



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. Ganeshkumar HoD/BME

BIO-SCOPE

Monthly Newsletter: Department of Biomedical Engineering

Highlights of this month

March 5

A session on lessons learnt from
Entrepreneurs

March 12

Parents Teachers Meeting

March 15

Nanomaterials for Tissue
Regeneration

March 17

Benefits of IBSC Certification

March 25

One Day National Level Technical
Symposium - IGNUZ'22

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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

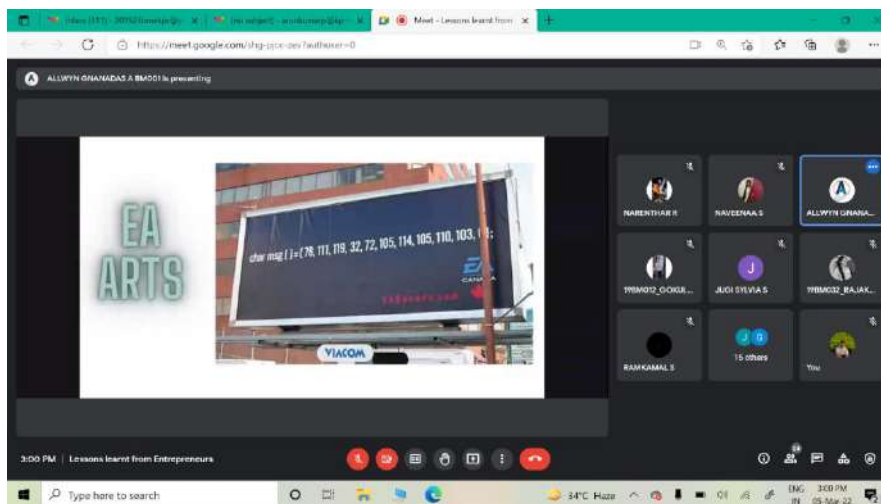
LIST OF EVENTS CONDUCTED FOR THE ACY 2021-22

Event No.	Date	Type of Event	Title of the Event
1	05.03.2022	Webinar	A session on lessons learnt from Entrepreneurs
2	12.03.2022	Webinar	Parents Teachers Meeting
3	15.03.2022	Webinar	Nanomaterials for Tissue Regeneration
4	17.03.2022	Club Activity	Benefits of IBSC Certification
5	25.03.2022	Symposium	One Day National Level Technical Symposium - IGNUZ'22

EVENT 1

A session on lessons learnt from Entrepreneurs

The Department of Biomedical Engineering organized a session on "A session on lessons learnt from Entrepreneurs" on 05.03.2022 to indulge the procedure to follow to be a successful entrepreneur. The session was addressed by Mr. A. Allwyn Gnanadas, Assistant Professor (Sr. G.), Biomedical Engineering. He has explained the various stages and step involved in the progress of an entrepreneurship. He also expressed his ideas and his own experience with the lesson learnt from entrepreneurs and suggested how to get funds for start-ups and how to present proof-of-concept to approach funding agency. About 30 participants has attended and gain knowledge in producing a successful innovation as a step to entrepreneur.



EVENT 3

Nanomaterials for Tissue Regeneration

The Department of Biomedical Engineering in association with ISTE student Chapter conducted a Webinar on the topic “Nanomaterials for Tissue Regeneration”. This webinar was attended by 3 internal faculty members, 32 internal participants and 17 external faculty members and 57 external students. The guest speaker explained how the Nanomaterials are different from other materials. He also quoted examples of Nanomaterials which are already in use in the field of medicine. He explained how tissues and cells behave as logic gates with mathematical derivations. The students and participants interacted with the speaker to know about the projects on nerve tissue regeneration, Nanomaterials in oncology, software used for developing models etc. The overall feedback showed that the session was highly informative and useful to the target audience.



Poster



Photo | Screenshot (2)

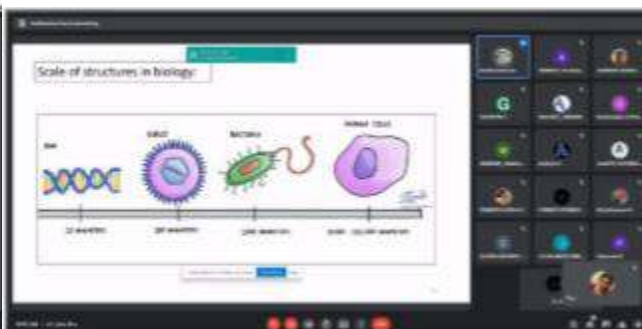
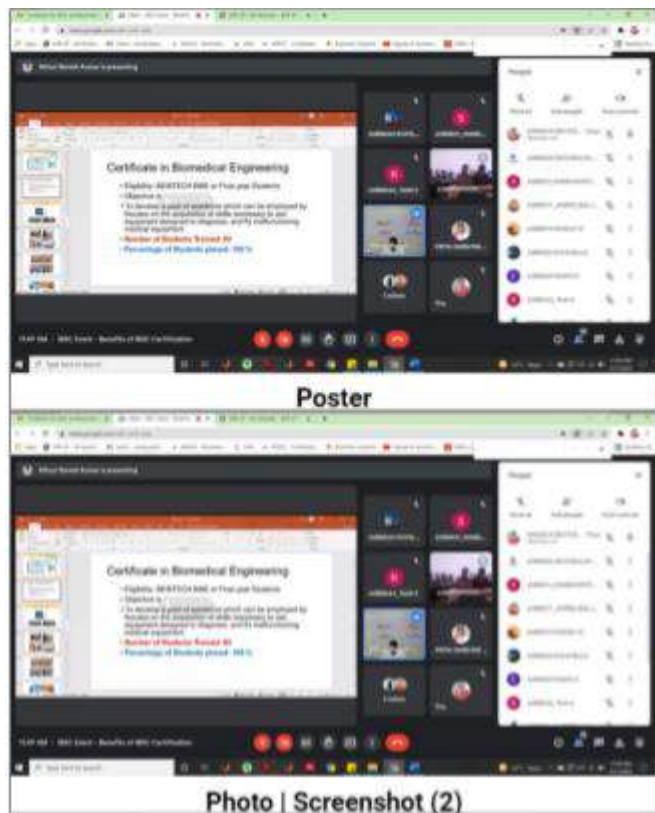


Photo | Screenshot (1)

EVENT 4

Benefits of IBSC Certification

This webinar is organized for Department of Biomedical Engineering students on 17.03.2022 by 11.30AM. The link to attend the program was <https://meet.google.com/det-vedi-zwk>. Total of 6 faculty members and 62 students attended the meeting. Mr. Nitturi Naresh Kumar is the resource person of the program. The program aimed at introducing the certification programs given by IBSC. The feedback link for the session is shared at the end of the session <https://forms.gle/3Hh6jemaLEcQVVZ4A>.



EVENT - 5**One Day International Technical Symposium****IGNUZ' 22**

The Department of Biomedical Engineering conducted one day National Level Technical Symposium – IGNUZ'223 on 25th March, 2022 (Friday). The event is sponsored by the Biomedical Engineering Society of India (BMESI), Medsby Healthcare and Engineering Solutions, Coimbatore and Prashan Medical Technologies.



A total of 265 students from various institutions participated in the event. The following technical and Non-technical events were conducted in a series.

- Script Conjura – Paper Presentation
- Dexter's Laboratory – Exhibit your expertise with machines
- Mr. & Ms. Medico Sapiens – Technical Quiz
- Free style Dancing
- Free style Singing
- Secret of Chambers – Treasure Hunt

The event was inaugurated by Dr. M. Akila, Principal, KPRIET, Mr. G. Guruprasath, Founder & CEO, Medsby Healthcare and Engineering Solutions Coimbatore and Dr. D. Ganesh Kumar, Head of the Biomedical Engineering Department, KPRIET.



Student Achievements

Extra-curricular Activities

Name of the Students	Name of the Event	Achievements
	Sports Event Conducted in KPRIET	
	3000 m	
RUTH S II - year	1500 m	Won I Prize
	400 m and	
	Relay-4*400	
	Sports Event Conducted in KPRIET	
BHUVANESWARI B II - year	800 m	Won III Prize
	Sports Event Conducted in KPRIET	
GOWTHAM P II - year	Kabbadi	Won II Prize
	Sports Event Conducted in KPRIET	
NISHA M II - year	Throw ball	Won I Prize
	Sports Event Conducted in KPRIET	
BHOOBALAN A B II - year	Kabbadi	Won III Prize

Faculty Contribution

Workshop / FDP / Internship Attended

Name	Name of the Workshop/ FDP/Internship	Organized by	Date
Mr. Bharath V	Simulation of Thermal Management Batteries and Power Converters	Vel Tech High Tech Dr.Rangarajan Dr. Sakunthala Engineering college	23.03.2022

Faculty & Student Achievements




Department Biomedical Engineering




Dr. D.Sulavathi AP(Sr.G)



N. Lingatharani Batch (2018-22)



V.K. Yamuna Batch (2018-22)



Aashini Ramamoorthy Batch (2018-22)




Department Biomedical Engineering




Dr. S.Saranya Devi AP(Sr.G)



S.Jayaprabha Batch (2018-22)



P.Maheshwari Batch (2018-22)



S.Oliva Danita Batch (2018-22)



For Receiving Project Grant from
Tamilnadu State Council for Science and Technology (TNSCST)
Project Title : Diabetic Foot Ulcer Detection Using Convolutional Neural Network





For Receiving Project Grant from
Tamilnadu State Council for Science and Technology (TNSCST)
Project Title : Data Driven Stress Prediction Model using Physiological Signals




Faculty Publication

Name	Name of the National Conference / Seminar / Symposium	Title	Organized & conducted at (Venue)	Date(s) and Year
Mr. Allwyn Gnanadas A	International Conference on Advanced Technologies in Chemical, Construction and Mechanical Sciences	EOG Controlled Wheelchair	KPR Institute of Engineering and Technology	24.03.2022
Mr. Bharath V	International Conference on Advanced Technologies in Chemical, Construction and Mechanical Sciences	Survival Intimidation Ventricular Arrhythmia Identification With ECG Processor	KPR Institute of Engineering and Technology	24.03.2022
Ms. Swathy M	International Conference on Advanced Computing and Communication Systems (ICACCS 2022)	A Biotoilet attached wheelchair for physically disabled person: An automated robust system	Sri Eshwar College of Engineering, Coimbatore	26.03.2022
Ms. Swathy M	International Conference on Advances in Chemistry with Specific Reference to Catalysis, Sensors, Drug Delivery, Energy Materials and Anti-cancer Studies (ICACSEM 2022)	Bioinspired Antibiotic Loaded Chitosan-Agar-Gelatin Based Biopolymeric Films For Wound Healing Applications	University of Madras, Chennai	28.03.2022 & 29.03.2022
Mr. P. Arun Kumar	International Conference on Advanced Technologies in Chemical, Construction and Mechanical Sciences	A Novel Low power single phase clocking flipflop design for Biomedical applications	KPR Institute of Engineering and Technology	24.03.2022
Ms. Saranya Devi S	International Conference on Advanced Technologies in Chemical, Construction and Mechanical Sciences	Automatic Stress Level Assessment Using Physiological Signals And A Machine Learning Model	KPR Institute of Engineering and Technology	24.03.2022

Placement Activities

S. No.	Name of the Company	Total placement Interested	Number of students attended	Number of students cleared	% Of students cleared
1	LnT InfoTech	34	1	1	100
2	Infosys	34	3	2	66.6