

## Organising Committee:

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### **Convener**

**Dr. J. Umarani, Assistant Professor (CSE)**  
IIITDM Kancheepuram, Chennai

### **Co-Convener(s)**

**Dr. B. Sivaselvan, Associate Professor (CSE) IIITDM**  
Kancheepuram, Chennai

**Dr. Rahul Raman, Assistant Professor (CSE) IIITDM**  
Kancheepuram, Chennai

## About KARYASHALA Workshop

'KARYASHALA' is an effort to improve the research productivity of promising PG and Ph.D. students from universities and colleges through high-end workshops on specific themes. This program aims to provide opportunities to acquire specialized research skills. These workshops will primarily be facilitated at organizations/institutions/ laboratories of national importance such as IITs, IISc, IISERs, NITs, CSIR, ICAR, ICMR, etc. 'KARYASHALA' is aimed to provide hands-on experience to students primarily from universities, colleges, private academic institutions, and newly established institutes in handling/troubleshooting high-end scientific instruments and such skill development on themes required for research work. The program is meant to support motivated PG and Ph.D. level students, who are having a strong willingness to get excellence in their scientific and engineering research pursuits. However, the support will not be directly provided to the beneficiaries, but through the Event Organizers applying for and coordinating these events on behalf of SERB.

## About Centre for Computer Vision and Machine Learning (CVML):

CVML undertakes application-oriented research, design, and development in computer vision, so as to generate state-of-the-art research in computer vision and its applications using tools such as machine learning and deep learning. The Computer Vision group has wide experience in developing successful research with products/systems/algorithms, and a very good industry interaction by way of transfer of technology, field implementation, etc. It has a very close association with reputed academic institutions like IISc, IITs, NITs, etc. CVML has contributed significantly to the growth of the research and institute by producing quality research scholars and PG/UG students. Faculties are from reputed institutions who are having excellent teaching, research experience, industry collaboration, outreach activities, consultancy.

## About IIITDM, Kancheepuram:

The course will be organized by the Department of Computer Science and Engineering (CSE), Indian Institute of Information Technology Design & Manufacturing (IIITDM Kancheepuram), Chennai. It is a Centre of Excellence for technical education and research established in 2007 by the Ministry of Human Resource Development, Government of India. It is designed to pursue design and manufacturing-oriented engineering education and research and for promoting the competitive advantage of Indian products in global markets. The institute is located on a 51-acre campus on the outskirts of Chennai, off Vandalur- Kelambakkam road. The Institute is presently offering UG, PG, and Ph.D. programs in Computer Engineering, Electronics and Communication Engineering, and Mechanical Engineering. [www.iiitdm.ac.in](http://www.iiitdm.ac.in)

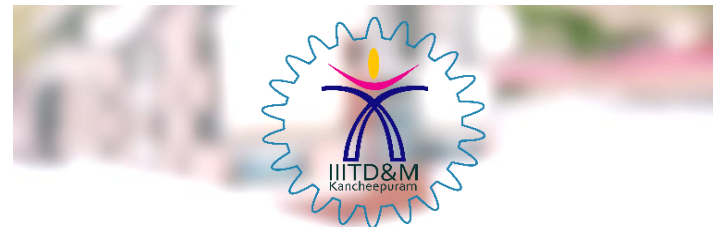
## About the Department of CSE:

The Department of Computer and Engineering was started in 2008 with 30 students in the undergraduate program. Now, our strength is 452 out of which we have 15 faculty members, 5 technical staff, and 427 students. In addition to the UG course, the department runs the dual degree program, PG course, and Ph.D. program in different areas of specialization. The department of CSE offers an IT-enabled design and manufacturing-based curriculum that helps the students to promote their problem-solving skills and innovate new technologies. The department offers interdisciplinary courses and projects for providing cross-cutting knowledge to the students to pursue their interests.

## **SERB sponsored KARYASHALA (workshop) on Deep Learning for Biometrics Privacy and Security (DLBPS'23)**

**(Physical Mode)**

**19-25, June 2023**



### Organized by

**Department of Computer Science and Engineering  
Indian Institute of Information Technology, Design and  
Manufacturing, Kancheepuram, Chennai – 600127.**



**With Support of  
ACCELERATE VIGYAN  
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## About the Workshop:

With a very security-conscious society, biometrics-based authentication and identification have become the center of focus for many important applications as it is believed that biometrics can provide accurate and reliable identification. Biometrics research and technology continue to mature rapidly, driven by pressing industrial and government needs and supported by industrial and government funding. This workshop is intended to be positioned at the frontier of biometrics research and showcase the most excellent and advanced work underway at academic and private research organizations as well as government labs. The workshop is focused on the history and Overview of Biometrics, Applications of Biometrics and Future Trends; Image Processing for Biometric Applications; Biometrics as a Pattern Recognition System; Biometric System Modalities such as Face Recognition, Fingerprint Recognition, Iris Recognition, Palmprint recognition, Ocular Recognition, Gait Recognition, Additional Biometric Traits; Biometric System Design and Performance Evaluation; Multi-modal Biometric Systems; Biometric Security in Privacy and Ethical Issues.

## Topics:

- Introduction to Biometrics
- Human Recognition in 2D and 3D Images
- CVML Basic for Biometrics
- **Physiological Biometrics**
- Fingerprint Recognition
- Face Recognition- Visible, Near Infrared, and Thermal
- Heterogeneous Face Recognition
- Iris Recognition- Visible, Near Infrared
- Palmprint Recognition
- Human Recognition from Ocular Images
- **Behavioural Biometrics**
- Gait Biometrics.
- **Advanced Biometrics**
- 3D Biometrics
- Animal Biometrics Identification
- **Multimodal Biometrics**

## Resource Persons:

Faculty members/Scientists from IITs, NITs IIITDM, and R&D organizations.

## Who Can Attend:

The program is meant to support motivated **PG, PhD and UG 4th-year level students**, who are having a strong willingness to get excellence in their scientific and engineering research pursuits.

## How can Apply?:

The participants are requested to register online by using the following link:

<https://forms.gle/ssqYjMc9BwNcfGsF6>

**Last date for registration: 10 June 2023**

**Short-listed candidates shall be intimated via email on or before 15 June 2023**

## Selection Process:

- Based on the applicant profile merit
- Candidates with prior research exposure, area match, and performance in national-level exams will be prioritized
- Consistent Good Academic Record

## Biometric Traits:



Practice sessions will be conducted to test drive the topics mentioned in Keras, TensorFlow, and other deep learning open-source tools.

## Workshop Details

- **Duration:** June 19 to 25 2023 (7 days)
- **Place of Workshop:** IIITDM Kancheepuram, Chennai
- **Required Number of Participant:** 25
- **Reporting Date for Selected Candidates:** June 18, 2023
- **Support for travel reimbursement as per the norms of SERB-AV KARYASHALA**
- **Boarding and Lodging Expenditures and other expenditures incurred as part of the workshop shall be supported as per the Scheme Approval of SERB –AV KARYASHALA.**
- **A certificate will be provided to the participant after the successful completion of the event**

## For any Query Feel Free to Contact:

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## For further assistance:

### **Mr. Sukesh Babu**

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