



DAYANANDA SAGAR
UNIVERSITY

SCHOOL OF ENGINEERING

Department of Computer Science & Engineering
(Artificial Intelligence & Machine Learning)

♦ MASTER OF TECHNOLOGY

CSE (AI & ML)

Build intelligent systems. Create responsible AI solutions.
Shape the future of computing.

2

YEARS

4

SEMESTERS

80

CREDITS

Deep Learning

Generative AI

Computer Vision

MLOps

Responsible AI

An advanced, industry- and research-oriented postgraduate programme

The M.Tech. in Computer Science and Engineering (Artificial Intelligence & Machine Learning) is designed to develop expertise in modern computing, Artificial Intelligence and Machine Learning. The programme combines strong foundations in algorithms, advanced computing and machine learning with hands-on learning in Deep Learning, Computer Vision, Generative AI, MLOps, Responsible AI and emerging intelligent systems.

With laboratory-integrated courses, choice-based professional electives, research seminars, a two-phase capstone project and industry/research exposure, students are prepared to design scalable, secure and responsible AI-driven solutions for complex real-world challenges.

◆ WHY CHOOSE THIS PROGRAMME?



Future-focused AI & ML curriculum

Advanced ML, Deep Learning, Computer Vision, Generative AI, MLOps and Responsible AI.



Strong computing foundation

Advanced Algorithms, Networking & Security, and Mathematics for Machine Learning.



Hands-on, project-based learning

Integrated core courses combine theory, laboratory practice and application-oriented projects.



Choice-based specialization

Electives across language AI, robotics, autonomous systems, visual computing, trustworthy AI and data security.



Research & innovation pathway

Research Methodology & IPR, seminars and a two-phase capstone project.



Industry / research exposure

Structured on-the-job training through an Industry / Research Internship.

Curriculum highlights — a connected path from foundations to research

I – II

III – IV

Semesters I & II

Advanced Computing & AI/ML Foundations

Mathematics for Machine Learning

Advanced Networking & Security

Advanced Machine Learning

Advanced Algorithms

Responsible AI

Research Methodology & IPR

Image Processing & Computer Vision

Deep Learning

Generative AI

MLOps for Enterprises

Choice-based Professional Electives

Semesters III & IV

Specialization, Research & Industry Integration

Advanced Electives

Advanced professional electives across emerging AI and computing domains.

Capstone Project — I & II

Sustained research, innovation or product development across two phases.

Industry / Research Internship

Focused engagement with current, industry-relevant problems.

Publications & Innovation

Research publications, patent-oriented work, hackathons and tech demos.

Explore emerging AI domains



Language AI & Intelligent Interaction

Conversational AI, spoken language understanding, multimodal & multilingual language perception, LLM-based AI applications.



Robotics & Autonomous Intelligence

Multi-Agent AI Systems, Robot Operating Systems (ROS), foundation models for robotics, autonomous planning & reasoning agents.



Visual Computing & Intelligent Imaging

Visual computing and graphics, computational imaging and reconstruction, intelligent video surveillance.



Trustworthy & Secure AI

Responsible AI, ethics, safety and governance of agentic AI, blockchain for data security.



Advanced & Sustainable AI

Accelerated computing, deep learning for science and engineering, and scalable intelligent systems.

Distinctive features of the programme



Research-oriented curriculum

Research Methodology & IPR, seminars and capstone projects.



Integrated theory + laboratory learning

Delivered through professional core courses.



Generative & Agentic AI exposure

Transformers, LLMs, prompt engineering, RAG and intelligent agent workflows.



Responsible & trustworthy AI

Emphasis on fairness, explainability, privacy, robustness, safety and governance.



NVIDIA-aligned learning exposure

Selected contemporary AI and accelerated-computing learning resources.



Two-phase capstone project

Supports sustained research, product development and real-world problem solving.



Industry / Research Internship

Strengthens professional competence and employability.



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Shape the future of computing.**

Career opportunities

Graduates are prepared for advanced technical, research and innovation roles across technology companies, AI-driven enterprises, startups, R&D organizations and academic institutions.

AI Engineer / ML Engineer

Data Scientist

Deep Learning Engineer

Computer Vision Engineer

NLP / Conversational AI Engineer

Generative AI / LLM Application Engineer

MLOps Engineer

AI Research Associate / Research Engineer

AI Solutions / Cloud AI Integration Specialist

AI Product Developer / Technology Innovator

HIGHER EDUCATION & RESEARCH PATHWAYS



The programme provides a strong foundation for doctoral studies, advanced research and academic careers. Graduates may pursue Ph.D. opportunities at leading national and international institutions or contribute to research laboratories, universities and innovation-driven organizations.

Sectors with AI & ML opportunities

● Information Technology & Software Services

● Healthcare & Bioinformatics

● Banking, Finance & FinTech

● Robotics & Autonomous Systems

● Smart Manufacturing (Industry 4.0/5.0)

● Cybersecurity & Data Security

● Cloud & AI Infrastructure

● Smart Mobility & Intelligent Transportation

● Research & Development

● Higher Education & Academia

◆ WHAT WILL YOU GAIN?

✓ Advanced expertise in AI, Machine Learning, Deep Learning and intelligent computing systems.

✓ Practical capabilities in Computer Vision, Generative AI, LLM applications and MLOps.

✓ Ability to design, implement and evaluate scalable, secure and responsible AI/ML solutions.

✓ Strong research, analytical, coding and problem-solving capabilities.

✓ Experience in innovation-driven projects, capstone research and industry/research internship.

✓ A strong foundation for careers in industry, R&D, entrepreneurship and doctoral research.

◆ TAKE THE NEXT STEP

Ready to shape the future of computing?

Join a research-driven M.Tech. programme built for AI engineers, ML practitioners and innovators who want to design responsible, real-world intelligent systems.

2

YEARS

4

SEMESTERS

80

CREDITS

10+

CAREER TRACKS



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