

About IIITDM Kancheepuram

Indian Institute of Information Technology Design and Manufacturing Kancheepuram (IIITDM Kancheepuram) is a Centre of Excellence for technical education and research established in 2007 by the Ministry of Education, Government of India to pursue design and manufacturing oriented engineering education and research and to promote the competitive advantage of Indian products in global markets. The institute offers academic and research programs that integrate engineering design, manufacturing and management with information technology. The institute offers undergraduate and postgraduate programs which focus on IT, design and manufacturing in engineering sectors. The institute is located on a 51 acre campus on the outskirts of Chennai, off the Vandalur-Kelambakkam road.

It is a fully residential campus with all students residing within the campus.. The institute offers UG and PG programs in the areas of Computer Science, ECE, Mechanical Engineering, and interdisciplinary Ph.D. programs in core and applied areas of basic sciences and humanities (Physics, Mathematics, Biomedical, Biotechnology, and English) and engineering.

About CSE Department

Department of Computer Science and Engineering (CSE) offers design centric programmes such as B.Tech (CSE), B.Tech(CSE with Major in AI), Dual Degree (DD) programmes (B.Tech in CSE and

M.Tech in CSE), M.Tech.(CSE with Specialization in Data Science and Artificial Intelligence) and Ph.D in various research areas in computer science. The department has enthusiastic students numbering around 550 which includes B.Tech, DD students, M.Tech and Ph.D scholars. There are 20 faculty members who are actively involved in research in areas such as knowledge engineering, machine learning, IOT, high performance computing, VLSI architectures, biometrics, image processing, and theoretical computer science.

Registration

Participants interested to attend this program should register online using the following link:

<https://forms.gle/2jf79bu5sMENwbFn8>

Payment link:

<https://www.onlinesbi.sbi/sbicollect/icollecthome.htm?corpID=634626>

Payment category: **AIIP**

Last date of registration: **18-06-2025**

Course Registration fee **is 543 Rs Including GST** for all the participants.

Resource Persons

The course content will be delivered from a pool of resource persons on the subject from leading prestigious academic institutions including IITs, NITs, IIITDM and others.

One Week Workshop on AI Powered Image Processing: Techniques and Applications

(Physical Mode)

23rd – 28th June 2025



Organized by

**Department of Computer Science
and Engineering**

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

**Kancheepuram,
Chennai, India-600127**

www.iiitdm.ac.in

About the Workshop

In today's fast-paced digital world, artificial intelligence (AI) and machine learning (ML) are no longer confined to research laboratories or tech giants—they are at the core of many modern innovations that shape our daily lives. From personalized recommendations on streaming platforms to advanced medical diagnosis systems and intelligent virtual assistants, AI has established itself as a cornerstone of progress. At the heart of this revolution lies deep learning, a powerful subset of machine learning that mimics the way the human brain processes data and makes decisions.

Deep learning algorithms, particularly those based on neural networks, have brought about remarkable breakthroughs in areas such as image recognition, natural language processing (NLP), and autonomous driving. As industries increasingly rely on data-driven insights, there is a growing demand for skilled professionals who understand the theory behind deep learning and can apply it to solve complex, real-world problems. Recognizing this need, the Deep Learning Workshop was conceived as an intensive, hands-on learning experience tailored for students, researchers, and professionals from various disciplines. The primary objective was to provide participants with a solid foundation in deep learning concepts and enable them to implement practical solutions using modern tools and frameworks.

Topics Covered

The Deep Learning Workshop will offer a well-rounded introduction to both the theory and practice of deep learning. It will begin with core concepts such as artificial neural networks, activation functions (ReLU, sigmoid), loss functions (MSE, cross-entropy), and optimizers like SGD and Adam. Participants will learn to build and train deep neural networks using TensorFlow and PyTorch, working with datasets such as MNIST and CIFAR-10. The workshop will explore Convolutional Neural Networks (CNNs) for image processing and Recurrent Neural Networks (RNNs), including LSTMs and GRUs, for sequential data. Advanced topics such as Generative Adversarial Networks (GANs) and Transformers will be briefly introduced.

Important Dates

Last date for Applications : 18-06-2025
Intimation of Selection : 19-06-2025
Confirmation of Participation : 19-06-2025

Chief-Patron

Prof. M.V. Kartikeyan

Director, IIITDM Kancheepuram

Patron

Prof. S. Jayavel

Dean-SRICCE, IIITDM Kancheepuram

Prof. Sivaselvan B

HOD, CSE, IIITDM Kancheepuram

Information for Participants

- The proposed workshop is meant to support motivated PG and Ph.D. level students, and faculty members who are having a strong willingness to get excellence in the area of image processing and deep learning.
- The workshop will be conducted in face-face mode. Participants willing to participate in this workshop should have the provision to stay within the institute premises and accommodation will be provided on payment basis.
- **Course Registration fee is 543 Rs Including GST** for all the participants.
- **Seats are limited (only 50)** and the participants are selected by organizers on a first come first.
- Shortlisted candidates will be informed through their email.
- Upon completion of the course, an objective/quiz-based assessment of all participants will be done.
- TA will not be provided to the participants.
- Participants will be graciously provided with a working lunch.

Workshop Coordinator

Dr. Jagadeesh kakarla

Assistant Professor

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