



# Symposium on Artificial Intelligence and CAD/CAM/CAE in Engineering/Medicine/Dentistry [AIEMD-2025]

July 12-13, 2025

Indian Institute of Information Technology, Design and Manufacturing (IIITDM) Kancheepuram

## About the Institute

Indian Institute of Information Technology Design and Manufacturing (IIITDM) Kancheepuram is a public institution established in 2007 by the Ministry of Education, Government of India to pursue design and manufacturing-oriented engineering education and research. IIITDM Kancheepuram offers Undergraduate, Postgraduate and PhD programme in the areas of Computer Science and Engineering, Electronics and Communication Engineering, Mechanical Engineering, Smart Manufacturing and Interdisciplinary Design and Innovation.



## About the AIEMD 2025

Artificial intelligence (AI) plays a transformative role in medical imaging-based diagnosis, treatment planning, and implants procedures by effectively analyzing patient medical data. For example, the integration of AI with 3D printing technologies facilitates the creation of patient-specific prostheses, significantly improving functional outcomes. This symposium highlights advancements in AI, CAD/CAM/CAE technologies, and their applications in diagnosis, surgical treatments, and the design, fabrication and placement of implants.



## Duration of Symposium

**July 12-13, 2025 (2 Days)** on campus. Hostel accommodation will be provided based on the availability and first come first serve basis.



## Participants

Scientists || Academicians || Research Scholars || Physicians || Students from Engineering, Medical, Dental and Clinical Backgrounds || Industry Delegates || Entrepreneurs||

## Thrust Areas

### Engineering

AI in Medical Data  
AI in Disease Diagnosis  
AI in CT and MRI  
CAD/CAM/CAE in Medicine and Dentistry  
Haptic and Robot in Surgical Planning  
3D/4D printing in Medicine and Dentistry  
Biomaterials and Biomedical Devices  
Predictive Model and Analysis  
Patient Specific Surgical Simulation

### Medicine

Advances in Orthopaedic Surgery  
Advances in Spine Surgery  
Laser/Robot-Assisted Surgery  
3D Printing in Surgery  
Advances in Cardiothoracic Surgery  
Advances in Neurosurgery  
Implant Placement Procedure  
Forensic Medicine  
Haptic and Robot in Medicine

### Dentistry

Oral and Maxillofacial Surgery  
Advances in Orthodontics  
Advances in Prosthodontics  
Advances in Periodontics  
Dental Bone Grafting and Implant  
3D Printing in Dentistry  
Laser/Robot in Dentistry  
Forensic Dentistry  
Haptic and Robot in Dentistry

**\*The areas mentioned above are indicative and papers from other areas are also requested for submission**

## Abstract Submission and Registration

Authors have to submit a one-page abstract of their original, unpublished work using the QR code given.



QR Code for Abstract Submission

## Payment Details:

Students: **5000 INR**  
Faculty, Scientists and all others: **7565 INR**  
Foreign: **Equivalent in USD**



QR Code for Registration

## Important Dates

Last date for abstract submission	28 <sup>th</sup> February, 2025
Notification of the acceptance	10 <sup>th</sup> March, 2025
Last date for 5-page paper submission	15 <sup>th</sup> April, 2025
Last date for revised paper submission	30 <sup>th</sup> May, 2025
Last date for registration	20 <sup>th</sup> June, 2025

## Publication

It is planned to publish the peer-reviewed and selected papers of the symposium as proceedings with Springer. 5 Page full paper submissions are requested to consider for publication subject to approval from the publisher.

**Organizing Chair: Dr. P. Pandithevan, Associate Professor, Department of Mechanical Engineering, IIITDM Kancheepuram, Chennai - 600127, Tamilnadu, INDIA. <https://shorturl.at/SOVD3>**



## Organizing Committee



### Patron

**Prof. M.V. Kartikeyan**  
Director and Professor of ECE  
IIITDM Kancheepuram



### Organizing Chair

**Dr. P. Pandithevan**  
Associate Professor  
Department of Mechanical Engineering  
IIITDM Kancheepuram

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**Prof. Narayan Yoganandan**  
Professor of Neurosurgery and  
Orthopaedic Surgery, Dept. of  
Neurosurgery, Medical College of  
Wisconsin, USA.



**Prof. Roger J. Narayan**  
Distinguished Professor, Joint Department  
of Biomedical Engineering, University of  
North Carolina and North Carolina State  
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**Prof. Tanveer Tabish**  
BHF Advanced Fellow In Cardiovascular  
Nanomedicine, Radcliffe Department of  
Medicine, University of Oxford, UK.



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Department of Engineering Design  
IIT Madras, Chennai, INDIA.



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Department of Mechanical Engineering  
IISc Bangalore, INDIA.



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Department of Mechanical Engineering  
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**Prof. R. Jayaganthan,**  
Department of Engineering Design  
IIT Madras, INDIA.



**Prof. Renu John**  
Department of Biomedical Engineering  
IIT Hyderabad, INDIA.



**Prof. S. Narayanan**  
Retired Professor  
Department of Mechanical Engineering  
IIT Madras, INDIA.



**Prof. US. Dixit**  
Department of Mechanical Engineering  
IIT Guwahati, INDIA.

## Keynote Speakers



**Prof. Narayan Yoganandan**  
Professor of Neurosurgery and  
Orthopaedic Surgery, Dept. of  
Neurosurgery, Medical College of  
Wisconsin, USA.



**Prof. Roger J. Narayan**  
Distinguished Professor, Joint Department  
of Biomedical Engineering, University of  
North Carolina and North Carolina State  
University, USA.



**Prof. Tanveer Tabish**  
BHF Advanced Fellow In Cardiovascular  
Nanomedicine, Radcliffe Department of  
Medicine, University of Oxford, UK.



**Prof. G.K. Ananthasuresh**  
Department of Mechanical Engineering  
IISc Bangalore, INDIA.



**Prof. G. Saravana Kumar**  
Department of Engineering Design  
IIT Madras, Chennai, INDIA.



**Prof. J. Ramkumar**  
Department of Mechanical Engineering  
IIT Kanpur, INDIA.



**Prof. Renu John**  
Department of Biomedical Engineering  
IIT Hyderabad, INDIA.

## Expert Talks



**Dr. Varadhan S K M**  
Department of Applied Mechanics and  
Biomedical Engineering, IIT Madras, INDIA.



**Dr. Nagarajan Ganapathy**  
Department of Biomedical Engineering  
IIT Hyderabad, INDIA.



**Prof. B. Krishnan**  
Department of Dentistry, JIPMER  
Puducherry, INDIA.



**Dr. Jio Athertya**  
Postdoctoral Scholar, UC San Diego Health  
San Diego, California, USA.



**Dr. V. Prasannavenkadesan**  
Postdoctoral Researcher, Trinity Biomedical  
Sciences Institute, Ireland.



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