

FRESHER'S HANDBOOK

CIVIL ENGINEERING DEPARTMENT

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 have inadvertently crept in.

This handbook cannot be used as a basis for making a claim on facilities/concessions/interpretation of rules/statutes 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 Rubles from the then Soviet Union. In 1961 Parliament decreed the IIT's as 'Institutes of National Importance'. Since then, IITB has grown from strength to strength to emerge as one of the top technical universities in the world. The institute is recognized worldwide as a leader in the field of engineering education and research. Reputed for the outstanding caliber of students graduating from



its undergraduate and postgraduate programs, the institute attracts the best students from the country for its bachelor's, masters, and doctoral programs. Research and academic programs at IIT Bombay are driven by an outstanding faculty, many of whom are reputed for their research contributions internationally. QS ranking - 1st in India and 149th in QS world university rankings (2024). IIT Bombay has secured the fourth position in the 'Overall' category, the third position in 'Engineering' category and tenth position in 'Management' category of the National Institutional Ranking Framework (NIRF) for 2023. A fully residential institute, all its students are accommodated in its 16 hostels. 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 programs.

The alumni have distinguished themselves through their achievements in and contributions to the industry, academics, research, business, government, and social domains. The institute continues to work closely with the alumni to enhance its activities through interactions in academic and research programs as well as to mobilize financial support.

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 15 hostels with in-house dining; the campus also provides excellent amenities for sports and other recreational facilities.



About the Department

VISION: To be the fountain-head of new ideas and innovations in Civil Engineering.

MISSION: To offer world-class undergraduate and postgraduate education, research guidance, professional consultancy, outreach, and manpower training as well as leadership in Civil Engineering.

Civil Engineering Department is part of the Indian Institute of Technology Bombay since its inception (1958). The recent QS world ranking 2023 shows our department's world ranking in between 51- 100, with all India rank number ONE(1st), in the domain of Civil Engineering. The department has developed strong links with civil infrastructure, academic and research agencies, both within and outside the country. Besides high-quality teaching and instruction, the Department is actively involved in basic and applied research and consultancy and provides high quality technical advisory support through various R&D projects and consultancy to various organizations. The Department of Civil Engineering, with its multifaceted faculty, continues to maintain and cultivate its strong links with the infrastructural industry and academic and research institutions both within and outside the country.



MESSAGE FROM HOD



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Dear New PG Students,

Welcome to IIT Bombay!! Heartiest Congratulations to you all for getting selected as Postgraduate (MTech./Ph.D.) student of the Civil Engineering Department of IIT Bombay. You are one of the best students in the country who could either qualify one of the toughest examinations of the country i.e., Graduate Aptitude Test in Engineering (GATE), or qualified through rigorous interview and selection process of the department. Additionally, I as the former Organizing Chairperson of GATE-2021 and former zonal Chairperson of GATE- 2020, want to commend all GATE qualified candidates who are joining in MTech. program, for winning the battle against all odds created in your early career of UG days by the Covid-19 pandemic situation.

This year our department had received a very high number of applications (around 600) for admission in Ph.D. program. You are only a few lucky ones who got selected because we found you are the best with huge potential to become country's some of the top future academician / researcher / entrepreneur / industry expert / leader.

This year our department also have seen many fold increase in the number of applications from foreign candidates (about 150+), who had applied for MTech. and Ph.D. program from various other countries. All these data clearly show the huge demand of the Postgraduate (MTech. and Ph.D.) program of our department. You may know that our department's recent QS world ranking is between 51-100, with all India rank number ONE (1st), in the domain of Civil Engineering. Our expert faculty members are involved in several basic and applied research works, many of which also get translated to solve various challenging issues of the country and society at large. Eight of our department faculty members are also listed in top 2% scientists/researchers of the world as per the recent Stanford University database. These are possible because of various contributions made by several of our former PG students of this department. You will find several finest and best teachers here, some of whom you might be knowing already through NPTEL and other various online teaching platforms. Department is currently having more than 275 PhD research scholars, about 130 M.Tech. students, 51 faculty members, who together always try to improve the outcome of research and technology development.

As a PG student, you will get many opportunities to learn several new things from this department of IIT Bombay which will shape your career. Freedom is one of the keywords which is best utilized for the better growth of a student in this campus, as it provides not only best education but also opportunities to get involved in multi-dimensional co-curricular activities.

We shall look forward for your significant research and other developmental contributions to keep the name and prestige of this department high, which will make the institute and country proud for you in near future. Hope to have you all soon in-person at this beautiful campus of IIT Bombay. Stay blessed with honesty and integrity to contribute for the society through higher learning.



MESSAGE FROM FACULTY ADVISORS



Prof. Solomon Debbarma
(Transportation System Engineering)

"Welcome, dear students! We are honored to be a part of your academic journey toward the realization of your dreams! Welcome Class of 2023! As you embark on this new chapter of your academic journey, we want you to know that you are now a part of our close-knit community, and we are thrilled to have you join us. During your time here, you will not only engage in academic excellence but also have the opportunity to develop personally and professionally. Our institution is committed to providing you with an enriching and nurturing environment that encourages growth, exploration, and collaboration. As PG students, you are poised to make significant contributions to your respective fields of study, and we believe that your unique perspectives and passion for learning will undoubtedly enrich the fabric of our institution. As you embark on this exciting journey, keep an open mind, seize the opportunities that come your way, and cherish the friendships you'll make along the way. This is a time of growth, discovery, and transformation, and we are confident that you will leave here not only with knowledge and skills but also with cherished memories that will last a lifetime."



Prof. Ashish Juneja
(Geotechnical Engineering)

A warm welcome to the Geotechnical Engineering M.Tech Programme!

On behalf of the faculty and staff of the entire Geotechnical Engineering Division, I am thrilled to extend a heartfelt welcome to you as you embark on this exciting journey at our esteemed postgraduate programme!

Congratulations on taking this significant step in your academic journey. As you embark on this new chapter, we assure you that you are about to experience an enriching and transformative learning experience. Geotechnical Engineering is a fascinating field that explores the complexities of the earth's subsurface and its interactions with the infrastructure and the environment. Throughout this programme, you will be exposed to a diverse range of topics, from soil mechanics and foundation engineering, earthquake engineering and slope stability to geosynthetics and ground improvement techniques. During your tenure with us, you will be guided by distinguished faculty with years of experience and expertise. They are committed to providing you with a transformative educational experience that fosters critical thinking, problem-solving skills and hands-on applications. Furthermore, our state-of-the-art laboratories and research facilities are at your disposal, offering you the chance to engage in cutting-edge research and innovations that have a genuine impact on the industry.

But it's not just about academics and research; we value community and peer support. Our Geotechnical Engineering Division is a close-knit family, and we encourage you to build meaningful connections with your peers. Collaborative efforts and peer-to-peer learning often leads to groundbreaking discoveries and lasting friendships.

Throughout your journey, we are here to support you in every way possible. If you ever face challenges or need guidance, our faculty and staff are more than willing to lend a helping hand. Once again, welcome to our master's programme! Let us embark on this incredible journey together.

Best wishes for a successful and rewarding academic journey!



MESSAGE FROM FACULTY ADVISORS



Prof. T I Eldho
(Water Resources Engineering)

Hearty Welcome to the Civil Engineering Department and IIT Bombay. I congratulate you on achieving your goal of pursuing your higher studies in one of the top Civil Engineering Departments of the world. I am sure that your dream of doing M.Tech Degree in the best Civil Engineering Department will be fulfilled here in IIT Bombay. During your study period here, I am sure that you will get the needed value addition and gain new knowledge in the area of Water Resources Engineering. We have the best Faculty in various areas of water resources engineering. We also have the best Laboratory facilities and computational lab facilities. Having achieved your dream of taking up post-graduate studies in IIT Bombay's Civil Engineering Department, I hope you will have full enthusiasm and motivation to do your studies in the various areas of Water Resources. I hope you will do your duties assigned as a part of your teaching assistantship with full enthusiasm and sincerity. Through your interaction with Water Resources Faculty, I am sure that you will have the opportunity to develop your full potential and achieve your dreams. I am sure that you will come out with flying colors in your courses and high research output through your dissertation and useful outcome to the society. During the course of your study, I hope that you would show the highest level of integrity, follow ethical standards and professionalism keeping the reputation of IIT Bombay. Please utilize all the systems and facilities of IIT Bombay to your maximum advantage and achieve an all-around value addition to your personality. I wish you all the success.



Prof. Alok Goyal
(Structural Engineering)

Warm welcome to all of you joining the M. Tech. program in Structural Engineering at IIT Bombay. Our program will give you a balanced exposure of academic research and professional practice. We offer a large number of courses, use advance analysis and design software for assignments, and have well- equipped laboratories. Please feel free to contact faculty members if you need assistance in your academic and non-academic matters. This will be your home for next two years, and we all wish you a very happy and fruitful stay at this beautiful IIT Bombay campus.



Prof. Srineash V K
(Ocean Engineering)

Dear Students, A hearty welcome to the Department of Civil Engineering, IIT Bombay! We are certain that you will find the next two years to be the most inspiring and tremendous learning opportunity. I encourage you to go forth with a spirit of exploration and eagerness. Please reach out to us whenever you have any query, we are here to support your academic expedition. We look forward to the fresh ideas and energy you will bring to our campus. Wishing you all a very successful and academically fulfilling journey ahead.



MESSAGE FROM FACULTY ADVISORS



Prof. Raaj Ramsankaran
(Remote Sensing)

Dear Students A warm and enthusiastic welcome to each one of you as you embark on this exciting journey of pursuing your Master's in Technology in Remote Sensing specialization in the Department of Civil Engineering at the prestigious IIT Bombay! Congratulations on successfully securing your place in one of the most renowned technical institutions in the world. As you begin this new chapter in your academic life, we encourage you to embrace the challenges and opportunities that lie ahead. As you delve into your studies and research, do not forget to take care of your physical and mental well-being. Balancing academic pursuits with self-care is vital for your overall success and happiness. Once again, a heartfelt welcome to IIT Bombay and the Civil Department. Best wishes for a fulfilling and successful stay at IIT Bombay!



Prof. Venkata Santosh Kumar Delhi
(Construction Technology and
Management)

Dear Students, A warm welcome to the Civil Engineering Department, IIT Bombay! Congratulations on your momentous decision to pursue Post Graduate Studies here. Your stay over the next two years would be a crucial stepping stone towards building a successful and fulfilling career. As you pursue your studies, delve into the depths of your field and seek to expand the boundaries of understanding. I hope you will actively engage in the curricular, co-curricular and extra- curricular activities on campus while prioritizing your well- being. I wish your time here a transformative experience that prepares you for a great career ahead and fuels your thirst for knowledge. My best wishes to you!



MESSAGE FROM ISCP(OC)



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Welcome freshmen!

Congratulations to all of you on your admission to IIT Bombay! You have accomplished something truly remarkable, and your hard work and dedication have paid off. You are about to set off on a fantastic adventure that will significantly impact your future. As you step onto this esteemed campus, be prepared for a mix of emotions and exciting experiences. You will form lasting friendships, engage in stimulating discussions in canteens, and immerse yourself in the diverse wing cultures, all of which will add flavor to your college life. Cherish these moments, as they will become cherished memories in the years to come. Being a part of an institution like IIT Bombay means you are joining a community of individuals who are passionate about their fields of study. Embrace this opportunity to learn from the best minds, both inside and outside the classroom. Engage in research, join clubs and societies, and make the most of the resources available to you.

However, it's essential to acknowledge that this new phase might come with its challenges. College life can sometimes be overwhelming, with academic pressure, personal adjustments, and time management hurdles. Remember that it's normal to feel stressed at times, but don't hesitate to seek support from the ISCP (Institute Student Companion Programme) team. The ISCP is a student body that aims to establish a bond of trust and comfort between final-year students and incoming students in the PG programs. The seniors ease your transition by drawing on their expertise and experience from their time on campus. Since, transitioning to a new academic environment can be overwhelming, but with the guidance of seniors who have been through it themselves, incoming students can feel more prepared and supported. From practical matters like campus tours and understanding the grading system to more academic-focused aspects like completing the syllabus and navigating the placement process, having experienced seniors by their side can make the journey smoother and less daunting. To all the incoming students, I encourage you to take full advantage of the resources and support offered by the Institute Student Companion Programme. Don't hesitate to reach out to your seniors for guidance, advice, or even just to make new friends. Your time at IIT Bombay will be enriched by the connections you form and the knowledge you gain through this program.

All the
best! ISCP
team



MESSAGE FROM PGAC



Shristi Thakur
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Welcome Freshers!

To live a fulfilled life, we need to keep creating what is next", of our lives." ~ Mark Twain

Congratulations on joining IIT Bombay's prestigious Post Graduate Program! Your hard work has paid off. Remember, this is not the end of your goals but the beginning of a new journey filled with new goals to achieve and more effort to put in. You will receive incredible knowledge, growth, and opportunities at IIT Bombay. Embrace this experience explore, try new things, and strive to achieve your best during your time here.

Our dedicated faculty, staff, and student councils are here to support you every step of the way. We understand post-graduation requires more effort and dedication, so we have established the Post Graduate Academic Council (PGAC) to assist you. If you have any questions or concerns or need support, don't hesitate to contact your department's AURAA (Academic Unit Representative of Academic Affairs).

Wishing you a remarkable career ahead!



MESSAGE FROM ISCP (DC)



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Welcome juniors!

We take great pride in congratulating you on successfully gaining admission to one of India's most esteemed institutes. Your entrance into this institution signifies the beginning of a remarkable journey filled with knowledge and exploration. We understand that transitioning into a new phase of your life may pose challenges for some of you. However, there's no need to worry, as we are here to support and guide you every step of the way, making this process simpler and unforgettable.

We would also like to extend an invitation to join the Department of Civil Engineering, which holds a prestigious position as one of the oldest and most prominent departments at IIT Bombay. Our faculty members are renowned in the academic field for their exceptional research contributions. Additionally, the department provides access to top-notch resources and well-equipped laboratory facilities, which we strongly encourage you to fully utilize.

While IIT Bombay is well-known for its academic activities, it is equally recognized for its extracurricular activities also. Throughout the year, numerous events are organized by various clubs, catering to a wide range of interests. Participating in these events can greatly help alleviate any academic stress you may experience. The atmosphere at IIT Bombay fosters holistic development, ensuring that your time here will be transformative, shaping you into a better and more well-rounded individual.

Surrounded by the Vihar Lake and the Powai Lake, the lush green campus in the dream city of Mumbai is definitely a sight to behold. We eagerly await your arrival, as you step into your second home where lifelong memories will be created. The dedicated team of the department's ISCP is available to assist you at any time, addressing any concerns or issues you may encounter, no matter how silly they may seem. Please do not hesitate to reach out to us, as our primary goal is to cater to your needs and ensure your comfort. Having already traveled the path you are about to embark upon, we are well aware of the potential challenges you may face, and we are committed to being your mentors and helping you avoid the mistakes we made. Therefore, we kindly request you to approach us whenever you require assistance.

Once again, we extend a warm welcome to IIT Bombay, where your academic and personal growth will flourish.

Welcome to IIT Bombay!



Department Coordinator



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Student Companions



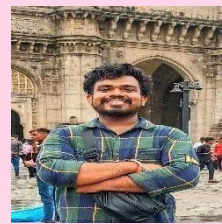
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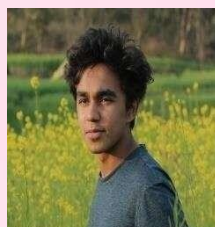
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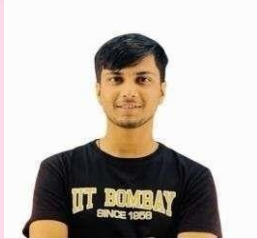


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MESSAGE FROM DPC



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Hello, dear freshers.

I hope you are all eager to learn about the placement process and various other aspects related to it. Please rest assured that the Department Placement Coordinator is available to assist you at every step and ensure a seamless placement journey. It is advisable to concentrate on your studies, focus on developing your skills, explore your areas of interest, and actively engage in a variety of extracurricular activities. There are numerous opportunities for you to participate in and showcase your skills, and it is crucial not to miss them. Dedicate your utmost efforts, as no obstacle can hinder your success.

I wish you all the very best for your future endeavors.



ACADEMIC OVERVIEW



The Department of Civil Engineering offers a broad-based undergraduate B.Tech. programme, dual-degree (B.Tech.-M.Tech.) programme. Postgraduate (M.Tech.) and Ph D programmes in the following specializations:

- Transportation Systems Engineering
- Geotechnical Engineering
- Water Resources Engineering
- Structural Engineering
- Ocean Engineering
- Remote Sensing
- Construction Technology and Management

CE1 - Transportation Systems Engineering

Warmest greetings and a hearty welcome to the M.Tech program in Transportation System Engineering Group! We are thrilled to have you join us on this exciting academic journey. In this program, you will be part of a dynamic and forward- thinking group that focuses on wide domains crucial to the field of transportation engineering. Firstly, we are committed to exploring innovative approaches for sustainable transportation solutions, aiming to reduce carbon emissions and promote eco-friendly mobility. Our faculty members have made significant contributions to the transportation industry through their involvement in initiatives like the Indian Road Congress (IRC) and the Indo-HCM (Highway Capacity Manual), shaping national standards and guidelines for infrastructure development. Moreover, we engage in critical urban planning and regional studies projects, such as the Comprehensive Traffic Study of Mumbai Metropolitan Region and the Regional Plan for Mumbai Metropolitan Region, to optimize transportation systems in growing metropolitan areas. Safety is our utmost priority, and we take pride in our participation in projects like the Monitoring and Evaluation of road safety in Mumbai and Pune under Bloomberg's Initiative for Global Road Safety, along with conducting Road Safety Audits for significant highways like NH-3. Additionally, we delve into the art and science of Pavement Design and Management, focusing on flexible and rigid pavements, as well as their maintenance and rehabilitation to ensure the longevity and sustainability of our transportation infrastructure. Throughout your time with us, you will have the opportunity to work on real-world projects, conduct research, and collaborate with experienced faculty and industry professionals, fostering a hands-on approach to excel in the transportation industry. We encourage you to embrace curiosity, ask questions, and engage actively with your peers and mentors, nurturing your passion for transportation engineering. Let's embark on this transformative journey together and make a significant impact on the future of transportation.

Faculty members and their research areas:

 <p>Prof. K.V. Krishna Rao</p>	<p>Research Areas: Sustainable Urban Transportation Planning, Land Use Transport Modelling, Travel Survey Design and Analysis; Travel Behavior and Choice Modelling, Air Travel Demand Modelling, Capacity And Level Of Service Of Traffic Facilities.</p> <p>Contact: kvk rao@civil.iitb.ac.in https://www.civil.iitb.ac.in/~kvk rao 02225767305</p>
 <p>Prof. Tom V. Mathew</p>	<p>Research Areas: Traffic Flow Modelling and Simulation; Transportation Network Optimization, Traffic Control And Management.</p> <p>Contact: vmtom@civil.iitb.ac.in https://www.civil.iitb.ac.in/~vmtom 02225767349</p>



 <p>Prof. Gopal R. Patil</p>	<p>Research Areas: Transportation Systems Planning; Transportation Network Optimization; Traffic Operations; And Freight Transportation Modeling.</p> <p>Contact: gpatil@civil.iitb.ac.in https://www.civil.iitb.ac.in/~gpatil 02225767308</p>
 <p>Prof. Vedagiri Perumal</p>	<p>Research Areas: Traffic Safety, Modelling Pedestrian Behavior, Traffic Flow Modelling and Simulation, Traffic Management and Control, Public Transit System Design and Operation.</p> <p>Contact: vedagiri@civil.iitb.ac.in https://www.civil.iitb.ac.in/~vedagiri 02225767307</p>
 <p>Prof. Nagendra Rao Velaga</p>	<p>Research Areas: Traffic and Intelligent Transportation Systems. Transportation Accessibility and Mobility. GIS And GNSS Applications in Transport.</p> <p>Contact: n.r.velaga@iitb.ac.in https://www.civil.iitb.ac.in/~velaga 02225767341</p>
 <p>Prof. Avijit Maji</p>	<p>Research Areas: Machine intelligence and computer vision in alignment development; Optimization in transportation infrastructure development; Effects of highway infrastructure on driver behavior; Performance based highway infrastructure design; Innovative highway infrastructure design; High speed rail infrastructure planning; Transportation safety and security</p> <p>Contact: avimaji@civil.iitb.ac.in https://www.civil.iitb.ac.in/~avimaji 02225767338</p>
 <p>Prof. Dharamveer Singh</p>	<p>Research Areas: Characterization of Pavement Materials (Asphalt, Hot Mix Asphalt, Soil, And Aggregates), Recycled Asphalt Mixes, Warm Mix Asphalt, Locally Available Materials, Stabilization of Soil and Aggregates, Intelligent Asphalt Compaction, Constitutive Modeling of Pavement Materials, Simple Performance Tests (Rutting, Fatigue, Dynamic Modulus) On Asphalt Mixes, Pavements (Flexible and Rigid) Design And Evaluation, Forensic Investigation Of Pavements, Pavement Maintenance And Rehabilitation.</p> <p>Contact: dvsingh@iitb.ac.in https://www.civil.iitb.ac.in/~dvsingh 02225767304</p>
 <p>Prof. Solomon Debbarma</p>	<p>Research Areas: Design and Construction of Rigid Pavements. Use of Recycled Aggregates in Concrete, Pavement Materials Characterization, Low- Cost Low- Carbon Concrete Pavements(Roller Compacted Concrete, Pervious Concrete, Precast Concrete, Geopolymers), Industrial and Agricultural Wastes in Pavements, Characterization of Concrete, Maintenance, Repair and Rehabilitation of Cement Concrete Pavements.</p> <p>Contacts: sdebbarma@civil.iitb.ac.in https://sites.google.com/view/solomondebbarma 02225767131</p>



CE2 – Geotechnical Engineering

This group of researchers and academicians are involved in various research areas like design of various geotechnical structures subjected to different types of loads, invasive and non-invasive soil investigations, laboratory experiments for soil testing and model testing, environmental geotechnics, numerical and centrifuge-based physical modelling, etc. Some of the most highly equipped laboratories are available to nurture and create possibilities for the students in making their contributions in the field. Interdisciplinary research, instrumentation, data acquisition systems and indigenous test setup developments, which would be beneficial in understanding the parameters influencing the design of geotechnical structures is the recent focus of the specialization.

Faculty members and their research areas:

 <p>Prof. Deepankar Choudhury</p>	<p>Research Areas: Geotechnical earthquake engineering; Soil dynamics; Foundation engineering; Computational geomechanics; Dynamic soil-structure interaction; Liquefaction</p> <p>Contact: dc@civil.iitb.ac.in https://www.civil.iitb.ac.in/~dc/ 02225767300</p>
 <p>Prof. D.N. Singh</p>	<p>Research Areas: Environmental Geotechnology; Valorization of Industrial Waste(s); Gas Hydrates</p> <p>Contact: dns@civil.iitb.ac.in https://www.civil.iitb.ac.in/~dns/ 02225764317</p>
 <p>Prof. Viswanadham B.V.S</p>	<p>Research Areas: Centrifuge modelling; Environmental geotechnics; Soil reinforcements; Slope stabilization; Waste materials utilization</p> <p>Contact: viswam@civil.iitb.ac.in https://www.civil.iitb.ac.in/~viswam/ 02225767344</p>
 <p>Prof. Ashish Juneja</p>	<p>Research Areas: In-situ And Laboratory Engineering Properties of Soil; Numerical And Physical Modelling In Geo-techniques; Earthwork; Ground Improvement</p> <p>Contact: ajuneja@iitb.ac.in https://www.civil.iitb.ac.in/~ajuneja/ 02225767327</p>
 <p>Prof. Dasaka Murty</p>	<p>Research Areas: Studies on Earth Pressure Reduction Techniques, Field Behavior of Rock Socketed Piles, Stabilization of Problematic Soils, Mitigation of Railway-borne Vibrations, Deep Excavation Supporting Systems</p> <p>Contact: dasaka@civil.iitb.ac.in https://www.civil.iitb.ac.in/faculty/details/prof-dasaka-murty/ 02225767316</p>





 <p>Prof. Prasenjit Basu</p>	<p>Research Areas: Energy geotechnics; Thermo-hydro-mechanical characterization of soil; Coupled(thermo-hydro) flow in the ground; Engineering of foundations; Computational geomechanics</p> <p>Contact: pbasu@civil.iitb.ac.in https://www.civil.iitb.ac.in/~pbasu 02225767312</p>
 <p>Prof. Santiram Chatterjee</p>	<p>Research Areas: Offshore geotechnical engineering; Pipeline geotechnics; Numerical modelling; Offshore soil characterization.</p> <p>Contact: sc@civil.iitb.ac.in https://www.civil.iitb.ac.in/~sc/ 02225765327</p>
 <p>Prof. Pinom Ering</p>	<p>Research Areas: Landslides, probabilistic methods, risk and reliability analysis, Mesh-free techniques (Material Point Method), large deformation problems.</p> <p>Contact: pinomering@civil.iitb.ac.in https://www.civil.iitb.ac.in/~pinomering 02225767332</p>

CE3 – Water Resources Engineering

This specialization deals with research in areas of rainfall-runoff modelling, groundwater flow modelling, climate change, extreme events, watershed management, Computational fluid dynamics, Numerical methods in water and environment, Stochastic hydrological modelling, Statistical modelling and forecasting, Risk analysis of flood and droughts, Reservoir operation and water supply systems, Hydrological statistics, Flood inundation modelling etc. There are three highly equipped laboratories: Fluid mechanics lab, advanced fluid mechanics lab, and advanced hydraulics lab. Advanced fluid mechanics lab houses facilities such as wind tunnel, facilities to measure drag and lift and various types of flumes, turbines and pump experiments. In advanced hydraulics lab, all research-based experiments in open channels, watershed, groundwater etc. can be carried out.

Faculty members and their research areas:

 <p>Prof. Kapil Gupta</p>	<p>Research Areas: Urban Drainage/storm Water Management; Sedimentation in Channels and Rivers; Urban Water Infrastructure Management; Hydrologic Disaster Management; Water Quality Modelling in Rivers, Ponds, Lakes, and Estuaries.</p> <p>Contact: kgupta@civil.iitb.ac.in https://www.civil.iitb.ac.in/~kgupta/ 02225767324</p>
 <p>Prof. T I Eldho</p>	<p>Research Areas: Groundwater Flow and Pollution Investigation; Computational Fluid Dynamics; Coastal Hydrodynamics; Watershed Management; Application of Numerical Methods in Water and Environment.</p> <p>Contact: eldho@civil.iitb.ac.in https://www.civil.iitb.ac.in/~eldho 02225767339</p>



 <p>Prof. V Jothiprakash</p>	<p>Research Areas: Water Resources Systems Analysis, Stochastic Hydrological Modeling, Reservoir Sedimentation, Airport and Road Side Storm Water Drainage System, Water Supply and Sewerage Systems, Genetic Algorithms and Genetic Programming, Artificial Neural Networks, Non-linear Dynamic Analysis Using Chaos Theory, Singular Spectrum Analysis, Single Variate and Multi-Variate Time Series Analysis.</p> <p>Contact: vprakash@iitb.ac.in https://www.civil.iitb.ac.in/~vprakash 02225767315</p>
 <p>Prof. Subimal Ghosh</p>	<p>Research Areas: Hydro-climatology: Regional Modeling and Understanding of Indian Monsoon; Statistical Downscaling; Atmosphere- Land Surface Interactions; Climate Change Projections And Impacts Assessment; Seasonal And Sub-seasonal Prediction Of Monsoon; Hydro- climatic Extremes; Hydrology: Meso-scale Hydrologic Modeling; Uncertainty Modeling; Eco-hydrology.</p> <p>Contact: subimal@civil.iitb.ac.in https://www.civil.iitb.ac.in/~subimal 02225767319</p>
 <p>Prof. Bellie Sivakumar</p>	<p>Research Areas: Rainfall and Streamflow Modeling; Hydrologic Extremes; Sediment Transport in Rivers; Large-scale Water Projects; Transboundary Water Management; Groundwater Flow and Transport; Water quality in Rivers; Ecosystem Modeling; Human - Water Interactions; Hydrology Education; Complex Systems and Networks; Chaos Theory; Scaling and Fractals.</p> <p>Contact: b.sivakumar@civil.iitb.ac.in https://www.civil.iitb.ac.in/~b.sivakumar 02225767331</p>
 <p>Prof. Janga Reddy Manne</p>	<p>Research Areas: Evolutionary Algorithms for WRS Optimization; Reservoir Operation, Water Supply Systems; Surface Water Hydrology and Watershed Management; Statistical Modeling and Forecasting, Risk Analysis of Floods and Droughts; Copulas for Uncertainty Modeling; Applications of Soft computing Techniques In WRM; Impacts of Climate Change on Water Resources and Agriculture.</p> <p>Contact: mjreddy@civil.iitb.ac.in https://www.civil.iitb.ac.in/~mjreddy 02225767320</p>
 <p>Prof. Basudev Biswal</p>	<p>Research Areas: Conceptualization of Hydrological and Ecological Processes. Prediction In Ungauged Basins. Global Hydrological Modelling. Recession Flow Hydrology. Large Scale Flood-inundation Modelling. Landscape Evolution Modelling.</p> <p>Contact: basudev@civil.iitb.ac.in https://www.civil.iitb.ac.in/~basudev 02225767318</p>
 <p>Prof. Riddhi Singh</p>	<p>Research Areas: Rainfall-Runoff Modelling, Model Diagnostics, Hydrologic Predictions In Data Scarce Regions, Catchment Classification And Hydrologic Similarity, Multi-stakeholder Analysis Of Resource- Constrained Systems, Decision Making Under Uncertainty.</p> <p>Contact: riddhi@civil.iitb.ac.in https://www.civil.iitb.ac.in/~riddhi 02225769307</p>





Prof. Arpita Mondal

Research Areas: Detection, Attribution and Impact Of Climate Change, Spatio-Temporal Modeling Of Hydroclimatic Extremes, Regionalization And Frequency Analysis Of Floods And Droughts, Risk Assessment Under Non-stationarity, Urban Flooding, Hydrologic Statistics And Machine Learning, Uncertainty Modeling

Contact: marpita@civil.iitb.ac.in
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 02225769305

CE4 – Structural Engineering

Various researches are being conducted through this specialization. Some of the researches are on high-speed railway bridges, seismic vulnerability assessment and seismic isolation of buildings and bridges, health monitoring and retrofitting of buildings, analysis and performance-based design of tall buildings, computational mechanics etc. There are highly equipped laboratories such as heavy structures and experimental mechanics laboratories which include shake table, sophisticated UTMs and loading frames capable of testing various types of materials including seismic isolators, elastomeric bearings, column-beam connections etc.

Faculty members and their research areas:



Prof. Pradipta Banerji

Research Areas: Earthquake vibration control; Damage detection in structures; Guided wave propagation and scattering; Condition monitoring of bridge structures.

Contact: pbanerji@civil.iitb.ac.in
<https://www.civil.iitb.ac.in/~pbanerji/>
 02225767334



Prof. Alok Goyal

Research Areas: Structural dynamics and earthquake engineering; Vibration control; Seismic hazard assessment; Service life assessment, repair, rehabilitation and retrofitting of RC buildings.

Contact: agoyal@civil.iitb.ac.in
<https://www.civil.iitb.ac.in/~agoyal/>
 02225767342



Prof. Ravi Sinha

Research Areas: Dynamic behavior of structures; Energy absorbing and base isolating devices; Earthquake resistant design and vulnerability evaluation of structure.

Contact: rsinha@civil.iitb.ac.in
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Prof. Yogesh Desai

Research Areas: FEM and control of vibrations; Structural dynamics; Composite mechanics; Rehabilitation of deteriorated structures; Computational mechanics

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 <p>Prof. R. S. Jangid</p>	<p>Research Areas: Base isolation for earthquake-resistant design; Vibration control using tuned mass dampers; Non-linear dynamic analysis; non-classically damped systems; Stochastic earthquake analysis</p> <p>Contact: rsjangid@civil.iitb.ac.in https://www.civil.iitb.ac.in/~rsjangid/ 02225767346</p>
 <p>Prof. Naresh K. Chandiramani</p>	<p>Research Areas: Nonlinear Dynamics; Stability And Control; Computational Mechanics; Solid Mechanics.</p> <p>Contact: naresh@civil.iitb.ac.in https://www.civil.iitb.ac.in/~naresh 02225767311</p>
 <p>Prof. Siddhartha Ghosh</p>	<p>Research Areas: Earthquake engineering; Reliability of structures; Structural dynamics; Vulnerability/fragility assessment; Risk analysis; Uncertainty quantification; Structural steel; Cold-formed steel; Inelastic analysis and design; Stone block masonry.</p> <p>Contact: sghosh@civil.iitb.ac.in https://www.civil.iitb.ac.in/~sghosh 02225767309</p>
 <p>Prof. Sauvik Banerjee</p>	<p>Research Areas: Structural health monitoring using vibration and wave-based approaches; Condition assessment of structures using NDT; Ultrasonic NDE and Imaging of materials; Passive Acoustic Emission (AE) Monitoring of structures; Guided wave propagation; Modelling of laminated composite and sandwich structures; FRP retrofitting of structures; Impact response of structures</p> <p>Contact: sauvik@civil.iitb.ac.in https://www.civil.iitb.ac.in/~sauvik 02225767343</p>
 <p>Prof. Mandar Inamdar</p>	<p>Research Areas: Application of structural; solid, fluid, and statistical mechanics to biological systems; Mechanics of biopolymer networks; Cellular adhesion and motility, DNA mechanics; Mechanics of biofilms</p> <p>Contact: minamdar@civil.iitb.ac.in https://www.civil.iitb.ac.in/~minamdar 02225767314</p>
 <p>Prof. Swagata Basu</p>	<p>Research Areas: Earthquake Risk and Reliability Analysis of Bridges, Disaster Resilience of Bridges and Highway Systems, Multi hazard analysis</p> <p>Contact: swagata@civil.iitb.ac.in http://swagatabasu.wixsite.com/swagata 02225767317</p>



 <p>Prof. Arghadeep Laskar</p>	<p>Research Areas: Experimental Study of Reinforced and Pre-Stressed Concrete; Finite Element Analysis of Concrete Structures; Seismic Simulation</p> <p>Contact: laskar@civil.iitb.ac.in https://www.civil.iitb.ac.in/~laskar/ 02225765326</p>
 <p>Prof. Jayadipta Ghosh</p>	<p>Research Areas: Structural reliability and risk assessment; Earthquake engineering; Ageing and corrosion deterioration problems; Seismic fragility analysis; Bridge engineering; Machine learning</p> <p>Contact: jghosh@iitb.ac.in https://www.civil.iitb.ac.in/~jghosh/ 02225767337</p>
 <p>Prof. Manish Kumar</p>	<p>Research Areas: Earthquake Engineering, Seismic Isolation, Blast and Impact Resistant Structures</p> <p>Contact: mkumar@civil.iitb.ac.in http://www.manishkumar.org/ 02225767329</p>
 <p>Prof. Meera Ragunandhan</p>	<p>Research Areas: Earthquake engineering; Probabilistic seismic risk analysis of structures; Performance prediction of structures under dynamic loads; Building code Evaluation</p> <p>Contact: meerar@civil.iitb.ac.in https://sites.google.com/site/meeraragunandan/ 02225767322</p>
 <p>Prof. Amit Das</p>	<p>Research Areas: Design and analysis of steel and concrete structures; Formwork analysis and design computational mechanics; Finite element analysis; Field dislocation mechanics; Analysis of PDEs.</p> <p>Contact: amitdas@civil.iitb.ac.in https://www.civil.iitb.ac.in/amitdas 02225767301</p>
 <p>Prof. Najeeb Shariff Mohammad</p>	<p>Research Areas: Behavior of structural concrete, Nonlinear analysis of structures; Time-dependent behavior of structures; Structural evolution of 3D printed concrete members.</p> <p>Contact: shariff@iitb.ac.in https://www.civil.iitb.ac.in/faculty/details/prof-najeeb-shariff-mohammad 02225765324</p>

CE5 – Ocean Engineering

The Ocean Engineering specialization deals with the studies relating to Coastal and Offshore Engineering. The research activities being carried out in this specialization includes physical and numerical modelling studies on wave- structure interaction, design of coastal and harbour structures, harbour layout and planning, coastal erosion and mitigation measures, sediment transport, modelling of tide, storm and tsunami, application of neural networks and soft computing for ocean engineering problems. The specialization houses state-of-the-art wave generation facilities along with advanced instruments and sensors for conducting physical model experiments.



 Prof. Balaji Ramakrishnan	<p>Research Areas: Coastal engineering; Wave structure interaction; Tidal hydrodynamics; coastal processes</p> <p>Contact: rbalaji@iitb.ac.in https://www.civil.iitb.ac.in/~rbalaji/ 02225767321</p>
 Prof. Manasa Ranjan Behera	<p>Research Areas: Ocean and Coastal Engineering; Computational Ocean and Coastal Hydrodynamics; Modelling of Tide, Storm and Tsunami; Impact of Changing Climate; Wave and Tidal Energy; Wave Current Interaction; Multi-phase Flow</p> <p>Contact: manasa.rb@iitb.ac.in https://www.civil.iitb.ac.in/~manasarb/ 02225767313</p>
 Prof. Srineash V K	<p>Research Areas: Coastal Engineering, Hydrodynamics, Wave-structure interaction, Coastal resilience, Climate change adaptation studies.</p> <p>Contact: srineash@iitb.ac.in https://srineash.wixsite.com/iitb 02225767328</p>
 Prof. M. C. Deo	<p>Research Areas: Ocean engineering (wave hydrodynamics, Ocean structures, statistical and stochastic analysis); Hydrology</p> <p>Contact: mcdeo@civil.iitb.ac.in https://www.civil.iitb.ac.in/~mcdeo/ 02225767330</p>

CE6 – Remote Sensing

This specialization deals with research in areas of Surveying and Remote Sensing. UAV(s)/ Drones (both fixed-wing and rotary-wing) have recently been included in instruments owned by the department. It can be used for large scale mapping and real-time assessment and monitoring activities of various applications ranging from precision agriculture to structural engineering. It can also be used in the generation of DEM, Ortho maps and 3D models etc. The specialization has also access to instruments like TLS, GPS, Total Station, Ground- penetrating Radar (GPR) and corresponding processing software.

Faculty members and their research areas:




 <p>Prof. RAAJ Ramsankaran</p>	<p>Research Areas: Remote Sensing and GIS Applications In Surface Hydrology And Water Resources Management, Hydro-Data Assimilation, Cryosphere Remote Sensing; Precision Agriculture; High- Definition Surveying; Remote Sensing Of Ocean And Coastal Areas.</p> <p>Contact: ramsankaran@civil.iitb.ac.in https://www.civil.iitb.ac.in/~ramsankaran 02225767348</p>
 <p>Prof. Indu J</p>	<p>Research Areas: Microwave Remote Sensing; Uncertainty In Radar Based Rainfall; Nowcasting Of Precipitation; Applications in Hydrology And Water Resources; Image Processing Using Synthetic Aperture Radar (SAR); Fuzzy Logic</p> <p>Contact: Indusj@civil.iitb.ac.in https://www.civil.iitb.ac.in/~indusj 02225769304</p>
 <p>Prof. Eswar Rajasekaran</p>	<p>Research Areas: Thermal Remote Sensing, Modelling Evapotranspiration From RS, RS Applications in Hydrology, Drought Monitoring.</p> <p>Contact: eswar.r@civil.iitb.ac.in https://www.civil.iitb.ac.in/~eswar.r 02225767325</p>

CE7 – Construction Technology and Management

Instituted in 2016, Construction Technology and Management specialization (CTaM) aims to create a sustainable construction infrastructure system for society by fostering high-quality teaching, research, outreach, manpower training, and academic leadership. The program envisions forging strong connections with academic institutions, research organizations, and the construction industry globally. This specialized program conducts comprehensive research in various domains of construction technology and management. The construction technology aspect delves into thrust areas such as modern construction materials, pumping and printing of concrete, multifaceted engineered concrete, valorization of industrial byproducts and agro-based residues, mineral carbonation, corrosion in reinforced concrete, repair and rehabilitation of infrastructural facilities and heritage conservation. Simultaneously, the construction management component covers infrastructure contracts, building information modelling, machine learning-enabled construction safety management, sustainability modelling, energy simulation, net-zero-based building design, thermal comfort assessment, urban building information modelling, circular economy assessment, and lean construction management. This holistic approach to research and teaching equips students with the knowledge and skills necessary to effectively manage the complex challenges of the construction industry.

Faculty members and their research areas:

 <p>Prof. Prakash Nanthagopalan</p>	<p>Research Areas: Rheology of Cement Based Materials; Design And Development Of Ultra High-Performance Concrete; Cement and Lime Based Plasters/renders; Product Development Using Industrial and Agro Based By- products.</p> <p>Contact: prakashn@iitb.ac.in https://www.civil.iitb.ac.in/faculty/details/prof-prakash-nanthagopalan 02225767323</p>
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 <p>Prof. Venkata Santosh Kumar Delhi</p>	<p>Research Areas: Infrastructure project governance, Construction project management, Organization in construction projects and infrastructure sustainability, Structural Engineering.</p> <p>Contact: venkatad@civil.iitb.ac.in https://www.civil.iitb.ac.in/~venkatad 02225765325</p>
 <p>Prof. Muhammad Salman</p>	<p>Research Areas: Construction Materials, Concrete Technology, Alkali activation, Geo Polymerization, Mineral carbonation, Slags.</p> <p>Contact: msalman@civil.iitb.ac.in https://www.civil.iitb.ac.in/~msalman 02225769306</p>
 <p>Prof. Albert Thomas</p>	<p>Research Areas: Sustainable Construction Management Practices, Building Energy Simulation, Lean Construction, Life Cycle Energy Analysis, Project Scheduling and Earned Value Analysis, Construction Project Lifecycle Management.</p> <p>Contact: albert@iitb.ac.in https://www.civil.iitb.ac.in/~albert 02225767347</p>
 <p>Prof. Swathy Manohar</p>	<p>Research areas: Domain of Construction Technology and Management with emphasis on "Material Characterization, Durability of Construction Materials and Heritage Conservation ".</p> <p>Contact: swathym@civil.iitb.ac.in https://www.civil.iitb.ac.in/faculty/details/prof-swathy-manohar 02225765329</p>



DEPARTMENT FACILITIES

The department has excellent infrastructure facilities for carrying out teaching, research, and consultancy activities in various disciplines of Civil Engineering. The laboratory facilities in the department are as follow:

Transportation Engineering

- Highway Material Testing Laboratory
- Traffic Engineering Laboratory
- Transportation Planning Laboratory
- Advanced Pavement Laboratory

Geotechnical Engineering

- Geotechnical Engineering Laboratory
- Environmental Geotechnology Laboratory
- Geo-textiles and Geosynthetics Laboratory
- National Geotechnical Centrifuge Facility
- Advance & Dynamic Soil Testing Laboratory
- Advanced Geotechnical Engineering Laboratory
- Geotechnical Earthquake Engineering Laboratory

Water Resources Engineering

- Hydraulics Engineering Laboratory
- Fluid Mechanics Laboratory

Structural Engineering

- Heavy Structures Laboratory
- Experimental Mechanics Laboratory
- Structural Safety, Risk and Reliability Laboratory
- Structural Health Monitoring & Retrofitting Laboratory
- Structural Nano & Bio-Mechanics Laboratory
- Disaster Risk Mitigation Laboratory

Ocean Engineering

- Ocean Engineering Laboratory

Remote Sensing

- Surveying Engineering Laboratory
- Photogrammetry Laboratory
- Advanced Engineering Surveying Laboratory

Construction Technology and Management

- Structural Evaluation and Materials Technologies Laboratory
- Material Characterization Laboratory
- Construction Management Laboratory

Computational Laboratory

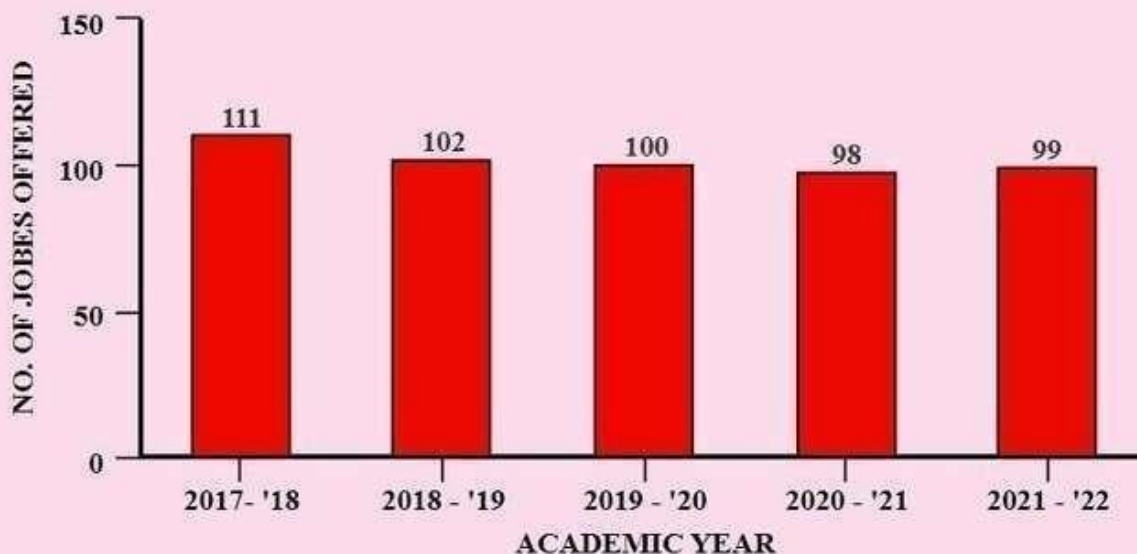


DEPARTMENT PLACEMENT INFORMATION

Placement Process Summary

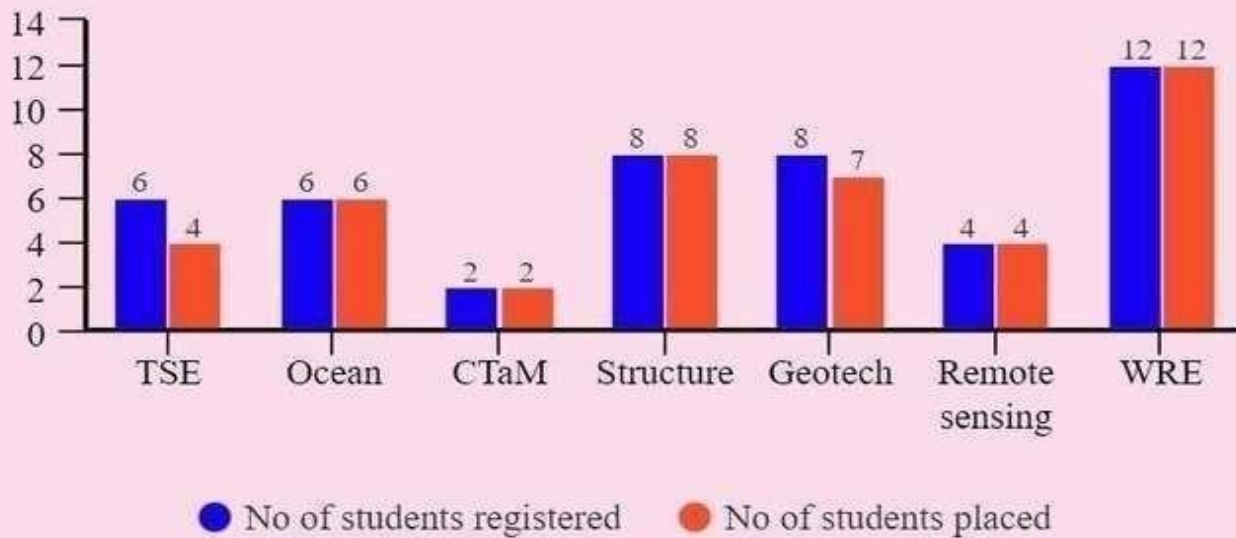
The placement process commences with the appointment of a dedicated point of contact by the Placement Office, which then extends invitations to recruiting organizations. Recruiters, eager to hire from the institution, create their personalized accounts on the <https://campus.placements.iitb.ac.in> website. To formalize the registration, students are required to make a payment based on the specified registration amount (applicable only for Placements). Subsequently, recruiters can proceed to create and post job/internship listings, providing essential details as required by the Placement Office. The executive officers thoroughly verify the job particulars, including remuneration details and other pertinent information, ensuring clarity and accuracy. Once the verification process is successfully completed, the job listings are made available online to students on dates scheduled by the Placement Office. Interested students then express their willingness to participate in the recruitment process of specific companies by applying for their desired positions. On the other side, companies can access and review the resumes of the interested students, shortlisting candidates through their online accounts. Following the finalization of the screening schedule in coordination with the Placement Office, companies proceed with their tests and screening processes. Subsequently, companies shortlist the most promising candidates for the final interview process. The Placement Office plays a pivotal role in organizing campus interview dates, taking into account various details furnished by the companies. After the interview process, organizations share the list of students to whom they intend to extend offers. The Placement Office then promptly notifies the respective organizations about the acceptance of the selected students. Finally, the organizations generate and deliver offer letters to the chosen candidates, ensuring that the job details remain consistent with the information provided in the online job listings.

Placement Statistics of Civil Department



Placement statistics of Civil Department M-Tech 2021-2023 batch	
Total number of registered students	64
Total number of students registered for placement	46
Total number of students placed	43
Phase 1	31
Phase 2	12
Placement Percentage	93.48%

Specialization Wise Placement Statistics



Placement Companies



GRADING POLICY

The Indian Institute of Technology Bombay follows the grading system. Based on the combined performance in all assessments, the student is awarded a letter grade in every course taken as per the curriculum. These letter grades not only indicate a qualitative assessment of the student's performance but also carry a quantitative (numeric) equivalent called the Grade Point. The letter grades and their equivalent grade point is given below:

Letter Grade	Grade Point
AP	10
AA	10
AB	9
BB	8
BC	7
CC	6
CD	5
DD	4
FF	0 (Fail- Re-examination)
FR	0 (Fail- Repeat the course)
DX	0 (Attendance below 80%- Repeat the course)
PP	Pass
NP	Not Pass
AU	Audit
II (a)	Incomplete
DR (b)	Dropped
W	Withdrawn

(a) Placeholder, awarded on medical grounds; gets converted to an appropriate grade after Semester end re-examination

(b) Placeholder indicating that the course has been dropped and it has to be cleared in subsequent semesters.

- A student passes the course if he/she gets any grade in the range of AP to DD (AU in the case of an audit course) but fails if he/she gets the grade FF, FR or DX. II and DR are placeholders. II is awarded temporarily on medical grounds and gets converted to an appropriate grade after the Semester end re-examination. On the other hand, DR indicates that the course has been dropped and it must be cleared in subsequent semesters.
- The grade AP indicates exceptional performance and is awarded only in the Course/(s) in which the number of registered students is more than 50. It should not exceed 2 % of the total strength of the theory or lab course. The grade AP is not awarded for projects/seminars.



- iii. FF grade will be awarded in case/(s) where the students' performance in the examinations are not satisfactory (falls below the DD grade). A student is eligible for re- examination, which is conducted as per the Academic Calendar. A student taking the r e- examination after FF grade may get (1) DD grade if she/he passes the re- examination or (2) FR grade if she/he fails in the re- examination or fails to appear for re- examination. FR grade will be awarded in case/(s) where, in the opinion of the instructor (panel of examiners in the case of projects), the student has inadequate academic exposure to the course / has very poor performance in the in-semester and/or semester-end examinations.
- iv. The grade DX in a course is awarded if (i) a student does not maintain the minimum 80 % attendance in the Lecture/ Tutorial classes, or (ii) severely incomplete in semester evaluation record due to non-medical reasons (for example when a student has missed all tests and mid-sem), (iii) incomplete assignment submissions etc. The DX grade will be declared one week before the semester-end examination and intimated to the academic office immediately thereafter. A student with DX grade in a given course is not permitted to take the semester-end examination. The DX grade is treated as FR for CPI calculation and requires re-registration for the course.
- v. " II "is awarded in a lecture/laboratory course if a student has satisfactory in - semester performance and has fulfilled the attendance requirement but has not appeared for the semester-end examination due to medical reasons. Such students are eligible for make-up for the Semester-end examination only on medical grounds. / Valid reasons AND on the production of medical certificate issued/authenticated by CMO, IIT Bombay Hospital rother supporting documents as required. The application must be submitted to the Academic Office, for consideration by PGAPEC, before the last date for registration for such make-up examination announced in the Academic Calendar. (See Sec.3.5 and 3.6 for full details).
- vi. For a student resent in the semester-end re- examination, the instructor will award a regular performance grade (AP- FR) depending on the overall performance in the course including the re-examination. If a student fails to appear for the re- examination too, the instructor will be awarded II grade again. If the absence is due to medical/ valid reasons, the student must submit supporting documents as mentioned above, within seven days of the scheduled date of the re- examination, to the Academic Office. PGAPEC will examine such cases and convert the II g rad e into a dropped course status (DR) in bonafide cases. In all other cases, the II grade will be converted to FR grade. In any case, the II grade will not be continued beyond the commencement of the subsequent semester.
- vii. There are, however, a few other academic requirements for the Program. The following two grades viz., PP (Pass) and NP (Not pass), will be awarded for non - credit courses. No grade points are associated with these grades and performance in courses is not considered in the calculation of the performance indices (SPI, CPI) However, the award of the degree is subject to obtaining a PP (Pass) grade in all courses, as part of the course curriculum.
- viii. AU grades are awarded for those who have audited a course, in accordance with the prescribed procedure.



Civil Engineering Association



The Civil Engineering Association (popularly known as CEA) at IIT Bombay, was established with a prime objective to proliferate knowledge & address industrial issues by bringing corporates, professors, and students on a common platform. We aim to promote Civil Engineering by providing the much-needed practical exposure to the community members through its regular activities like technical seminars, research symposiums, talks on ongoing research practices throughout the globe and many other related topics from distinguished practitioners of the trade. Collaboration between the school and industry is important for the advancement of engineering teaching and research. With this aim, to give our students some practical insight into Civil Engineering, we organize several visits throughout the year to ongoing construction sites and research centers thus giving them a chance to interact with key personnel of the industry.

CEA also undertakes the responsibility of proper nurturing of students by organizing some social events as a part of extracurricular. Valedictory function for the introduction of students with insights into the department and AKAAR team, kurta day for the healthy interaction between freshers and seniors, department T-shirt competition, department trips, sports weekend including sports like badminton, volleyball, basketball, etc. and many more for newcomers at UG and PG level which are organized by CEA throughout the year.

Joint Secretary Academic

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Joint Secretary Event

Sandipan Das
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The student body of Civil Engineering Association, IIT Bombay, organizes AKAAR, the annual festival of Civil Engineering Department, IIT Bombay. AKAAR provides a platform to budding civil engineers across the country to create, innovate and learn various aspects of civil engineering through competitions, events, and Symposium (research paper conference). AKAAR has gone on to become the undisputed front-runner among civil engineering festivals.



DEPARTMENT COUNCIL



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PG SPORTS



PG Sports has a place of pride in the IITian' s calendar for obvious reasons. It is an event that witnesses the confluence of sports enthusiasts and celebrates excellence, endeavor, and team spirit. This is a much-needed diversion from the rigorous routine academics, bringing with it promises of an energizing and exhilarating experience. At the participation and organizational levels, this is a wide entry into a whole new world of opportunities. IIT Bombay exposes the adage' a sound mind in a sound body'. A delicate balance between a robust physique and a sharp mind is the prerequisite for a healthy, meaningful life. All PG aspirants can be a part of this celebration.



PG CULTURALS



PG Cult is the annual cultural festival targeted exclusively for the postgraduate community of IIT Bombay (or PG junta in short). Since its inception in the year 2008, this would be the 10th edition of this cultural extravaganza. The events spread across nine genres-3 performing arts: Dance, Music and Dramatics and five nonperforming arts: Fine Arts, Literary Arts, Speaking Arts, Design, Photography, and Film & Media. Interspersed throughout the calendar year, the PG Cultural Council headed by the PG Cultural Nominee along with the PG Coordinators and Conveners foreach genre organizes several workshops to cater to the varied tastes and skills of the multitalented PG's of IITB.



DEPARTMENT HIGHLIGHTS

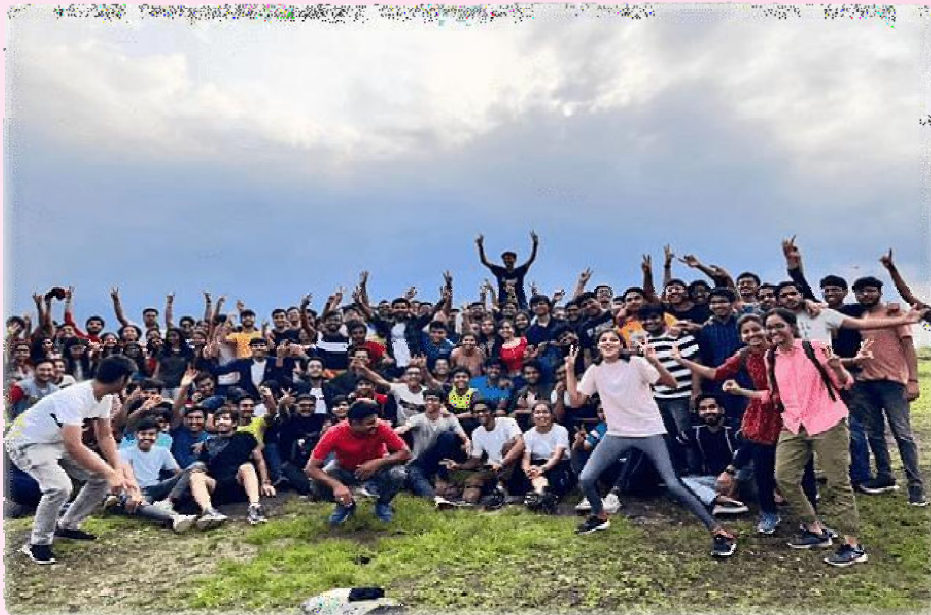
Awards and Honors

- Prof. Deepankar Choudhary has been selected for “Gopal Ranjan Technology Award 2022 of IIT Roorkee” for carrying out research work in the domain of Foundation Engineering/ Geotechnical Earthquake Engineering.
- Prof. Ravi Sinha has received “Prof S. P. Sukhatme Excellence in Teaching Award 2022 from the institute.
- Prof. Prasenjit Basu and Prof. Dharamveer Singh have received Department Excellence in Teaching Award 2022.
- Prof. Prakash Nanthgopalan and PMRF PhD scholar Mr. Nabodyuti Das are selected for "NSG Counter-IED Innovation Awards-2022" for their outstanding contribution in joint innovation of "Blast, Ballistic & Electromagnetic-Pulse Resistant Concrete (BBERC)". This award is given by the National Security Guard - NSG, Govt. of India.
- Prof. Arpita Mondal, the only faculty from IIT Bombay, who is listed in the Book 'She Is: 75 Indian Women in STEAM', launched by PSA, Govt. of India.
- Prof. D. N. Singh has received "IACMAG Outstanding Contributions Medal 2022", given by International Association for Computer Methods and Advances in Geomechanics (IACMAG), USA
- Prof. Albert Thomas, and his PhD research students Mr. Omprakash and Ms. Tripti Singh Rajput received the First "R Subramanian Fellowship" Awards 2023 from Glazing Society of India on 31st March 2023 at School of Planning and Architecture, New Delhi, India.
- Alumni Ashwini Jain (B.Tech./ Civil/2011-2015/IITB), who has been listed in prestigious Forbes Asia 30 under 30 in 2023.
- Prof. Prasenjit Basu has been appointed as an "Associate Editor" of the "Journal of Geotechnical and Geoenvironmental Engineering (JGGE)", published by the American Society of Civil Engineers (ASCE), USA
- Prof. Dharamveer Singh has been appointed as an Associate Editor of International Journal of Pavement Research and Technology (IJPRT), Springer.
- Prof. Riddhi Singh has been included as a Co-Editor for Hydrological Sciences Journal (HSJ), the official Journal of the IAHS.



Other Highlights

- Annual magazine of civil department “Civil Insights” was released in 2022.
[FirstDraft \(iitb.ac.in\)](http://FirstDraft(iitb.ac.in))
- Commencement ceremony of the 61st Convocation was conducted on Tuesday, 02nd May, 2023.
- Department went on a trip to Kashid Beach and Murud-Janjira fort.
- Opening of CIVIL CAFÉ on the department's rooftop.



Department Staff

S. No.	Name	Position	Email Id	Contact No.
Technical Staff				
1	Prajacta Acharekar	Jr. Mechanic	prajacta[at]civil.iitb.ac.in	2221593656
2	Hemant D Rane	Asst. Technical Officer	hdrane[at]iitb.ac.in	2221593677
3	Ganesh Adane	Jr. Mechanic	ganasha[at]civil.iitb.ac.in	2221593663
4	M G Doddamani	Technical Superintendent	cvazhard[at]iitb.ac.in	2221593688
5	Anil Kumar Vishwakarma	Jr. Lab Assistant	anilkumar[at]civil.iitb.ac.in	2221593673
6	Shivraj Dattatray Patil	Technical Superintendent	shivrajiitb[at]gmail.com	2225767306
7	Mahendra Kumar Palsania	Jr. Mechanic	mahendra[at]civil.iitb.ac.in	2221593695
8	Sameer Sakharam Gurbhe	Jr. Mechanic	sameersg[at]civil.iitb.ac.in	2221593659
9	Barshana Dutta Gupta	Jr. Lab Assistant	barshanadg[at]civil.iitb.ac.in	2221593688
10	Preshit Thakur	Technical Superintendent	preshit[at]civil.iitb.ac.in	2221593652
11	Gurudatta Narvekar	Jr. Mechanic	gurudatta[at]civil.iitb.ac.in	2221593683
12	Pratap Shingade	Technical Superintendent	prataps[at]civil.iitb.ac.in	2221593683
13	Prem Pun	Sr. Lab Helper	punpb[at]civil.iitb.ac.in	2221593683
14	Vikas Manere	Jr. Mechanic	i15006[at]iitb.ac.in	2221593683
15	Shekhar Singh	Technical Superintendent	ssinghrana2[at]iitb.ac.in	2221593672
16	Sarvesh S Gangal	Jr. Mechanic	sarugang[at]gmail.com	2221593685
17	Nilesh Sawant	Jr. Lab Assistant	nilesh.s[at]iitb.ac.in	2221593685
18	Tushar S Aughade	Jr. Mechanic	tusharsa[at]iitb.ac.in	2221593673
19	Vinod Potjale	Jr. Mechanic	i06041[at]iitb.ac.in	2221593656
20	Mandar Joshi	System Administrator	mandar_joshi[at]iitb.ac.in	2221593693
21	Abhishek Sutar	Technical Superintendent	abhisheksutar[at]civil.iitb.ac.in	2225764325



Administrative Staff				
1	Sanjay Shivsharan	Administrative Officer	sanjays[at]civil.iitb.ac.in	2221593690
2	Vijay Dhanve	Administrative Assistance	t10vijaybd[at]civil.iitb.ac.in	2221593662
3	Ekta Warik	Jr. Assistant	ektasw[at]civil.iitb.ac.in	2221593660
4	Sashank Bastav	Jr. Attendant	shashankmb[at]civil.iitb.ac. in	2225767303
5	Sandeep Chaturvedi	Jr. Administrative Assistant	sandeep[at]civil.iitb.ac.in	2225767303
6	Aravind Jadhav	Jr. Assistant	aravindjadhav[at]civil.iitb.ac. in	2221593661
7	Paras Lodh	Administrative Superintendent and PA- HoD	parasl[at]civil.iitb.ac.in	2225767301
8	Trupti Palkar	Apprentices Administrative	truptipalkar[at]civil.iitb.ac.in	



USEFUL INFORMATION

- **LDAP Id:** It is a unique identification number for each individual in IIT Bombay. LDAP Id essentially is the student's roll number. LDAP Id is used to access various IIT B services. Once the registration process of a student is completed, a password will be generated which can be used to login along with LDAP id to various IIT B internal websites and services.

- **Application Software Centre (ASC):**

<https://asc.iitb.ac.in/acadmenu/index.jsp>

Purpose: This website is the primary 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 important facilities offered by this website are given under:

- Payment of fees
- Registration and deregistration from courses
- Checking previous year's grading stats for any subject
- Brief contents of all subjects being offered.
- Own personalized timetable
- Checking of own academic performance (grades)

Note: VPN connection may be needed to access ASC.

- **Secure Webmail:**

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

Purpose: This is your personalized email in IIT. Every student gets one when you enroll. Along with regular mail, here you also get alerts for registration/ deregistration of courses, fees payment and any broadcast on Moodle among others.

The general email Id looks like: [yourrollnumber]@ iitb.ac. in

- **Moodle:**

<https://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 interactive platform where you can interact with the Professor/ TAs/ other students on any subject related matter.

- **IITB library:**

<http://www.library.iitb.ac.in/index.php>

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.

- **VPN setup instructions:**

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

Purpose: To access IIT B internal websites, one must be connected through VPN.

- **IITB Wireless configuration:**

[https:// www.cc.iitb.ac.in/page/configurewireless](https://www.cc.iitb.ac.in/page/configurewireless)

Purpose: To access IITB wireless (Wi- Fi) in your mobile phones, laptops or desktops, you must configure the wireless settings following these instructions.



- **Access GPO mail on mobile:** Instructions to set up GPO mail (Webmail) on your mobile.
<http://homepages.iitb.ac.in/~yatindestel/docs/GPO%20in%20Gmail.pdf>

Important Links

- Department Website: <https://www.civil.iitb.ac.in/>
- Downloadable Forms:
<https://www.civil.iitb.ac.in/Form%20to%20be%20uploaded/index.html>
- Registration Instructions:
<https://docs.google.com/document/d/1IilyR49FuNJE7l2cgrTiWWPCFltvNVR4A57N1hA-NA/>
- IITB Computer Centre: <https://www.cc.iitb.ac.in/>
- Student Wellness Centre: <http://www.iitb.ac.in/swc/en>
- Entrepreneurship cell: www.ecell.in
- Gymkhana IITB: <https://gymkhana.iitb.ac.in>
- SARC: <http://www.sarc-iitb.org/>
- International relations: <http://www.ir.iitb.ac.in/>
- ISCP: <https://gymkhana.iitb.ac.in/~scp/scp/index.html>

Important Apps

- **Insti App:** InstiApp is an Android App that helps you navigate through the IIT Bombay Campus. It is a one-stop solution for all the aspects of one's insti life, weaving around hostels, academics, co-curricular activities and recreation.
[https:// play.google.com/store/apps/details?id=app.insti&hl=en_IN](https://play.google.com/store/apps/details?id=app.insti&hl=en_IN)
- **SAFE App:** App for smart, authentic, fast online exams
<https://safe.cse.iitb.ac.in>
- **BANDHU App:** A self-help website is here to improve the emotional well-being of the students', finely designed with experts speaking on positive mental health, curated reads, motivational alumni journeys, and fun lessons.
<https://www.iitb-bandhu.org>
- **Open VPN Connect App:** Open VPN Connect is the official VPN application for Android developed by Open VPN, Inc. It can be used for connecting with IITB Internal sites using VPN.
[https:// play.google.com/store/apps/details?id=net.openvpn.openvpn&hl=en_IN](https://play.google.com/store/apps/details?id=net.openvpn.openvpn&hl=en_IN)



- **m- Indicator:** This app contains the Local Train Timings of Mumbai and also details the local train routes for IIT Bombay. One can also find the various bus routes and the bus numbers on this app.
- <https://play.google.com/store/apps/details?id=com.mobond.mindicator>
- **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 a MYBYK near you. Unlock using your smartphone and pedal your way to a healthy life.
- <https://play.google.com/store/apps/details?id=in.greenpedia.mybyk>
- **SHIRU CAFÉ:** Wanna have a free drink? Just tap a button on this app and you can get free refreshing juice or hot tea and coffee.
- <https://play.google.com/store/apps/details?id=jp.co.enrission.shirucafe>



IMPORTANT SOFTWARES

- **MATLAB:** MATLAB is a high-performance language for technical computing. It integrates computation, visualization, and programming in an easy-to-use environment where problems and solutions are expressed in familiar mathematical notation.

<https://www.cc.iitb.ac.in/>

- **ArcGIS:** ArcGIS is a platform for organizations to create, manage, share, and analyze spatial data. It consists of server components, mobile and applications, and developer tools.

(Available in Department Computer Lab)

- **QGIS:** QGIS is a free and open-source cross-platform desktop geographic information system (GIS) application that supports viewing, editing, and analysis of geospatial data.

<https://qgis.org/en/site/forusers/download.html>

- **Codeblocks:** Codeblocks is a free C, C++ and Fortran IDE. It's used for programming and is commonly used in the Computing in Civil Engineering course.

<http://www.codeblocks.org/downloads>

- **Auto CAD:** AutoCAD is a commercial computer-aided design (CAD) and drafting software application. Developed and marketed by Autodesk. AutoCAD is used in industry by architects, project managers, engineers, graphic designers, city planners and other professionals.

For Student Version (should be used only for educational purposes):

<https://www.autodesk.com/education/free-software/autocad>

- **Python:** Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. Its high-level built-in data structures, combined with dynamic typing and dynamic binding, make it very attractive for Rapid Application Development, as well as for use as a scripting or glue language to connect existing components together.

<https://www.python.org/downloads/>

- **R:** R is a programming language and free software environment for statistical computing and graphics supported by the R Foundation for Statistical Computing. The R language is widely used among statisticians and data miners for developing statistical software and data analysis.

<https://rstudio.com/>

- **Staad Pro:** STAAD Pro is a structural design-oriented program with a user interactive interface which allows for the user working on it extremely easy. It can be used for modelling, designing and analyzing various structures and structural configurations.

GEOTECHNICAL ENGINEERING

- **Plaxis:** Plaxis is a computer programme that performs finite element analysis (FEA) within the realm of geotechnical engineering, including deformation,



- stability and water flow. The input procedures enable the enhanced output facilities to provide a detailed presentation of computational results.
- <https://www.plaxis.com/support/software-updates/plaxis-2d-2019-00/>

OCEAN ENGINEERING

- **Open FOAM:** Open FOAM is a C++ toolbox for the development of customized numerical solvers, and pre-/post-processing utilities for the solution of continuum mechanics problems, most prominently including computational fluid dynamics (CFD).

<https://openfoam.org>

- **SACS:** SACS is an integrated finite element structural analysis suite of applications that uniquely provides for the design, fabrication, installation, operations, and maintenance of offshore structures, including oil platforms and wind farms.
- **SESAM:** Sesam is a software suite for structural and hydrodynamic analysis of ships and offshore structures. It is based on the displacement formulation of the Finite Element Method.
- **Reef 3D:** REEF 3D is an open-source computational fluid dynamics program. With a strong focus on hydraulic, coastal, offshore and environmental engineering, as well as Marine CFD, the use of the level-set method enables it to calculate complex free surface flows.

<https://sourceforge.net/projects/reef3d/>

- **Sim CLIM:** Sim CLIM is a software tool designed to facilitate the assessment of risks from climate change for sustainability officers, consultants, policymakers, academics, non-governmental and governmental organizations, and students.

REMOTE SENSING

- **Erdas Imagine:** Erdas Imagine is an image processing software package that allows users to process both geospatial and other imagery as well as vector data. Erdas can also handle hyperspectral imagery and LiDAR from various sensors.
(Available in Department Computer Lab)
- **SNAP:** SNAP stands for Sentinels Application Platform and is a common software architecture on which a collection of free open-source toolboxes for the scientific exploitation of Earth Observation missions is available.
- <http://step.esa.int/main/download/snap-download/>

TRANSPORTATION SYSTEMS ENGINEERING

- **IITPAVE:** IITPAVE is a multilayer analysis programmed specifically used for analysis programme specially used for analysis and design of pavement based on IRC: 37 – 2012.
(Would be provided with the course material)
- **Civil3D:** Civil 3D is a civil engineering design software that supports BIM (Building Information Modelling) with integrated features to improve drafting, design and construction documentation. For Student Version (should be used only for educational purposes):
<https://www.autodesk.com/education/free-software/civil-3d>



- **NLOGIT:** NLOGIT software is used in transportation planning. It provides programs for estimation, model simulation and analysis of multinomial choice data, such as brand choice, transportation mode and for survey and market data in which consumers choose among a set of competing alternatives.
(Would be provided with the course material)

CONSTRUCTION TECHNOLOGY AND MANAGEMENT

- **Microsoft Project (MSP):** Microsoft Project is a project management software product, developed and sold by Microsoft. It is designed to assist a project manager in developing a schedule, assigning resources to tasks, managing the budget, and analyzing workloads.
<https://www.cc.iitb.ac.in/>
- **Primavera:** Primavera is an enterprise project portfolio management software. It includes project management, scheduling, risk analysis, opportunity management, resource management, collaboration, and control capabilities, and integrated with other enterprise software such as Oracle and SAP's ERP systems.
- **Autodesk Revit:** Revit is a building information modelling software for architects, landscape architects, structural engineers, mechanical, electrical, and plumbing(MEP) engineers, designers and contractors.
For Student Version (should be used only for educational purposes):
<https://www.autodesk.com/education/free-software/revit>
- **Autodesk Navisworks:** Navisworks is a 3D design review package for Microsoft Windows. Used primarily in construction industries to complement 3D design packages, Navisworks allows users to open and combine 3D models; navigate around them in real time; and review the model using a set of tools.
For Student Version (should be used only for educational purposes):
<https://www.autodesk.com/education/free-software/navisworksmanage>
- **Sima Pro:** Sima Pro is the professional tool to collect, analyze and monitor sustainability performance data. The software can be used for a variety of applications, such as sustainability reporting, carbon and water foot printing, product design, generating environmental product declarations and determining key performance indicators.
- **Design Builder:** Design Builder is an Energy Plus based software tool used for energy, carbon, lighting and comfort measurement and control. It is developed to ease up the building simulation process.
- **Microsoft Visio:** Visio is a vector graphics application and is part of the Microsoft Office family.
<https://www.cc.iitb.ac.in/>
- **Origin:** Origin is a proprietary computer program for interactive scientific graphing and data analysis. It is produced by Origin Lab Corporation and runs on Microsoft Windows. Graphing support in Origin includes various 2 D/ 3 D plot types.
<https://www.cc.iitb.ac.in/>



STRUCTURAL ENGINEERING

- **ETABS (Extended Three- dimensional Analysis of Building Systems):** Engineering software product that caters to multi- story building analysis and design, modelling tools and templates, code-based load prescriptions, analysis methods and solution techniques, all coordinate with the grid-like geometry unique to this class of structure
- **ANSYS (Analysis System):** Finite element analysis software for simulating computer models of structures, electronics, or machine components for analyzing strength, toughness, elasticity, temperature distribution, electromagnetism, fluid flow, and other attributes.
For Student Version (should be used only for educational purposes):
[https:// www.ansys.com/en-in/academic/free-student-products](https://www.ansys.com/en-in/academic/free-student-products)
- **SAP 2000:** 3 D object based graphical modelling software for wide variety of analysis and design options completely integrated across powerful user interface and well-integrated, productive and practical general- purpose structural program
- **MIDAS:** To create high quality designs with unprecedented levels of efficiency and accuracy distinctively user-friendly interface and optimal design solution functions that can account for construction stages and time dependent properties, highly developed modelling and analysis functions enable engineers to overcome common challenges and inefficiencies of finite element analysis
- **Open Sees:** Finite element applications for simulating the response of structural and geotechnical systems subjected to earthquakes.
<https://opensees.berkeley.edu/OpenSees/user/download.php>
- **FEAST (Finite Element Analysis of Structures):** Structural and heat transfer analysis software based on finite element method
- **PACT (Performance Assessment Calculation Tool):** Electronic calculation tool, and repository of fragility and consequence data, that performs the probabilistic calculations and accumulation of losses.
<https://femap58.atcouncil.org/pact>
- **Seismo Struct:** Finite Elements package capable of predicting the large displacement behavior of space frames under static loading or dynamic considering both geometric nonlinearities and material inelasticity.
- **CSi Bridge:** Graphic designing software for analysis, and design of bridge structures
- **LS - D YNA:** Advanced general-purpose Multiphysics simulation software package

WATER RESOURCES ENGINEERING

- **Gephi:** Gephi is open-source software for network visualization and analysis. It helps data analysts to reveal patterns and trends, highlight outliers intuitively and tells stories with their data. It uses a 3 D render engine to display large graphs in real-time and to speed up the exploration.
gephi.org



- **KYPipe:** KY Pipe models' water, petroleum, refined products, chemicals, refrigerants, low-pressure sewer systems, and more. It can be used for selecting and sizing pipes, pumps, valves, tanks, and other devices. Calibration tools and pump operation optimization features help ensure sound modelling.
www.kypipe.com
- **EPANET:** EPANET is a software application used throughout the world to model water distribution systems. It was developed as a tool for understanding the movement and fate of drinking water constituents within distribution systems and can be used for many different types of applications in distribution systems analysis.
<https://www.epa.gov/water-research/epanet>
- **HEC - HMS:** The Hydrologic Modeling System (HEC - HMS) is designed to simulate the precipitation-runoff processes of dendritic drainage basins. It is designed to be applicable in a wide range of geographic areas for solving the widest possible range of problems.
<https://www.hec.usace.army.mil/software/hec-hms/downloads.aspx>
- **SWMM:** EPA's Storm Water Management Model (SWMM) is used throughout the world for planning, analysis, and design related to stormwater runoff, combined and sanitary sewers, and other drainage systems.
<https://www.epa.gov/water-research/storm-water-management-model-swmm>
- **Ansys FLUENT:** Ansys FLUENT software contains the broad physical modelling capabilities needed to model flow, turbulence, heat transfer, and reactions for industrial applications ranging from airflow over an aircraft wing to wastewater treatment plants with Unparalleled breadth of turbulence models and acoustics modelling tools.
ftp://ftp.iitb.ac.in/IITB_private/Ansys/
- **QUAL2K:** A Modeling Framework for Simulating River and Stream Water Quality.
e. Application of the model extends to the presence of multiple pollution discharges and withdrawal locations and tributaries flowing into the mainstream. Data input to the QUAL2K model include geometric data of the river system, hydraulic data, parameters, and data of the surroundings
<https://www.qual2k.com/>



GENDER CELL IIT BOMBAY



IIT Bombay's Gender Cell is an institutional body which works towards promoting equality, non-discrimination and gender justice on the campus. It inquires into complaints of sexual harassment through its Internal Complaints Committee (GC - ICC). Its objectives are:

- To uphold the dignity of any person at IITB.
- To facilitate a gender sensitive and congenial working environment at IITB so that any gender whether employee or student, are not subjected to gender specific discrimination or sexual harassment.

Procedure to Complain

- Do not ignore harassment in the hope that it will stop on its own. Come forward and complain.
- Do not feel a sense of shame. Tell the harasser clearly that you find behavior offensive.
- If informal methods such as telling the perpetrator to stop harassing do not help, the victim can contact any of the member of gender cell directly through their email or phone call and should lodge complaint at One can take help of their companion for filing complaint and can someone who they trust.
- Keep a record of all incidents of harassment, so that it will be helpful when you register a complaint.
- The complainant's name and identity are always kept confidential.

Location:

3rd floor Main Building

Next to Student Wellness Center

IIT Bombay, Powai, Mumbai 400076

Office Hours: Monday and Thursday: 10.00 am to 12.00 pm Tuesday, Wednesday and Friday: 3.00 pm to 5.00 pm

Contact Info:

Email ID: gendercell@iitb.ac.in

Office number: 5052 (available during office hours)

Website: <http://www.gendercell.iitb.ac.in/>



STUDENT WELLNESS CENTER



After securing admission at the Institute and starting your stay here, you may feel that a lot of parameters around you are different. 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. Student Wellness Center provides counselling opportunity for individuals to learn to make better choices, improve interpersonal skills, develop confidence and increase educational effectiveness.

Typical concerns you can seek counselling for are:

- Transition and change
- Uncertainty about values and goals
- Academic pressure
- 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
- And others...

Location: Student Wellness Centre
3rd floor, above Academic section, Main building

Timing: Monday to Friday:
Timing: 9.30 -5.30

Contact: 022-2576-9070

Website: <http://www.iitb.ac.in/swc/en>

For appointment, visit website.

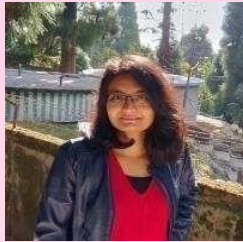


KNOW YOUR SENIORS

CE1 – Transportation Systems Engineering



Ashish Sagar



Riya Mishra



Sachin Gupta



Gazanfar Ali Khan



Rohan ileyas



Sujit Narayan Singh



Akash Karmakar



Satish Patel



Irfan ali



Rishav kumar



Monu Kumar Thakur



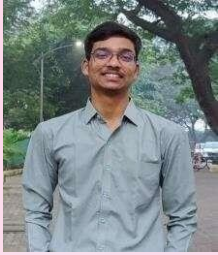
PROJECTS

CE1- Transportation Systems Engineering

Name	Roll No.	Title	Guide
Ashish Sagar	22M0548	Application of Social Media in Traffic incident Detection	Prof. Gopal R. Patil
Riya Mishra	22M0543	Public Attitude towards increased traffic fines	Prof. Nagendra R. Velaga
Sachin Gupta	22M0542	Factors Affecting Children's Safety in School Zones	Prof. Perumal Vedagiri
Gazanfar Ali Khan	22M0544	Optimizing Air Logistics through Machine Learning tools: An Analysis of Future Trends and Application in areas of Drone Deliveries	Prof. Gopal R. Patil
Rohan ileyas	22M0617	Frictional characteristics of aggregate and mixes	Prof. Dharamveer Singh
Sujit Narayan Singh	22M0603	Internal curing of concrete using light weight aggregates	Prof. Solomon Debberma
Akash Karmakar	22M0549	Identification of Potential Hotspot through ML Algorithm	Dr. Tom V Mathew
Satish Patel	22M0546	Safety of Delivery Drivers	Prof. Nagendra R. Velaga
Irfan ali	22M0619	Mix design and field performance of cold recycled mix	Prof. Dharamveer Singh
Monu Kumar Thakur	22m0547	Recycled steel fiber reinforced concrete	Prof. Solomon Debbarma
Rishav kumar	22M0545	Pedestrian safety at night time	Prof. Perumal Vedagiri



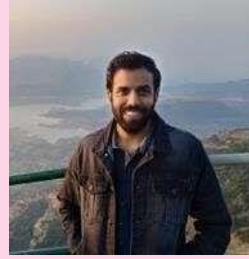
CE2 – Geotechnical Engineering



Vishnu Vamsi Mullangi



Syed Baqer Mehdi



Prakhar Singh



Avinash Pandurang
Gadade



Kamlesh Kushwaha



Hadiya Hardik Harilalbhai



Sankhat Kuldeep Trikambhai



Ashutosh Kumar



PROJECTS

CE2- Geotechnical Engineering

Name	Roll No.	Title	Guide
Vishnu Vamsi Mullangi	22M0551	Design of filter and drainage system for Ret. Wall	Prof. Dasaka Satyanarayana Murthy
Syed Baqar Mehd	22M0552	Axial pipe soil interaction	Prof. Santiram Chatterjee
Kamlesh Kushwaha	22M0553	Ground response in shallow geothermal applications	Prof. Prasenjit Basu
Avinash Pandurang Gadade	22M0555	Design of Debris flow Mitigation measures	Prof. Pinom Erng
Prakhar Singh	22M0556	Construction of base layer of road using sand enhanced with geopolymers and municipal solid waste mixed with geopolymer	Prof. B.V.S. Viswanadham
Hadiya Hardik Harilalbal	22M0604	Developing ETL Curve from BI-Directional Static Pile Load Test	Prof. Dasaka Satyanarayana Murthy
Sankhat Kuldeep Trikamchali	22M0605	GEOCOMPOSITES	Prof. Ashish Juneja
Ashutosh Kumar	22M0606	Optimized foundation systems for heavy structures under seismic conditions	Prof. Deepankar Choudhury



CE3 – Water Resources Engineering



Rugma Sunil



Pranjal Kumar



Dilshad A



Aiswarya S Raj



Chetan Singh



Suvatman Dhar



Ramesh Kumar



Makrand Popat Langde



PROJECTS

CE3 - Water Resources Engineering

Name	Roll No.	Title	Guide
Rugma Sunil	22M0563	Forecasting of onset of Indian monsoon using planetary positions	Dr. Basudev Biswal
Pranjal Kumar	22M0562	Assessment of Climate change Impacts on Groundwater on a river basin scale	Prof. T.I. Eldho
Dilshad A.	22M0560	Multivariate flood frequency analysis using copulas	Prof. M J Reddy
Aiswarya S Raj	22M0564	Catchment classification and hydrologic similarity	Prof. Riddhi Singh
Chetan Singh	22M0558	EVapotranspiration analysis using singular spectrum analysis	Prof. V. Johiprakash
Suvatman Dhar	22M0561	Assessment of drought using Complex Networks	Prof. B Sivakumar
Ramesh Kumar	22M0566	Understanding Monsoon Dynamics through Complex Data Structures and Machine Learning	Prof. Subimal Ghosh
Makrand Popat Langde	22M0565	Regional flood frequency analysis and classification of catchment using machine learning	Prof. Arpita Mondal



CE4 – Structural Engineering



Saroj Kumar Sah Teli



Ram Mani Chalise



Kundan Karn



Samagra
Vijaywarga



Saurabh Kumar Khandelwal



Needuri Leela Venkata
Sri Harsha



Julfeekar



Abhishek Mina



PROJECTS

CE4 – Structural Engineering

Name	Roll No.	Title	Guide
Saroj Kumar Sah Teli	22M0611	Functional Recovery Based Performance Assessment of RC Building	Prof. Ravi Sinha
Ram Mani Chalise	22M0612	Timber Composite Bridge using Glulam Girder	Dr. Swagata Basu
Kundan karn	22M0601	Wind Load Analysis on Cable Stayed Bridge	Dr. Alok Goyal
Samagra Vijaywargiya	22M0570	Structural Control using Inerter-Damper device	Prof. R. S. Jangid
Shubham Kumar Khandelwal	22M0574	Prediction Of SCF of tubular Joints based on FE database using deep learning	Prof. Yogesh M. Desai
Neduri Leela Venkata Harsha	22M0575	Uncertainty Quantification in Seismic Vulnerability Assessment of Bridge Structures	Dr. Jayadipta Ghosh
Julfeekar	22M0599	Seismic evaluation of existing RCC Buildings	Prof. Ravi Sinha
Abhishek Mina	22M0616	Source identification in AE structure health monitoring	Prof. Sauvik Banarjee



CE5 – Ocean Engineering



Anjali
Choudhary



Rudresh Dharmendra
Gaynar



Sachin Kumar
Yadav



Saif Khan



Mandar Bharat Gavali

CE6 – Remote Sensing



Akash Khandelwal



Sparsh
Shekhar



Anagha Murali



Kavichelvan



Shivam Basant



Manav Kumar



PROJECTS

CE5- Ocean Engineering

Name	Roll No.	Title	Guide
AnjaliChoudhary	22M0585	Resource assessment for wind energy around ONGC offshore platforms	Prof.Manasa Ranjan Behera
Rudresh Dharmendra Gaynar	22M0584	Debris induced flow dynamics in extreme hydrodynamic conditions	Prof. SrineashV K
Sachin Kumar Yadav	22M0609	Bamboo reinforced concrete	Prof. Balaji Ramakrishnan
Saif Khan	22M0609	Vortex Induced Vibration due to current interaction in cylindrical bodies	Prof.Srineash V K
Mandar Bharat Gavali	213046001	Analysing flood situation in North Mumbai using numerical modelling techniques	Prof. Balaji Ramakrishnan

CE6- Remote Sensing

Name	Roll No.	Title	Guide
Akash Khandelwal	22M0586	Flood modeling using SWOT and HEC-RAS	Prof. J. Indu
Sparsh Shekhar	22M0587	Reservoir Volume Change analysis by analysing satellite altimetry and Water Spread Area	Prof. RAAJ Ramsakara n
Anagha Murali	22M0589	Drought index using ET and GPP	Prof. Eswar Rajasekaran
Kavichelvan	22M0590	Deep learning based built-up feature extraction for urban areas from High-resolution Imagery	Prof. Eswar Rajasekaran
Shivam Basant	22M0591	Debris induced flow dynamics in extreme hydrodynamic conditions	Prof. J Indu
Manav Kumar	22M0593	Plastic litter detection in coastal marines	Prof. J Indu



CE7 – Construction Technology and Management



Bhaskar Balaji Mada



Pragya Tiwari



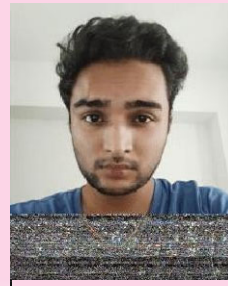
Rabil Jain



Arpan Adhikari



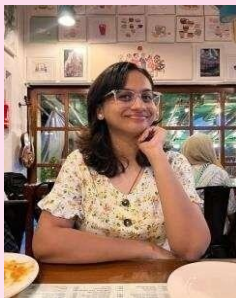
Aashutosh Kumar
Thakur



Sarthak Joshi



Bhavya
Gonuguntla



Surabhi Praveen
Modhe



PROJECTS

CE7- Construction Technology and Management

Name	Roll No.	Title	Guide
Bhaskar Balaji Madda	22M0620	Digital3D Printing Data Analysis	Prof. Venkata S. Delhi
Pragya Tiwari	22M0600	Use of BIM in Sustainability, Productivity Calculation & Energy analysis	Prof. Venkata S. Delhi
Rabil Jain	22M0595	Carbon credits in construction industry	Prof. Albert Thomas
Arpan Adhikari	22M0613	Super sulphated cement	Prof. Muhammad Salman
Aashutosh Kumar Thakur	22M0602	Textile reinforced concrete	Prof. Swathy Manohar
Sarthak Joshi	22M0615	Performance Assessment of UHPC with straight and hooked end steel fibers	Prof. Prakash Nanthagopalan
Bhavya Gonuguntla	22M0606	Development of SIMeCC-Opt framework for optimizing glazing parameters enhancing residential building thermal comfort and energy performance at minimum lifecycle cost	Prof. Albert Thomas
Surabhi Praveen Modhe	22M0596	Machine Learning application to optimize Building Energy Simulation and Life Cycle Analysis	Prof. Albert Thomas



REACHING IIT BOMBAY

Reaching Mumbai through Train

Stations for through trains coming to Mumbai

Central Railway: CSMT, Dadar, Kurla, Thane.

Western Railway: Mumbai Central, Dadar, Bandra, Andheri, Borivali.

Those coming by Central Railway can take the Central Railway Suburban train and get down at Kanjur Marg station which is the nearest stations from IITB. Please ensure to take only a slow local train as the fast ones do not stop at Kanjur Marg.

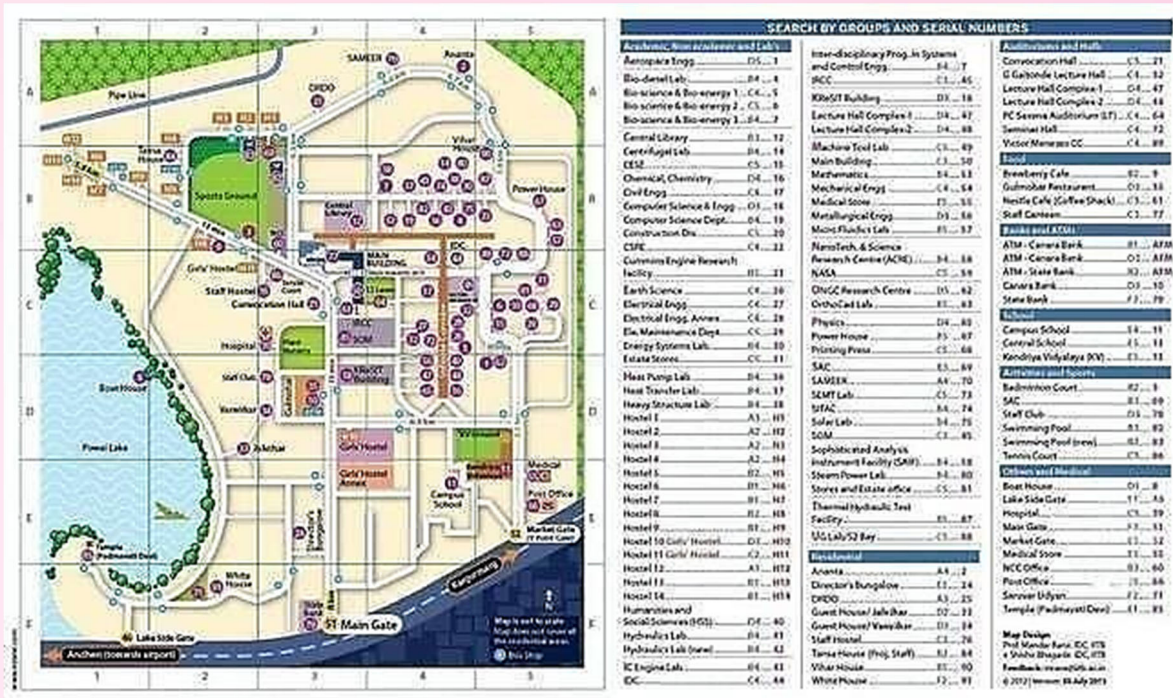
If you come via Western railway, you can board a Western Railway line suburban train and reach Dadar, where you can change to the central railway line and board a suburban train to Kanjur Marg.

Once you get down at Kanjur Marg railway station, come out through the western- side gate and take a bus or, auto-rickshaw to IIT main gate.

Reaching Mumbai through Aeroplane

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

Campus Map



The campus map can be accessed using the following link:
<http://www.iitb.ac.in/sites/default/files/article/images/IITB-Map---2D-ENG-PRINT.jpg> or in Insti app: <https://insti.app/map>



Credits

Content

▶ Department Website	• https://www.civil.iitb.ac.in/
▶ ISCP Website	• https://gymkhana.iitb.ac.in/~scp/scp/index.html
▶ AAKAAR Website	• http://aakaariitb.in/
▶ PG Sports Facebook Page	• https://www.facebook.com/groups/414517262018650/about/
▶ PG Cult Website	• https://gymkhana.iitb.ac.in/~cultural/pg-cult/about.php #about
▶ IIT B Placements Website	• http://placements.iitb.ac.in/

Compiled by:

Team ISCP

Welcome to IIT Bombay

