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

July 12-13, 2025

Indian Institute of Information Technology, Design and Manufacturing (IIITDM) Kancheepuram, Chennai – 600127 (www.iiitdm.ac.in)

A Centrally Funded Technical Institute under MoE, Govt. of India

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.



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** AI in Manufacturing & Digital Twins Patient Specific Surgical Simulation

Thrust Areas

Medicine

Ĭ

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



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 Ш Industry Delegates || Entrepreneurs||

Dentistry

Oral and Maxillofacial Surgery Advances in Orthodontics Advances in Prosthodontics Advances in Periodontics

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

Registration Fee: Students: 5000 INR



Authors have to submit a one-page abstract of their original, unpublished work using the QR code given.



Abstract Submission

https://forms.gle/GhTXnCEes2kxXcFp7

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

Registration

https://forms.gle/RGPvT9JH2Dbg6SGw7

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

Important Dates

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

Patron



Prof. M.V. Kartikeyan Director and Professor of Electronics and Communication Engineering IIITDM Kancheepuram, Chennai, INDIA



Organizing Chair

Dr. P. Pandithevan Associate Professor Department of Mechanical Engineering IIITDM Kancheepuram, Chennai, INDIA

Committee Members of the Symposium



Prof. Raja B Professor and Head Department of Mechanical Engineering IIITDM Kancheepuram



Prof. Sreekumar M Professor Department of Mechanical Engineering IIITDM Kancheepuram



Prof. Jayabal K Professor Department of Mechanical Engineering IIITDM Kancheepuram



Prof. Jayavel S Professor Department of Mechanical Engineering IIITDM Kancheepuram



Dr. Arulkumar M Associate Professor Department of Mechanical Engineering IIITDM Kancheepuram



Dr. Gowdhaman S Associate Professor Department of Mechanical Engineering IIITDM Kancheepuram

Dr. Kalpana P Associate Professor Department of Mechanical Engineering IIITDM Kancheepuram



Dr. Shahul Hamid Khan B Associate Professor Department of Mechanical Engineering IIITDM Kancheepuram





Dr. Chandrasekhar Machindra Pilgar Assitant Professor Department of Mechanical Engineering IIITDM Kancheepuram

Dr. Karthick S Assitant Professor Department of Mechanical Engineering IIITDM Kancheepuram













Assitant Professor Department of Mechanical Engineering IIITDM Kancheepuram

Dr. Kashful Orra

Dr. Kishor Kumar Gajrani Assitant Professor Department of Mechanical Engineering IIITDM Kancheepuram

Dr. Nagamanikandan Assitant Professor Department of Mechanical Engineering IIITDM Kancheepuram

Dr. Nagaraj M Assitant Professor Department of Mechanical Engineering IIITDM Kancheepuram

Dr. Rino Nelson N Assitant Professor Department of Mechanical Engineering IIITDM Kancheepuram

Dr. Shubhankar Chakraborty Assitant Professor Department of Mechanical Engineering IIITDM Kancheepuram



Dr. Senthilkumaran K Associate Professor Department of Mechanical Engineering IIITDM Kancheepuram



Dr. Timmaraju Mallina Associate Professor Department of Mechanical Engineering IIITDM Kancheepuram



Dr. Avinash Kumar Seth Assitant Professor Department of Mechanical Engineering IIITDM Kancheepuram





Dr. Sivaprasad AVS Assitant Professor Department of Mechanical Engineering IIITDM Kancheepuram

Dr. Venkatramani J Assitant Professor Department of Mechanical Engineering IIITDM Kancheepuram



Dr. Vikas Kumar Assitant Professor Department of Mechanical Engineering IIITDM Kancheepuram

National & International Advisory Committee

Keynote Speakers

Professor

Neurosurgery,

Wisconsin, USA

Distinguished

Prof. Narayan Yoganandan

of

Prof. Roger. J. Narayan

Carolina State University, USA.

Orthopaedic Surgery, Department of

Department of Biomedical Engineering University of North Carolina and North

Medical

Professor,

Neurosurgery and

College of

Joint



Prof. Narayan Yoganandan Professor Neurosurgery of and Orthopaedic Surgery, Department 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. Ananthasuresh GK Professor Department of Mechanical Engineering IISc Bangalore, INDIA.



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



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



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



Prof. Pulak M. Pandey Professor Department of Mechanical Engineering IIT Delhi, INDIA.



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







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



Prof. Ananthasuresh GK Professor Department of Mechanical Engineering IISc Bangalore, INDIA.



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



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



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



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



Expert Talks

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

Prof. Renu John

Professor Department of Biomedical Engineering IIT Hyderabad, INDIA.



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



For further details contact: +91 9797002844/+919633388592 Email: ppthevan@iiitdm.ac.in https://shorturl.at/SOVD3



Dr. Varadhan S K M

Associate Professor **Department of Applied Mechanics** and Biomedical Engineering IIT Madras, INDIA.



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



Dr. Prasannavenkadesan V Postdoctoral Researcher **Trinity Biomedical Sciences Institute** IRELAND.