www.rajalakshmi.org

B.E. BIOMEDICAL ENGINEERING

The Department of Biomedical Engineering established in the year 2006 offers UG in Biomedical Engineering and PG in Medical Electronics. This department is accredited by National Board of Accreditation, New Delhi and also recognized as 'Research Center' by Anna University, Chennai. Biomedical Engineering is the application of Engineering concepts and techniques to the field of Medicine. It combines the problem solving capability of engineers with the medical expertise of physicians to enhance the quality of life through health care processes. Our members of the faculty have expertise in Bio signal and medical image processing, Rehabilitation engineering and biomedical instrumentation. The department has signed MoUs with industries and research organizations for faculty training, students training and placement. Faculty members are encouraged collaborative research with experts in Government/private organizations and publishing papers in reputed peer reviewed international journals and conferences. Visits to hospitals, Equipment manufacturing & maintenance, Industries and Research Centers form part of our core curriculum, to help the students get thorough knowledge in these areas. Industrial training and Project training are arranged for all students to develop their practical knowledge.

PRIZES / AWARDS
UNIVERSITY RANK HOLDERS LIST

Name of the student	Batch	Anna University Rank	Medal
Sowmyalata.D	2006-10	15	
Jeevitha.P	2007-11	9	
Kanchana.D	2008-12	1	Gold
Kirthika .C	2008-12	2	
Nalini C.Krishnan	2008-12	8	
Hema Malini K.R	2008-12	11	
Sindhu. G	2009-13	9	
Lakshmi Venkatraman	2010-14	2	
Nisfa Fathima M 2	2010-14	7	
Kavirekha R	2010-14	10	
Vigneshwaran D	2011-13 (PG)	1	Gold
Vennila M	2012-14 (PG)	1	Gold
Deepika B	2011-15	1	Gold
Yamuna T	2011-15	3	
Suchithra A C S	2011-15	7	
Ramya V	2011-15	14	
Narmatha P	2011-15	15	
Thiruselvam S	2011-15	16	
Idamagthalene D	2012-16	17	
Shobana M	2012-16	18	
Aashik Kader Mohideen S	2012-16	19	
Priyankka S	2012-16	20	
Arthy B	2012-16	28	

M.E. MEDICAL ELECTRONICS

The Department of Biomedical Engineering at REC also offers a Two year Master Degree Programme in Medical Electronics with an annual intake of 18 students. Which enables us to offer MS/Ph.D programmes. The research and development work of medical electronics engineers leads to the manufacturing of sophisticated diagnostic medical equipment needed to ensure good healthcare. Biomedical engineering combines the design and problem-solving skills of engineering with medical and biological sciences to improve healthcare diagnosis and treatment. Much of the work in biomedical engineering consists of research and development spanning a broad array of sub-fields. The core healthcare science and research in medical sciences will have ever-increasing interface with technology areas. To meet these challenges, a new breed of medical professionals is required who are conversant with medical as well as engineering aspects. They will be able to fuse together the medical sciences with high-end technologies. Medical electronics engineers carry out research along with life scientists, chemists and medical scientists to develop and evaluate systems and products such as bio compatible prostheses (artificial devices that replace missing body parts), various diagnostic and therapeutic medical devices ranging from clinical equipment to microimplants, common imaging equipment such as Magnetic Resonance Imaging (MRI) and Electro Encephalo Gram (EEG), biotechnologies such as regenerative tissue growth, pharmaceutical drugs and bio pharmaceuticals, medical information systems, and health management and care delivery systems. Most engineers in this specialty need a sound background in another engineering specialty, such as mechanical or electronics engineering, in addition to specialized biomedical training. Some specialties within medical electronics engineering include biomaterials, biomechanics, medical imaging, rehabilitation engineering and orthopaedic engineering.

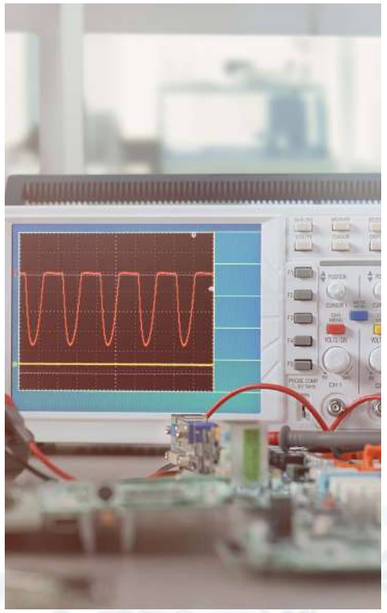
M.S. (By Research) and Ph.D. Programmes

Biomedical researchers use their engineering and science backgrounds to design the next generation of systems and treatments that will advance the quality of life for patients. The Department of Biomedical Engineering is an Anna University recognised research centre to conduct M.S. (By Research) and Ph.D. programmes. Several faculty members have been doing in-house research and publishing papers in peer reviewed international journals and conferences. Three of the faculty members are recognised Ph.D .supervisors under whom seven candidates have registered for their Ph.D./M.S. (By Research)

RESEARCH PROJECTS

Faculty members in the department are highly focused on research and developmental activities. Currently the department is having four funded projects sponsored by Indian Council for Medical Research, New Delhi and University Grants Commission, New Delhi.

- A project Titled "Thermography as a tool to detect Fetus Abnormality" funded by ICRM – 11.42 Lakhs.
- A project Titled "Design and Development of Powered Lower Limb Exoskeleton for Hemiplegic Patients" funded by UGC, New Delhi – 3.0 Lakh
- A project Titled "Development of automated tool for early diagnosis of Diabet Retinopathy From SDOCT retinal images using virtual instrumentation" funded by UGC, New Delhi – 2.0 Lakh
- A project Titled "Development of a device to detect Obstructive Sleep Apnea (OSA) during wakefulness using breathing sounds" funded by UGC, New Delhi – 3.7 Lakhs.
- A PG project Titled "Development of Affordable and Reliable Vein Finder" funded by Institution of Engineers (India), Kolkata – 0.5 Lakh



BIOMEDICAL ENGINEERING