BIO-SCOPE

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Department of Biomedical Engineering 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 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

Events

Guest Lecture on 16.02.2024 titled "Drawing Parallels in Manufacturing of Medical Devices between India and China"

Webinar on 26.02.2024 titled "Biomedical Engineering in Deutschland: A Roadmap to Success"

Students' Achievement/ Participation

Faculty - Professional Development & Achievements

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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 (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.

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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

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Industry visits by the Department during February 2024

S	S. No.	Date of Visit	Name of the Industry visited by the faculty during February 2024	
	1.	13.02.2024	Codissia Defence Innovation & Atal Incubation Centre, Sitra Coimbatore	
	2.	13.02.2024	Rajah Hospital, Hope College Coimbatore	
	3.	15.02.2024	Tex Services, Chinthamanipudur, Coimbatore	
	4.	20.02.2024	Vimanan Bio-Medicals, Ram Nagar Coimbatore	



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EVENT - 1

Guest Lecture on Drawing Parallels in Manufacturing of Medical Devices between India and China

The Department of Biomedical Engineering organized a Guest Lecture titled 'Drawing parallels in manufacturing of medical devices between India and China'. The Guest speaker for the day was Mr.Manoj Odunghat Head-Sales, Healthium MedTech Ltd, Bangalore who has a decade of experience in FMCG, manufacturing, healthcare and education. His experience involves being the key account manager and international sales representative for FMCG and OTC products, Procurement management for some of the world's largest retailers, Tailoring FMCG products to accommodate client budgeting, thus helping to drive profits, Supporting merchandising and marketing teams of multi-brand retailers, and Extensive project management with and for multinational brands. The event was proved to be highly informative, providing us with valuable insights into various subjects. We learned about the manufacturing processes of different companies, particularly in India and China, and were amazed by the contrasting technologies. One key takeaway was understanding the different approaches to innovation between India and China, highlighting the need for us to adapt and generate new ideas for our success. Mr. Manoj Odunghat's presentation on Healthium MedTech Ltd and advanced wound dressing techniques was outstanding, made us inspired and motivated. The speaker encouraged us to utilize our local resources and insisted us innovate to elevate our country's standard.





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<u>EVENT - 2</u>

Webinar on Biomedical Engineering in Deutschland: A Roadmap to Success

The Alumni Session on 'Biomedical Engineering in Deutschland: A Roadmap to Success' served as a comprehensive guide for prospective students interested in pursuing higher education opportunities in Germany within the field of biomedical engineering. Hosted by esteemed alumni Ms. Subhashini Priyanka and Mr. Sivabalan, the event delved into the academic landscape of Germany, emphasizing excellence in both research and coursework. Throughout the session, participants gained valuable insights into the selection process for biomedical engineering programs, considering essential factors such as curriculum quality, faculty expertise, and industry collaborations. Keynote addresses and alumni success stories provided inspiration and practical advice, while interactive sessions facilitated discussions on the unique benefits and opportunities available in Germany for biomedical engineering students. Attendees received guidance on navigating the application process, including tips for crafting compelling applications and meeting language proficiency requirements. Additionally, the event provided a roadmap for a smooth transition to life in Germany, covering essential aspects such as visas, accommodation, and cultural adaptation. Overall, the session aimed to address the holistic experience of students pursuing advanced studies in biomedical engineering, fostering a sense of community and collaboration among alumni and prospective students alike. By collectively navigating new horizons and celebrating achievements, participants were encouraged to shape the future of biomedical innovation in Germany and beyond.

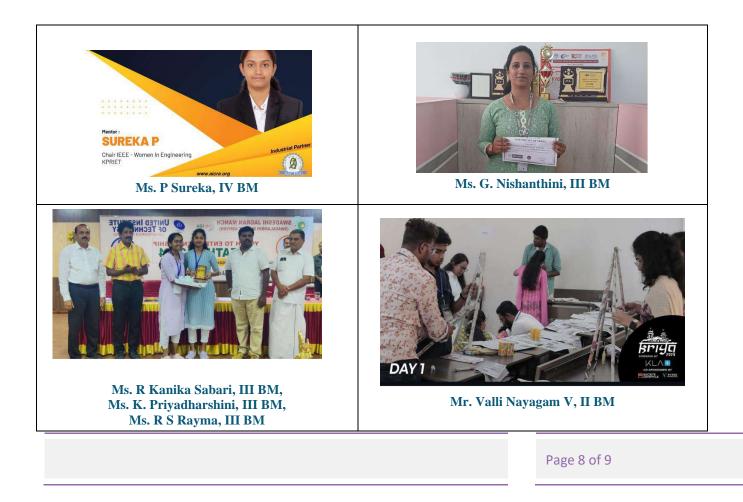




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Students' Achievements – Technical / Non-Technical/Sports

S. No.	Name of the Student	Year	Detail about the Achievement
1.	Ms. Sureka P	IV	Won Gift in World Robotics Championship'24 organized by IHUB Educational Foundation
2.	Ms. Nishanthini G	Ш	Won II prize in National level symposium conducted by Saveetha Institute of Medical and Technical Sciences, Chennai.
3.	Ms. Kanika Sabari R Ms. Priyadharshini K Ms. Rayma R S		Won II Prize and Shield with cash prize worth of Rs.10,000/- in Youth to Entrepreneurship Y2e Ideathon organized by Swadesh Jagran Manchi Swalambhi Bharat Abhyan at United Institute of Technology, Coimbatore
4.	Mr. Valli Nayagam V	Π	Won II prize at Civil Showdown conducted by PSG College of Technology.
5.	9 Students	(IV year - 2, III Year - 5, II year - 2)	Attended Materiovigilance Program of India organized by Royal care Super Speciality Hospital in jointly with Indian Pharmacopoeia Commission (IPC)



Faculty - Professional Development & Achievements

S.No.	Name of the Faculty member	Activity details
1.	Dr. P. Sreelatha, Professor/BM	Journal Reviewer - Asian Journal of Education and Social Studies
2.	Dr. A. Allwyn Gnanadas, AP (Sl. G)/BM	Two days IOT Workshop conducted by Electronics For You
3.	Mr. John Amose, AP (Sr. G)/BM	Participated in NEP 2020 Quiz Contest organized by NEP Saarthis of KPR Institute of Engineering and Technology, Coimbatore
4.	Dr. P. Sreelatha, Professor/BM Dr. N. Rajasingam, AP (Sl. G)/BM Ms. B. Priya Darshini, AP/BM Mr. R. Krishna Kumar, AP/BM	Attended Materiovigilance Program of India organized by Royal care Super Speciality Hospital in jointly with Indian Pharmacopoeia Commission (IPC)
5.	Mr. T. Krishnaraj, Lab Technician	Attended National level Webinar on INTERNET OF THINGS (IOT) conducted by NITTTR, Bhopal



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