

Department of Biomedical Engineering
KPR Institute of Engineering and Technology



KPR Institute of Engineering and Technology

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Highlights of this month

**Event -1
TEACHER DAY CELEBRATION**

**Event -2
GUEST LECTURE**

**Event - 3
PARENTS' MEETING**

**Event - 4
PARENTS' MEETING**

**Event - 5
PARENTS' MEETING**

**Event - 6
PARENTS' MEETING**

**Event - 7
PARENTS' MEETING**

Students' achievements

Faculty Contribution

"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

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 1:16. 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 (8 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 SEPTEMBER 2023

S. No.	Date	Type of Event / Program	Title of the Event
1.	05.09.2023	Association Activity	Teachers' Day' 23
2.	08.09.2023	Guest Lecture	Biomedical Engineer as an Embedded Engineers
3.	09.09.2023	Parents' meeting	Parents – Teachers Meet 2023
4.	20.09.2023	Award Function	Ilaiyor Ilakiya Payirchi Pasarai
5.	23.09.2023	Webinar	Cyber Forensics and its Applications in healthcare
6.	30.09.2023	Webinar	Applications of AI in healthcare
7.	30.09.2023	Technical Event	Brainstorm

Industry visits by the Department

S. No.	Date of Visit	Name of the Industry visited by the faculty during August 2023
1.	11.09.2023	KMCH Medical College & Hospitals, Coimbatore
2.	25.09.2023	TMI Systems, Bangalore

EVENT - 1**Association Activity - Teachers' Day' 23**

The Teachers' Day Celebrations 2023-2024, jointly organized by the Department of Biomedical Engineering and the Student's Association of Medico Sapiens, were held on September 5, 2023, at the Raagam Hall. The event aimed to convey heartfelt wishes, love, and gratitude from the student body to the esteemed faculty members for their exceptional contributions in shaping the lives of students. The event commenced with a warm welcome for all attendees, including faculty members and students. The event commenced with an address from Dr. D. Ganesh Kumar, the Head of the Department, who extended his heartfelt wishes and blessings to the students. He took a moment to reflect on his own teachers and eloquently described the transformative impact their guidance had on his personal and professional journey. The event continued as cultural performances and enjoyable games infused the venue with a delightful atmosphere. An interactive session allowed teachers and students to engage in meaningful conversations. This provided a platform for open dialogue and the exchange of thoughts and ideas. The event saw a significant turnout, with a majority of the faculty members, along with enthusiastic students, attending the celebration. The Teachers' Day Celebrations 2023-2024 was a heartwarming and successful event that achieved its objective of expressing gratitude and appreciation to the faculty members.\



EVENT - 2

Guest Lecture - Biomedical Engineer as an Embedded Engineers

The event, 'Expert Talk on Biosensors and Instrumentation Amplifier for Acquiring Electrophysiological Signals,' organized jointly by Medico Sapiens 2023 – 2024 and the Student Chapter of the Biomedical Engineering Society of India (BMESI) 2023 – 2024, took place on September 8, 2023. The objective of this event was to provide a valuable platform for students and enthusiasts in the field of biomedical engineering to explore and gain in-depth insights into the intricate world of biosensors and instrumentation amplifiers. The seminar featured a distinguished resource person, Mr. Satish Jadhav, Director of Biokit Equipments, Mumbai, who shared his extensive knowledge and experience with the attendees. Mr. Satish Jadhav delivered an engaging and informative presentation on biosensors and instrumentation amplifiers. His in-depth exploration of these topics captivated the audience, shedding light on their significance in acquiring accurate electrophysiological data. The event included an interactive session where attendees had the opportunity to pose questions and engage in discussions with Mr. Jadhav. This allowed for a dynamic exchange of ideas and a deeper understanding of the subject matter. Participants left the event with enhanced knowledge and practical insights into the applications of biosensors and instrumentation amplifiers. They gained a greater understanding of their relevance in the biomedical engineering field.



EVENT - 3

Parents' Meeting - Parents – Teachers Meet 2023

Student Parent Teacher Meeting started around 11.00 am on 09.09.2023. The meeting arranged for parents of all biomedical engineering students. Student's academic performance, Behaviour and social activities and closing remarks about concern students explained to the parent Chair Person of the Parent Teacher Meeting Dr. D. Ganesh Kumar Professor & Head / BMEII year BME Chief Mentor: Mr. V. Bharath Mentor(s) : Ms. M. Swathy & Dr. N. Rajasingam, III year BME Chief Mentor : Dr. A. Allwyn Gnanadas Mentor(s) : Mr. R. Krishnakumar & Dr. T. Gayathri, IV year BME Chief Mentor : Dr. P. Arunkumar Mentor(s) : Ms. B. Priyadarshini & Mr. John Amose. The following details are discussed with parents. Positive Feedback, Identification of Strengths and Weaknesses Behavioral or Academic Concerns, Resolution of Concerns, End Semester Examination Performance, CIAT Performance of Previous semester, Honors & Minor Degree Specialization Career Development Center :- Centralized Placement activities, Department Core Placement activities, Career Advancement Cell :- Opportunities about Higher Studies , Competitive Examination, GATE Examination, Industry Oriented Courses, Center of Excellences, Students Participation in intra college events.



EVENT – 4

Award Function – Ilaiyor Ilakiya Payirchi Pasarai

Government of tamilnadu - Department of Tamil Development and K P R Institute of Engineering and Technology jointly organised ' Ilaiyor Ilakiya Payirchi Pasarai' for the college students on 20.09.2023 at Raagam Hall, KPRIET. The programme has started with Tamil Thai vazhthu. Students of KPRIET sang tamilthai vazhthu. The programme is Presided by Dr. K.P. Ramasamy, Chairman KPR Groups. Dr. Avvai Arul, Director / Department of Tamil Development has given welcome speech. Introduction speech was given by Tamilnadu State coordinator of Ilaiyor Ilakiya Payirchi Pasarai, Kavingar Nellai Jeyantha. The event was initiated by Mr. Mu. Velayutham, Proprietor of Vijaya Publishing House. Felicitation address given by Dr. M. Ramasamy, Principal KPRIET. Followed by resource persons were given their speech. Illakiyasudar. D.Ramalingam / Advocate delivered his speech on 'marapu kavithaigalin sinthanaiyum sirapum'. Followed by Kovai. Naa. Kee. Sampath delivered his speech about 'Kavithaigalai thirantha kathai ulagam'. Kavithaiyini. Mee. Uma Maheshwari delivered her speech on the title about 'Annai tamil valartha arignargalum, thalaivarkalum. Special speech about 'Semozhi Tamilin Sirapu' was given by Dr. D.Ganeshkumar, Professor & Head, Department of Biomedical Engineering, KPRIET. Ka. Sivagurunathan / Advocate has delivered his speech about 'Naadagathilum, thiraiyilum nadantha tamil'. Finally, Kavingar Nellai Jeyantha delivered his speech about 'Puthu kavithaigalin thotramum, yetramum'. In the velidictory function. Dr. K.P. Ramasamy, Chairman KPR Groups distributed certificates for the participants. The function has ended with National Anthem.

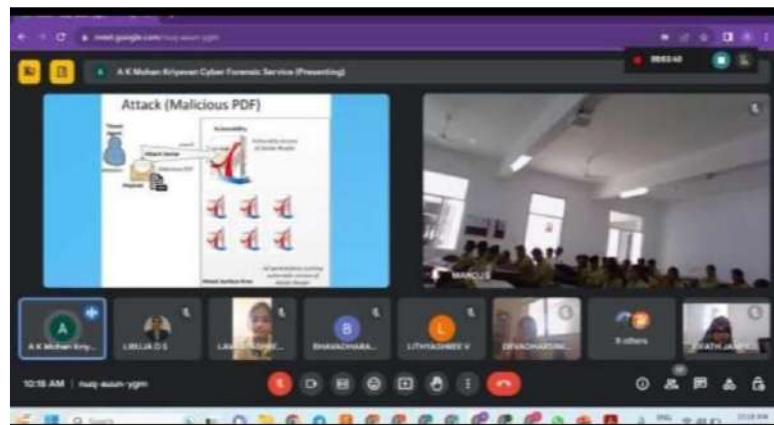


EVENT – 5

Webinar on Cyber Forensics and its Applications in healthcare

On September 23, 2023, the Medico Sapiens Student Association hosted a webinar titled 'CYBER FORENSICS AND ITS APPLICATIONS IN HEALTHCARE,' featuring Mr. Ashok Kumar Mohan as the guest speaker. The event commenced at 10:00 am, with a warm welcome from Ms. Lavanyashree N (III BME). Ms. Rifath Jameela A (III BME) provided an introduction to the Chief Guest, after which Mr. Ashok Kumar Mohan took the lead in the session. The session revolved around the topic of cyber forensics, focusing on various aspects such as investigating data breaches and safeguarding patient information, analyzing and countering malware and cyber threats, ensuring the security of medical devices and IoT in healthcare, and detecting insider threats to maintain data security. A question-and-answer session was also held to engage the participants. We were delighted to have received over 50 registrations and had more than 30 active participants during the event. The session proved to be highly informative and beneficial, and the feedback received from the participants through the provided feedback link was overwhelmingly positive. The event concluded with Ms. Libuja D S (III BME) expressing gratitude to Chief Guest Mr. Ashok Kumar Mohan with a vote of thanks.

Department of Biomedical Engineering
 In association with Students Association 'Medico Sapiens 2023 - 2024' organizes a webinar on the topic
CYBER FORENSICS AND ITS APPLICATION IN HEALTHCARE
 Mr. Ashok Kumar Mohan
 Founder & CEO,
 KRIYAVAN
 CYBER FORENSIC SERVICE PVT LTD
 To Register Scan here
 E-Certificate will be provided!
 Online Mode
 23.09.2023
 10.00 AM - 11.00 AM
 nuq-suun-ygm
 Event Coordinators
 Malyarasi V (IV BME) Secretary
 Rifath Jameela A (III BME) Vice President
 KPR Institute of Engineering and Technology
 KRIYAVAN CYBER FORENSIC SERVICE PVT LTD



EVENT – 6

Webinar on Applications of AI in healthcare

In this webinar on the applications of AI in healthcare, chief guest Dr. Surendiran discussed the applications of artificial intelligence in the medical field. The session covered how AI technologies, such as machine learning and natural language processing, are being used to enhance diagnostics, personalize treatments, and improve patient care. Participants learned about real-time data analysis, predictive modelling, and AI-driven decision-making processes, showcasing the potential to revolutionize healthcare delivery. Ethical considerations, data privacy, and future trends in AI-powered healthcare solutions were also highlighted, providing a comprehensive overview of the evolving landscape at the intersection of AI and healthcare. Interactive Q&A sessions provide participants with the opportunity to directly engage with the speaker (Dr. Surendiran), clarifying doubts and enhancing their knowledge. This webinar gave a brief idea of the applications of AI in healthcare. As engineers, we learned about the evolving technologies in the medical field. The participants had the opportunity to connect with the speaker (Dr. Surendiran), fostering collaboration and knowledge exchange. It addresses important ethical and policy considerations related to AI in healthcare, fostering a broader understanding of the impact on society and regulations.



EVENT – 6

Technical Event – BRAINSTORM

ENGINEERING IN MEDICINE AND BIOLOGY SCIENCE SOCIETY OF IEEE KPRIET STUDENT BRANCH organized Brain Storm for internal participants on the occasion of IEEE Day. It was conducted on 30/09/2023 in offline mode from 10:00 a.m. to 12:00 p.m. Mr. R. Krishna Kumar, Advisor/EMBS society had initialized the event through the student coordinators of the event. The student chapter Chair Ms. Neha Nesnas has given a Jury introduction. The EMBS Advisor had welcomed the students. The competition was about design thinking and the steps in design thinking such as empathize, define, ideate, prototype, and test were explained to the participants. Participants were given a set of questions and were asked to write about their ideas. The session was handled by Dr. P. Arunkumar, Assistant Professor (Sr. G.)/BM. The competition was conducted in Pallavi Hall with around 50+ registrations. As a result of the event Participants were able to gain knowledge on the topics which was covered. The Participants were provided with E-certificates. The winner will be announced on the final event day. Students had an idea about Leveraging Technology. The ideas can be implemented as projects in their higher semester.



Students' Achievements – Technical / Non-Technical/Sports

S. No.	Name of the Student	Year	Name of the Event / Program	Achievement
1.	Ms. Sriya B	IV	Google Cloud	Certified Professional Machine Learning Engineer (International Level certification)
2.	Ms. Lithyashree V	III	Volleyball Tournament	First Prize
3.	Ms. Kaaviya R	III	Anna University Zone Basketball Tournament	Third Prize
4.	Ms. Kaniga Sabari R Ms. PriyaDarshini K Ms. Rayma R S Ms. Varnika M	III	PAPER GLITZ at Hindusthan Institute of Technology, Coimbatore	Third Prize & Cash prize (Rs.750/-)
5.	Mr. Santhosh Kumar S	III	TECHIVE at Chennai Institute of Technology, Chennai	Cash Prize – Rs.1000/-
6.	Mr. Valli Nayagam V	II	TECHNOVISTA'23 at Sri Eshwar College of Engineering, Coimbatore	First Prize

Faculty Contribution

S. No.	Name of the Faculty member	Contribution details
1.	Dr. A. Allwyn Gnanadas	Consultancy work Rs. 27,000/-
2.	Mr. R. Krishna Kumar	Consultancy work Rs. 20,000/-
3.	Mr. V. Bharath	Paper published in Scopus Journal



Santhosh Kumar S - TECHIVE – Cash Prize Rs.1000/-



Santhosh Kumar S - TECHIVE – Cash Prize Rs.1000/-



Kanika Sabari R, Priyadharshini K, Rayma R S, Varnika M- PAPER GLITZ– Third Prize (Cash prize - Rs.750/-)



Kaaviya R - ANNA UNIVERSITY BASKETBALL ZONE TOURNAMENT – Third prize



Lithyashree V- VOLLEYBALL TOURNAMENT – First Place - Shield/ Medal