

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 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

11.03.2023
Alumni Interaction

25.03.2023
Parent Meeting

27.03.2023 - FN
Strategic Plan Review Meeting

27.03.2023 - AN
Seminar on Mechanism of Joints

Student Participation /
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 200-250 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 Ph.Ds. and 95 are in the process of completing their Ph.Ds. 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 Faculties in the Department is Fifteen. Out of which, 60% of the faculty Members (9 Faculties) have completed their PhD and Five faculties 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 Aravind Eye Care Hospital, Helix Private Ltd., GEM Hospitals, Ganga Medical Center and Hospital, Masonic Medical Centre for children, Waxwing Medical Technologies, Vital Bio-systems 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, Proteus, Pspice simulation through KPI 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 lifetime membership in various

Professional Societies like ISTE and BMESI to gain knowledge through various programs conducted by these bodies across the Nation.

Vision of the Department

To be a **center of excellence** for **dissemination of knowledge, research and development** in biomedical and allied engineering fields to serve the society.

Mission of the Department

The Mission of the Department is to

- To impart value-based education in biomedical engineering with state-of-the-art facilities.
 - To build an integrated team of biomedical engineers to foster the technologies through research, development and innovation.
 - To be in pace with healthcare industries by practicing lifelong learning with ethical and moral values.

**LIST OF EVENTS / PROGRAMS CONDUCTED
DURING FEBRAUARY 2022-23**

S. No.	Date	Type of Event / Program	Title of the Event
1.	11.03.2023	Alumni Interaction	Scope of Biomedical Engineers
2.	25.03.2023	Parents Teacher Meeting	-
3.	27.03.2023 (Forenoon)	Review Meeting	Strategic Plan Review meeting - 3
4.	27.03.2023 (Afternoon)	Seminar	Mechanism of Joints

Industry visits by the Department

S. No	Date of Visit	Name of the Industry visited by the faculty during March 2023
1.	08.03.2023	GEM Hospital Coimbatore
2.	08.03.2023	Inno Mektronic, Coimbatore
3.	08.03.2023	Enthu Technology, Coimbatore
4,	29.03.2023	Ranga centre of Dermatology and Cosmetics, Coimbatore
5.	31.03.2023	Aravind Eye Hospital, Coimbatore

EVENT – 1

Alumni Interaction on Scope of Biomedical Engineers

The session began with an Introduction of the resource persons by Dr.A.Allwyn Gnanadas at the II BME classroom by 02.00PM on 11/03/2023. The guests were introduced as Ms.Akshaya P , Biomedical Engineer, Victoria Hospital, Bengaluru. and Ms.Fathima Safa, Biomedical Engineer, Pneumcare health, Kerala. After the formal introduction, the guests, the alumnus of 18batch were invited to address the gathering, the II BME students. Ms.Akshaya.P started by sharing her experience on how she got into the field and how much she loves the department of Biomedical Engineering. She shared on how the skill training she had had helped her in getting a important role as a biomedical engineer in hospital. Further she shared her experience as a biomedical engineer in the hospital and the complete job satisfaction she had attained in her job. She aslo explained how here passion has interested her in getting this role in a state government job, at Victoria Hospital, Bengaluru. Ms.Fathima Safa then took over the session and she explained how she approached various industries in and around Tamilnadu. exclusively for internships and how those internships helped her in landing in a good industry. She emphasized the students to be passionate about the subject that they are learning. To be more dedicated and concentrate on the skill development to earn a job in the core biomedical engineering field. She also further advised the students to not see the salary package in the early part of the career but on the skill component and the type of the industry.



EVENT – 2

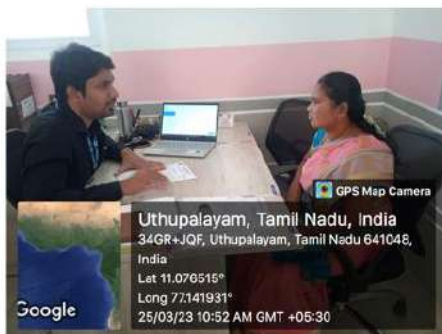
Parent's Teachers Meeting

Parents' teachers meeting was conducted at Department of Biomedical Engineering, KPRIET campus on 25.03.2023 through physical mode. The Parents of II and III BME students visited the campus and met Mentors of the respective student and discussed regarding the Academics, Placement, Internship, Honors degree, Co-curricular activities etc. The Parents have requested some inputs from the Mentors. The meeting had been carried out throughout the day. The ultimate aim of this meeting is to make the parents aware of academics and curricular events, happening in the institution and the Mentors to understand the thought process and expectation from the parents and it is achieved through the meeting.

II BME



III BME



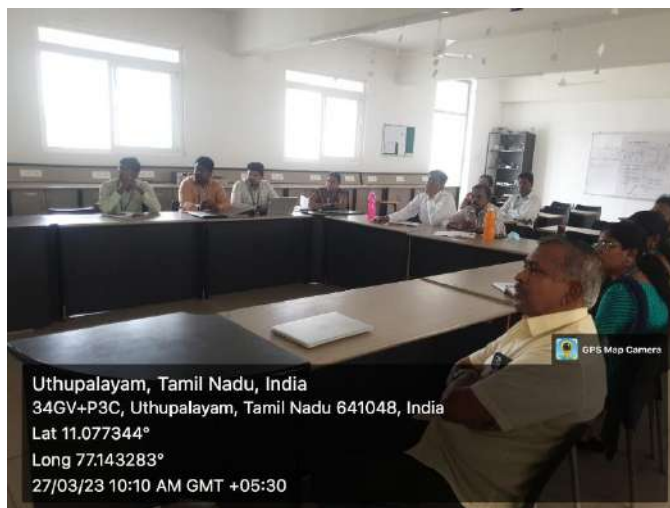
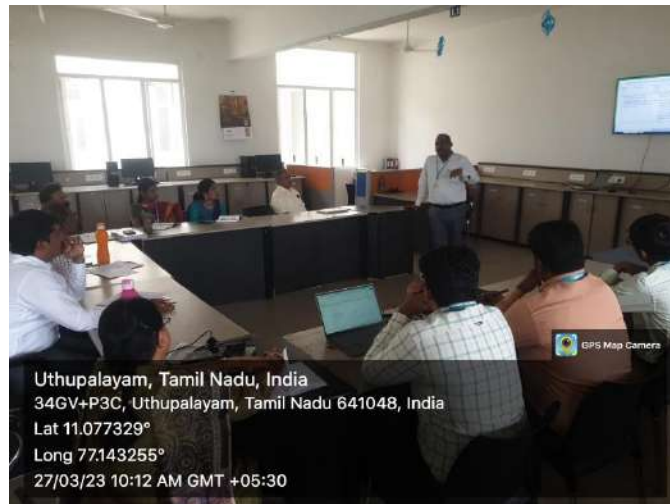
EVENT – 3

STRATEGIC PLAN REVIEW MEETING – 3

The Department of Biomedical Engineering conducted Strategic plan Review meeting - 3 on 27.03.2023 forenoon. The Review members are Mr.BB Mohanty, Regional Manager, Ottobock Pvt. Ltd, Coimbatore and Dr. Vijay, Associate Professor, Department of Biomedical Engineering, SSN college of Engineering, Chennai. Dr. D. Ganesh kumar, HoD/BME, KPRIET had addressed the Review members and presented the strategic plan with target fixed for the Department for the Academic year 2022-23 and target achieved as on date 26.03.2023 to the Review members in the presence of Department Faculty members. The strategic plan was conducted in offline mode at Daffodil Hall at KPRIET, Coimbatore.

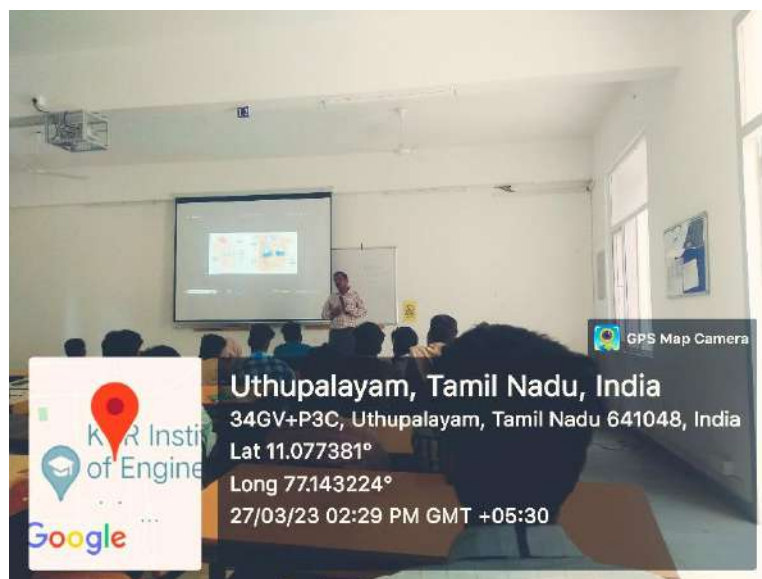
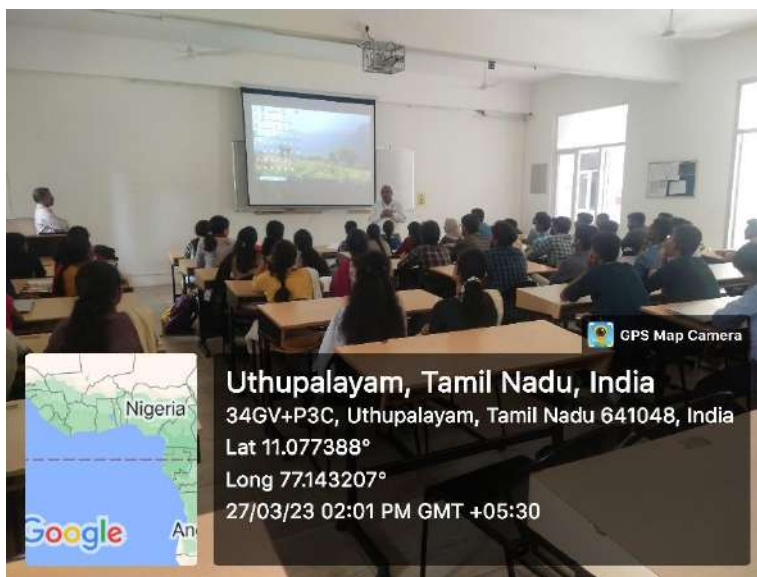
The following suggestions were given by the Review members,

1. Suggestion was given to approach Perfint healthcare for Internships.
2. Strengthening consultancy is necessary
3. Publication of Papers in Quality Journals are recommended.
4. Suggested to add Signal Processing as an SIG



EVENT – 4**Seminar on Mechanism of Joints**

Department of Biomedical Engineering had organized a Seminar on 27.03.2023 afternoon from 2.0 pm to 3.00 pm. The Resource person is Mr.B.B.Mohanty, Senior Manager, Ottobock Healthcare Pvt., Ltd., Coimbatore. Dr.D.Ganeshkumar, Professor & Head, Department of Biomedical Engineering gave the welcome address. Ms.Ridana srei, 3rd year BME student has given Introduction to chief Guest. Mr. B.B. Mohanty had explained about the knee joint anatomy. He had explained the difference between prosthesis and Orthosis. He had explained the concepts of Boggling and hamstraining. The seminar further clarified about Joints in the human body and a detailed explanation about knee joints. It started with an interaction with the students. The physiology of knee joints was taught. The mechanism of articulation of knee joints was clearly explained with a presentation. The concept of ligaments and cartilages was given to the students through the seminar. Students learnt about GAIT cycle and the guest lecture from the person with experience in the field was very useful for the students



Student Achievements – Technical / Non-Technical

S. No	Name of the Students	Year	Name of the Event / Program	Achievements
1.	Mr. S. Saalih Sulthan and Team	II BME	Winners in Football (Men)	CENTIES Tournament in Nehru Institute of Engineering and Technology, Coimbatore
2.	Ms. V. Lithyashree		Third Place in Volleyball	Adithya Trophy
3.	Mr. M. Kishore Mr. S. Saalih Sulthan		Winners in Athletic Men	COVAI TIES Athletic Meet Coimbatore Institute of Technology, Coimbatore
4.	Mr. A. Vignesh Mr. G. Saravanakumar		Second place in Technical Presentation	Hindusthan Institute of Arts and Science, Coimbatore
5.	Ms. K. Padmapriya Ms. S. Sharmida lakshmi		First prize in Tech Debate	National level Cultural Fest at Rathinam Technical Campus, Coimbatore
6.	Ms. R. Sasidevi Ms. R. Yazhinishree		Runner with Cash prize Rs.500/- in Technical Debate	Rathinam college, Coimbatore
7.	Ms. S. Ruth	III BME	Silver Medal in 800 M (Women)	COVAI TIES Athletic Meet Coimbatore Institute of Technology, Coimbatore
8.			Bronze Medal in 4*400 M Relay (Women)	
9.			Over All Championship Runner - Up	

10.	Mr. K. Vijayasekaran	III BME	First Prize	Graphical Abstract Presentation Symbiosis 2023 at IIT, Madras
11.	Mr. D. Vijayasharathy		Second Prize	
12.	Ms. Sentisenla I Jamir		Secure AIR 298	GATE Exam
13.	Ms. E. Ramya Ms. R. Kowshika Ms. S. Hamshavarthini		First Place (cash prize Rs.3,000) in Idea Presentation	Bannari Amman Institute of Engineering and Technology, Sathiyamangalam
14.	Ms. M. Nisha Ms. B. Sriya		Second Prize in Project Presentation	PSG College of Technology and Applied Research, Coimbatore
15.	Ms. P. Sureka Ms. A. Sowmitha Ms.Sentisena I Jamir		Honourable Mention Award in Yesist'12 Prelims	IEEE, KPRIET
16.	Mr. U. Madhan kumar Ms. B. Bhuvaneshwari Ms. S. R. Satwika		First Place (Cash prize 5000/-) in Poster Presentation	Karunya Institute of Engineering and Technology, Coimbatore
17.	Ms. B. Igiriva Ms. E. Kohilnila Ms. I.T. Joselyne Sneka		Third Place in Paper Presentation	Hindusthan College of Engineering and Technology, Coimbatore

Faculty Contribution

Patents / Achievements / FDP/ Conference and Workshops Attended

S. No	Name	Name of the Webinar/ Workshop/ FDP/ Internship/ Achievement	Organized by
1.	Dr. S. Logesh Kumar	Received Travel Grant of Rs. 3,00,000/- for attending Conference at United States	SERB
2.	Dr. S. Logesh Kumar	Certificate of Recognition by Anna University, Chennai for Publications in Q1 journal with Impact Factor of 8.05	Anna University
3.	Dr. K. Rajasekaran	Received Student's Project fund of Rs. 7,500/-	TNSCST
4.	Ms. M. Swathy	Received Student's Project fund of Rs. 7,500/-	TNSCST
5.	Mr. R. Krishna Kumar	Patent Publication	-

SIGNIFICANT ACHIEVEMENTS



II BME



III BME

KPR Institute of Engineering and Technology
Department of Biomedical Engineering
Great Place To Work Certified

Congratulations

MR. K. VIJAYSEKARAN, III BME
On Winning First Prize
Cash Prize - Rs.5000

MR. B. VIJAYASHARATHY, III BME
On Winning Second Prize
Cash Prize - Rs.3000

Graphical Abstract Presentation
Symbiosis 2023

Indian Institute of Technology Madras

KPR Institute of Engineering and Technology
Department of Biomedical Engineering
Great Place To Work Certified

Congratulations

Ms. B. KIRIYA, III BME
Ms. E. KATHILNILA, III BME
Ms. L.T. JOSLYNE SNEKA, III BME

For securing third place in PAPER PRESENTATION
Topic : HME PRO - A smart trekking pole

Hindusthan College of Engineering and Technology

KPR Institute of Engineering and Technology
Department of Biomedical Engineering
Great Place To Work Certified

Congratulations

Ms. E. KAMYA, III BME
Ms. R. KOWSIKA, III BME
Ms. S. HAMSHAVARTHINI, III BME

For securing first place in IDEA PRESENTATION
Topic : Detection of Cardiac Maladies using LabVIEW

Bannori Ammen Institute of Engineering and Technology

KPR Institute of Engineering and Technology
Department of Biomedical Engineering
Great Place To Work Certified

Congratulations

Ms. M. NISHA, III BME
Ms. R. SRIYA, III BME

For securing second place in PROJECT PRESENTATION
Topic : Monitoring Elbow Rehabilitation

PSG College of Technology and Applied Research

KPR Institute of Engineering and Technology
Department of Biomedical Engineering
Great Place To Work Certified

Congratulations

Ms. U. MADHAN KUMAR, III BME
Ms. B. BEJUVANESHWARI, III BME
Ms. S. R. SATWIKA, III BME

For securing first place in POSTER PRESENTATION
Cash Prize Rs.3000

Karunya Institute of Technology and Sciences (Deemed University)

