulk
Nanostructured coatings
Microstructure characterization
Damage tolerance of materials used in renewable energy technologies
Biomedical implants, prosthetics and polymer encapsulation
Back-end processing in microprocessor fabrication.

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Ferrimagnetics- bulk and thin film,
Electronic materials,
Structure property correlations in nanocrystalline systems,

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Research Interests

Blast furnace modelling,
Transport phenomenon,
Process Metallurgy

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Research Interests

Magnetic and electrical properties of metals, alloys and oxides,
Optical behaviour of ultra-thin multi-layers

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Research Interests

Nanostructured materials for photovoltaic applications,
Hybrid materials for light harvesting,Molecular electronics,Dye/semiconductor sensitized solar cells

Prof. Ajit R. Kulkarni

Email: ajit.kulkarni@iitb.ac.in
Tel: +91-22-2576-7636

Research Interests
Lead free ceramics and piezoelectrics: Bulk, nanostructured and thin films,
Impedance spectroscopy for material characterization,
Solid electrolyte for sensor and battery (glass, glass-ceramics, polymers and gels),
Synthesis-Structure-Property correlation in materials

Prof. Deepoo Kumar

Email : deepook@iitb.ac.in
Tel: +91-022-25767647

Research Interests
Thermodynamics and Kinetics of Metallurgical Processes
Mass transport in Pyrometallurgical process
Inclusion characterization

Prof. Sudhanshu Mallick

Email: mallick@iitb.ac.in
Tel: +91-22-2576-7641

Research Interests
Dye sensitized solar cells, Electroceramics, Photovoltaics, Semiconductors,
Electroceramics, Powder Metallurgy, Recycling.

Prof. Amartya Mukhopadhyay

Email: amartya_mukhopadhyay@iitb.ac.in
Tel: +91-22-2576-7612

Research Interests Materials for electrochemical storage and conversion,
Carbon nanotube reinforced composites,
Advanced structural ceramics, ultra high temperature ceramics and ceramic nanocomposites,
Stress determination in thin films, Tribology of materials

Prof. Nagamani Jaya Balila

Email : jayabalila@iitb.ac.in
Tel: +91-022-28767626

Research Interests
Mechanical behavior of materials
Nanoindentation and Nano-/micro-mechanics
Interface engineering and design of damage tolerant brittle matrix composites
Electro-thermo-mechanical failure in thin films, hard coatings and semiconductor device materials
Elastic strain engineering of functional oxide nanostructures

Prof. Indradev Samajdar

Email: indra@iitb.ac.in
Tel: +91-22-2576-7621

Research Interests
Crystallographic texture,
Microstructural engineering,
Thermomechanical processing

Prof. Sumit Saxena

Email: sumit.saxena@iitb.ac.in
Tel: +91-22-2576-7615

Research Interests
Ab-initio calculations of electronic and structure properties of materials,
Nanostructured materials and their applications,
Carbon based materials such graphene, nanotube and graphite intercalated materials,
Time dependent ab-initio calculations for photovoltaic applications

Prof. Shobha Shukla

Email: sshukla@iitb.ac.in
Tel: +91-22-2576-7607

Research Interests
Nanophotonic devices
Nanomaterials,
Metamaterials,
Plasmonic devices

Prof. Avradeep Pal

Email : avradeep@iitb.ac.in
Tel (Off.): +91-022 2576 7629

Research Interests
Josephson junctions
Superconductor-ferromagnet interactions (Superconducting Spintronics)
Tunneling spectroscopy
Growth of thin films, UHV systems and nano-fabrication
Graphene mesoscopics

Prof. Manish M. Pande

Email : manish.pande@iitb.ac.in
Tel (Off.): 022 25767609

Research Interests
Steelmaking

Steel Cleanness
High Temperature Experimentation and Metallic Foams

Prof. Prita Pant

Email: pritapant@iitb.ac.in
Tel: +91-22-2576-7616

Research Interests
Mechanical behaviour of thin films,
Dislocation dynamics simulation of deformation,
Nanoindentation studies of heterogenous deformation in metals,
Ni- Ti based shape memory materials

Prof. Ajay S. Panwar

Email: panwar@iitb.ac.in
Tel: +91-22-2576-5730

Research Interests
Multiscale molecular modelling of self-assembly in macromolecular systems,
Macromolecular transport in micro and nano scale channels,
High performance computing for macromolecular and composite systems

Prof. Smrutiranjan Parida

Email: paridasm@iitb.ac.in
Tel: +91-22-2576-7643

Research Interests
Corrosion and mitigation,
Electrochemical nanostructuring,
Functional application of nanostructured metals and alloys

Prof. Anirban Patra

Email : anirbanpatra@iitb.ac.in
Tel (Off.): +91-22-25767622

Research Interests
Computational materials
Mechanics
Crystal plasticity
Finite element modeling
Radiation damage

Prof. N Prabhu

Email: nprabhu@iitb.ac.in
Tel: +91-22-2576-7624

Research Interests
Phase transformations,
Structure Property relationships,
Electron Microscopy

Prof. M.J.N.V. Prasad

Email: mjnvprasad@iitb.ac.in
Tel: +91-22-2576-7642

Research Interests
Mechanical behavior of materials
Electrodeposition and Alloy development
Nanocrystalline, amorphous, and implant materials
Composites, and Protective coatings
Microstructural Investigation

Prof. T. R. S. Prasanna

Email: prasanna@iitb.ac.in
Tel: +91-22-2576-7639

Research Interests
Materials for solid oxide fuel cells, composite electrolytes,electrode materials,
Theoretical materials science,
Role of thermal vibrations in phase transitions

Prof. V. S. Raja

Email: vsraja@iitb.ac.in
Tel: +91-22-2576-7892

Research Interests
Structure-processing-corrosion property relation,
Light metals, Graded coatings, Failure analysis
Electrochemical impedance spectroscopy,
Stress corrosion cracking, High temperature and pressure aqueous corrosion, Weld related corrosion

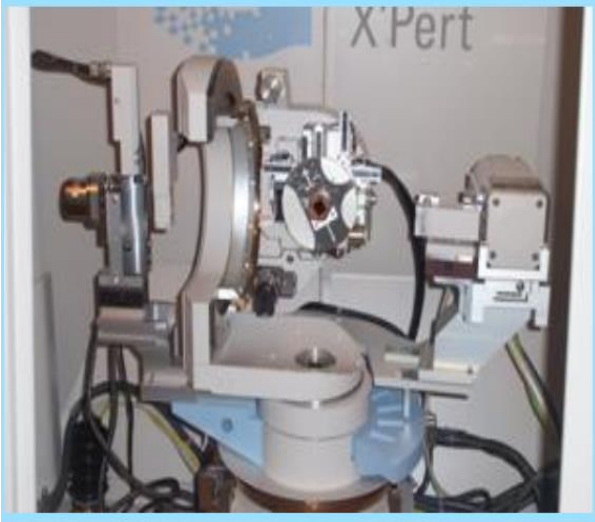
Department Research Facilities and Labs

Some of the facilities in the layout
are mentioned below:

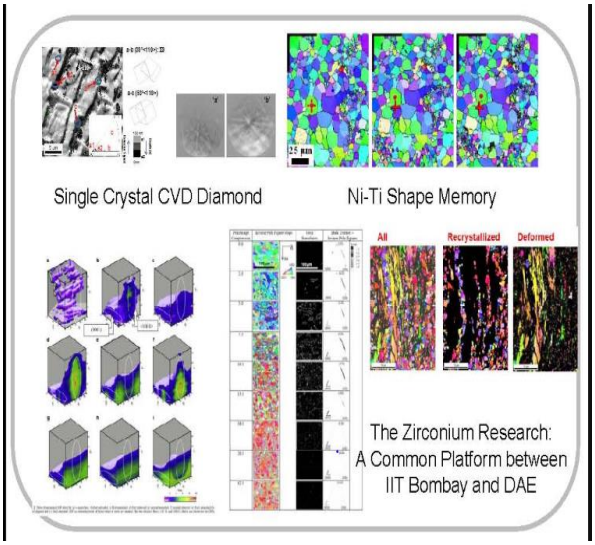
1. **Orientational Imaging Microscopy [OIM] and texture lab**

FEI Quanta 3D FEG

FEI Quanta 200HV SEM



X-Ray Diffraction



Orientation Imaging Microscopy (OIM) is the most recent, undoubtedly the most advanced, tool for microstructural measurements at meso level. X-ray bulk texture measurements can be used to estimate pole figures (PFs) and

orientation distribution functions (ODFs) and to obtain structure property correlation. The bulk equipment can measure residual stresses as well. These measurements have wide applications.

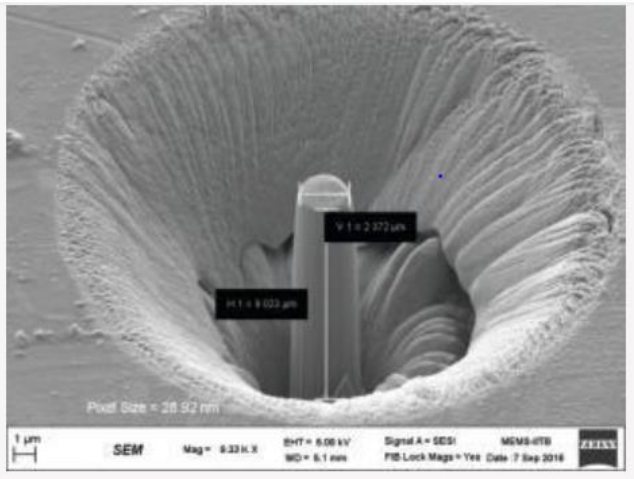
2. **X-Ray Powder Diffraction [XRD] lab.**

The powdered samples can be submitted by diffraction analysis and the facility is available for external students and industries as well apart from internal students.

3. **Centre of Excellence in Steel Technology [CoEST]:**

CoEST is built to aspire to achieve not only global steel production leadership but also global steel technology leadership and closer industry academia relations in R&D. The objectives of CoEST are performing industry relevant research and development in various aspects of steel technology, developing highly skilled manpower for steel industries, providing consultancies to the industries, organizing training programmes for refreshing and updating

knowledge of steel industry manpower and organize international conferences on steel technology and network with other organizations involved in steel technology. A new building with about 3000 sq. m area is dedicated to the CoEST and is in an advanced stage of planning.



4. **Nanoindentor facility:**

Nanoindentation is the technique for assessing the mechanical properties of materials at the nano/micro scale. Hardness is measured as the area of the contact at the maximum load and reduced modulus is calculated from the slope of the load-displacements graph obtained. The Young's modulus of the material can be calculated if the Poison's ratio of the material is known. Type of Tests that can be carried out:

1)Indentation

A) Low load(< 9.5mN)(RT and High temperature) B) High load (<500mN)(RT)

2)Scratch (RT)

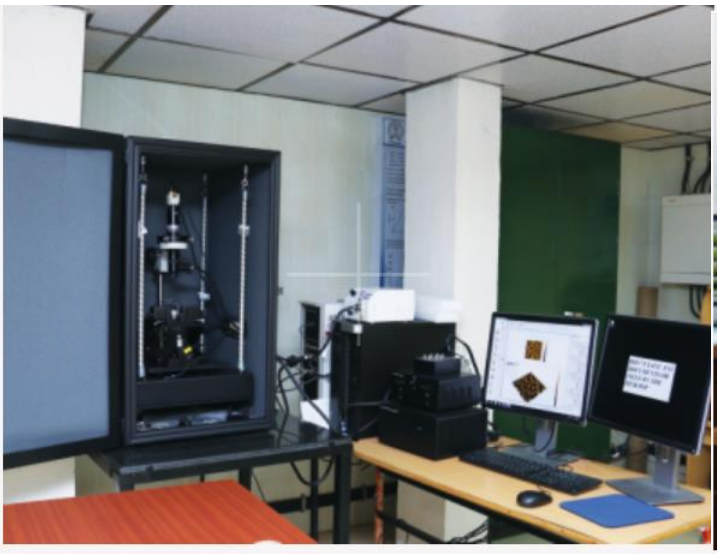
A) Constant load/displacement scratch B) Ramp load/displacement scratch

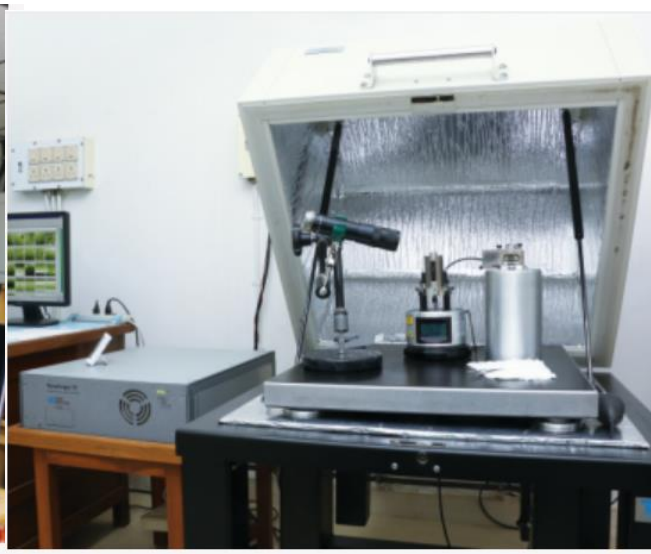
3)Nano DMA (RT and High temperature)

A) Dynamic load(Variable load at a fixed frequency. B) Dynamic Frequency (Variable frequency at fixed load)

4) High temperature (Low load <9.5 mN)

5. Scanning probe microscope facility:

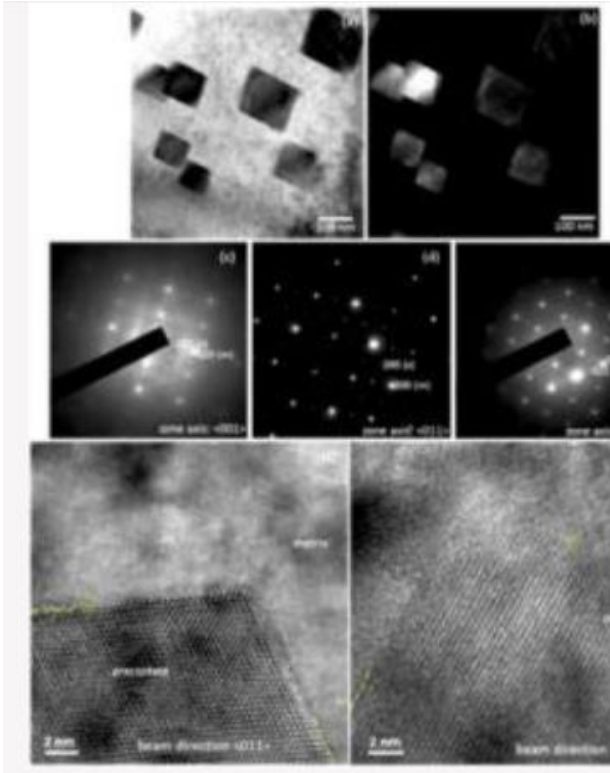




Scanning probe microscopy facility allows researchers to observe and manipulate molecular and atomic level features. This technique helps to study a 3D profile of the surface on a nanoscale. This facility is also used to characterize surfaces and structures at nanoscale using variety of physical probes. The facility includes atomic force microscope (AFM), scanning tunnelling microscope (STM) etc.

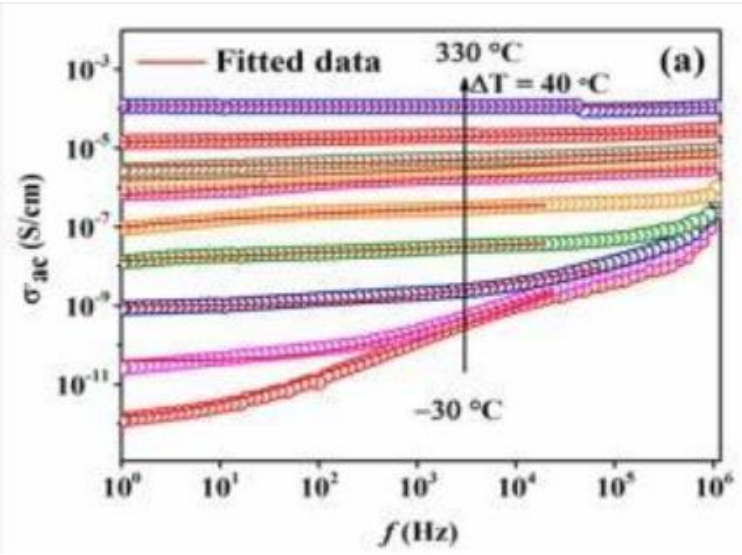
6. **Transmission electron microscopy –**

sample preparation facility



It is used for precision thinning of samples (at final stages) to electron transparency for imaging with transmission electron microscope (TEM).

7. Dielectric broadband spectrometer facility:



This facility is a tool for investigating a variety of dielectric processes for both electrical and non-electrical applications. It measures electrical properties of materials over a wide frequency and temperature range.

Departmental Placements overview

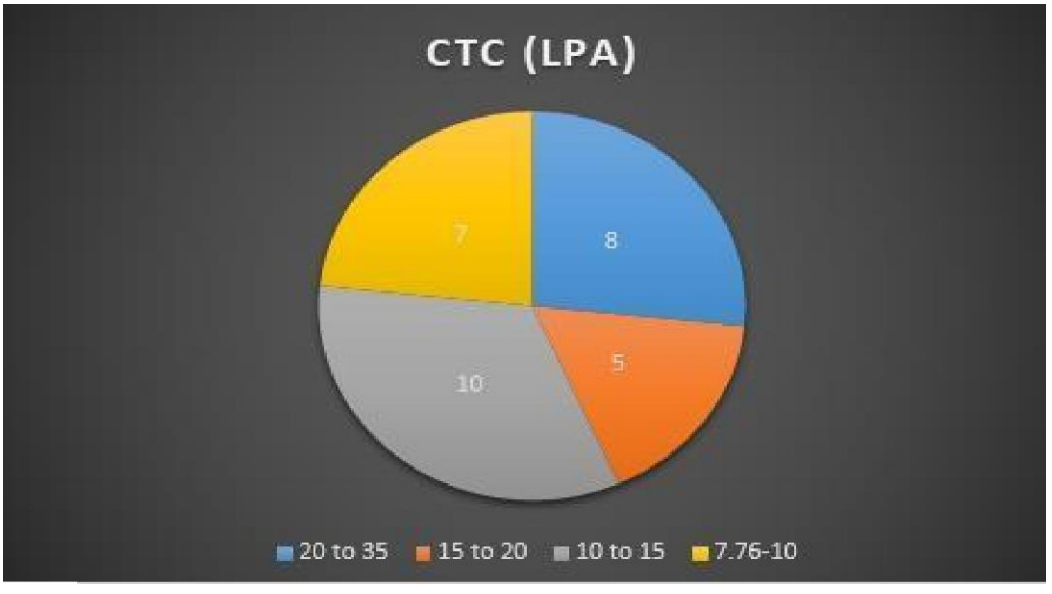
While the placement season has seen recruiters from the entire spectrum of the industry, the initial part of the season was dominated by a variety of firms from sectors like Engineering & Technology, Oil & Gas, IT/Software, Electronic Hardware, Data Analytics, Consulting, Finance/Banking and Fast Moving Consumer Goods (FMCG). There were opportunities provided by the firms with vast learning, travelling experience and varied work culture. Most of these firms are world leaders in their respective domains. We also had some of the major start-ups as recruiters, which were screened based on the financial and technical status. The informal work culture, opportunity to make immediate and visible contributions, chance to own equity etc. seemed to be the attractions offered by such start-ups. In recent years students of our department show great interest in the field of Data Science and machine learning. Some of the jobs profiles are

CORE	NON-CORE
• Metallurgical Engineering (Steel, Corrosion, Coating)	• Data Analytics/ Machine Learning/ Artificial Intelligence
• Mechanical Engineering (CFD, FEA)	• Software/ Coding
• Chemical Engineering	• Finance
• Batteries, Semiconductor, Solar Cells	• Consulting
• Polymers, Composites, Ceramics	• Education/Services/FMCG
• Modelling and Simulation	• POR based jobs

Number of students registered	48
Number of students participated	45
Number of students placed	30+3 (In Second phase)

Despite the challenging market situations over the years, MEMS managed to maintain a good attraction for the recruiting firms in the job market. The first phase placement (2019-20) shows an increment over previous year. In second phase, 3 more students got placed in Deutsche Bank, Narayana classes and Amity University.

	CTC	GROSS
MAXIMUM INTERNATIONAL	36,65,790	34,50,690
AVERAGE INTERNATIONAL	32,29,803	30,93,988
MAXIMUM DOMESTIC	18,00,058	15,00,000
AVERAGE DOMESTIC	11,58,427	10,09,274



RECRUITERS:


APPLIED MATERIALS
Micron
Halcon Systems
AIRBUS
BAJAJ
muRata
INNOVATOR IN ELECTRONICS
BEKAERT
better together
AMARA RAJA
Gotta be a better way
JAVIS
innoviti
TATA STEEL
EXL
MINDGATE
DELIVERING INNOVATION
iksula
tsmc
SOU
HITACHI
Inspire the Next
indegene
IDFC FIRST Bank
ICICI Lombard
GENERAL INSURANCE
AIIT
Aditya maging
Information Technologies
AXIS BANK

Department Organisations

The Research Scholars of Metallurgical Engineering and Materials Science department has two major student organisations:

METALS & MATERIALS ASSOCIATION (MMA)

The Metals and Materials Association, IIT Bombay is an organization of students, faculty, staff and alumni of the Department of Metallurgical Engineering and Materials Science. The major objective of MMA is to work together for elevating and propagating awareness in field of metallurgical engineering through a wide spectrum of activities and events.

DHATUKI

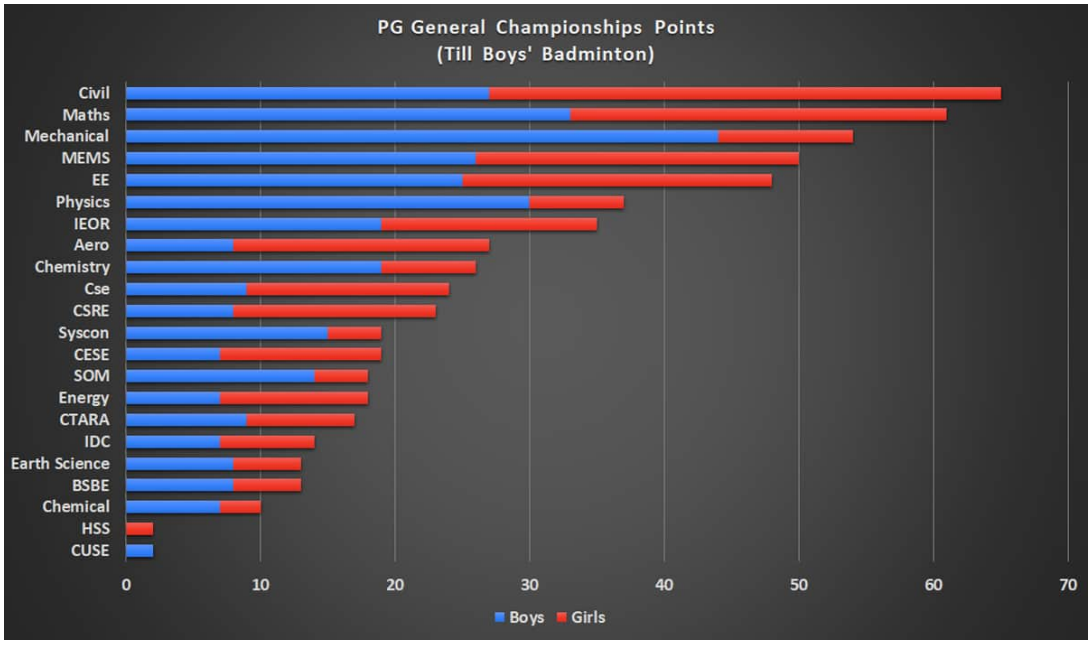
Dhatuki is the technical magazine of the Department of Metallurgical Engineering and Material Sciences of IIT Bombay. It has been conceptualized to showcase the latest in materials technology and research with contributions from eminent personalities and research organizations.

Department Achievements and Extracurriculars

1. Sports:

Every year, IIT Bombay conducts inter-departmental sports competions also known as “General Championship” (GC).

In the Sports GC of 2019-2020, our MEMS Department performed really well securing a rank in the Overall Top 5 from among as many as 22 departments throughout IITB.

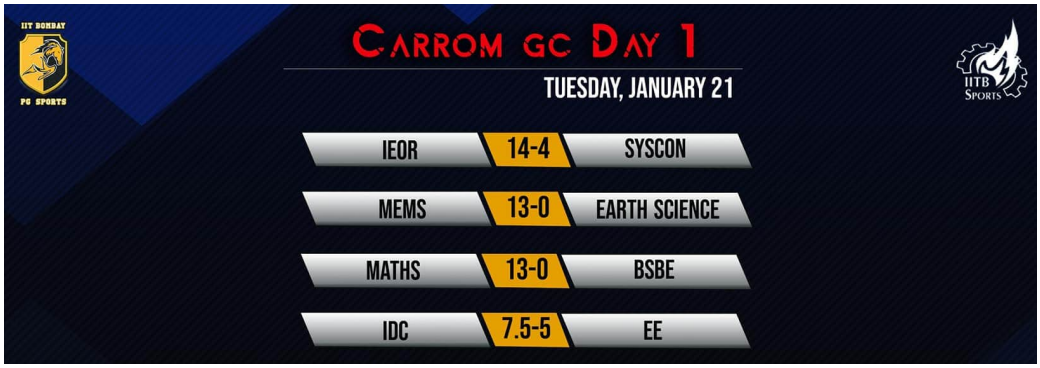


The teams of our department grabbed medals in the following sports events:

a) Bronze Medal in Girls Basketball GC:

b) Bronze Medal in Boys Kho-Kho GC:

c) Bronze Medal in Girls Carrom GC:



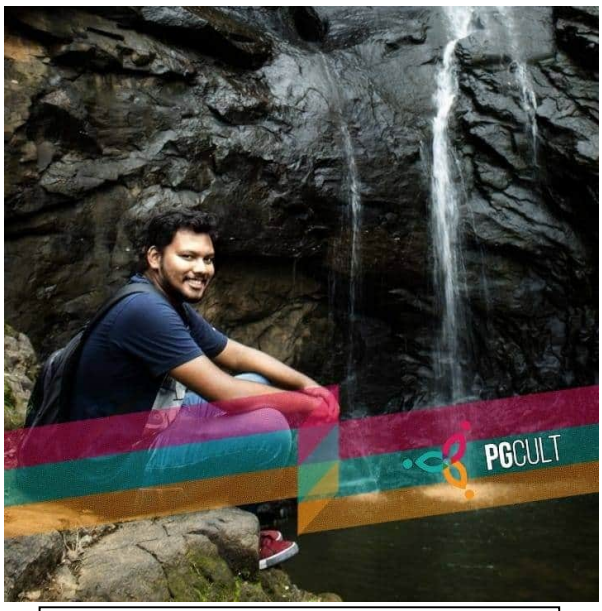
d) Silver Medal in Girls Chess GC:

e) Gold Medal in Boys Squash GC:

2. Cultural:

To preserve the artisan among students and their enthusiasm in the college life, various cultural events are organised in IIT Bombay. Students from all departments participate in these activities. The Institute Cultural PG Nominee of 2019-2020, was from MEMS department. Our department also has considerable achievements in the different cultural activities and events. Here are some of these:

a) Institute Cultural PG Nominee:



Abhishek Mandal, MEMS

b) Best Actor Award For Film GC:

Saurabh Kawale, MEMS

c) First Prize in Painting Competition held by Gender Cell:

Pooja Sriniwas, MEMS

d) First Prize in Mad-Ad Competition:

Abhishek Raj,

Akhil Chand, MEMS

Lokanath Mohanty,

e) First Prize in Inter IIT Cultural Fashion Cup:

Anant Vishwakarma, MEMS and Team

f) Second Prize in Classical and Folk Arts “Sammohan”:

Abhijeet Joshi, MEMS

3. Metals & Materials Association (MMA):

This is a non-profit organisation of students, faculty, staff and alumni of the Department of MEMS. Its major objective is to promote student-faculty interaction. For this purpose, it conducts various activities and events throughout the year. To know more click here. These are some memories from 2019-2020:

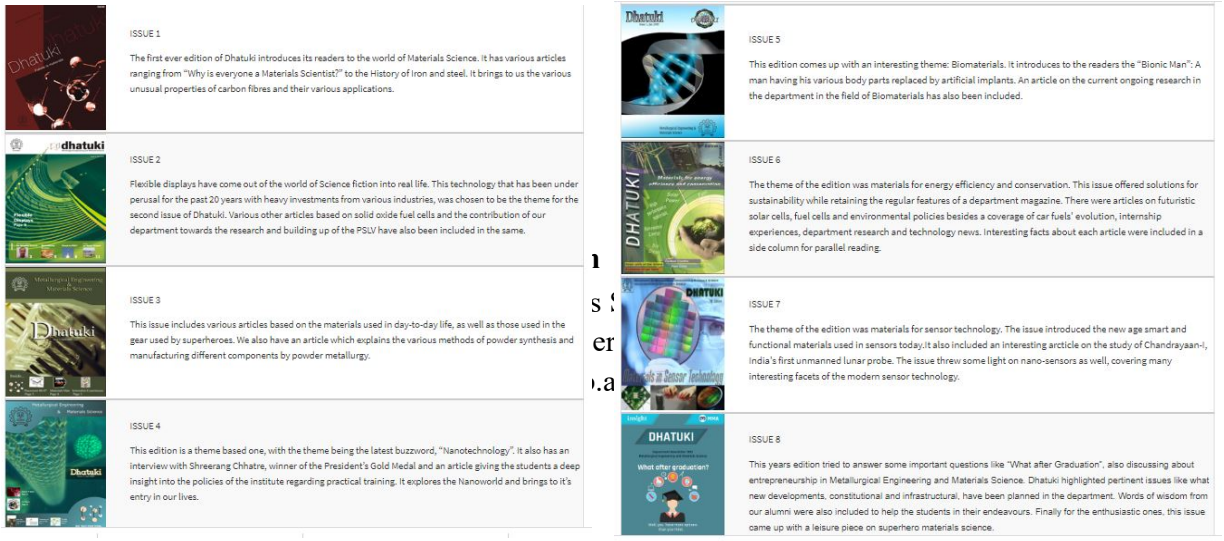
a) Freshmen Orientation:

b) Kurta Day:

c) Department Trip to Palghar:

4. Dhatuki - The Official Newsletter of MEMS:

This is a departmental magazine of MEMS. Its motive is to keep the faculty members and students updated and to cultivate their interest in the world of materials. It covers the interest of readers from all age groups with its creative contents. Its **8** issues have been published so far. You can visit the website at http://www.iitb.ac.in/mems/en/activities/dhatuki



Student Web

IITB INTERNET ACCESS

Link: https://internet.iitb.ac.in

Purpose and Procedure: Your roll number will be provided to you during institute orientation with welcome kit. You should remember this 9 digit roll number. You will get an LDAP id which you can use to browse the internet inside the campus. The default id is your roll number and default password is your date of birth and you can change it later.

APPLICATION SOFTWARE CENTRE (ASC) – ADMINISTRATION

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

Purpose: This website is the main interactive website for a student for all of his/ her 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 year's grading stats for any subject
•Brief contents of all subjects being offered
•Own personalised timetable
•Checking of own academic performance (grades)

MOODLE – ACADEMICS

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

Purpose: 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 an interaction platform where you can interact with the Professor/ TAs/ other students on any subject related matter.

WEBMAIL – MAILING INTERFACE

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

Purpose: This is your personalised e-mail in IIT. Every student gets one when you enroll. Along with normal mail, here you also get alerts or registration/ deregistration of courses, fees payment and any broadcast on Moodle among others. The general email id looks like: [yourrollnumber]@iitb.ac.in

Student Web

DEPARTMENT WEBSITE

http://www.iitb.ac.in/mems/en

Purpose: Any activity happening in the Department be it formals like steel symposium, poster presentation to informal like kurta day everything will get updated on the website. To get an update of present research happening inside the Department. To know your Department research facility and faculty.

CENTRAL LIBRARY

Link: http://www.library.iitb.ac.in/

Purpose: 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.

MAINTENANCE COMPLAINT PORTAL

Link: https://support.iitb.ac.in/support/login.jsp

Purpose: This website helps you to register any hostel related complaints like tube light not working, bed bug, leaking tap, water cooler not working. Just login through your LDAP id and password, chose category and submit.

ROOM BOOKING SYSTEM

Link: https://gymkhana.iitb.ac.in/~hostels/portal/GABS/index.php

Purpose: You can book room for your family and friend. There is cap of 5days on family member and 2 days for non-family member. Login using LDAP id and password and fill the basic detail of guest and upload scan copy of identity card of the guest.

RULES FOR MTECH

http://www.iitb.ac.in/newacadhome/MTechRules.pdf

Purpose: To understand the rules for M.Tech from admission like registration, course adjustment, credit system, course drop, financial support, grade system, performance requirement etc.

RULES FOR PHD

http://www.iitb.ac.in/newacadhome/phdRules.pdf

Purpose: Purpose: To understand the rules for Ph.D. like admission, registration, course structure, course assessment, synopsis and thesis

Student Web

submission, and evaluation etc.

ACADEMIC CALENDAR

http://www.iitb.ac.in/newacadhome/Academiccalendar201910July.pdf
Purpose: Provides dates from registration to the end semester and covers all important dates in between.

SOME IMPORTANT LINKS

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

Entrepreneurship cell
https://www.ecell.in/2018/

Lost and found
https://gymkhana.iitb.ac.in/~hostels/lostnfound.php

International relations:
http://www.ir.iitb.ac.in/

Software by IITB
http://ftp.iitb.ac.in/

IITB library
http://www.library.iitb.ac.in/index.php

Gymkhana IITB
https://gymkhana.iitb.ac.in/

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

DAAD scholarship
www.daaddelhi.org/en

STAB
https://stab-iitb.org/

ANDROID APPLICATIONS

m-indicator: Explore Mumbai.
Instimap: Know your campus.
Ftcash, payTM, Phonepe,Tez

IMPORTANT CONTACT NUMBERS

Ambulance: 1101/1110
Hospital: 7051
Main Gate: 1123
Y-Point Gate: 1121
Public Health Office: 7056
Quick Response Team: 9167398598/ 9167398599/ 9833337979/ 9833338989

ASC EXTERNAL PORTAL

Link: https://portal.iitb.ac.in/asc/Login

Purpose: It is basically a public page which you can access from anywhere with your LDAP Id. It includes your personal details to academic performances. And very useful to make semester or any other fee payments when you are especially not connected to IITB network domains.

IIT BOMBAY CULTURALS

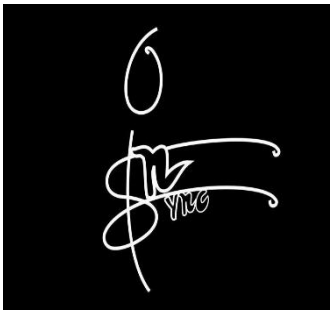
Pixels: Photography club of IIT Bombay

The Photography Club of IIT Bombay which is a diverse club of amateurs with mobile cameras to professionals with DSLRs who contribute to world renowned magazines. You will find these crazies at odd nook and corners of the campus, at unexpected times shooting sunset in the lakeside or making light graffitis in the dark night or playing with lights in the photography studio.

Rang: Fine arts club of IIT Bombay

'Rangeelas', as they are called; are these crazy people you will find doing all sorts of creative stuffs– from painting walls to institute roads, making graffitis to making colourful pfa videos to painting with colour splashes, hanging out together in night-outs, sketching and making 3D models; these people form RANG - The Fine Arts Club of IIT Bombay. Rang is not just a club consisting of the most creative people in the institute, it is a family where you learn, teach and enjoy the art of making life colourful.

InSync: Dance club of IIT Bombay



Inspite of having a strong urge to dance, many of us feel so shy that we restrict it to our rooms. But here in IIT Bombay we give you ample opportunity to explore your interest in dancing. Right from the very first event, we help you out in nurturing your interests in this genre of cult. With ranges of dance being from Bollywood to Hip-Hop, from Kathak to Punjabi, from Contemporary to Jazz, and Salsa, we try to convey our emotions with dancing.

Symphony: Music club of IIT Bombay

Symphony is the Music club of the institute. The club is proud of potraying diverse forms of music including fusion, Indian pop and various instrumentals. Over the past years there have been bands playing genres ranging from the blues, fusion and funk to prog. rock, thrash and metal. We believe that the three ingredients for good music are pitch, pocket and passion. We believe that music has a deeper meaning which resonates with our hearts. We are a large group of people who play/sing or listen to good music which isn't genre specific.

Fourth Wall: Dramatics club of IIT Bombay

So you are an Actor..? a Director..? Scriptwriter..? Technician..? Never mind, if you just love how those fellas set you cracking with their jokes or leave you shuddering with their spine chilling performances and wish to try it out, then you SHOULD pay this haven a visit! A huge and spacious room with a wooden stage and overhead spot lightings, Theatre room is all set to polish every bit of theatricality in you! This room serves a perfect practise place for all the dramatic events from street plays to stage plays.

SilverScreen: Film club of IIT Bombay

SilverScreen is the film club of IIT Bombay. Started in 2008 by a few film enthusiasts, the club has ever since promoted the culture of film making and film appreciation amongst the student community of IIT-Bombay. We provide a platform where one can not only get to enjoy a lot of films but also experience the thrill of making one.

IIT Bombay Broadcasting Channel: Media channel of IIT Bombay

IITBBC IIT-Bombay Broadcasting Channel, the online video channel of IIT-Bombay is aimed at giving the viewers a sneak peak into the events, activities and life at IIT-Bombay. It is a joint venture by the Institute Cultural Council and Insight, the media body of IIT-Bombay. We would constantly be putting up updates from cult, sports, tech and academics among others, on this channel.

Vaani: Indian languages and poetry club

Vaani - The Indian Languages Club of IIT Bombay, is a one-of-a-kind club amongst various others in the Institute. It promotes all 22 official languages of the country. While poetry remains the forté of Vaani, creative writing in prose and debate along with stage performances are also followed with great enthusiasm. Club members have excelled in and out of Institute events and the club is ever growing. It's a symbol of the heterogeneity of India which we all are so proud of. Stay tuned for Izhaar - the Indian Languages Flagship in October!!!

Literati: Literary arts club

Literati is one of the most active, entertaining and intellectually stimulating clubs in the institute, with a healthy mixture of formal (meaning you probably stand to get prize money) and informal (meaning you get chocolates instead!) events held quite frequently. We host a range of events like Quizzes, Creative Writing, Rebuses, Word Games, Scrabble, Scavenger Hunts, Treasure Hunts and Pot-pourri (dumb charades and other fun games)Roots: Classical and folk arts club

The Design Club: The design club of IIT Bombay

When creativity meets passion, design happens. Design is thoughts given shape; to put together the pieces of a puzzle, not knowing of what would unfold. Have an idea? Give it shape and bring it into existence; scribble it out or express yourself digitally. The Design Club came into existence last year, with the motive of creating a culture of design in the institute. The amazing response we got has encouraged us to go further and expand across the genres, to have infrastructure set aside for enthusiastic people. So, all artistic souls out there, join us, in the island of misfit toys.

StyleUp: Fashion club of IIT Bombay

"Everyday is a fashion show & the world is your runway" | The Fashion Club of IIT Bombay For and from the fashionistas of IIT Bombay.

We Speak: Speaking arts club of IIT Bombay

WeSpeak is the club primarily for all the debating enthusiasts in the Institute. The club not only consists of people who debate, but also of people who are into Slam poetry and Model United Nations (MUN). A lot of club members take part in group discussions as well after the debate practice sessions to discuss the various socio-economic and international issues. All in all, one can learn how to frame their arguments and speak out in front of a public audience after being a part of WeSpeak.

IIT BOMBAY SPORTS

IIT Bombay Sports boasts of a 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.

Aquatics

Events:

- CAMPS
- NSO
- SWIMATHON
- SWIMMING GC
- TRIATHLON
- WATERPOLO GC

Athletics

Events:

- FRESHIE OPEN
- CROSSY GC
- PG ATHLETICS
- NSO
- ATHLETICS GC

Badminton

Events:

- BADMINTON GENERAL CHAMPIONSHIP
- INSTITUTE BADMINTON LEAGUE
- INSTITUTE DOUBLE'S OPEN
- INSTITUTE BADMINTON LEAGUE
- INSTITUTE FRESHMEN OPEN
- NSO

Basketball

Events:

- GENERAL CHAMPIONSHIP
- CAMPS
- IBP

Board Games

Events:

- GENERAL CHAMPIONSHIP
- WORKSHOPS
- COMPETITIONS

Cricket

Events:

- GENERAL CHAMPIONSHIP
- HIT AND RUN
- FRESHMEN CRICKET LEAGUE
- CRICFIESTA
- MIXED CRICKET
- PRARAMBH
- NSO

Football

Events:

- GENERAL CHAMPIONSHIP
- INSTITUTE FOOTBALL LEAGUE
- FRESHIE TOURNAMENT
- NSO
- GIRLS' BEGINNER'S CAMP

Hockey

Events:

- GENERAL CHAMPIONSHIP
- INSTITUTE HOCKEY LEAGUE
- TOURNAMENTS
- GIRL'S BEGINNER CAMP (AUTUMN SEM)
- BEGINNER'S CAMP (AUTUMN SEM)
- BEGINNER'S CAMP (SPRING SEMESTER)
- GIRLS CAMP (SPRING SEMESTER)
- NSO

KHO-KHO

Events:

- GENERAL CHAMPIONSHIP
- INSTITUTE KHO-KHO LEAGUE
- CAMPS
- NSO

Lawn Tennis

Events:

- GENERAL CHAMPIONSHIP
- INSTITUTE TENNIS CHAMPIONSHIPS
- INSTITUTE TENNIS OPEN
- INSTITUTE FRESHMEN OPEN
- WORKSHOPS AND CAMPS
- NSO
- INSTITUTE DOUBLES OPEN

Squash

Events:

- GENERAL CHAMPIONSHIP
- INSTITUTE SQUASH LEAGUE
- TOURNAMENTS
- CAMPS
- RACKETLON
- UV SQUASH WEEKEND
- NSO

Table Tennis

Events:

- GENERAL CHAMPIONSHIP
- INSTITUTE TABLE TENNIS OPEN
- FRESHIE OPEN
- WORKSHOPS AND CAMPS
- INSTITUTE TABLE TENNIS LEAGUE

Volleyball

Events:

- GENERAL CHAMPIONSHIP
- INSTITUTE VOLLEYBALL OPEN
- CAMPS
- NSO

Weightlifting

Events:

- GENERAL CHAMPIONSHIP
- POWERLIFTING AND ARM WRESTLING
- NSO

Adventure Club
Events:

- ADVENTURE SPORTS IN SAHYADRI RANGES
- MOUNTAINEERING, ADVENTURE, PARAGLIDING AND SKIING COURSES
- CYCLING CLUB
- SKATING CLUB

The Dark Knight club
Events:

- IIT Bombay Rapid Chess Open
- Institute Blitz Championship
- Institute Rapid Championship
- Candidates Tournament

Yogastha
Events:

- Yoga sessions and workshops.

IIT BOMBAY TECHNICAL CLUBS

- Aeromodelling
- Chemisty Club
- Electronics and Robotics club
- Krittika - The Astronomy Club
- Math n Physics
- Tinkerers' Lab
- Web and Coding Club
- Student Reading Group

IIT BOMBAY TECHNICAL TEAMS

- IIT Bombay Racing
- Innovation Cell IIT Bombay
- Pratham
- Team Shunya
- AUV-IITB
- Mars Rover Team

IITB map

IIT BOMBAY
Campus Map
Powai Lake
Vihar Lake
Area Under Development
Boat House
Nitie Campus
Renaissance Hotel
Towards International & Domestic Airport / Andheri (E)
Towards Kanjurmarg Railway Station (W)
Map Design
Shishir Bhagade, IDC, IITB
Project Guide
Prof. Mandar Rane, IDC, IITB
© 2014
Version: 20th Feb 2015
Map is not to scale
ACADEMIC, NON ACADEMIC & SERVICES
SEARCH LOCATION BY GROUPS AND SERIAL NUMBERS
ACCOMMODATION, HOSTELS & RESIDENTIALS

Student Wellness Centre

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

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.

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

It is well known that the students experience lots of stress especially regarding their academic future in this covid-19 lockdown period. In this context many students were undergoing mental stress and there is a strong need to consider their mental health status. At IIT Bombay, Student wellness centre is the place where you can find help

Typical concerns for which you can seek counselling are

- Transition and change
- Uncertainty about values and goals
- Academic pressure
- Dealing with new academic patterns
- Personal relationships with the special one and with friends
- Family concerns
- Issues of grief and loss
- Stress, depression and anxiety
- Lack of motivation; concentration difficulties
- Others…

Counselling in this covid-19 lockdown period:

Due to sudden disruption to the ongoing semester and uncertainty about the future during COVID-19 lockdown, we understand you might be feeling stressed.

The Student Wellness Centre is with you at this time.

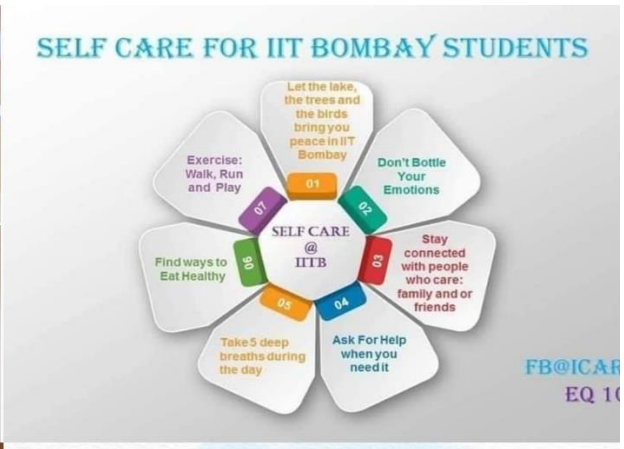
In case you wish to talk to a counsellor over phone, kindly contact us on the given numbers during the below-mentioned timings:

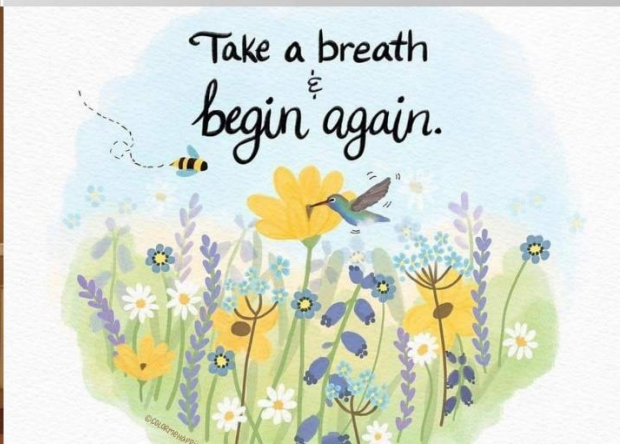
Timings: 11 am to 1 pm and 4 pm to 6 pm

Mr. Shoukath Ali- 8590594136/ 8174867876

Contact Details for SWC:

Student Wellness Centre
3rd floor, above Academic section, Main building
Contact Number: 022-2576-9070





Gender Cell

In recognition of the Institute's belief that its students have a right to be treated with dignity and respect, the Cell works actively towards developing a safe and secure environment for its students , and to ensure that all students may gain their education without fear of prejudice, gender bias, hostility or sexual harassment. The IIT Bombay Gender Cell (GC) inquires into complaints of sexual harassment through its Internal Complaints Committee (GC-ICC). The GC and GC-ICC strive to work towards an egalitarian environment where men and women are afforded equitable treatment and equality of opportunity conducive to their professional growth.

As a student of IIT Bombay, you can find all help needed in this regard. All the preceding and enquiries done by gender cell are confidential. So for any help regarding this free to contact gender cell.

Contact details:
3rd Floor, Main Building,
Next to Student Wellness Center,
IIT Bombay, Powai, Mumbai - 400076.
Contact No: 022-2576-5052

Extracurricular activities in this pandemic situation

Cultural activities:

1. **Summer School of Cult**
   Summer School of Cult is a learning opportunity for the students, staff and residents of IIT Bombay. Various Classes across multiple genres - classical and folk arts, dance, dramatics, film, fine arts, music, photography, design, lifestyle, literary and speaking arts will be conducted online

2. **Inter Institute Art Contest**
   Inter Institute Art Contest was a first of its kind online art competition being hosted amongst the IITs. The contest was open to all the art enthusiastic students (the students who have just completed their degree are also allowed) in the participating IITs and provides you an opportunity to showcase your talent on a Pan-IIT level.

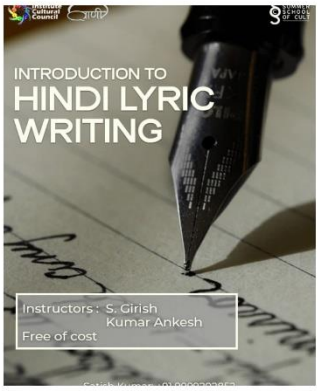
3. **Institute Cultural Summer Project**
   ICSP is a set of projects you can work on from home, either by yourself or in collaboration with your peers. You will be mentored by people who're experts in their fields and have a wide experience in their genre. They will guide and streamline your efforts to obtain an optimized learning experience and, in the end, produce beautiful works of art. This year's ICSP includes projects across Music, Dramatics, Photography, Fine Arts and Classical and Folk Arts.

Sport activities:

- **Lock & Rock (Sports Quiz)**
  In this lockdown period, we all can't go outside and play sport but no one can stop us fron discussing the sport. IIT Bombay PG sport has organized Sport quiz event with the exciting prizes to win

Department level activities:

- **Webinar**
  Webinar is the initiative taken by Head of MEMS department to continue learning in this lockdown period in this post Covid -19 situation. In this webinar, institute distinguish professors give online seminar on different topic related to their expertise. It is good learning opportunity for department student as studies got disturb and student unable to attend classes in IIT campus.



Thanking

Being the best institute in India, IIT Bombay is also acknowledged for mentorship programming in many ways and ISCP is most dynamic body, in order to help students of IIT Bombay. ISCP family includes more than 170 mentors which will help us to grow in all directions. ISCP team welcomes all the new-comers to our institute and make a tangible use of Institute’s resources. ISCP team is always ready to help students and appeal to join future meeting. ISCP wishes to acknowledge all our mentors for helping new students in all possible ways.

Thanking again to all our new students

Best Wishes!!