

Department of Biomedical Engineering  
KPR Institute of Engineering and Technology



# KPR Institute of Engineering and Technology

Arasur, Coimbatore - 641407

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"We are Engineers for Doctors"

Biomedical Engineering is one of the premier Engineering disciplines among technocrats since it merges Healthcare Technology with Electronics and Software technologies including Artificial Intelligence, Machine Learning, Robotics in Medicine, Bioinformatics, Prosthetic Engineering etc. to serve better to the human community with advance and continuously upgrading technologies. In KPRIET, we nourish our students with advance laboratories like Bio-signal processing, Diagnostics and Therapeutic Equipment, Human Anatomy and Physiology, Biomedical Instrumentation to learn by practicing. Hospital training and internship are arranged with leading multispecialty hospitals and biomedical industries to facilitate the students for better career. Research activities are vibrant with publications and patents in the recent trends.

**Dr. D. Ganesh kumar HoD/BME**

## Highlights of this month

**Event -1  
Webinar**

**Event -2  
Seminar**

**Event – 3  
Webinar**

**Event – 4  
VAC/Training Program**

**Students' achievements**

**Faculty Contribution**

Monthly Newsletter: Department of Biomedical Engineering

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## About KPRIET

KPR Institute of Engineering and Technology (KPRIET), founded by Dr. K. P. Ramasamy, is one of the leading institutions of academic excellence by imparting technical, intellectual and professional skills to students. The Institution is ranked 100-150 band by NIRF. The institute, with its diverse and energetic community of students offers a distinguishing blend of some of the premium graduate, undergraduate and research programs, talented faculty, world class amenities and a residential campus set on a sprawling 150 acres of lush green campus.

While students at KPRIET immerse themselves in academics, the institute has a lot in store for them outside the classroom. Student life includes participation in sports, co-curricular activities and cultural. In short, at KPRIET, students will find an academic and social environment where everyone- from faculty members to peer's support shape their future. KPRIET is a home to artistically designed buildings with state of the-art computer and internet facilities, modern workshops, seminar halls, auditoriums and well stocked libraries, sports and games fields in addition to an indoor badminton court and gymnasium.

KPRIET has a faculty strength of 264 with a faculty student ratio of 1:15. Out of the total, 139 faculty members PhDs. and 95 are in the process of completing their PhDs. As an exemplary institution of learning, KPRIET follows an admission policy that strongly favours merit, even as it enables access to education for students from all strata of society through appropriate scholarships. The Institution boasts of a strong alumni network with alumni events held every year serving as a platform for past students to give back to KPRIET and share their experiences with its present fellow students.

## About the Department

The Department of Biomedical Engineering of KPR Institute of Engineering and Technology, Coimbatore was established in the year 2017 with an annual intake of 60 students. The Department has highly qualified faculty members with Ph. D. and M.E. / M. Tech / M.S. under various specialize such as Biomedical Signal and Image Processing, Medical Electronics, Healthcare Data Analytics, Biomaterials, Regenerative medicine and Nanoscience. The total strength of the faculty members in the Department is thirteen. Out of which, 60% of the faculty Members (9 Faculty) have completed their PhD and four faculty members are pursuing their PhD.

The faculty members contribute to academic development by publishing books / journals, products, patent filing and presenting papers in International and National Conferences. The Department of Biomedical Engineering signed MoUs with the reputed industries like Silicon systems, Aravind Eye Care Hospital, GEM Hospitals, Ganga Medical Center and Hospital, Masonic Medical Centre for children and ALERT (NGO) to bridge the gap between theory and field practices.

The Department also provides an opportunity for students in improving practical knowledge in the field of Biomedical Engineering and Software skills like MATLAB, LabVIEW, Wokwi simulation through Centre of Excellence, in addition to Communication and Presentation skills. The students have to undergo Industrial Training and Industrial Visit to facilitate them to take up industrial live projects to understand the industry needs. The Students from Biomedical Engineering as well as faculty members has membership in various Professional Societies like BMESI and IEEE (EMBS) to gain knowledge through various programs conducted by these bodies across the Nation.

## Vision of the Department

To be the **centre of excellence** for **dissemination of knowledge, research and development** in biomedical engineering to serve **society with moral values**.

## Mission of the Department

The **Mission** of the Department is to

- Impart **value-based education** in biomedical engineering using **modern equipment and tools**.
- Build an **integrated team** of biomedical engineers to foster technologies through **research, development and innovation**.
- Provide **healthcare industries** with solutions imbued **through lifelong learning** with **ethics and moral values**

**LIST OF EVENTS / PROGRAMS CONDUCTED DURING NOVEMBER 2023**

S. No.	Date	Type of Event / Program	Title of the Event
1.	03.11.2023	Webinar	Bioinstrumentation
2.	06.11.2023	Seminar	Handling Electronic Equipment
3.	11.11.2023	Alumni Webinar	Zoho Interview Preparation
4.	15.11.2023 to 17.11.2023	VAC/Training Program	Electronic System Design for Biomedical Engineers

**Industry visits by the Department**

S. No.	Date of Visit	Name of the Industry visited by the faculty during November 2023
1.	07.11.2023	Enthu Technology, Coimbatore
2.	15.11.2023	GEM Hospital, Coimbatore
3.	20.11.2023	Inno Mektronic, Coimbatore

**EVENT - 1**

**Association Activity – webinar on Bioinstrumentation**

On November 3, 2023, Our Students association of Medico sapiens conducted a webinar on “BIOINSTRUMENTATION” by Mr. Boopathi Sakthivel. We started the event at 10.00 am with welcome address given by Ms. Mruthikha R, III BME. Then the chief guest took over the session. The session was all about Bioinstrumentation and imperatives of biomedical. We have learnt about the placement of electrodes and then we have known about lead sequences format, limb leads, types of patient cables, types of ECG tests, holter recording and types of defibrillators. An interactive question and answer session was thoughtfully organized, allowing students to engage with Mr. Boopathi Sakthivel and seek clarifications on any aspects of the presentation. This interactive component enriched the learning experience and fostered a deeper understanding of the subject matter. The event attracted a substantial audience, with over 30 registrations and more than 60 enthusiastic participants. This overwhelming response showcased the high level of interest and engagement from students and budding medical professionals. The positive feedback received from participants through the provided feedback link further reinforced the success and impact of the session, highlighting its informativeness and usefulness.

KPR Institute of Engineering and Technology  
Learn Beyond (Autonomous, NAAC 'A')

Department of Biomedical Engineering

Great Place To Work. Certified

in association with  
Students Association 'Medico Sapiens 2023 - 2024'  
organizes a webinar on the topic

**BIOINSTRUMENTATION**  
Where Technology Meets Biology to Transform Healthcare

**Boopathi Sakthivel**  
Founder & CEO  
Prashan Medical Technologies  
Coimbatore.

Online Mode  
03.11.2023  
10.00 AM - 11.00AM  
mqo-fwby-ufa

To Register Scan here

Faculty Coordinators  
M.Swathy

Event Coordinators  
Kowshika R IV BME President  
Mruthikha S III BME Executive Member

KPR IET  
G20  
SDG  
Azadi Ka Amrit Mahotsav  
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## EVENT - 2

**Seminar - Handling Electronic Equipments'**

KPR Institute of Engineering and Technology, Coimbatore, hosted an enlightening seminar titled 'Handling Electronic Equipment,' organized by the Department of Biomedical Engineering. The event, held on 06.11.2023 at 11 am, aimed to provide students with comprehensive insights into the intricacies of electronic equipment commonly employed in biomedical applications. The distinguished resource person for the seminar was Mr. S. Raja, a seasoned Product Development Engineer at Silicon Systems. With a wealth of industry experience, Mr. S. Raja delivered a compelling presentation, delving into the design principles, functionality, and maintenance aspects of electronic equipment. He shared practical anecdotes from his professional journey, offering students a real-world perspective on the challenges and advancements within the field. The seminar fostered an interactive learning environment, encouraging students to actively engage with Mr. Raja through insightful discussions and a robust Q&A session. This interactive approach allowed participants to deepen their understanding of electronic equipment and its relevance in the biomedical domain. The event proved to be instrumental in bridging the gap between theoretical knowledge and practical application, empowering students in the Department of Biomedical Engineering with a profound appreciation for handling electronic equipment in their future professional endeavours. The seminar concluded with a sense of enthusiasm and enhanced knowledge among the attendees.

**KPR Institute of Engineering and Technology**  
Learn Beyond (Autonomous, NAAC 'A')

**Department of Biomedical Engineering**  
**Seminar on Handling Electronic Equipments'**

**Resource person:**  
Mr. S. Raja,  
Product Development  
Engineer,  
Silicon Systems,  
Coimbatore

**Convener:**  
Dr. D. Ganeshkumar, HOD/BM

**Faculty Coordinators:**  
Mr. V. Bharat  
Mr. R. Krishna Kumar

**Date:** 06/11/2023  
**Time:** 11.00 am to 12.00 Noon

**Venue:** Medical Analytics  
Laboratory, BME block, KPRIET

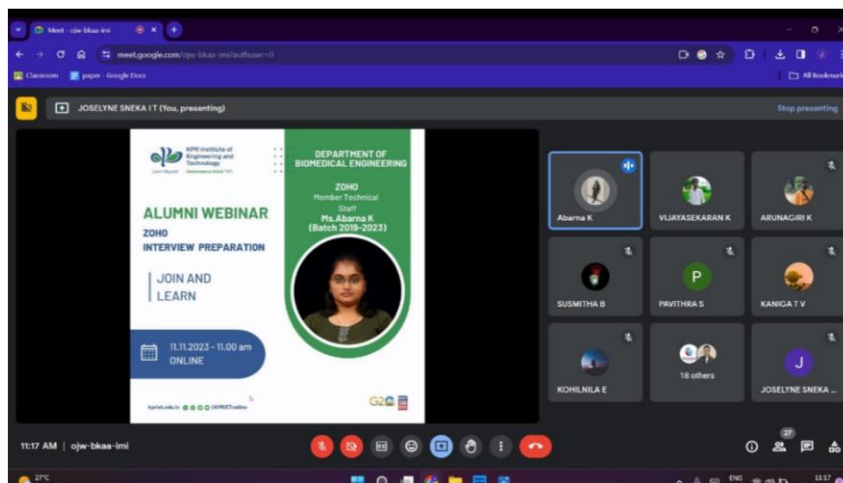
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EVENT - 3

**Alumni Activity - Webinar – Zoho Interview Preparation**

The event on 'How to crack ZOHO' by alumni was a resounding success, with a multitude of positive outcomes and takeaways for both the participants and organizers. Alumni from various renowned institutions and professionals from the IT industry came together to share their experiences, insights, and expertise, contributing to a dynamic and enriching learning environment. Application Process Explained: The event began by explaining how to apply for a job at ZOHO. People learned step-by-step what to do, like making a good resume and passing online tests. Mastering Interviews: The event focused on interviews, which are very important at ZOHO. People learned about the questions they might be asked and how to answer them well. Soft Skills: ZOHO cares about more than just technical skills. The event taught people how to show they are good at communication, problem-solving, and teamwork. Practice Questions: To help people get ready, the event included practice questions that are often asked at ZOHO. People could practice and get better. Advice from ZOHO Alumni: ZOHO alumni shared their own stories and experiences. This inspired people and gave them a look into what it's like to work at Zoho.





EVENT - 4

**VAC/Training Program - Electronic System Design for Biomedical Engineers**

Department of biomedical engineering organizes one credit course on electronic system design for Biomedical engineers for second year biomedical engineering students for three days. 15-11-2023 to 17-11-2023. This industry oriented one credit course is very essential to improve students technical Skill. Resource person: Mr. S. Raja, product development engineer, silicon systems, Coimbatore. Mr. V. Bharath, AP (Sr. G)/BME, convener of this programmes. Ms. M. Swathy, AP (Sr.G)/BME, coordinator of this Programme Dr. N. Rajasingam, AP (Sr.G)/BME coordinator of this programme 15-11-2023 (Wednesday) first day Students learnt about the fundamentals of bioelectronics, basic theorem - workouts, basics on Amplifiers and design - operational amplifier 16-11-2023 (Thursday) second day students have known the Concepts on configuring hardware - amplifier circuits, configuring hardware - amplifier circuits, Configuring hardware - voltage follower and an introduction about pic microcontroller 17-11-2023 (Friday) third day students have done the task given on previous day on proteus software, designed the Circuit based on pic microcontroller, sensors interfacing & controller interfacing 18-11-2023 (Saturday) Fourth day assessment test conducted for 90 minutes.

KPR Institute of Engineering and Technology  
Learn Beyond (Autonomous, NAAC 'A')

DEPARTMENT OF BIOMEDICAL ENGINEERING

ORGANISES

INDUSTRY ORIENTED COURSE

**ELECTRONIC SYSTEM DESIGN FOR BIOMEDICAL ENGINEERS**

9:00 AM TO 04:15 PM  
15.11.2023 TO 17.11.2023  
Venue : II BME CLASSROOM

Guest Speaker  
**Er. S. Raja**  
Product Development Engineer,  
Silicon Systems Pvt. Ltd.,  
Coimbatore

CONVENOR  
Mr. V. Bharath, AP(Sr.G) BME

COORDINATORS  
Ms. M. Swathy, AP(Sr.G), BME  
Dr. N. Rajasingam, AP(SL.G), BME

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### Students' Achievements – Technical / Non-Technical/Sports

S. No.	Name of the Student	Year	Name of the Event / Program	Achievement
1.	Ms. D. Bhavatarini & Ms. V. Karthi Srinithi	II	6TH INAE SERB GITAM YOUTH CONCLAVE	II Prize (Rs.15,000/-)
2.	Ms. R Kanika Sabari, Ms. K. Priyadharshini, Ms. R. Rayma	III	6TH INAE SERB GITAM YOUTH CONCLAVE	Innovation Award (Rs.10,000/-)
3.	Ms. P. Sureka and IEEE Women Team	IV	IEEE, KPRIET	Active affinity group award
4.	Ms. M.S. Neha Nesnas and EMBS Team	IV	IEEE, KPRIET	Active Society award



**Ms. D. Bhavatarini & Ms. V. Karthi Srinithi received  
“6TH INAE SERB GITAM YOUTH CONCLAVE”  
II Prize (Rs.15,000/-)**



**Ms. R Kanika Sabari, Ms. K. Priyadharshini, Ms. R. Rayma  
received “6TH INAE SERB GITAM YOUTH CONCLAVE”  
Innovation Award (Rs.10,000/-)**



**Ms. P. Sureka and Team - IEEE Women received  
“Active affinity group award - IEEE”  
IEEE Student Branch KPRIET.**



**Ms. M.S. Neha Nesnas and Team - EMBS society received  
“Active Society award - IEEE”  
IEEE Student Branch, KPRIET**

**Faculty Contribution**

<b>S.No.</b>	<b>Name of the Faculty member</b>	<b>Contribution details</b>
1.	Dr. D. Ganeshkumar, Professor & Head/BM	Presented Paper in International Conference
2.	Dr. P. Sreelatha, Professor/BM	Presented Papers in International Conference
3.	Dr. A. Allwyn Gnanadas, AP (Sl. G)/BM	Submitted Seminar Proposal to SERB
4.	Dr. T. Gayathri, AP (Sl. G)/BM	Published Scopus Journal Paper
5.	Dr. S. Logesh Kumar, AP (Sl. G)/BM	Published SCI Journal Paper with Impact factor 8.2
6.	Dr. N. Rajasingam, AP (Sl. G)/BM	Submitted Workshop Proposal to CSIR
7.	Dr. P. Arunkumar, AP (Sr. G)/BM	Published Scopus Journal Paper
8.	Mr. V. Bharat, AP (Sr. G)/BM	Published Scopus Journal Paper
9.	Ms. M. Swathy, AP (Sr. G)/BM	Submitted Workshop Proposal to INSA
10.	Mr. John Amose, AP (Sr. G)/BM	Published Scopus Journal Paper
11.	Mr. R. Krishna Kumar, AP/BM	Presented Paper in International Conference
12.	Ms. B. PriyaDarshini, AP/BM	Submitted Workshop Proposal to DRDO