



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



Welcome to the Department of Computer Science and Engineering at IIT Madras. IIT Madras was ranked first amongst several other similar Research and Teaching institutions in Engineering, for the continuous seventh time in the 2022 edition of National Institute Ranking Framework established by the Ministry for Human Resources Development (MHRD), the Government of India. IIT Madras was ranked amongst the top 50 Asian Universities in the QS rankings 2018.

The Department started as the Computer Centre in 1973 with the acquisition of an IBM 370 Computer. It presently offers B. Tech., dual-degree B.Tech./ M.Tech., M.Tech., M.S., Ph.D. degree programmes. A dual-degree B.Tech/M.Tech. program in data science, open to all B.Tech. students of IIT Madras, has been started from Jan. 2018.

The department has a vibrant student body numbering around 700 and faculty numbering nearly 35. About 60% of students are postgraduates, mostly supported by government of India scholarships and research projects. The Departments also offers



Prof. V. Krishna Nandivada
Head of the Department



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several attractive industry-sponsored fellowships for outstanding Ph.D. scholars.

The vision of the CSE Department is Global Excellence and Local Relevance in Research, teaching, and technology development in Computer Science and Engineering. In pursuit of this vision, the Department is actively engaged in research activities in various research areas.

The Department's research activities have been funded by several Government organizations such as Department of Science & Technology (DST), Ministry Of Electronics & Information Technology (MeiTY), and Defence Research and Development Organisation (DRDO); and by several industries. Several of our alumni hold important positions in the industry and academia worldwide. Students have been recently placed, both in India and abroad, in several leading national and international companies.

Programmes (M.Tech.)

- Computer Science and Engineering

Research areas

Computer Systems

- Computer Architecture
- VLSI Design
- Computer Networks
- Programming Languages and Software Engineering
- Distributed Systems and Blockchains
- Object Oriented Systems
- High Performance Computing & Parallelization
- Computer Network Security

Intelligent Systems and Human Computer Interaction

- Machine Learning
- Artificial Intelligence
- Speech Processing
- Pattern Recognition
- Image Processing





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- Information Management
- Computational Brain Research
- Data Mining
- Computational Biology

Theoretical Computer Science

- Design and Analysis of Algorithms
- Computational Complexity Theory
- Cryptography and Cybersecurity
- Combinatorics and Graph Theory
- Distributed Algorithms and Distributed Trust

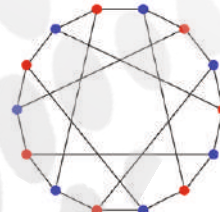
Research Labs and Centres

- AI4Bharat
- Artificial Intelligence and Databases (AIDB) Lab
- Bioinformatics and Integrative Data Science (BIRDS) Lab
- Blockchain Research Lab
- Centre for Computational Brain Research -- Electro Encephalogram (CCBR-EEG) Lab
- Centre for Computational Brain Research (CCBR)
- Computer Vision Lab
- Cryptography Cybersecurity and Distributed Trust (CCD) Lab
- Distributed and Adaptive Wired/Wireless Networks (DAWN) Lab
- Distributed and Object Systems (DOS) Lab
- High Performance Computing and Networking (HPCN) Lab
- Machine Learning Theory (MALT) Lab
- Prathap Subrahmanyam Centre for Digital Intelligence, Secure Hardware and Architecture (PSC-DISHA)
- Programming Languages, Architecture, and Compilers Education (PACE) Lab
- Reconfigurable and Intelligence Systems (RISE) Lab
- Reinforcement learning and stochastic optimization Lab
- Research in Algorithms & Graphs (RANg) Lab
- Robert Bosch Centre for Data Science and Artificial Intelligence (RBCDSAI)
- Sensing and Networked Systems Engineering (SENSE) Lab

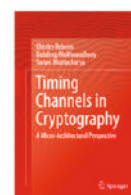
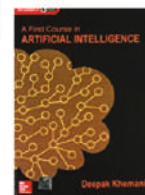
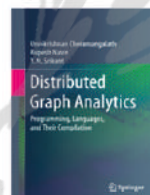
INDIAN INSTITUTE OF TECHNOLOGY MADRAS



CENTER FOR COMPUTATIONAL BRAIN RESEARCH



Bioinformatics and Integrative
Data Science (BIRDS)





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- Speech, Music and Vision (SMV) Lab
- Theory of Computing (ToC) Lab
- Visualization and Perception (VP) Lab

Visit us at
<https://cse.iitm.ac.in/>



Faculty

Shweta Agrawal
Akanksha Agrawal
John Augustine
Sutanu Chakraborti
Ayon Chakraborty
Sukhendu Das
Harish Guruprasad
D. Janakiram
V. Kamakoti
Mitesh Khapra
Nishad Kothari
P. Sreenivasa Kumar
Chandrashekar Lakshminarayanan
Anurag Mittal
C. Siva Ram Murthy
Madhu Mutyam

Kartik Nagar
V. Krishna Nandivada
Manikandan Narayanan
N.S. Narayanaswamy
Meghana Nasre
Rupesh Nasre
L A Prashanth
Arun Rajkumar
B. V. Raghavendra Rao
Balaraman Ravindran
Chester Rebeiro
Jayalal Sarma
C. Chandra Sekhar
Krishna Moorthy Sivalingam
Aishwarya Thiruvengadam
Yadu Vasudev

Visiting/Adjunct/ Other Faculty

Hema A. Murthy
Partha Mitra
Mriganka Sur
Sarath Chandar
Pratyush Kumar
Anoop Kunchukuttan
KC Sivaramakrishnan
Raj Dabre
Valerie King
Bruce M. Kapron
Shay Kutten