

## ABOUT THE SEMINAR

Advanced sensor design for medical applications are the key units of medical and healthcare systems. The development focus of this topic is to use new technology and advanced functional biocompatible materials to design miniature, intelligent, reliable, multifunctional, low-cost, and efficient sensors. The last two decades have seen unprecedented growth in the employment of advanced sensors, which enable the detection of critical biomarkers for the early diagnosis of human diseases and the monitoring of human physiological signals for assessments in healthcare and biomedical applications. This also puts forward requirements for future medical sensors.

Artificial Intelligence (AI) is known for its ability to analyze big data sets, to continuously learn and to subsequently offer predictive analysis based on that learning. The potential impact of this projected growth on how health services are delivered, particularly within the subset of advanced sensor technology, is compelling. Machine Learning (M/L) is a subset of AI, designed to identify patterns using algorithms and data to offer immediate and automated insights. In healthcare, M/L has the ability to provide data-driven clinical decision support to physicians and hospital staff. This means better healthcare delivered faster, and at a lower cost.

This seminar gives a snapshot of cutting-edge technologies research which has transformed advanced sensors in life saving applications. This seminar is planned to invite some of the key developers and healthcare leaders in this area and discuss the vision and path forward to Low-cost medical solutions with the help of sensors using AI & ML.

## SUBTHEMES OF THE SEMINAR

- ❖ The Changing Role of the Health care in the Age of AI
- ❖ Advanced sensors design and materials using MEMS/NEMS Technologies
- ❖ Machine learning approaches and algorithms for drug delivery
- ❖ Medical Signal and Image Processing Techniques using AI
- ❖ Semiconductor Materials with biocompatibility for medical applications
- ❖ Transdisciplinary Research on Medical Diagnostics

## TARGET AUDIENCE

Faculty members and Research Scholars from academic institutes, Personnel from AERB, DAE & DAE (Aided Institutions), R & D organization and related Industries.

## FACULTY

Sessions will be handled by experienced faculty members from reputed institutions (IITs, MIT) and Experts from DRDO, DAE R & D organization and related Industries.

## BOARDING AND LODGING

Accommodation and boarding if required will be provided on the college campus on a first-come-first serve basis.

## REGISTRATION FEE DETAILS

Registration Fee: Rs.100/- per Participant. Boarding and Lodging will be provided to all the selected participants in the college campus.

## HOW TO APPLY

Registration form Link:

<https://forms.gle/WcEQJFSUwpxBw7CaA>

Registration is limited to 100 participants and selected on a first-come-first serve basis.

## TRANSFER DETAILS

Account Name : Jeppiaar Institute of Technology(R&D)

Account Number : 6550463785

IFSC Code : IDIB000S165

Bank : Indian Bank

MICR : 600019148

## SCHEDULED DATES:

Last date for receipt of Applications : 10.5.2024

Intimation of Selection : 11.5.2024

Confirmation by participants : 12.5.2024



**JEPPIAAR INSTITUTE OF TECHNOLOGY**

(An Autonomous Institution)

Self-Belief | Self-Discipline | Self-Respect

Kunnam, Sunguvarchatram, Sriperumbudur-631604



**DAE - BRNS Sponsored**

**Two-day (Physical Mode)**

**National Seminar on**

**“Artificial Intelligence based Advanced  
Sensor design for real time medical  
applications”**

**Date: 16.5.2024 & 17.5.2024**



**ORGANIZED BY**

**Jeppiaar Institute of Technology (An Autonomous Institution)**

**NAAC “A+” Accredited**

**“Self-Belief | Self-Discipline | Self-Respect”**

**Kunnam Sunguvarchatram, Sriperumbudur, Tamil Nadu 631604,**

**Email: office@jeppiaarinstitute.org,**

**www.jeppiaarinstitute.org**

**Phone: 044 2715 9000**

## PATRONS

**Dr. N. Marie Wilson, B.Tech, MBA, Ph.D.**

Managing Director

**Dr.G.R.Suresh, ME., Ph.D,** Principal

**Dr.R.Madhusudhanan ME.,MBA.,Ph.D,** Dean

## ADVISOR

**Dr.S. Shenbaga Ezhil,**

IQAC Coordinator & Professor

## CONVENER

**Dr.T.Sripriya,** Associate Professor/ECE

## CO-COORDINATOR

**Dr. Nancy.W,** Assistant Professor/ECE

## TECHNICAL COORDINATORS

**Dr.D.Kumutha,** Professor/ECE

**Mrs.M. Benisha** Assistant Professor/ECE

**Ms.Bharathi.M.,** Assistant Professor/ECE

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**Ms.Indumathi.M,** Assistant Professor/ECE

**Ms.Mercy Sharon,** Assistant Professor/ECE

**Ms.Hubert Mary,** Assistant Professor/ECE

**Ms.Karthika,** Assistant Professor/ECE

## ADDRESS FOR COMMUNICATION

**Dr.T. Sripriya,** Associate Professor/ECE, Jeppiaar  
Institute of Technology, Chennai.

**Email ID: [sripriva.t@jeppiaarinstitute.org](mailto:sripriva.t@jeppiaarinstitute.org)**

**Contact Number: 9600037163**

## ABOUT THE COLLEGE

Jeppiaar Institute of Technology is a Christian Minority Institution, affiliated to Anna University, Chennai, approved by AICTE and certified with ISO 9001:2015. It was established in 2011 by our Honorable Chairman Late Col. Dr. Jeppiaar. The concept to build environment-friendly sustainable living practices is achieved in our Green Campus situated among the Electronic Belt of Sriperumbudur in a widespread area of 12.52-acre land at Kunnam, Sunguvarchatram, Sriperumbudur, Chennai.

Jeppiaar Institute of Technology is an entity of Jeppiaar Remibai Educational Trust. Our honorable Chairman Late Col. Dr. Jeppiaar is well known for his dedication to spread knowledge among the youth of India through technical education. Jeppiaar Institute of Technology propels relentlessly towards fulfilling the chairman's vision "Aspires to provide technical education in futuristic technologies with the perspective of innovative, industrial and social application for the betterment of humanity".

Jeppiaar Institute of Technology is the first institution in India to establish a laboratory with the incorporation of 'Innovative Cloud Computing Technology'. All the classrooms are Computer-Aided Instruction (CAI) enabled with wall mounted Multimedia LCD Projectors, making complete use of the modern-day teaching aids.

## MILESTONES

- ✚ ARIIA 2020-Secured all India rank 6th-25th (Band A)
- ✚ 9th AICTE – CII Survey award - Gold Rating
- ✚ Polar Satellite Launch Vehicle (PSLV) – C51 is scheduled to launch Unity Sat – JIT Satellite, one among the 4 payload satellites on 28th February 2021.
- ✚ Ground Station is established on 28th January 2021, that primarily receives the telemetry data.

## UNDERGRADUATE PROGRAMMES OFFERED

- B.E - Computer Science and Engineering**
- B.E - Electronics and Communication Engineering**
- B.Tech - Information Technology**
- B.E - Mechanical Engineering**
- B.Tech - Artificial Intelligence and Data Science**
- B.Tech - Computer Science and Business Systems**

## POST GRADUATE PROGRAMMES OFFERED

**Master of Business Administration**

## ABOUT THE DEPARTMENT

The department offers B.E courses in Electronics & Communication Engineering with an intake of 60 students. The students' progress steadily towards acquiring theoretical knowledge as well as practical skills needed for meeting the challenges in the field of Electronics and Communication Engineering. To achieve excellence not only in teaching-learning processes but also in adopting innovative techniques required to improve product quality in Electronics and Communication Industries. The department is backed up by a team of faculty members enriched by industrial and teaching experience.

## DEPARTMENT VISION

To enhance and impart futuristic and innovative technological education for the excellence of Electronics and Communication Engineering with new ideas and innovation to meet industrial expectation and social needs with ethical and global awareness reinforced by an efficiency through research platform for the advancement of humanity.

## DEPARTMENT MISSION

- ❖ M1: To produce competent and high-quality professional Engineers in the field of Electronics and Communication Engineering for the benefit of the society globally.
- ❖ M2: To provide a conducive infrastructure and environment for faculty and students with enhanced laboratories, to create high quality professionals.
- ❖ M3: To provide Prerequisite Skills in multidisciplinary areas for the needs of Industries, higher education and research establishments and entrepreneurship.
- ❖ M4: To handle Socio Economic Challenges of Society by Imparting Human Values and Ethical Responsibilities. Imparting Human Values and Ethical Responsibilities to handle Socio Economic Challenges of Society.

For further clarifications contact:

Convener

**Dr.T. SRIPRIYA,**  
**ASSOCIATE PROFESSOR/ECE**  
**PH: 9600037163**

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