



# KPR Institute of Engineering and Technology

Arasur, Coimbatore - 641407

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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**

**BIO-SCOPE**  
BIO-SCOPE

Monthly Newsletter: Department of Biomedical Engineering

## Highlights of this month

**Sept 02**  
Webinar

**Sept 05**  
Teacher's day Events

**Sept 13**  
MOU signing

**Sept 14**  
Webinar

**Sept 15**  
Guest Lecture on Engineer's Day

**Sept 19**  
Seminar

**Sept 24**  
Webinar

**Student Participation / Achievements**

**Faculty Contribution**

# EDITORIAL BOARD

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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 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 SEPTEMBER 2022-23

S. No.	Date	Type of Event / Program	Title of the Event
1	02.09.2022	Webinar	Digital Twin in Medical Field
2	05.09.2022	Fun Events	Activities on Teacher's Day
3	13.09.2022	MOU signing	Memorandum of Understanding
4	14.09.2022	Webinar (in Association with CEP)	Opportunities of Higher Education in developed countries for Indian students
5	15.09.2022	Guest Lecture	Biomedical Engineering Process and Workflow in Hospital
6	19.09.2022	Seminar (in Association with CAC)	Career opportunities after Engineering (GATE & ESE)
7	24.09.2022	Webinar (in Association with BMESI student chapter)	Application of AI/ML for the Healthcare

## EVENT 1

## WEBINAR ON DIGITAL TWIN IN MEDICAL FIELD

The Department of Biomedical Engineering organized a session on "Digital twin in Medical Field" on 02.09.2022 to encourage the student mindset in innovation. The session was addressed by Mr. K. Samba Siva Rao, Project Coordinator - Versity, Crion Learning Pvt. Ltd. He has explained the various phases involved in Digital twin process and also narrated the different method of innovation development with respect to instrumentation. About 100 participants from biomedical engineering of II and III years attended and gain knowledge in the area of digital twin and answered every query related to digital twin and narrated the complication with respect to medical field while implementing the products.

KPR Institute of Engineering and Technology  
(Autonomous, NAAC "A")

Department of Biomedical Engineering  
Welcomes

Mr. K. Samba Siva Rao  
Project Coordinator - Versity  
Crion Learning Pvt., Ltd.

for conducting a webinar on

**Digital Twin in Medical Field**

**02.09.2022 (Friday)**  
03:00 PM to 04:00 PM

Link: <https://meet.google.com/cyi-ijts-utn>

Faculty Coordinators  
Dr. P. Arunkumar, AP  
(Sr. G) BME

Student Coordinators  
Gayathri K S III BME  
Madhan kumar U III BME



## EVENT 2

## TEACHER'S DAY CELEBRATION

Teacher's day was celebrated on September-5,2022. Ms. M. Aaditi of final year addressed the gathering by welcome note.

## EVENTS CONDUCTED:

- 1) Dance performance was given by Ms. Kanika sabari, II-BME and team
- 2) Music performance was given by Mr. Saikarthick,II-BME and team
- 3) Music performance was given by Ms. Shruti, III-BME
- 4) Dance performance was given by Ms. Sureka, III-BME and team
- 5) Musical was performance by Mr. Sanjay, III-BME
- 6) Dance performance was given by Bharath,IV-BME and team
- 7) Music performance was given by Dr.P. Arun Kumar and Mr. John Amose.
- 8) Fun games were conducted by Ms. J.S. Anusuya and Ms. N. Soniya, IV-BME



## EVENT 3

## MOU SIGNING

KPR Institute of Engineering and Technology and KPR College of Arts and Science signed a Memorandum of Understanding with Amenity Lifeline Emergency Response Team (ALERT) on 13/09/2022 at KPR Institutions. On the onset an inaugural function was organized by the institutions. Dr. M Akila, Principal welcomed the gathering with a warm note at gave a glimpse of the ALERT initiatives to society. Dr. S. Baluswamy, Principal, KPR College of Arts Science and Research felicitated the chief guests from ALERT.

The Founder trustee, Ms Kala Balasundaram deliberated about how this activity can provide first aid in various emergencies and save lives. As Dr A.P.J Abdul Kalam said one person in each family should be trained in emergency care. The Co-founder and Managing Trustee of ALERT highlighted the uniqueness of the program and how it will impact the common man. He also added that 75% of the victims can be saved if the right step is taken during the golden hour.

The students of both institutions attended a live program following the inaugural function and were highly motivated towards the initiation from the college.

## Memorandum of Understanding (MoU)

between  
**Amenity Lifeline Emergency Response Team (ALERT)**  
 and  
**KPR Institutions**



**KPR Institute of Engineering and Technology**  
Learn Beyond (Autonomous, NAAC "A")



**KPR College of Arts Science and Research**  
Learn Beyond (Approved by Directorate of Tamil Nadu & Affiliated to Bharathiar University, Coimbatore)





**Chief Guests**



**Ms. Kala Balasundaram**  
Founder Trustee, ALERT



**Mr. Rajesh R Trivedi**  
Co Founder & Managing Trustee, ALERT

 **13 September 2022**

 **10.45 am**

 **Ragam hall**

**Coordinators**  
**Dr.P.Sreelatha, Prof./BME/KPRIET**  
**Mr.A.Mohamed Ibrahim, AP (Sr. G.)/EEE/KPRIET**  
**Mr.M.Karthik, AP/ Maths/KPRCAS**

All are invited







## EVENT 4

### WEBINAR ON OPPORTUNITIES OF HIGHER EDUCATION IN DEVELOPED COUNTRIES FOR INDIAN STUDENTS

Continuing Education Program in Association with Department of Biomedical Engineering has organized a webinar on “Opportunities of Higher Studies in Developed countries for Indian Students” on 14.09.2022 (Wednesday) between 07:00 PM and 08:00 PM, through Google meet platform. The lecture in this webinar was given by Er. Janarthan Panchakumar. International Service specialist for Autoimmunity, Werfen. Prof. R. Krishna kumar, AP/BME has delivered welcome address with few details about Resource person and the session. Er. Janarthan Panchakumar has discussed the following things,

- How to search for Higher education program
- How to choose Universities and country
- List of Scholarships available to undergo Education.
- List of Career Opportunities after Graduation in Foreign country.
- Pros and Cons of Higher education in foreign country.

He has explained briefly the survival and Academic nourishment on of a higher education student.

We received good response from the students and also, they gave very good feedback. A Total of about 220 students from various colleges participated the event. The resource person thanked the organizers for arranging the live webinar. At the end of the webinar, Dr. Vasim babu, Prof/ECE & Head, CEP has delivered the vote of thanks. He thanked the resource person, Faculty members, students of from various Departments from various colleges and other officials for their active support for making the event to be successful.

The poster features the logos of KPR Institute of Engineering and Technology, Department of Biomedical Engineering, and Great Place to Work Certified. It includes the text: 'Continuing Education Program in Association with Department of Biomedical Engineering', 'National Webinar on Opportunities of Higher Education in Developed countries for Indian students', and 'Resource person: Mr. Janarthan Panchakumar, M.S., International service specialist for Autoimmunity, Werfen, Italy'. The date and time are '14 SEPT'22, 07:00 PM - 08:00 PM (IST)'. At the bottom, it lists: Convener: Dr.D.Ganeshkumar, HOD/BME; Faculty Coordinator: Prof. R.krishna kumar AP/BME; and Student Coordinator: G.Tharunakrishnan-1 BME, S.Saathya -1 BME.

The screenshot shows a Zoom meeting slide titled 'APPLICATION REQUIREMENTS'. The slide content includes:

- Documents differ by country / university
- Several documents to be prepared from India
  - E.g. Transcripts, degree certificated, etc
- Many documents needs to be attested and have apostle
- IELTS/GRE requirements
- Write proper SOP- statement of purpose- unique- important
- 5-6 months for preparing all documents

The Zoom interface at the bottom shows 'Unmute', 'Start Video', 'Share', 'Participants' (121), and 'More'.

EVENT 5

**BMESI EVENT – Guest Lecture on Biomedical Engineering Process and Workflow in Hospitals**

On behalf of Engineer’s Day, The Department of Biomedical Engineering in association with the BMESI student chapter organized a Guest lecture on 15.09.2022. Er. Mahindra Prabhu head/Department of Biomedical Engineering is the Resource person. As a part of the event, Best Academic performers and the Technical and Non-technical achiever students were honored with Prizes. He explained the working environment in Hospital for Biomedical Engineers and how their process of work will be carried out in period of time. The prizes were distributed to Academic achievers and event winners followed by Guest lecture. The Event was completed with the Questionnaire session and the students were interacting with the chief guest and cleared their doubts and made the event, a successful one.

**KPR Institute of Engineering and Technology** | **Department of Biomedical Engineering**

**ASSOCIATION OF MEDICO SAPIENS**

**A GUEST LECTURE & PRIZE DISTRIBUTION EVENT**

**TITLE: Biomedical Engineering Process and Workflow in Hospital**

**Resource Person**  
**Er.S.MAHENDRAPRABU, M.E**  
 Head, Biomedical Engineering Department  
 Ganga Medical Centre & Hospitals Pvt. Ltd.  
 Coimbatore.

**PRIZE DISTRIBUTION**

- Academic Toppers
- Technical Achiever
- Engineering Quiz winners in
- Technical Quiz
- Group Design
- Concourse
- Best ppt

**15<sup>th</sup> SEPT'22**  
 11.00 AM - 12.30 PM  
 Venue: **Thanam Hall**

**CONVENOR:** Dr.D Ganesh Kumar, Prof & HOD / BME

**FACULTY COORDINATORS:** Dr. A. Arun, AP/IO/BIOME, Dr. P. V. Venkatesh, AP/IO/BIOME

**STUDENT COORDINATORS:** M. A. R. Shreya, IO/BIOME, M. S. Bhuvaneshwari, IO/BIOME



## EVENT 6

## BMESI EVENT – Seminar on Career opportunities after Engineering (GATE &amp; ESE)

The department of Biomedical Engineering in association with Career Advancement Cell (CAC) organized a Seminar on "Career Opportunities after Engineering (GATE & ESE)" to create a awareness and preparation regarding Graduate Aptitude Test in Engineering (GATE) and Engineering Services Exam (ESE) at respective departments, its importance in getting a reputed college for pursuing their Master's degree and also for getting a secured Job in Public Sector Undertakings (PSUs) on 19th September 2022 (02.30 pm to 04.00 pm) at Thanam Hall for the students community. A heart-warming welcome remark was delivered by Dr. R. Saranya, Head/Career Advancement Cell (CAC). Ms. M. Indiera, from III-year, Department of Biomedical Engineering introduced the Chief Guest Mr. Jitendra Tiwari, Senior Faculty, Madeeasy Education Pvt Ltd. to the students. Speaker emphasis the career opportunities after Engineering through GATE and ESE. Speaker illustrates the eligibility criteria, selection process in PSU(s).

The Seminar focused on the following points

- Awareness about Graduate Aptitude Test in Engineering (GATE) and Engineering Services Exam (ESE),
- Syllabus and Examination pattern followed
- Various positions and levels in Public Sector Undertakings

The speech was highly motivating and inspired all the participants. The students opined that the information given is very useful and effectively presented. Students expressed their gratitude towards the resource person for knowledge which he shared. Dr. N. Rajasingam, Assistant Professor (Sl.G), Department of Biomedical Engineering proposed the vote of thanks.

KPR Institute of Engineering and Technology  
Learn | Research | Innovate | Grow  
Avinashi Road, Arambur, Coimbatore.

Career Advancement Cell  
in association with  
Department of Biomedical Engineering  
organises a seminar on

**Career Opportunities after Engineering (GATE & ESE)**

**Speaker**  
Mr. Jitendra Tiwari  
Senior Faculty  
Madeeasy Education Pvt Ltd

02.30 - 04.00 pm  
19.09.2022  
Thanam Hall

Convener  
Dr. R. Saranya  
Head/CAC

Student Coordinators  
Ms. M. Indiera, III/BME  
Mr. P. Vytheeswar, III/BME

Coordinator  
Dr. N. Rajasingam  
AP (SL.G)/BME

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EVENT 7

WEBINAR ON APPLICATION OF AI/ML FOR THE HEALTHCARE

The Department of Biomedical Engineering in association with the BMESI student chapter organized a webinar on ‘Applications of AI/ML for the Healthcare’ on 24.09.2022 at 11.00 pm to 12.00 noon. The guest of honour by Dr. B. Surendiran, Associate Professor, Department of Computer Science and Engineering, National Institute of Technology, Puducherry.

The students were actively participated in the webinar event and acquired knowledge on AI/ML basics, Drug discoveries, block chain in healthcare, healthcare data analytics, software sources available and internship opportunities.

**KPR Institute of Engineering and Technology**

**MEDICO SAPIENS**

**DEPARTMENT OF BIOMEDICAL ENGINEERING**  
in association with  
**BMESI STUDENT CHAPTER**  
organises a webinar  
**APPLICATIONS OF AI/ML FOR THE HEALTHCARE**

**GUEST OF HONOUR**  
**Dr. B. Surendiran Ph.D**  
Associate Professor  
Department of Computer Science and Engineering, NIT Puducherry.

**Registration link**  
<https://forms.gle/KTfmvqJGNhWA9jve9>

**Meet link**  
<https://meet.google.com/zyj-mywa-aux>

24<sup>th</sup> september 2022  
11.00 am to 12.00 pm

[kpriet.ac.in](http://kpriet.ac.in) | @medico\_sapiens

Dr. B. Surendiran is presenting

**Applications of AI/ML in Healthcare**

Dr. B. Surendiran  
Associate Professor  
Department of Computer Science and Engineering  
National Institute of Technology Puducherry  
Karaikal

Dr. B. Surendiran is presenting

**AI in Healthcare**

Topics include: Patient-Aiding, AI Diagnostics, Healthcare & Education, Personalized Genetics, Mental Health, Drug Discovery, Research, Information & Global Skills, Scientific Research, Lifestyle Management, Patient Management, Medical Records, Data Analytics, Medical Imaging, Hospital, and Health.

### Student Achievements – Technical / Non – Technical

Name of the Students	Year	Name of the Event / Program	Achievements
S. Raaghavi	2017-21 Batch	Graduation Day ceremony	Department Topper & Gold Medalist in B.E – Biomedical Engineering with <b>9.2 CGPA</b>
59 BME Graduates	2017-21 Batch	Graduation Day ceremony	59/60 students of BME have Graduated with good CGPA
Naveena S	II BME (2021-25 batch)	IETE Connection event	Secured First prize
Mruthika S			
Jayashree M			
Ms. Nishanthini G		Galatta Samayal	Secured Second prize
Jayashree M		Galatta Samayal	
Kaaviyah R		Eureka Event	Secured First prize
Kaaviyah R		Online Quiz	Secured Second prize
Kishore M		Kabadi (Sports)	Secured Runner Position
Bhuvaneshwari S		NPTEL Swayam	
Aarthi K C		Completed with Elite score	
Joselyne Sneka I T	III BME (2020-24 batch)	Quizzical Event	Achieved Second Place
Vytheeswar P		Paper Presentation	Secured First Place
		Circuit connection	Secured Second Place
Sriya B		Technical Connection - Engineer's Day Event	Secured First place
Kohilnila E		Technical Connection - Engineer's Day Event	Secured Second place
Lohitha R		Online Quiz - Engineer's Day event	Secured First place
P.Sureka		Organized by KIT- Enclave club 2022, KIT, Coimbatore	Received iGen achiever Award for completing 99 tasks and Presentation



## Faculty Contribution

### Patents / Achievements / FDP/ Conference and Workshops Attended

Name	Name of the Webinar/ Workshop/ FDP/ Internship/ Achievement	Organized by	Date
Dr. D. Ganesh kumar	Completed NPTEL Swayam course with Elite + Gold	NPTEL Swayam	25.09.2022
Dr. K. Rajasekaran	Revenue Generated – Rs. 36,000/- Conducted EDP on Embedded systems to Employees of Jasmine Infotech, Chennai	Jasmin Infotech, Chennai	01.09.2022 to 05.09.2022
Dr. P. Sreelatha	Attended three days FDP	Anna University	15.09.2022 to 17.09.2022
	Won 1 <sup>st</sup> prize in Dialogue Contest	Film club, Sangamam, KPRIET	05.09.2022
Dr. A. Allwyn Gnanadas	Participated as Special Delegates in Conference titled "Transformation for Sustenance"	Connect Coimbatore	29.09.2022
Dr. T. Gayathri	Participated in MATLAB training workshop	CFTIE, KPRIET	27.08.2022
	Completed NPTEL course with Elite	NPTEL Swayam	25.09.2022
Ms. R. Rajeshwari	Completed NPTEL course	NPTEL Swayam	25.09.2022
Dr. P. Arun kumar	Completed NPTEL course	NPTEL Swayam	25.09.2022
Mr. R. Krishna kumar	Reskilling - Comprehensive Biomedical Instrumentation Training	MedCuore Medical Solutions Pvt. Ltd., Chennai	12.09.2022 to 19.09.2022
	Completed NPTEL course with Elite	NPTEL Swayam	25.09.2022