

Department of Biomedical Engineering  
KPR Institute of Engineering and Technology



# KPR Institute of Engineering and Technology

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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 Centre for Biomedical Equipment Testing and Calibration, 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. K. S. Tamilselvan HoD/BME**

## Highlights of this month

### INDUSTRY VISITS

### EVENTS

### STUDENT ACHIEVEMENT / PARTICIPATION

### Faculty Contribution

Quarterly 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 265 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 (8 Faculty members) have completed their PhD and three faculty members are pursuing their PhD. The Department is accredited with Tier-1 NBA on July 03, 2024 for three years.

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, Royal Care Super Speciality Hospital, Aravind Eye Care Hospital, GEM Hospitals, 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 imbibed **through lifelong learning** with **ethics and moral values**

## Program Specific Outcomes

- PSO 1: Design and evaluate medical solutions using **biosensors, biomaterials, biomechanics, and diagnostic and therapeutic equipment** for the healthcare industries.
- PSO 2: Identify, analyze, solve and develop algorithms for addressing **healthcare** problems using the software skills acquired through **bio-signal and image** processing advancements.

## Program Educational Objectives

Graduates of Biomedical Engineering, four years after graduation, will;

- PEO 1: Apply the knowledge gained from **biomedical engineering** to help solve the **technological problems in industries**
- PEO 2: Design and develop **healthcare products** and processes through continuous **skill upgradation and research**
- PEO 3: Demonstrate **professional and ethical standards** of behavior and commit to **lifelong learning** to meet the needs of society

**Industry visits by the Department during January to March 2026**

| S. No. | Date of Visit | Name of the Industry visited by the faculty          |
|--------|---------------|------------------------------------------------------|
| 1.     | 08.01.2026    | Keltron Controls Ltd. Kerala                         |
| 2.     | 22.01.2026    | Thumba Agro Tech, Palani                             |
| 3.     | 29.01.2026    | Agada Solutions, Coimbatore                          |
| 4.     | 03.02.2026    | Xpert Automatics, Coimbatore                         |
| 5.     |               | Cloud I5 Technologies, Coimbatore                    |
| 6.     | 06.02.2026    | PSG Hospital, Coimbatore                             |
| 7.     | 07.02.2026    | KELS, Kerela                                         |
| 8.     | 09.02.2026    | GEM Hospital, Coimbatore                             |
| 9.     | 17.02.2026    | Sri Sai Engineering Equipments, Coimbatore           |
| 10.    | 25.02.2026    | DRDO Industry Academia CoE, Coimbatore               |
| 11.    | 03.03.2026    | TechUC Automation, Ramnagar, Coimbatore              |
| 12.    | 04.03.2026    | Forge Incubation centre, KCT Tech park, Athipalayam  |
| 13.    |               | Techtzo solutions, Coimbatore                        |
| 14.    |               | RGB-AI, Coimbatore                                   |
| 15.    | 05.03.2026    | Digibytz Digital India Solution, Tatabad, Coimbatore |
| 16.    | 23.03.2026    | S M Technology Solutions, Peelamedu, Coimbatore      |
| 17.    |               | Rajah Hospital, Hope College, Coimbatore             |

### EVENT – 1

#### Biomedical Equipment Testing and Calibration - Internship

The Department of Biomedical Engineering successfully organized a national-level internship program for external Institution students on Biomedical Equipment Testing and Calibration on January 5, 2026. Conducted at CBET, the session provided hands-on training to students in testing medical devices using advanced Fluke Analyzers. A total of 20 participants, including internal and external students, actively engaged in the program. The internship enhanced practical knowledge and strengthened industry-oriented skills in biomedical equipment calibration.



### EVENT – 2

#### PRODUCT TO PROTOTYPE COMMERCIALIZATION - THINGS TO BE TAKEN CARE

The Department of Biomedical Engineering organized an inter-college workshop on Product to Prototype Commercialization – Things to Be Taken Care on February 21, 2026, at the Biomechanics Lab. The session, led by an industry expert from Prashan Medical Technologies, provided valuable insights into transforming prototypes into commercially viable products. Around 50 external participants attended and actively engaged in the discussion. The workshop enhanced students' understanding of industry requirements, regulatory standards, and challenges in product commercialization.



### EVENT – 3

#### TECH HEIST

The Department of Biomedical Engineering conducted an inter-college technical quiz event Tech Heist on February 21, 2026. The event witnessed active participation from 80 external students, creating a competitive and engaging atmosphere. Participants tackled real-time technical challenges that enhanced their problem-solving, logical thinking, and basic coding skills. The event also fostered teamwork, communication, and collaborative learning in a fun and dynamic environment.



### EVENT – 4

#### The Rational Room

The Department of Biomedical Engineering organized The Rational Room competition on February 20, 2026, to promote critical thinking and collaborative problem-solving among students. The event engaged participants in structured discussions on real-world engineering challenges, encouraging analytical reasoning and innovative solutions. Around 50 participants actively took part, guided by faculty mentors. The session enhanced logical thinking, teamwork, and decision-making skills, with positive feedback from all attendees.



### Event-5

#### Bio Hack Ai

The Department of Biomedical Engineering successfully organized the national-level Bio Hack AI hackathon on February 20, 2026, at the New 360 Hall. The 6-hour event brought together over 100 participants from various institutions to develop AI-driven solutions for real-world challenges in healthcare and biotechnology. A total of 24 teams actively participated, showcasing innovation, interdisciplinary collaboration, and technical skills. The hackathon promoted ethical AI practices, problem-solving abilities, and awareness of advanced biomedical applications.



### EVENT – 6

#### Paper Presentation

The Department of Biomedical Engineering organized a Paper Presentation event on February 20, 2026, to provide a platform for students to present their research ideas and technical knowledge. The event witnessed participation from around 100 students, fostering a spirit of innovation and academic excellence. Participants presented on diverse biomedical topics, enhancing their communication and analytical skills. The session encouraged knowledge sharing and inspired students towards research and development.



EVENT – 7Medical Conclave 2.0

The Department of Biomedical Engineering proudly hosted its flagship event, \*Medical Conclave 2.0\*, on February 27, 2026, at Ragam Hall, KPRIET. The conclave brought together distinguished industry experts including Elango Devy, Kumar Rajamani, Sunil M K, and Remya C Remesh, who shared their valuable insights and industry experiences.

The event witnessed enthusiastic participation from over 200 students and faculty members, creating a vibrant platform for knowledge exchange and professional interaction. The session commenced with Tamil Thaaai Vaazhthu followed by the traditional lighting of the kuthuvilakku, setting a formal and respectful tone. The panel discussion was the highlight of the conclave, where moderators presented thoughtfully curated questions collected from students, covering diverse domains such as medical devices, healthcare technologies, AI in healthcare, radiation safety, and industry expectations. The experts responded with practical insights, real-world examples, and guidance on emerging trends and career pathways in biomedical engineering.

The interactive nature of the session encouraged students to directly engage with the panelists, boosting their confidence in communicating with industry professionals. The conclave also provided valuable exposure to current technological advancements, interdisciplinary opportunities, and the importance of innovation and ethical practices in healthcare. Additionally, the event served as a strong networking platform, enabling students to connect with industry leaders and explore potential career opportunities. The program concluded with a token of gratitude presented to the guests, marking the successful execution of a highly impactful and enriching signature event.



**EVENT – 8****Deep learning approach for complex systems**

The Department of Biomedical Engineering, in association with CIED, organized an online expert talk on Deep Learning Approach for Complex Systems on March 18, 2026. The session was delivered by Kumar Rajamani. Around 60 students actively participated in the session. Participants gained insights into the application of deep learning in medical imaging and complex system analysis. The talk enhanced their understanding of AI-driven solutions in biomedical engineering.

**EVENT-9****WristSense+: A Multi-Parametric AI Wearable for Early Health Risk Detection**

The Department of Biomedical Engineering, in association with Engineering Chemistry, organized an expert talk on WristSense+: A Multi-Parametric AI Wearable for Early Health Risk Detection on March 18, 2026. The session was delivered by U. Snehalatha and witnessed participation from over 200 students and faculty. Participants gained insights into real-time health monitoring using wearable systems and sensor fusion techniques. The talk highlighted the role of AI and deep learning in analyzing biosignals for early risk detection. The session enhanced understanding of advanced wearable technologies and their applications in healthcare.



### Students' Achievements

| S. No. | Name of the Student | Year | Detail about the Achievement                                                                                                                                          | Organizing Institute                            |
|--------|---------------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| 1.     | CHIMBARE ENERST N   | I    | Third prize in National level Presentation - DaakShar T26                                                                                                             | KSR college, Tiruchengodu                       |
| 2.     | AMIRTHAVARSHINI V   | II   | Second Prize in RACLAVE                                                                                                                                               | Rotaract club of KPRCAS                         |
| 3.     | JAYATI VENU         |      | First Prize in Paper Presentation                                                                                                                                     | Karpagam College of Engineering                 |
|        |                     |      | Quiz: Connections Event                                                                                                                                               |                                                 |
|        |                     |      | Third Prize in Paper Presentation                                                                                                                                     |                                                 |
|        |                     |      | Academic Topper Award                                                                                                                                                 | KPR Institute of Engineering and Technology     |
| 4.     | MENMITHA M          |      | Third prize at Kaiser Competition                                                                                                                                     | KPR Institute of Engineering and Technology     |
| 5.     | TREYASRI M          | III  | First prize in National level Paper presentation - UTSAVA'26                                                                                                          | Sri Ramakrishna Engineering College, Coimbatore |
| 6.     | GOKUL G             | IV   | Second prize in Centies Athletic Championship – District level event                                                                                                  | Vellalar Institute of Technology, Erode         |
| 7.     | KISHORE KUMAR M     |      | First prize in Second International Conference on Innovations in Materials Science, Technology, Engineering, and Management for Sustainable Development (IMSTEM 2026) | KPR Institute of Engineering and Technology     |

**Faculty Contribution**

| S.No. | Name of the Faculty member          | Details of Contribution                                                                                                                                                                    |
|-------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.    | Dr. P. Sreelatha,<br>Professor/BM   | Attended IPR Workshop on 30.01.2026 organized by KPR Institute of Engineering and Technology, Coimbatore                                                                                   |
| 2.    | Dr. A. Allwyn Gnanadas<br>AP-III/BM | Presented Project in the APSCON 2026 conference organized by IEEE                                                                                                                          |
| 3.    | Mr. R. Krishna Kumar,<br>AP-II/BM   | Presented two Projects in International Conference on AI-Driven Smart System and Ubiquitous Computing 2026 (ICAUC 2026) organized by SHINAWATRA UNIVERSITY sponsored by IEEE on 19.01.2026 |
| 4.    | MS. Pooja C,<br>Lab Technician/BM   | Completed training on Practical Exposure on LABVIEW Software at Prashan Medical Technologies, Coimbatore on 07.01.2026                                                                     |