Dharwad

ज्ञानेन विकासः

M.Tech in Computer Science & Engineering

Specializations: AI & ML | Cloud Computing | Cybersecurity

A rigorous postgraduate journey focused on advanced computing, software systems, and research-oriented engineering.

2 years | Live Interactive Online Sessions

About IIIT Dharwad

The Indian Institute of Information Technology Dharwad (IIIT Dharwad), recognized as an Institute of National Importance, is at the forefront of India's technology education and research landscape. Located in the educational and innovation hub of Hubballi-Dharwad, the institute is redefining how technology drives learning, research, and societal impact. With a commitment to academic excellence, research-driven education, and strong industry collaboration, IIIT Dharwad nurtures a new generation of engineers and researchers equipped to lead the digital revolution. Its modern infrastructure, dynamic learning environment, and vibrant campus culture foster creativity, curiosity, and collaboration among students, empowering them to innovate and excel in a rapidly evolving technological world.

Guided by its vision to be a globally renowned academy of information technology for societal development, IIIT Dharwad integrates ethical values, interdisciplinary learning, and global perspectives across all programs. The institute's mission is to produce globally competent technology professionals who combine deep technical expertise with ethical, societal, and environmental awareness, while addressing local and global challenges through innovative, interdisciplinary solutions.

IIIT Dharwad is recognized for its strong research ecosystem, with ongoing projects in Artificial Intelligence, Cybersecurity, and the Internet of Things (IoT). The institute boasts dedicated research centers, cutting-edge laboratories, and collaborations with leading global technology firms, providing students with opportunities to engage in applied research and innovation. An upcoming Tech Park and Startup Incubation Centre will further strengthen entrepreneurship and real-world problem-solving opportunities for students and researchers.

Beyond academics, IIIT Dharwad offers a vibrant and holistic campus life. Students actively participate in clubs, societies, and annual technical and cultural fests, which foster leadership, teamwork, and creativity. Modern facilities, including hostels, digital libraries, laboratories, and sports complexes, support personal growth and enrich the overall learning experience. Through this integrated ecosystem of excellence, research, and innovation, IIIT Dharwad empowers students to transform ideas into impact and prepares them to become leaders shaping the future of technology.

About The Program

The M.Tech in Computer Science & Engineering is a two-year postgraduate programme designed for learners seeking advanced expertise in computer science, software engineering, and applied research. The programme blends strong theoretical foundations, advanced computing laboratories, research-driven learning, and industry-aligned projects to prepare graduates for complex technical challenges across computing domains. Through a structured elective framework, learners gain exposure to emerging areas within computer science while graduating with a robust and versatile M.Tech degree.

Who this program is ideal for

- Working professionals and graduates aiming to advance their expertise in Computer Science & Engineering
- Software engineers, system developers, and technology professionals seeking deeper technical capabilities
- Learners interested in research-oriented postgraduate education
- Professionals planning to move into advanced technical, system-level, or research-focused roles

Key Program Details

Duration
2 Years

Mode
Online

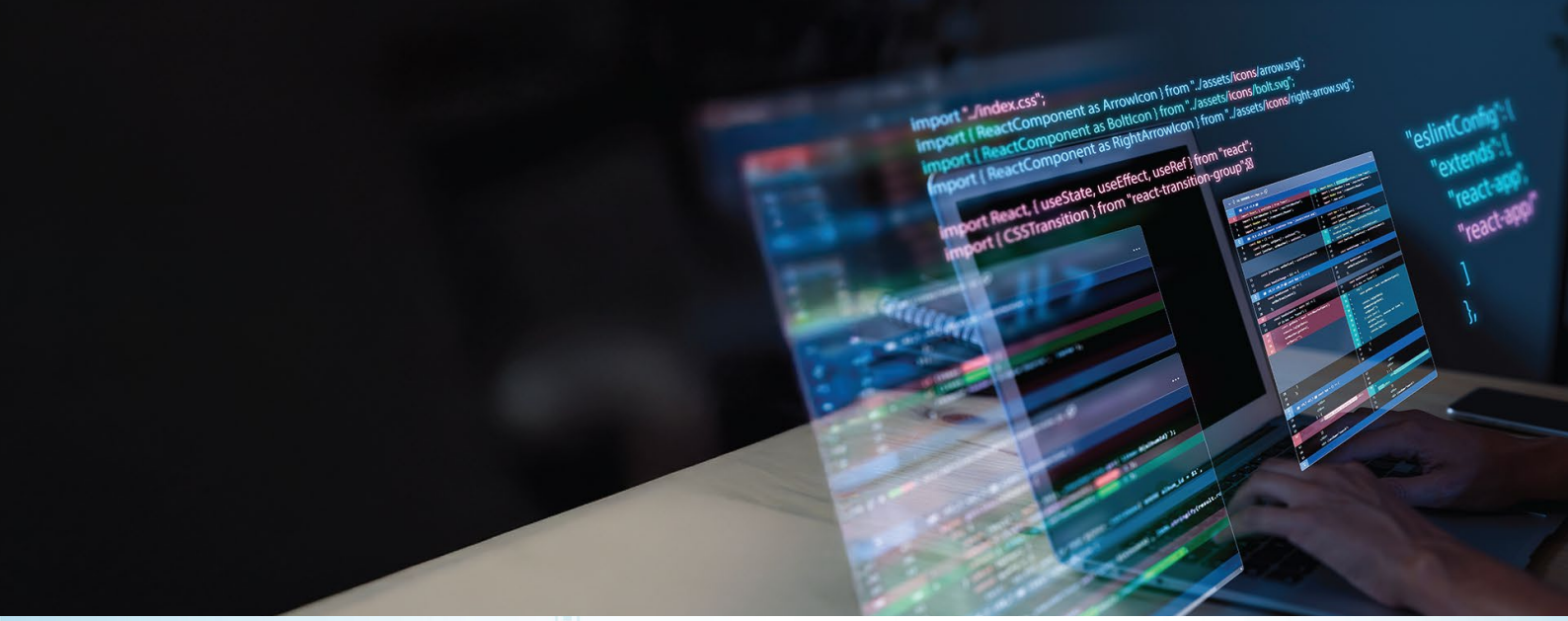
Course Fees
₹ 88,500 Per Semester
Easy EMI Options are Available

Campus Immersion
Immersive Campus Experience after every Semester

Eligibility

1. **Educational Qualification :**
   - Any Graduate with a background in B.Tech / B.E., M.Sc., or M.C.A.

2. **Academic Performance:**
   - General / OBC category - Minimum CGPA/CPI: 6.5 on a 10-point scale, or Minimum aggregate percentage: 60%.
   - SC / ST / PwD category - Minimum CGPA/CPI: 6.0 on a 10-point scale, or Minimum aggregate percentage: 55%.



Why Choose IIIT Dharwad?

Prestigious M.Tech Degree
Earn an M.Tech in Computer Science & Engineering from an Institute of National Importance.

Advanced Curriculum
Study core and advanced computer science subjects supported by research-driven learning and applied projects.

Elective Choice
Students may select electives from emerging areas such as Artificial Intelligence & Machine Learning, Cybersecurity, Cloud Computing, and advanced systems, subject to availability.

Campus Immersion
A seven-day on-campus immersion providing academic engagement and peer interaction.

Capstone Project
Apply advanced computing concepts to real-world engineering problems through a research-oriented capstone.

Distinguished Faculty
Learn from experienced IIIT Dharwad faculty and industry practitioners.

Alumni Recognition
Become part of the IIIT Dharwad alumni network.

Programme Module

Sl. No	Course Type	Course Name	Credit
		SEM 1	
1	DisCore	**Applied Mathematics for Computer Science**	3
		Unit 1: Linear Algebra Unit 2: Optimization Unit 3: Probability and Stochastic Process	
2	DisCore	**Advanced Data Structures and Algorithms**	3
		Unit 1: Growth Functions Unit 2: Trees Unit 3: Graph Algorithms Unit 4: Algorithm Design Strategies Unit 5: Complexity Classes	
3	DisCore	**Programming Paradigms Lab**	2
		Unit 1: Procedural Programming Unit 2: Object-Oriented Programming (OOP) Unit 3: Functional Programming Unit 4: Concurrent & Parallel Execution Unit 5: Declarative and Logic Programming Unit 6: Scripting & Automation	
4	Elective	**Introduction to AI/ML**	1
		Unit 1: Introduction to AI Unit 2: Problem Solving using Search Unit 3: Knowledge Representation Unit 4: Introduction to Machine Learning Unit 5: Supervised Learning Unit 6: Unsupervised Learning Unit 7: Applications of AI & ML	

5	Elective	**Introduction to Cybersecurity**	1
		Unit 1: Introduction to Cybersecurity Unit 2: Identity & Access Management Unit 3: Standards & Regulations	
6	Elective	**Introduction to Cloud Computing**	1
		Unit 1: Introduction to Cloud Computing Unit 2: Cloud Service Models and Deployment Models	
7	Master's Core	**Introduction to Research**	2
		Unit 1: Introduction Unit 2: Literature Review Unit 3: Research Exploration Unit 4: Patenting and Publications Unit 5: Presentation, Report and Thesis Writing Unit 6: Conclusions and Future Scope Unit 7: Principles & Ethics in Research	
8	Project	**Project-I**	3
		Total	15
SEM 2			
9	DisCore	Advanced Computing Lab	2
10	Master's Core	Literature Review and Seminar	2
11	Elective	Electives (1/2/3/4 credits)	5
12	Project	Project-II	6
		Total	15
SEM 3			
13	Project	Project-III	9
14	Elective	Electives (1/2/3/4 credits)	6
		Total	15
SEM 4			
15	Project	Project-IV	12
16	Elective	Electives (1/2/3 credits)	3
		Total	15
		Total Program Credits	60

Specializations Offered

Sl. No	AI & ML Specialization - Topics	Cybersecurity Specialization - Topics	Cloud Computing Specialization - Topics
1	Generative AI	Computer System Security	Distributed and Parallel Systems
2	Natural Language Processing	Security in Cloud Computing	Security in Cloud Computing
3	Deep Learning	AI for Cybersecurity	Site Reliability Engineering in Cloud Computing
4	Computer Vision	Biometric Security and Forensics	Biometric Security and Forensics
5	Graph Neural Networks	Forensic Data Recovery	Big Data Systems
6	Agentic AI	Deep Learning	Edge AI
7	Reinforcement Learning	Dev Sec Ops	High Performance Computer Architecture
8	Explainable AI (XAI)		
9	Robotics and AI		
10	AI for Financial Analytics		
11	Deep Speech Processing		
12	AI for Healthcare Data Analytics		

Alumni Privileges

Students will receive an official Institute Email ID and ID card, and will be eligible to participate in institute events and activities. Upon completion, they become part of the institute's alumni network.

Assessment & Evaluation

Students will be evaluated through a combination of **quizzes, assignments, case studies, and end-term examinations.** These diverse assessment methods ensure continuous learning and a well-rounded understanding of the subject.

Tools you'll Master

TensorFlow · Keras · PyTorch · WIRESHARK

Azure · git · GitLab · Jenkins · kubernetes

aws · scikit learn · jupyterlab

*Tool exposure varies by specialization; students may not work with all tools listed.

Programme Structure

7 Days
On-Campus Immersion

5 Program Modules
(including a seven day on-campus immersions)

Each module incorporates real-world projects, allowing participants to apply concepts in real-world domains.

Pedagogy & Delivery

The program follows a blended learning approach, combining multiple instructional methods to enhance learning outcomes:

Interactive Live Sessions

Engage with faculty and peers through discussions, Q&A, and case study analysis.

Self-Paced Learning

Access recorded lectures, readings, and practice exercises to reinforce concepts.

Experiential Learning

Apply knowledge through projects, simulations, and hands-on assignments.

Collaborative Activities

Participate in group exercises, peer learning, and forums to foster teamwork and practical understanding.

Attendance Policy

Participants are required to maintain a minimum of 75% attendance to successfully complete the program, structured as follows:

60% Synchronous Attendance: Participation in live lectures, discussions, and interactive sessions.

15% Asynchronous Engagement: Completion of recorded content and self-paced learning activities.

Program Objectives

Build strong foundations in advanced computer science and engineering concepts relevant to modern computing systems.

Develop the ability to design, analyze, and implement scalable software and system-level solutions.

Strengthen research aptitude through literature review, experimentation and project-based learning.

Enable learners to apply advanced computing techniques across diverse technical and industry contexts.

Foster ethical, responsible, and professional engineering practices in technology development.

Prepare graduates for advanced technical roles, system design responsibilities, and research-oriented career pathways

Learning Outcomes

- Design and implement advanced software and computing solutions using appropriate engineering methodologies.
- Apply core computer science principles and advanced computing techniques to solve complex technical problems.
- Conduct research-driven analysis, including literature review, experimentation, and project documentation.
- Work with modern computing platforms, development tools, and system architectures.
- Translate academic learning into practical outcomes through semester projects and a final capstone.
- Develop focused expertise in a chosen computing domain through elective coursework and project work, enabling deeper specialization aligned with individual career goals and industry interests.
- Collaborate effectively in multidisciplinary and professional engineering environments.

Fee Structure

Application Fee: ₹ 2,000
Program Fee (Inclusive of Application Fee) : ₹ 3,56,000

Semester	I	II	III	IV	Total
Fee	88500	88500	88500	88500	**354000**

*Easy EMI Options are Available

*The application fees is strictly non-refundable and non-transferable.

Refund Policy

A refund is applicable after a deduction of 10000 before commencement of the batch, provided the course material has not been accessed or downloaded.

No refund will be provided on or after the batch commencement date

Program Certificate

Admission Process

1. Fill the application form
And pay the application fee

2. Appear for an interview round

3. If selected,
you will receive the offer letter

4. Pay the Programme fees and
confirm your admission

Program Director

Dr. Sunil Kumar P V
Assistant Professor

Indian Institute of Information Technology, Dharwad

Dr. Sunil Kumar P V is an accomplished academician and researcher in the field of Computer Science and Engineering, with a specialization in Machine Learning for Bioinformatics. He completed his PhD from NIT Calicut and has over 15 years of experience in teaching, research, and industry collaboration. Currently serving as an Assistant Professor at Indian Institute of Information Technology, Dharwad, Dr. Sunil has previously held faculty positions at CMR Institute of Technology, Vellore Institute of Technology, MES College of Engineering, and MEA Engineering College. He has published extensively in peer-reviewed journals and international conferences and has delivered numerous invited lectures and workshops on advanced computing, AI, and bioinformatics. With strong expertise in AI, ML, data analytics, and computational biology, he brings a rich blend of research excellence, teaching acumen, and industry engagement to lead and inspire the next generation of technology professionals.

Program Faculty

Dr. Abdul Wahid
Assistant Professor

Computer Science & Engineering
Ph.D. (IIT Dhanbad)

Dr. Animesh Roy
Assistant Professor

Computer Science & Engineering
Ph.D. (IIEST)

Dr. Dibyajyoti Guha
Assistant Professor

Computer Science & Engineering
Ph.D. (IIT Bhubaneswar)

Dr. Girish G N
Assistant Professor

Computer Science & Engineering
Ph.D. (NITK)

Dr. Krishnendu Ghosh
Assistant Professor

Computer Science & Engineering
Ph.D. (IIT Kharagpur)

Dr. Malay Kumar
Assistant Professor

Computer Science & Engineering
Ph.D. (NIT Raipur)

Dr. Milind Chabbi
Professor of Practice

Computer Science & Engineering
Rice Univeristy

Dr. Pavan Kumar C
Assistant Professor

Computer Science & Engineering
Ph.D. (VIT Vellore)

Dr. Prabhu Prasad B M
Assistant Professor

Computer Science & Engineering
Ph.D. (NITK Surathkal)

Dr. Pramod Yelmewad
Assistant Professor

Computer Science & Engineering
Ph.D. (NITK Surathkal)

Dr. Shrinivas Kulkarni
Professor of Practice

Computer Science & Engineering
PhD - University of Edinburgh

Dr. Sunil C K
Assistant Professor

Computer Science & Engineering
Ph.D. (NITK Surathkal)

Dr. Sunil Kumar P V
Assistant Professor

Computer Science & Engineering
Ph.D. (NIT, Calicut)

Dr. Suvadip Hazra
Assistant Professor

Computer Science & Engineering
Ph.D. (NIT Durgapur)

Dr. Vivekraj V K
Assistant Professor

Computer Science & Engineering
Ph.D. (IIT Roorkee)

Prof. Rajesh Vasa
Adjunct Professor

Computer Science & Engineering
PhD - Swinburne Univ. of Technology

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