

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

10.12.2022

**Awareness Lecture on the topic
"Help your Lungs Breathe!"**

19.12.2022, 20.12.2022, 28.12.2022

**Faculty visit to Industries and
Institute**

**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 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 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 DECEMBER 2022-23**

S. No.	Date	Type of Event / Program	Title of the Event
1	10.12.2022	Guest Lecture	Help your Lungs Breathe
2	19.12.2022 to 20.12.2022, 28.12.2022	Visit to Industry and Institution	Visit to Industry and Institute Repute

EVENT - 1

Awareness Lecture on Help your Lungs Breathe

The Department of Biomedical Engineering in association with Rotary club organized an Awareness seminar. The Guest speakers were Dr. V. Nandagopal and Dr. S. Nagarajan, Institute of Lung Cancer and Research, Hindusthan Hospitals, Coimbatore. The Session was conducted on Ragam Hall, KPRIET on 10th December, 2022. The Speakers delivered Awareness about the importance of Lungs and its health. They have explained how Lung health is getting affected in day-to-day life and it can be prevented. The session was interactive. Dr. M. Kathirvelu, Director – Planning and Development, delivered Vote to Thanks to the Guests and the participants.

Interact District 3201 of Rotary International
Rotaract Club of KPRIET
 (Sponsored by Rotary Club of Coimbatore Central)

Jointly With
Department Of Biomedical Engineering
 Initiates an awareness program of Lung Health for our
 New Generation with the leading Pulmonologists in
 Coimbatore

HELP YOUR LUNGS BREATHE!

by
Dr. V. Nandagopal & Dr. S. Nagarajan
 Institute of Lung Care and Research
 Hindustan Hospital, Coimbatore
 Venue: KPRIET, Ragam Hall
 Date: 29th Oct 2022 (Saturday) | Time: 11 am onwards

Dr. K.P.Ramasamy Chairman - KPS GROUP
Dr. Akila Muthuramalingam Principal - KPRIET
Rtn. Godwin Maria Visuvasam District Chairman - Youth Service, RI District 3201
Rtn. R. Hendry Amalaraj District Chairman - Interact Clubs, RI District 3201
Rtn. Krishna Kumar President - Rotary Coimbatore Central
Dr. D. Ganesh Kumar Prof & HOD/BME - KPRIET
Rtr. U. Madhan Kumar President - Rotaract KPRIET
Rtn. Pon Rathnavel Zonal Chair - Interact Clubs
Rtr. M. Sangeetha Secretary - Rotaract KPRIET



EVENT – 2**Visit to Industry and Institute Repute**

The faculty members of Department of Biomedical Engineering have visited Industries and Institutions at Bangalore to strengthen the cordial relationship with the Department and also for the improvisation of the Laboratories in the Department. The Visit was done for two days to Four Industries and Insitutions.

List of Faculty members, visited Industry and Insitute at Bangalore,

1. Dr.A.Allwyn Gnaadas, Asso.head/BM
2. Dr.T.Gayathri, AP(Sl.G)/BM
3. Dr. S,Logeshkumar, AP(Sl.G)/BM
4. Ms.M.Swathy. AP(Sr.G)/BM
5. Ms.B.PriyaDarshini, AP/BM

Day 1- On 19th December, 2022, the Faculty members visited Indian Institute of Science, Bangalore. They have visited two laboratories, Ultrafast Long Pulse laboratory, where they study, record and research on adsorption, photo stability and spectra. Second laboratory is Centre for Ultrafast Laser application, where they had Patented mini- Raman spectroscopy and works such as Live cell imaging, Covid test sample using Blood Serum were done in the Laboratory. During Afternoon, they have visited Waxwing Medical Technologies, where the Industry setup was observed and discussion about their upcoming Embedded maufacturing technology modeule and possible involmnet of our Department were discussed in the meeting.

Day 2, On 20th of December, 2022, National Institute of Mental Health And Neuro-Science (NIMHANS) was visited. Our faculty members visited Dr.Sindu.M.G, Head of the Department/BME and visited Laboraties in the campus. She is one of the board members appointed by the Government to refine and streamline the BME curriculum. We have requested her contribution and guidance towards framing Syllabus in our curriculum

Afternoon, they have visited Helix Pvt. Ltd., Bangalore. Mr.Janakiraman Purushothaman have welcomed the faculty members and taken us to their faculty. They have offered us two Ventilators to teach the students.

On 28th of December, 2022, The professors have visited Amrita Vishwa Vidhyapeetham, Ettimadai, Coimbatore

List of Faculty members visited Amrita University, Coimbatore

1. Dr.D.Ganeshkumar, Professor & Head/BM,
2. Dr.M.Kathirvelu, Director-Planning & Development and Hostels,
3. Dr.P.Arunkumar, AP(Sr.G)/BM,
4. Mr.John Amose, AP(Sr.G)/BM

The Professors have visited Electrochemistry lab, Microscopy Lab, Material Synthesis Lab, Microbiology lab and Molecular biology lab), Biomedical Instrumentation Laboratory, Machine Learning Laboratory and Hostel facility. Professor Dr.T.G. Satheesh Babu explained about all the facilities of the centres and showed us few products made in the centres by utilizing CNC machine centre and 3 D printing centre. The product developed in the centres like Colorimeter, Lab on chip(to detect bilirubin), Anemia meter and Insulin pump were demonstrated.



Student Achievements – Technical / Non-Technical

S. No	Name of the Students	Year	Name of the Event / Program	Achievements
1.	45 Students	IV BME (2019-23 batch)	NASSCOM course completion	45 students have completed Course with Silver score
2.	Ms. N. Soniya		CAT Examination	Scored High Marks with 84.75%
1.	45 Students	III BME (2020-24 batch)	NASSCOM course completion	45 students have completed Course with Silver score
1	59 Students	II BME (2021-25 batch)	NASSCOM course completion	45 students have completed Course with Silver score



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Mr. Amrith B
IV ECE
90.82 Percentile

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Ms. Soniya N
IV BME
84.75 Percentile



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Faculty Contribution

Patents / Achievements / FDP/ Conference and Workshops Attended

S. No	Name	Name of the Webinar/ Workshop/ FDP/ Internship/ Achievement	Organized by
1.	Dr. P. Sreelatha	Completed Faculty Development Program in C, C++ Programming	Anna University, Chennai
		Completed NASSCOM course with gold score	NASSCOM
2.	Dr. S. Logesh kumar	attended Offline Faculty Development Program on Learning Experience Design	Faculty Affairs, KPRIET
		Completed NASSCOM course with silver score	NASSCOM
3.	Dr. N. Rajasingam	attended Offline Faculty Development Program on Learning Experience Design	Faculty Affairs, KPRIET
		Completed NASSCOM course with silver score	NASSCOM
4.	Dr. P. Arunkumar	Completed NASSCOM course with gold score	NASSCOM
5.	Ms. R. Rajeshwari	Completed One week Internship at Prashan Medical Technologies, Coimbatore.	NA
6.	Mr. John Amose	Completed Faculty Development Program in Accreditation and Outcome Based Learning	NPTEL Swayam
		Completed NASSCOM course with silver score	NASSCOM
7.	Mr. R. Krishna kumar	Completed One week Internship at MedCuore Medical Solutions, Chennai.	NA
		Attended Offline Faculty Development Program on Learning Experience Design	Faculty Affairs, KPRIET
		Completed NASSCOM course with silver score	NASSCOM
8.	Dr. T. Gayathri Ms. M. Swathy Mr. V. Bharat Ms. B. PriyaDarshini	Completed NASSCOM course with silver score	NASSCOM

