Department of Biomedical Engineering

KPR Institute of Engineering and Technology





Arasur, Coimbatore - 641407 www.kpriet.ac.in T: 0422-2635600

"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. Ganeshkumar HoD/BME



Highlights of this month

February 19

Technical Quiz: Project Hospital

February 10

Cancer Awareness Program

January 25

Project Ideas to Business Model



Monthly Newsletter: Department of Biomedical Engineering

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Programs Organized
Faculty Publication
Placement Activities



About KPRIET

KPR Institute of Engineering and Technology (KPRIET), founded by Dr. K. P. Ramasamy, stands out as a leading institute of academic excellence by imparting technical, intellectual and professional skills to students. 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 227 with a faculty student ratio of 1:15. Out of the total, 97 faculty members PhDs. and 102 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. 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 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 Department of Biomedical Engineering as well as faculty members has lifetime membership in various Professional Societies like ISTE, BMESI and IBSC. The Department of Civil Engineering has various Students Chapter like ISTE and BMESI to gain knowledge through various programmes conducted by these bodies across the Nation.

Vision of the Department

Be at the forefront in providing multidisciplinary education in engineering, technology and biological sciences, thereby providing our students, the future engineering professionals with the skills required to develop avant-garde devices and technologies to assist medical professionals in providing exceptional healthcare.

Mission of the Department

The Mission of the Department is to

- Establish new teaching paradigms to converge biomedical engineering education to unveil creativity and innovation in clinical health care.
- Build an integrated team of biomedical engineering community to nurture cutting-edge technologies through research and development.
- Collaborate and promote partnership with healthcare industry to enrich employability skills and be in phase with their progress.
- Impart moral values, inculcate ethical behaviour and practice life-learning.

Programs Organized

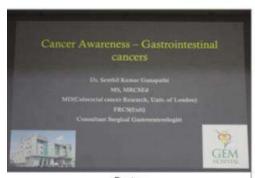
Event: 1



Avinashi Road, Arasur, Coimbatore.

Phone: 0422-2635600 Web: kpriet.ac.in Social: kpriet.ac.in/social NBA Accredited (CSE, ECE, EEE, MECH, CIVIL)

| ID | 51 | | | | |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------|----|--|
| Event No. | 2 | | | | |
| Organizer | My parent department | | | | |
| Date | 10/2/2022- 10/2/2022 | | | | |
| No. of Days | 1 Day | | | | |
| Mode | Offline | | | | |
| Venue | RAGAM HALL | | | | |
| Type of Event | Webinar | | | | |
| Level of the Event | College Level (KPRIET Common) | | | | |
| Title of the Event | CANCER AWARENESS PROGRAMME | | | | |
| Actual Total Expense | ₹0 | | | | |
| Associate Dept. | BME | | | | |
| Cell Committee | кмс | | | | |
| Associate Cell Committee | кмс | | | | |
| Club Society | BMESI (BioMedical) | | | | |
| Associate Club Society | BMESI (BioMedical) | | | | |
| Sponsored? | No | | | | |
| Sponsored Agency | - | | | | |
| Sponsored Fund | | | | | |
| College Sponsored? | No | | | | |
| College Fund | | | | | |
| No. of Internal Participants | Faculty | 131 | Students | 78 | |
| No. of External Participants | Faculty | - | Students | - | |
| No. of Industry Participants | - | | | | |
| Involved Staffs Sreelatha P Bharath V | | | CONVENOR | | |
| Resource Persons | | | | | |
| 1 SRIDHAR | GEM HOSPITAL, COIMBATORE | | | | |
| Outcome | • | | | | |
| Report | Experts from GEM Hospital and Dr.A.M.Natarajan, Chief Executive/KPRIET exchanged MoU signing Documents. The event "Cancer Awareness Program" held on 10/02/2022 around 2.40 PM at Ragam hall. Dr. P.Thangaraj Director/CFRD given felicitation address, followed by Dr.P.Sreelatha, Convenor of this program inaugurated the program. Dr.Senthilkumar Ganapathi, Consultant, G. Diregoen elucidater about the various types of cancer. Dr. Sai Darshini junior consultant, Department of Endogynecology explained about the cervical cancer and abdomen cancer. Mr.Shanmugaraj, Manager-Patients Health Manager overviewed about GEM hospitals. Faculty Coordinator Mr.Bharath V, Asst.Prof/BME given | | | | |







Event: 2



(Autonomous, NAAC "A")

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| ID | 80 | | | | | |
|------------------------------|-------------------------------------------|---------------|----------------------------------------------------------|----|--|--|
| Event No. | 4 | | | | | |
| Organizer | My parent department | | | | | |
| Date | 19/2/2022- 19/2/2022 | | | | | |
| No. of Days | 1 Day | | | | | |
| Mode | Online | Online | | | | |
| Link | https://meet.google.com/mdq- prtz-nhu | | | | | |
| Type of Event | Quiz | | | | | |
| Level of the Event | College Level (KPRIET Common) | | | | | |
| Title of the Event | Project Hospital | | | | | |
| Actual Total Expense | ₹0 | | | | | |
| Associate Dept. | BME | | | | | |
| Cell Committee | Professional Societies / Clubs | | | | | |
| Associate Cell Committee | | | | | | |
| Club Society | BMESI (BioMedical) | | | | | |
| Associate Club Society | - | | | | | |
| Sponsored? | No | | | | | |
| Sponsored Agency | - | | | | | |
| Sponsored Fund | - | | | | | |
| College Sponsored? | No | | | | | |
| College Fund | - | | = | _ | | |
| No. of Internal Participants | Faculty | <u>=</u> | Students | 83 | | |
| No. of External Participants | Faculty | - | Students | 52 | | |
| No. of Industry Participants | - | | | | | |
| Involved Staffs | | | | | | |
| 1 Swathy M | BMESI and Department Association Incharge | | | | | |
| Outcome | Awareness about the NABH standards | | | | | |
| Report | | al. The stude | ents were provided with an quested to attend the quiz | | | |

BIO-SCOPE











Avinashi Road, Arasur, Coimbatore - 641 407

Event No. 3

LEARN BEYOND

Date 25.01.2022

KPRIET Venue

Level of the Event State

Type of Event Webinar

Title of the Event Career Guidance Programme

In Association with District Employment and career Guidance Centre, Coimbatore.

1. Ms. J. Aneesha Suraiya, Assistant Engineer, PWD, Resource Persons

Coimbatore.

2. Dr. Umesh Vasu, Foundar and CEO, Tharam-Thiran Green Energy Flow LLP

3. Ms. Nithya Vellingiri, Carrenet Technologies, Coimabatore.

4. Mr. Karunakaran, Deputy Director, DECGC, Coimbatore,

5. Ms. Sathya Parthvarthy, DEO, Coimbatore.

Convener Dr. Sreelatha P, AsP / BME

No. of External Faculty

Participant (Count) Research

Scholars Students

Others

No. of Internal Faculty 50 Participant (Count)

Research

Scholars

Students 350

Outcome

Equal opportunity cell organized a "Career Guidance Programme" on 25.01.2022 (Tuesday) to create awareness among the students about career opportunities in various government and private sectors including IES, UPSC, IBPS, and BHEL etc. The session was addressed by the experts from District employment and Career guidance centre, Coimbatore, Careernet Technologies and Tharam-Thiran Green Energy Flow LLP. Mr. DS. Gunesekaran, Regional Joint Director, delivered inaugural address. Ms. J. Aneesha Suraiya, Assistant Engineer highlighted the different competitive exams regularly conducting by Government. She has narrated the steps to be followed and the application procedures involved in the Technical Government exams. In addition to that, she has shared her experience to the participants and insisted them to be ready for competitive exams. The guest speaker Dr. Umesh Vasu also gave insights to the participants to become good entrepreneur. He expressed his ideas and his own experience about how to get funds for start-ups and how to present proof-of-concept to approach funding agency.



Ms. Nithay Vellingiri elaborated the interview skills and tips to the participants to face an interview with full of confidence and asked them to be focused to plan their career accordingly. In addition to that, she suggested the students to do self-analysis to find out their strengths and weakness. Mr. Karunakaran said that there are plenty of opportunities in government sectors and represented the

activities done by the District Employment centre. Ms. Sathyaparvarthy explained about opportunities in state and central government sectors and ends the session by Q&A interaction with the participants. About 400 faculty and student across the departments attended the session. The team Equal Opportunity Cell organized this event.



"Presentation by Resource Person"



"Organizing team during the sessions"

Faculty Publication

| Name | Name of the National Conference / Seminar / Symposium | Title | Organized & Conducted at (Venue) | Date(s) and Year | |
|-------|----------------------------------------------------------------|---------------------------------|----------------------------------|---------------------|--|
| Mr. | 2nd International | "Comparative Performance | Faculty of Computers | 25th – | |
| John | Conference on | Analysis of Kernel Functions in | and Information | 27th, | |
| Amose | Computing & | Support Vector Machines in the | Technology (FCIT), | January | |
| | Information | Diagnosis of Pneumonia using | University of Tabuk, | 2022 | |
| | Technology (ICCIT) | Lung Sounds" | Tabuk, KSA, | | |

Placement Activities

| S.No. | Name of the Company | Total placement Interested | Number of students attended | Number of students cleared | % Of students cleared |
|-------|------------------------|-------------------------------|--------------------------------|-------------------------------|-----------------------|
| 1 | Healthwatch | 34 | 11 | 10 | 90.91 |
| 2 | Capgemini | 34 | 2 | 1 | 50 |