Karunya
DEEMED UNIVERSITY
SOLVING HUMAN PROBLEMS

Department of BIOMEDICAL ENGINEERING

Admissions 2020

About US

Biomedical Engineering is a multidisciplinary field that blends biology and engineering. This discipline encompasses the profound knowledge of biological principles in the realm of engineering design.

The department of Biomedical Engineering program was established in the year 2009 and has maintained an exceptional track record in academics, placement, industrial training and research activities. Biomedical engineering has a direct effect on human life thus making it different and attractive from other streams of engineering. The ever increasing demand for Biomedical Engineers is pertinent to our society's affinity towards efficient and convenient healthcare. Biomedical engineering being a interdisciplinary field has almost endless possibilities and there is growing need of large scale investments to endorse quality education to train biomedical engineers to provide innovative and cost effective health care solutions.

Vision

The Mission of our Department is "To raise engineers and researchers with technical expertise on par with international standards, professional attitude and ethical values with the ability to apply acquired knowledge, to have a productive career and empower spiritually to serve humanity".

Mission

The Mission of our Department is "To equip the students with adequate knowledge in the field of Biomedical Engineering with exemplary values on a spiritual foundation. To enhance the research initiatives in the department focusing on solving human problems thereby making lasting contribution to science, technology and society".

Programmes Offered

- **B.Tech.** Biomedical Engineering
- **M.Tech.** Biomedical Instrumentation
- **Ph.D.** Biomedical Engineering

Our Curriculum

Our curriculum is carefully designed to ensure that the students develop a strong base in biomedical engineering and also to familiarise them with other engineering disciplines which could equip them to work on a multidisciplinary innovative platform.

The program gives prime importance to creative and independent thinking and facilitates problem solving attitude via various real-time exposure and laboratory sessions.

Laboratory Facilities

- Biomedical Instrumentation Lab
- Bio - Virtual Instrumentation Lab
- Medical Diagnostics Lab
- Therapeutic Equipment Lab
- Bio-Sensors Lab
- MEMS Lab
- Medical Electronics Lab
- Biosignal & Medical Image processing Lab
- Innovation and Project Development Lab
- Embedded Lab

Research activities

Sponsored Project:

- Design of Low cost Vacuum Therapy for non-healing Diabetic Wounds - Boston Children Hospital, Boston, USA.
- Wet diaper Alert system - Boston Children Hospital, Boston, USA.
- Continuous Bed side Monitoring System - Boston Children Hospital, Boston, USA.
- Enhanced Source Separation Tool for Interrogating Neurological Disorders - Technology Systems Development Programme (TSDP), Department of Science & Technology, Govt. of India.
- Design and development of an adaptive brain computer interface (BCI) based assistive tool for paralyytic people - Interdisciplinary Cyber Physical Systems (ICPS), Department of Science & Technology, Govt. of India.
- CRYOCURE: An Antidote for Sports Injuries and Muscle Spasms - Indian Council for Medical Research (ICMR), New Delhi, Govt. of India.
- Design and Development of Health Monitoring System for Pregnant Women in Rural Areas - CSR Scheme with Jasmin Infotech, Chennai

Patents Published:

- Low Cost Brain Mapping Tool for Epilepsy Detection
- A Test set up device for AC contactor to automate HUM detection and method

Research Areas

- Designing handheld medical equipment
- Medical Diagnosis & Therapeutics
- Wearable healthcare devices for Children & Elderly·
- Neuroscience & Technology
- Rehabilitation & Assist Devices
- Biosignal Processing
- Medical Image processing

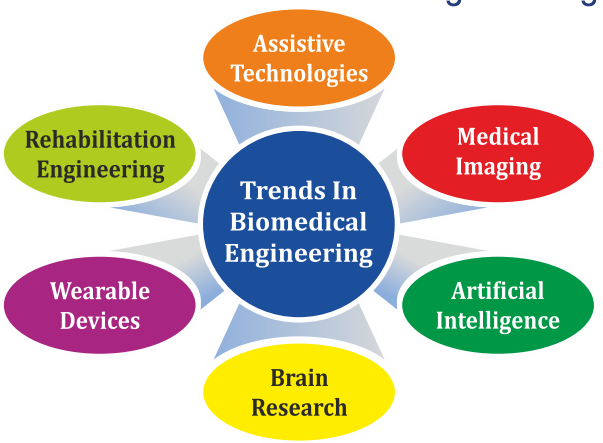
Short-term / Certificate / Add-on courses Offered

- MATLAB & LabVIEW Training
- Electronics Hobby Workshop
- Biovision Medical Device Calibration & Maintenance Lab
- Python Programming
- C, C++, Embedded C
- Arduino, Rasperry Pi
- 3D Printing for Medical Applications
- Robotics Workshop
- Entrepreneurship Awareness
- Schiller-Medical Equipment & Troubleshooting Lab
- PCB Design and Fabrication for BioMedical applications

MoU/MoA Signed

- Siemen's Healthineers, Bangalore
- Jubilee Mission Medical Hospital and Research Center, Kerala
- Vital Biosystems Pvt Ltd, Chennai
- STAAN Biomed Pvt Ltd, Coimbatore
- Vi-Microsystems Pvt Ltd, Chennai
- Karunya Rural Community Hospital, Karunya Nagar
- Jasmin InfoTech, Chennai
- Salzer Electronics Pvt Ltd, Coimbatore
- TMI Systems, Bangalore
- Cyrix Healthcare Pvt., Ltd.

Trends in Biomedical Engineering



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BIOMEDICAL ENGINEERING

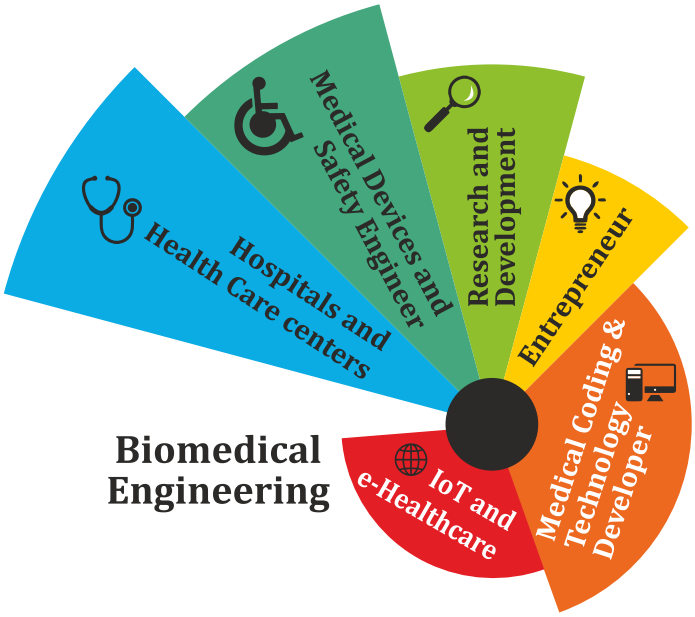
Testimonial

Gideon

It's was a really good experience in Karunya-Biomedical Engineering. I got the internship through IAESTE. My work was really interesting and challenging in the field of hypertension and critical care anesthetics.

The atmosphere of the host university was very good. The star moments were the cultural and technical collaborations along with 27 countries representing. On the whole, it was a wonderful experience in Brazil. Heart stays back in, special thanks to Karunya.

Scope of Employability



Our Recruiters

Medtronic, cadence BIOMEDICAL, Baxter, JASMIN INFOTECH, salzer, Fortis HEALTHCARE, BOSCH, RENAULT, NISSAN, KPIT, Honeywell, SKANRAY, PHILIPS Healthcare

APPLY NOW
Scan QR Code to Start the Admission Process

Contact:

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The Head of Department
Department of Biomedical Engineering

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