

# Master of Technology in Biomedical engineering

Admissions brochure  
July – August 2023



### Vision

The Biomedical engineering at IIT Hyderabad is where the boundaries between disciplines fade for defining excellence in research and education. The primary mission of the department is to foster interdisciplinary work of highest quality by bringing together a broad spectrum of faculty expertise under a single umbrella to focus on research in Biomedical engineering. The M Tech Biomedical Engineering programme (BME) at IITH is a 2-year programme and offered to students qualifying GATE examination.



M Tech BME curriculum involves an intensive course and laboratory work for two semesters followed by research project for two semesters.

**There are two broad focus streams within a typical M Tech program:**

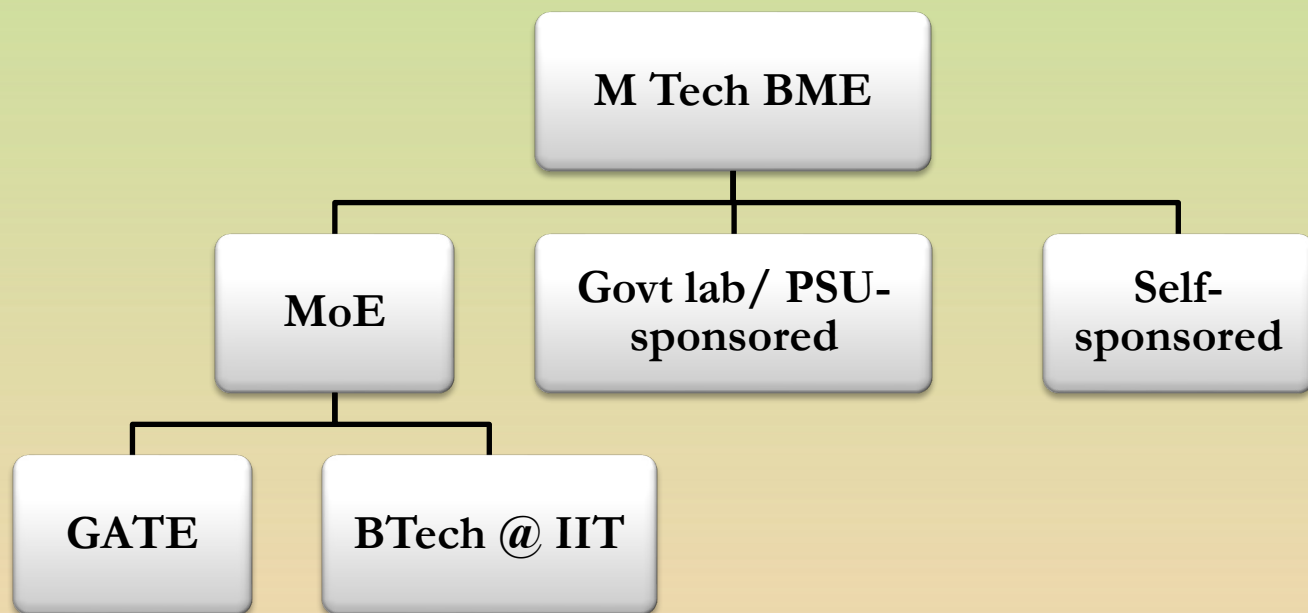
#### **1. Medical sensing, analytics & simulation (MedSAS)**

- Typically requires a background in EE, CS, Instrumentation, Mechanical engineering, Physics, Mathematics or quantitative sciences

#### **2. Nanomedicine & Biomaterials (NBM)**

- Typically requires a background in Biotechnology, Medicine, Pharmaceutical or Life sciences

### Modalities of admission



The program is available in a *self-sponsored & Govt lab/PSU-sponsored mode*.

The basic eligibility criteria are the same across all modalities of admission.

A *3-Year MTech program* is also available subject to the availability of projects.

#### GATE Disciplines for MedSAS stream

Biomedical engineering (BM), Electrical Engineering (EE), Electronics and communication Engineering (EC), Instrumentation Engineering (IN), Computer Science and Information technology (CS), Mechanical Engineering (ME), Engineering Sciences (XE) with compulsory Mathematics paper, Physics (PH), Mathematics (MA)

#### GATE Disciplines for NBM stream

Biomedical engineering (BM), Life Sciences (XL), Biotechnology (BT), Chemistry (CY), Chemical Engineering (CH), Textile Engineering and Fibre Science (TF), Production and industrial engineering (PI), Engineering sciences (XE)

### Credit requirements

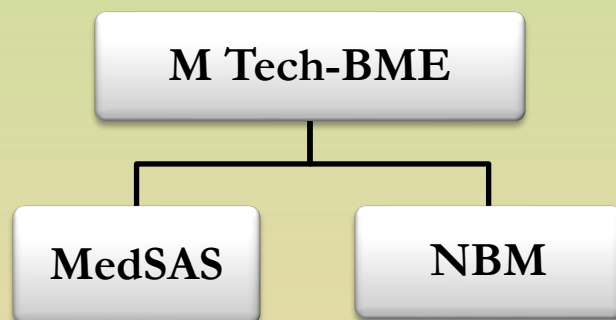
Total course credits – 50 credits

Core (compulsory) – 10 credits

Elective courses – 16 credits

Thesis work – 24 credits

### Streams



**MedSAS** - Medical sensing, analytics & simulation; **NBM** - Nanomedicine & Biomaterials

### Elective themes

Biomedical  
imaging

Biomechanics &  
microfluidics

Biomaterials

Regenerative  
medicine

Neuroscience &  
Neurotechnology

Biofabrication

Tissue engineering

Nanomedicine

Computational  
biology

# Indian Institute of Technology Hyderabad

## Department of Biomedical engineering

### Eligibility criteria – M Tech (BME)

**Common criteria for all modes:** First class or 60% marks (55% for SC/ST reserved categories) in **(A)** BTech/BE in Biomedical, Biotechnology, Electrical, Electronics and communication, Instrumentation, Mechanical, Computer Science and Information Technology, Chemical Engineering, Metallurgy and Material Science, Textile Engineering and Fibre Science, Engineering Sciences **(or)** **(B)** M Sc or equivalent (2 year) in Physics, Biophysics, Chemistry, Material science, Ceramics, Electronics, Computer Science, Life Sciences , Physiology, Engineering Sciences (or) **(C)** MBBS, BDS, BPharm, BVSc or equivalent programme with duration of 4 years or more.

**MoE-GATE** - Applicants should have cleared GATE in their respective disciplines for admission under MoE category. Financial support (i.e., assistantship or fellowship) will be only provided to GATE-qualified Indian students.

**Specific for MoE-IIT-BTech** - Students who pass out of **IITs** with a relevant **BTech degree** (GPA >8) do not need a GATE score and can apply.

Applicants who have a MBBS/BDS/BPharm/BVSc degree or equivalent and have cleared NEET-PG /INI-CET /G-PAT /JGEEBILLS /AIIMS /All India MCI/ JIPMER/ PGI Chandigarh/AFMC Pune/DNB Part I national level medical postgraduate entrance examinations or GATE Life Sciences examination for medical and biological sciences, and All India level pre-MDS/MVSc selection examination for BVSc and BDS candidates are eligible to apply **ONLY under the self-sponsored category** mode. Eligibility / rank certificates are required for all such entrance examinations.





### Contact

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