Placement Brochure

2023-24

IIT Delhi's
Centre for Biomedical
Engineering

Welcome

About us

CBME was established in 1971 as a Joint venture of IIT Delhi and AIIMS, Delhi. The Centre has applied engineering principles to address medical and biological problems. Over the years CBME has become the premier biomedical centre of the country.

It has faculty from diverse backgrounds who are actively engaged in various interdisciplinary research activities including disease prevention, diagnosis, and treatment, rehabilitation and injury mechanics, biomaterials, biomedical device development, Finite Element Modeling (FEM), data driven modelling, and Disease/Recovery Predictions using Machine Learning and Deep Learning.

Programs Offered

- M.Tech in Biomedical Engineering
- Doctorate (PhD)

Admission Criteria

- Students with a top ranks in GATE or any equivalent national examinations are shortlisted followed by an interview.
- Two-stage rigorous selection process ensures that only the best and the brightest make it to the department.

Head of the Centre

Prof. Naresh Bhatnagar

Head, Centre for BiomedicalEngineering, IITDelhi.

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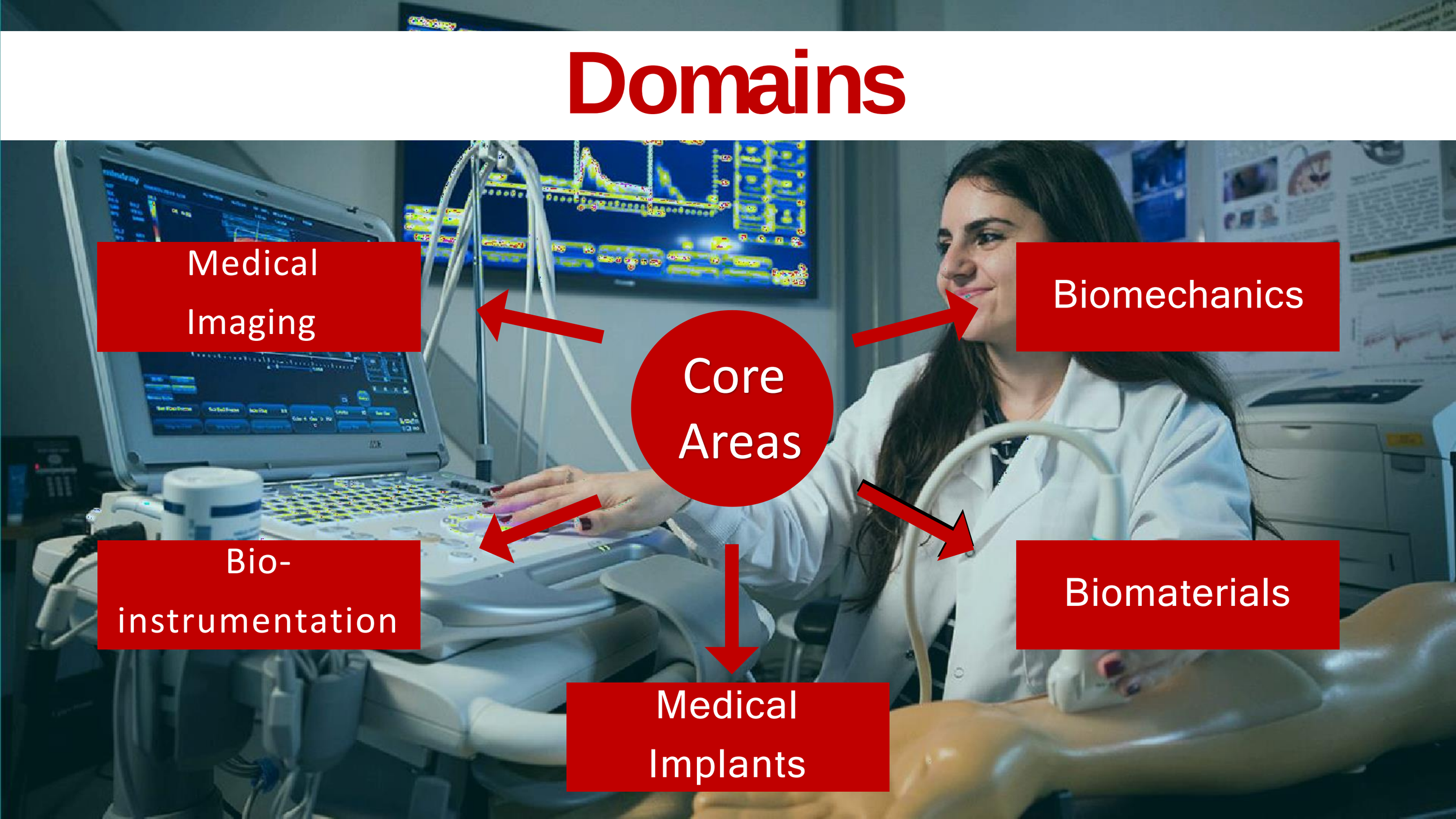
Domains


Medical Imaging
Biomechanics
Core Areas
Bio-instrumentation
Biomaterials
Medical Implants

Academics

- M.Tech programme in Biomedical Engineering is designed for students from both engineering and science disciplines to give training in frontier areas for solving the longstanding problems of healthcare using including but not limited to applications of Data-driven approaches, Machine Learning, Deep Learning, 3D Modelling.

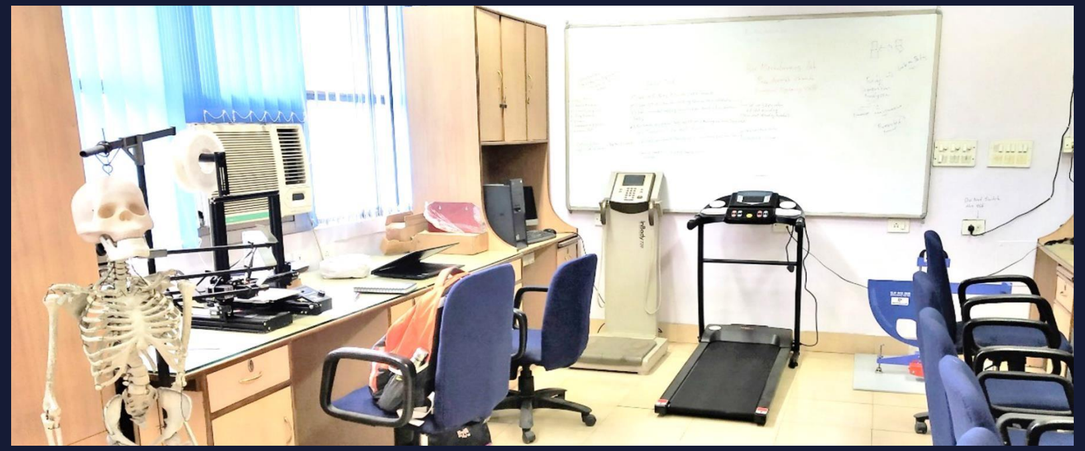
Courses students have taken:

Biomedical Data Analysis
Introduction to Machine Learning
Deep Learning for Medical Image Analysis
Biomedical Instrumentation
Biomedical Ethics
Basic Electronics
Fundamentals of Biomechanics
Neuromechanics
Probability and Statistics
Biomedical Signal & Image Processing
Finite Element Modeling of disease
Point of Care Medical Diagnostic Devices
Industrial Biomaterial Technology
Research Techniques of BME (Signal processing)
Wearable Technologies

Recent Research Projects in CBME

- Machine Learning application in Medical Image Processing
- Transfer Learning based Breast cancer classification using ResNet
- UNET based deep learning architecture for cardiac segmentation
- LSTM based machine learning Classification of Biomedical signals
- 3D printing techniques for Fabrication of silicone simulants
- CAD modelling of molds for Eye and skin simulants
- Proprioceptive devices using machine learning
- Wash-free cancer detection using CA 19-9 as target
- Decoding and Preempting Object Slippage from spatiotemporal cutaneous Vibration Patterns
- Detection and Characterization of Breast Tumors using Contrast Enhanced Mammography

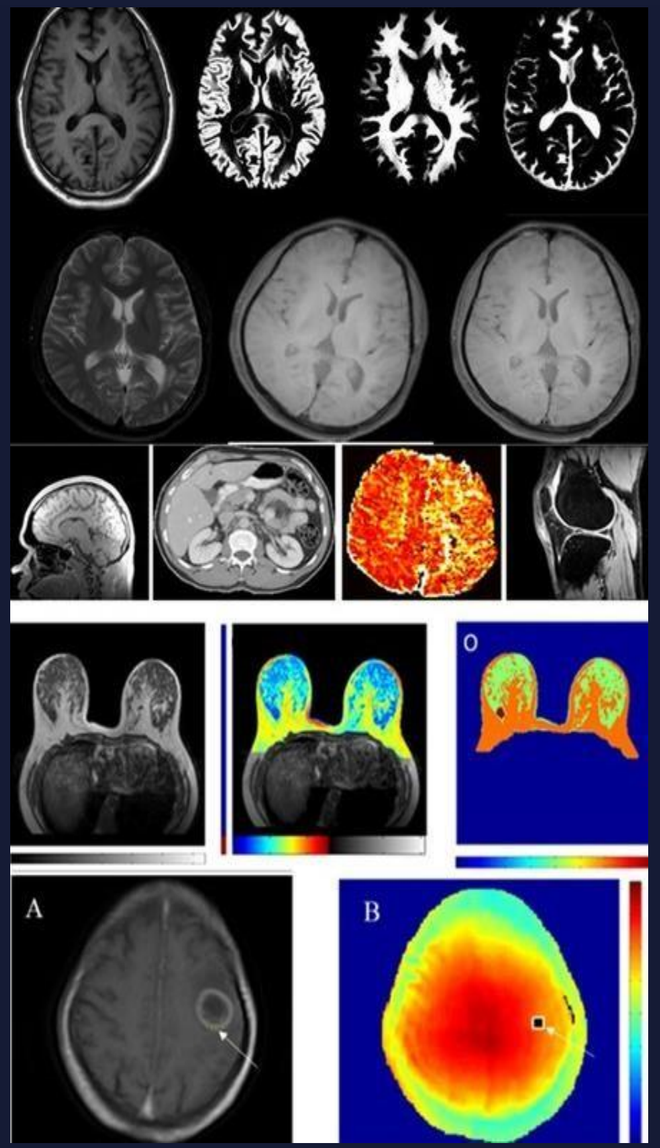
Research Facilities: A Glimpse

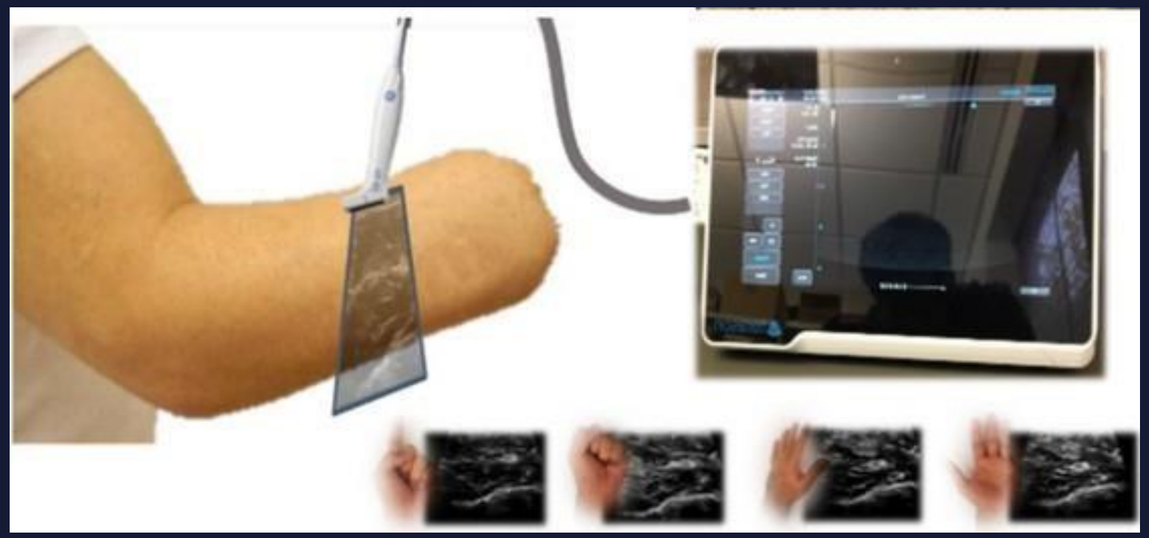


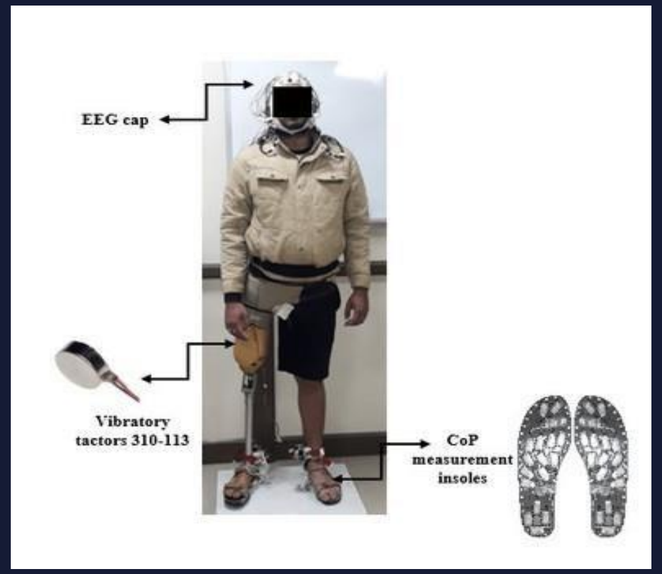
Softwares

that Students are familiar with and using extensively.

Research Gallery



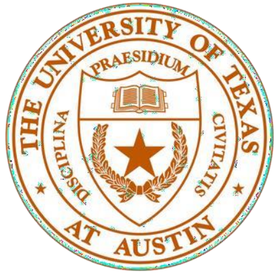




Collaborations

Government Organizations

Academic Organizations



Previous year Students Placed at

& more...

Please visit website of the Office of Career Services (https://ocs.iitd.ac.in) for information regarding recruitment process and more.

Contact Us

Faculty Placement Coordinator & M.Tech. Program Coordinator

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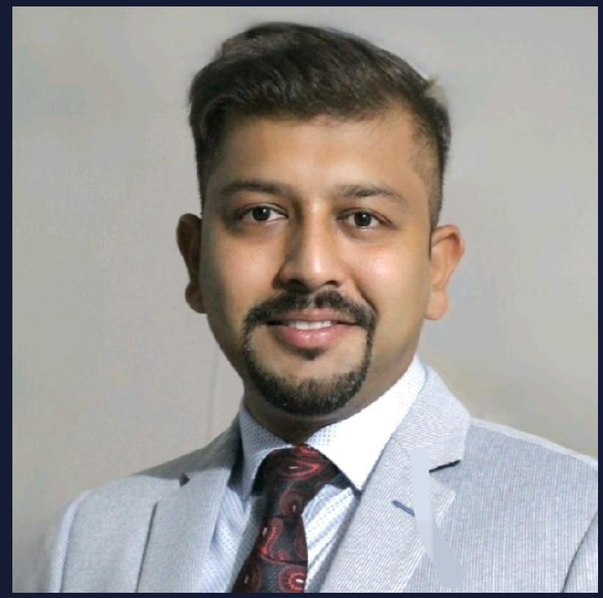
Phone: 01126591086

Student Placement (Nucleus) Coordinator



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