



MIT School of
**Bioengineering Sciences
& Research**

Breathe Life into Engineering Career!

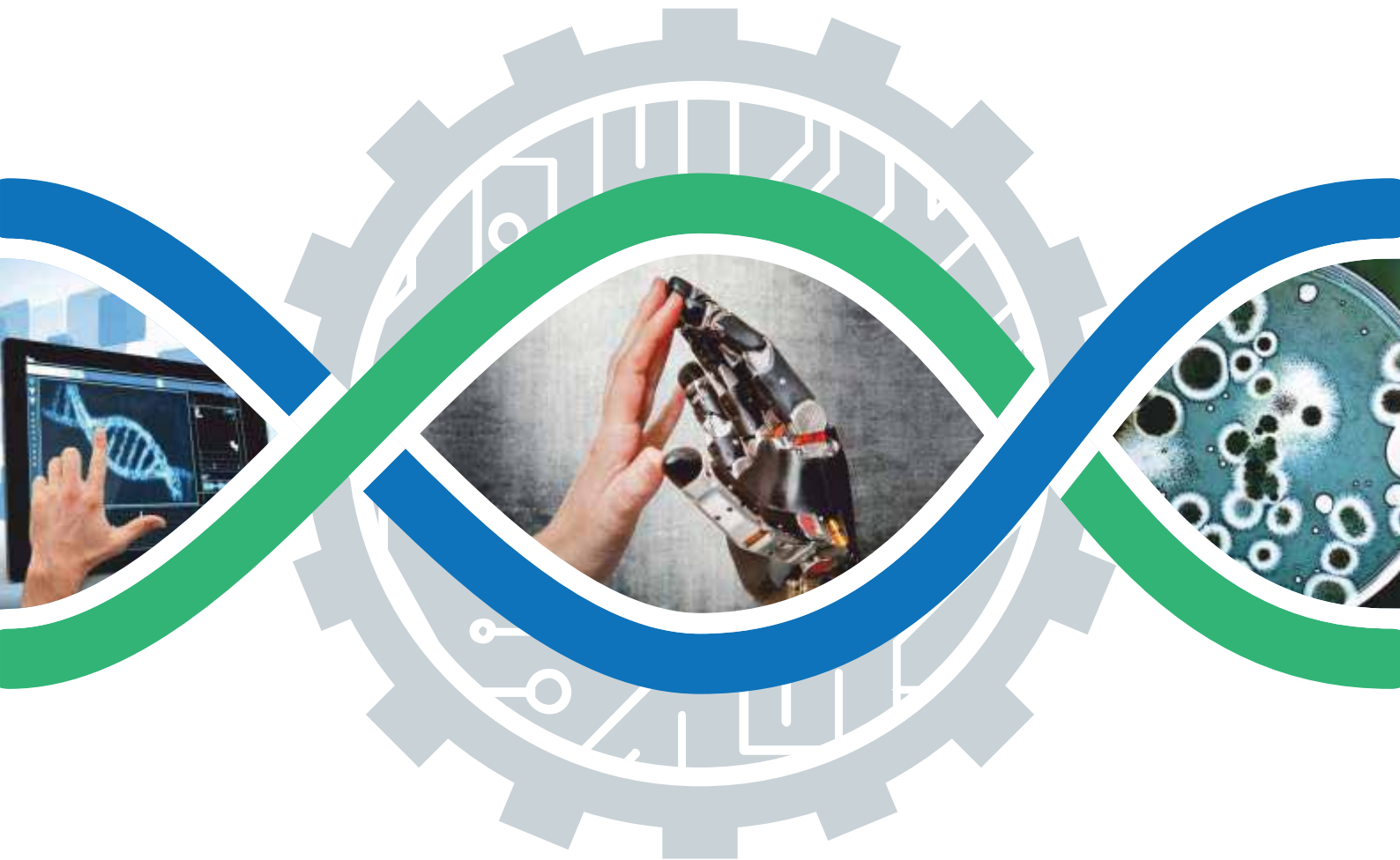
A Constituent Unit Of MIT ADT University



**MIT-ADT
UNIVERSITY**
PUNE, INDIA

A Leap Towards The World Class Education

MIT School of Bioengineering Sciences & Research



Graduate Program

- B. Tech. Bioengineering
(4 years course)

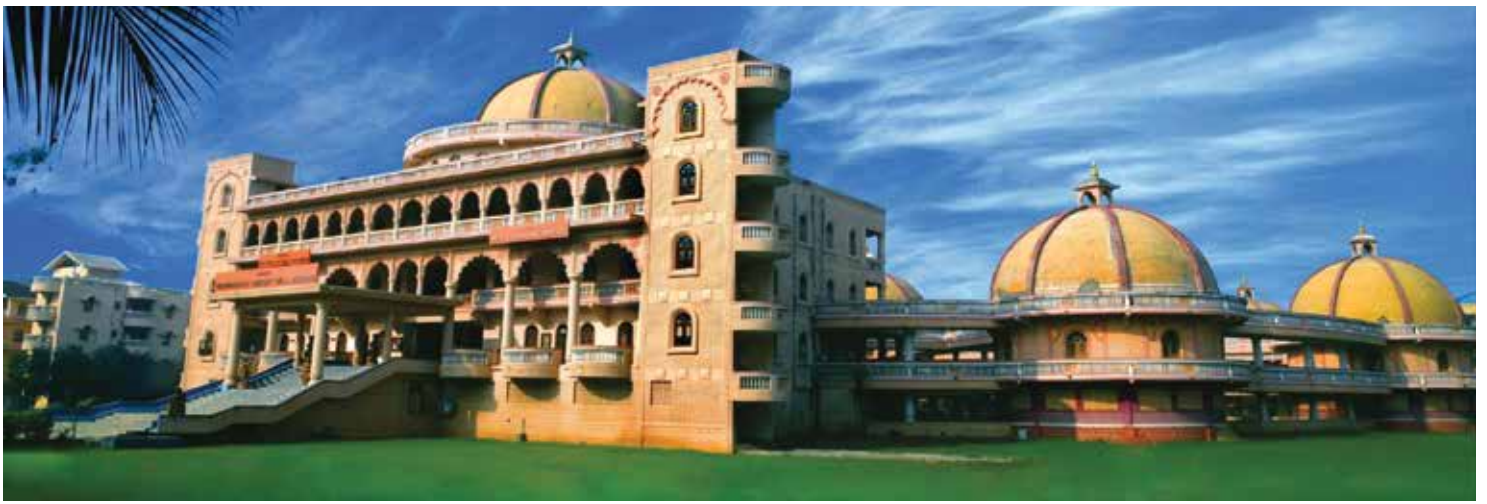
Post Graduate Programs

- Integrated M. Tech. Bioengineering
(5 years course)
- M. Tech. Environmental Bioengineering
(2 years course)
- M. Sc. Industrial Biotechnology
(2 years course)

Ph.D

- In various specializations of Bioengineering

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www.mitbio.edu.in



About MIT-ADT University

MIT Art Design and Technology University, Pune has made concerted efforts to take the leap into world-class education. It is one of the most important state private universities recognized by the government of India within the framework of the famous MIT Group of Institutions, Pune, India. It is a UGC recognized multidisciplinary University and has been bestowed with the 'The Best University Campus' by ASSOCHAM and achieved excellent rank from Atal Ranking of Institutions on Innovation Achievements (ARIIA) The university is located on the banks of the Mula-Mutha River and is famous for its picturesque campus spanning the vast 125-acre expanse. The University is guided by the vision of providing multidisciplinary, world-class education focused on the values and holistic development of the student's personality by offering best higher education and expertise for each student to help achieve their dreams. Whether it is an undergraduate, postgraduate and Doctorate courses, this university has well trained multidisciplinary teachers from various subject domains and better learning opportunities for the student. Higher education in MIT ADT provides more career options for further studies and excellent job opportunities, both in India and abroad.

About Institute

Bioengineering is a multi-disciplinary field bridging the gap between biology and engineering sciences and is becoming a globally expanding academic discipline. Under the aegis of MIT group of institutes, a reputed brand in engineering and medical education, School of Bioengineering Sciences & Research aims to prepare students for ambitious bioengineering careers by imparting super specialized training through project-based learning approach. The Institute promotes entrepreneurship in the bioengineering ecosystem by providing mutual support & access to incubators.



Is Bioengineering for me?

Based on recent trends, it has been observed that engineering has tremendous applications in the healthcare sector, be it genetics, medical imaging, medical instruments etc. Engineering and medical domains are merging like never before to find effective solutions for healthcare and environment. The advancements in engineering have helped evolve bioengineering into one of the most preferred field of research. Revolutionary technologies in hospitals and surgical rooms such as robotic surgery have significantly advanced disease amelioration leading to an improved quality of life. A bioengineer will have the unique opportunity to use his/her skills from mathematics, physics, engineering and biology, anatomy and physiology all together to build new technologies benefiting human health.

What will I learn?

You will be taught the basic of engineering and then introduced to the fundamentals of biotechnology, bio-medical sciences and bioinformatics. Based on your aptitude you can choose among any of these areas during the advanced semesters. Biomedical sciences will include courses on biomedical instrumentation, biosensors, assistive devices, robotics and rehabilitation Engineering. The interesting field of bioinformatics will introduce you to the latest topics in the big data handling and analytics, machine learning, artificial intelligence, text mining, network analysis etc. Specialized courses in biotechnology include genetic engineering, pharmaceutical engineering, synthetic biology, next generation sequencing nano-materials etc.

The conducive academic environment and interactive class room sessions will help strengthen your technical skills and update you with the latest trends in research. So be a part of this vast and diverse field of bioengineering and open the doors for endless opportunities In this era, pollution and hazardous wastes affect air, water and soil quality, causing detrimental effects on the environment. Environmental Bioengineering course provides you with the opportunity to make the earth a better place to live for future generations by combining engineering and biological approaches.



Courses Offered

Graduate Program

Bachelor of Technology in Bioengineering- 4 Years Course

Post Graduate Programs

Integrated Masters program in Bioengineering- 5 Years Course

Masters program in Environmental Bioengineering – 2 years course

Masters program in Industrial Biotechnology – 2 years course

Ph.D Program

Ph.D in various specialization courses of Bioengineering

Specialization offered in Graduate and Post Graduate Programs

- Biotechnology •Biomedical •Bioinformatics •Biomaterials
- Environmental Engineering & Sustainability

B. Tech. and Integrated M. Tech. in Bioengineering

Bioengineering Sciences apply engineering principles of design and analysis to address problems in healthcare & environment. The students will be sensitized and trained to solve real world problems. Accordingly the course has been designed with practical based approach to inspire young graduate students/ young bachelor degree holders to pursue a career in Bioengineering Sciences at our esteemed institute. The institute is well-equipped with excellent teaching faculties and research facilities in biotechnology, bioinformatics and biomedical engineering. At the end of the program the student will be expected to have:

- An in-depth understanding of the Bioengineering Sciences and the technology interventions that can be developed from the bioengineering perspective.
- Ability to undertake original research in any area of Bioengineering disciplines.
- Advanced simulation and modeling tools to understand scale up Bioengineering process and estimate associated costs.
- Understanding of ethical responsibility towards society

Eligibility criteria: Students should have passed HSC (std. XII) examination with minimum marks in aggregate. Students with Maths, Chemistry, Physics and Biology as major subjects will be preferred. Students without Maths/Bio will undertake a bridge course of 3 credits in the first semester. Admissions will be awarded based on merit as determined from the results of MH-CET, NEET, PERA or CET scores of any state.

M. Tech. in Environmental Bioengineering

Environmental bioengineering is the branch of bioengineering that applies engineering principles of design and analysis to address environmental problems, such as the removal of pollution, waste management, renewable energy generation or biomass production by biological treatment process. The students will be sensitized and trained in real world problems especially in the Indian context for maintaining the ecological sanctity. Accordingly the course has been designed with a very practical view to inspire young graduate students/ bachelor degree holders to pursue a career in sustainability engineering at our esteemed institute endowed with good teaching and research facilities. At the end of the program the student will be expected to have:

- An in-depth understanding of the environment and the technology interventions that can be developed from the bioengineering perspective.
- Ability to undertake original research in any area of waste management, sustainability, bioremediation etc.
- Advanced simulation and modeling tools to build environmental engineering models.
- Increase awareness towards environment.

Eligibility criteria: Bachelor's Degree in B.E./ B.Tech. in Environmental Engineering/Chemical Engineering/ Ceramic Technology / Mechanical / Metallurgy/ Civil Engineering/Mining Engineering/ Biochemical Engineering / Biotechnology or other allied Branches are required with minimum 50% marks in aggregate & a valid GATE score or equivalent.

M. Sc. in Industrial Biotechnology

The discipline of industrial biotechnology involves an investigation and utilisation of industrially and commercially beneficial microorganisms. The students will receive knowledge about transformation of affordable raw resources into economically significant products for the benefit of humanity. The curriculum for industrial biotechnology is designed to accommodate biotechnology, bioinformatics and their industrial applications. Thus, students will explore multiple facets of a manufacturing issue or industrial process in biotechnology.

The course is intended to encourage recent science graduates to seek careers in industrial biotechnology at our prestigious institute. They can avail full benefit of our strong industry network.

At the end of the program the student will be able to:

- Think independently on challenging research projects in the field of industrial biotechnology.
- Pursue higher education or pursue an industry career.
- An insight on how to bridge a gap between industrial requirement and available skills and knowledge.

Eligibility criteria: Bachelor's Degree in Life Sciences (Biotechnology /Microbiology/Botany / Zoology / Food Science / Nutrition / Agricultural Sciences) BE or BTech (Chemical/ Biotechnology/ Biomedical) from a recognized University, with a minimum of 50 % aggregate marks or equivalent

Career Prospects for Students

Healthcare: Clinics, specialty hospitals, biomedical devices, orthosis, prosthesis, robotics, medical imaging, AI related products etc.

Biotech Industry: Biosimilars, Biopharmaceuticals, Bio-therapeutics, fermentation Industries, biofuels, Agri biotech, Marine biotech, Environmental biotech.

IT Industries: Data Analytics, Bioinformatics Companies, software companies for healthcare management.

Pharma: Molecular medicine, drug design, nanomaterial based drug delivery systems, clinical trials, biostatistics.

Training & Placement Cell

MIT School of Bioengineering Sciences & Research (MIT BIO) has a dedicated training & placement cell that remains active throughout the year and seamlessly integrates the student's talent pool with industry requirement. The key focus of the cell is to extend students best possible opportunities to students for internship and placement in their area of professional interest.

- The students have an opportunity to find placement in the industry via three modes viz. preplacement offers (PPOs), campus placement drives and off-campus hiring.
- A strong industry network enables students to be part of live industry projects along with the course work. This early experience teaches them the concept of deliverables and respect for deadlines which are very critical attributes in an industry milieu. Based on the sterling performance by students, companies can offer them PPOs even in earlier semesters.
- Training & placement cell is instrumental in building strong academia - industry ecosystem that imparts employability enhancement trainings connecting, value added courses for academic improvement.
- The soft skill training offered by the cell helps students prepare for various stages of interviews.
- Value added programs and courses are offered by industry experts so as to meet the present as well as future requirements of technical competencies with extensive field experience from industries, organisations.

Our Collaborators



Higher Studies



Our Strengths

- Super specialized courses: Tissue & Pharmaceutical engineering, synthetic biology, big data analytics, biosensors & IoT, biomedical imaging, biomechanics, machine learning, artificial intelligence, robotics, etc.
- Focus on hands-on sessions to develop practical skills
- Industry collaborations for creation of syllabus, guest lectures for value added courses, tutorials, industry viable projects etc.
- Well qualified faculty with interdisciplinary knowledge & strong research credentials.
- State-of-art laboratories for conducting practicals and industry projects.
- A rich knowledge resource Center with access to online journals and software.
- Training in soft skills and entrepreneurship in every semester.

ICRTB: An Annual Flagship Event

The International Conference on Recent Trends in Bioengineering (ICRTB) is held annually by the institute. The major goal is to bring together engineers, researchers, practising doctors, academicians, industry leaders and government organisations to discuss the most recent findings around multifaceted theme areas in the field of bioengineering. The event gives an excellent opportunity to the students and young researchers to present their ideas in front of eminent senior researchers from academia and industry.



Bioengineering Club

The MITBIO Bioengineering Club is a student-run club in the MIT School of Bioengineering Sciences & Research (MITBIO), MIT-ADT University, with the goal of providing a common platform for all members to express their ideas, collaborate, and share creativity with distinguished guests from the fields of bioengineering and allied fields from around the world. This club organises a variety of events and sessions related to bioengineering.

Alumni Association

The university organizes a Bioengineering Alumni chapter under MIT Alumni association. Alumni are a precious asset that can foster mutually beneficial ties over time. Alumni offer information about the most recent developments in their work so that others can learn about and appreciate their extraordinary contribution in their field. Our alumni in India & abroad help to foster healthy thinking, peaceful relationships, and morality in their juniors.



Students Achievements

Smart India Hackathon (SIH) is a nationwide programme that provides students with a forum to tackle some of the most important challenges we encounter in our everyday lives, developing a culture of product creation and a problem-solving mind-set. Two teams from MITBIO won first prize in SIH. Our student delivered an outstanding performance by winning first prize at national level.



Curricular Activities

MIT School of Bioengineering encourages the participation of students in various co-curricular and extra-curricular activities. These activities and programs contribute to the social, intellectual, cultural and emotional development of the student. Our students have made us proud by participating and winning several awards at national and international events.

Co-curricular Activities

Students have designed low cost biomedical devices that were selected for Medical Device Innovation Centre (MEDIC 2018) held on 28th September 2018. Some of the ideas have led to the development of prototypes for which patents have been filed. Our students have also won awards at international conferences, International B-Plan Competition held at IIM-Indore and Periloscope Competition held at TechFest, IIT-Bombay.

Extra-curricular Activities

Students are encouraged to pursue their interest in the areas of their passion and expertise. Events such as singing, dancing, art, debate are vital and fundamental part for the holistic development of our student. Our students practice various physical activities such as yoga, foreign language, communication skills, gym and other ground activities under the guidance of School of Holistic Development at MIT-ADT University. Sessions regarding improvement of communication skills are also conducted as part of social and personality development.

Student Testimonials

"It was an absolute delight to be part of a university that gave me the exposure to what Bioengineering has to offer. The well-designed curriculum helped me understand subjects in a structured manner while volunteering and leadership opportunities pushed me to improve on my interpersonal skills. The course introduced me to its broad range of subjects, be it Cell Biology, Genetic Engineering or Electronics, and my teachers guided me to recognize where my interests lie. Regular talks conducted by industry professionals kept the students in touch with a variety of recent research that is being carried out which pushed us to read on a broad spectrum of things. Furthermore, it helped me immensely to build on my knowledge base for my future endeavors in the field of Medicine." - **Alumni (batch of 2021)**

"My journey at MIT-BIO can be described as extraordinary journey towards finding my pursuit of passion. The institute was the right platform to explore my passions, interests and helped me find my true calling. The state of the art research lab facilities and application-based curriculum tailored to the industry requirements along with the capable faculties is a treat to any aspiring biology student." - **Alumni (batch of 2021)**

"The courses you taught, from Molecular biology, to genetic engineering are helping me a lot during my MS course. Your notes, lecture slides and the reference books you had suggested are a great support for me. Your explanation on basic topics like replication, transcription, translation, and cloning are making it easier for me here. Thank you so much. ."- **Alumni (batch of 2019)**

Admission Procedure

- Online Application form is available at www.mitbio.edu.in
- Fill the online application / query form and pay the application fee of 1500 INR
- Merit list declaration
- Final Admissions after document verification
- Admission fees can be paid by NEFT

Note: Feel free to visit with prior appointment.

Admission Contact Details

9021080112, 7447444027/028, 9146051841/42

Email: admissions.mitbio@mituniversity.edu.in

www.mitbio.edu.in



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Distance from:

- ▶Pune Railway Station: 19Km
- ▶Pune Airport: 22Km
- ▶Swargate Bus Stand: 19Km

Apply Now!

