BIO-SCOPE

VOLUME 4 ISSUE 1 | JAN 2023

Department of Biomedical Engineering KPR Institute of Engineering and Technology





Highlights of this month

09.01.2023 – Guest Lecture on "Siddha Diet and Nutrition for Healthy Life"

23.01.2023 Webinar on "Cyber Security in Healthcare"

Student Participation / Achievements

Faculty Contribution

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

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

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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.

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LIST OF EVENTS / PROGRAMS CONDUCTED DURING JANUARY 2023

S. No.	Date	Type of Event / Program	Title of the Event
1	09.01.2023	Guest Lecture	Siddha Diet and Nutrition for Healthy Life
2	23.01.2023	Webinar	Cyber Security in Healthcare

Industry Visits by the Faculty

S.NO	Date of Visit	NAME OF THE INDUSTRY VISITED BY THE FACULTY
1.	11.01.2023	Medsby Healthcare and Engineering solutions, Coimbatore
2.	11.01.2023	Aspire technologies, Coimbatore
3.	25.01.2023	Hindusthan Hospitals, Coimbatore
4.	25.01.2023	Ottobock Healthcare, Coimbatore

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EVENT - 1

Guest Lecture on Siddha Diet and Nutrition for Healthy Life

The Department of Biomedical Engineering in association with OCEAN Kurinji have celebrated 6th Siddha Day on 09.01.2023 to commemorate the birth star of Siddhar Agathiar with the special lecture on "SIDDHA DIET AND NUTRITION FOR HEALTHY LIFE". Sri Easan Guruji, Founder, Ruthambara Yoga trust, Coimbatore delivered special address as the Chief guest on 09.01.2023, Monday from 2pm to 4pm in Thanam Hall in the function. Dr. Saravanabhavan, AP/Chemistry welcomed the dignitaries and participants. Dr. P. Thangaraj, Director/CFRD presided over the function. He described the significance of Siddha medicine in the Indian subcontinent with reference to the Sangam literature. Dr. D. Ganeshkumar, Professor and Head, Dept. of Biomedical Engineering felicitated with a note on Rishi Agasthyar and significance of different Indian Medicine. Sri Easan Guruji, Founder, Ruthambara Yoga trust, Coimbatore addressed the audience on "SIDDHA DIET AND NUTRITION FOR HEALTHY LIFE" with reference to the individual herbs, its breed, places of growth, medicinal use etc in hi lecture. His team prepared a herbal juice and salad distributed to the audience. The Chief Guest and his team exhibited herbals brought along with them. They explained more than 20 herbals by showing them to the students and explained their medicinal uses. Dr. N. Raja, AP/Maths, Head/OCEAN, proposed vote of thanks. The session was interactive as the students had enquired doubts regarding food habits and health issues and daily intake food for healthy life.



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EVENT - 2

Webinar on Cyber Security in Healthcare

The Department of Biomedical Engineering in association with IEEE – Engineering in Medicine and Biology Society (EMBS) have organized a webinar on 23^{rd} January 2023. The Resource Person is Mr.Ashok kumar Mohan, Assistant professor, TIFAC – Core in Cyber security, Coimbatore. The Speaker gave brief intrduction about Cyber Security and its importance in detail. The speaker presented about the tools used in Cyber security. The session was all about cybervulnerabilities and how to protect medical connected devices and clinical data and how to maintain Anti-Virus Software and hardcoded passwords. And Question session was conducted for the benefit of the students. We got nearly 200+ registrations and 100+ participants for the event. The session was very informative and useful. And also, we got more positive feedback about the event from the participants. The Students were listening the lecture and interacted with the Guest through virtual mode and the session was interactive.





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Student Achievements – Technical / Non-Technical

S. No	Name of the Students	Year	Name of the Event / Program	Achievements
1.	All Students	II BME	Skill Development	MATLAB Course completion
2.	Mr. V.Saikarthik	(2021-25 batch)	Music Competition	Third prize
1.	Mr. A.B.Boobalan	III BME		
2	Mr. V.Meiyarasan	(2020-24 batch)	Quiz Competition NASSCOM course completion	First Prize
	All year BM Student	ts	College level Event "QRiosity' 22"	Overall Rolling Trophy for Winners

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	Journal Paper Publication with Impact factor 7.632	Not Applicable
	DI. I. Siccialia	Mentor for Students Project	Anna University
2.	Dr. A. Allwyn Gnanadas	Online Course completion	Coursera
3.	Dr. P. Arunkumar	Paper Presentation in ICSSIT' 2023 Conference	IEEE - Francis Xavier College
4.	Mr. John Amose	Guest Speaker in International Faculty Development program	Easwari Engineering College, Chennai

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