



DAYANANDA SAGAR
UNIVERSITY

SCHOOL OF ENGINEERING

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

◆ MASTER OF TECHNOLOGY

Artificial Intelligence

Go beyond using AI. Learn to build intelligent, responsible and autonomous AI systems.

2

YEARS

4

SEMESTERS

80

CREDITS

Generative AI

Agentic AI

LLMs

Edge AI & Robotics

Responsible AI

A future-focused programme for next-generation intelligent systems

The M.Tech. in Artificial Intelligence is a future-focused postgraduate programme designed for learners who aspire to build the next generation of intelligent, generative, autonomous and responsible AI systems. The programme moves beyond conventional AI and Machine Learning by providing advanced exposure to Generative AI, Large Language Models (LLMs), intelligent agents, multimodal AI, cognitive approaches to language, Edge AI and AI-enabled robotics.

Combining advanced AI foundations with hands-on implementation, project-based electives, research and industry exposure, the programme prepares students to design, evaluate and deploy intelligent AI solutions for complex real-world applications, with strong emphasis on responsible AI, explainability, safety, governance and human-centred intelligent systems.

◆ WHY CHOOSE THIS PROGRAMME?



AI-first curriculum

A specialised postgraduate programme centred on Artificial Intelligence and emerging intelligent technologies.



Generative AI & LLM exposure

Learn transformers, prompt engineering, retrieval-augmented generation (RAG), language models and AI application development.



Agentic and autonomous AI

Explore intelligent agents, multi-agent systems, planning, reasoning, memory, tool use and autonomous workflows.



Multimodal & cognitive intelligence

Study language, perception and cognition through advanced language AI, multimodal systems and cognitive linguistics.



Physical and Edge AI

Apply AI to robotics, embedded intelligence, smart automation and real-time decision-making at the edge.



Responsible AI by design

Develop AI systems with awareness of fairness, explainability, privacy, robustness, safety and governance.



Research & innovation pathway

Build sustained research or product-development work through seminars and a two-phase capstone project.

Curriculum highlights — a connected path from foundations to research

I – II

III – IV

Semesters I & II

AI Foundations & Intelligent Systems

Mathematics for Machine Learning

Advanced Data Structure

Advanced Machine Learning

Python for AI and Data Science

Responsible AI

Research Methodology & IPR

Image Processing & Computer Vision

Deep Learning

Generative AI

MLOps for Enterprises

Choice-based Professional Electives in Emerging AI Domains

Semesters III & IV

Emerging AI, Research & Industry Integration

Advanced Electives

Agentic AI, language intelligence, robotics, multimodal AI and emerging intelligent systems.

Capstone Project — I & II

Sustained AI research, innovation or product development across two phases.

15-Week Industry / Research Internship

Focused engagement with current, industry-relevant problems.

Publications & Innovation

Technical papers, patent-oriented work, hackathons, project exhibitions and innovation activities.

Explore the frontiers of Artificial Intelligence



Generative AI & Large Language Models

Generative AI, Large Language Models, prompt engineering, RAG, text and speech generation, LLM-based AI applications.



Agentic & Multi-Agent AI

Intelligent agents, multi-agent systems, planning, reasoning, memory, tool use, autonomous workflows and agent governance.



Language, Cognition & Multimodal AI

Natural language models, conversational AI, spoken language understanding, cognitive linguistics, multimodal & multilingual perception.



Physical AI, Edge AI & Robotics

Edge AI and Robotics, Robot Operating Systems (ROS), foundation models for robotics, autonomous systems and smart mobility.



Responsible & Trustworthy AI

Responsible AI, explainability, fairness, privacy, robustness, ethics, safety and governance of agentic AI.



Vision & Intelligent Perception

Computer Vision, intelligent video systems, computational imaging and AI-enabled perception.

Distinctive features of the programme



AI-first programme identity

Designed around advanced and emerging Artificial Intelligence rather than a conventional computer science specialisation.



Generative AI and LLM learning

Exposure to transformer architectures, prompt engineering, RAG, model evaluation and AI application development.



Agentic AI and autonomous systems

Learning pathways in intelligent agents, multi-agent AI, planning, reasoning and autonomous decision-making.



Cognitive and language intelligence

Unique exposure to the relationship between language, cognition, meaning and intelligent AI systems.



Edge AI and robotics

Application-oriented learning in embedded AI, robotic perception and real-time intelligent decision-making.



Responsible and trustworthy AI

Strong emphasis on fairness, explainability, privacy, security, robustness, safety and governance.



Integrated theory and hands-on learning

Laboratory-integrated courses and project-based professional electives encourage implementation and experimentation.



Capstone-driven research and innovation

A two-phase capstone project supports technical publications, demonstrations, patent-oriented ideas and product development.



Industry / Research Internship

Structured 15-week on-job training strengthens professional competence and industry/research readiness.

Career opportunities

Graduates are prepared for advanced AI engineering, research, product and innovation roles across technology enterprises, AI startups, R&D organisations and academic institutions.

Artificial Intelligence Engineer

Generative AI Engineer

Large Language Model (LLM) Engineer

Agentic AI / AI Agent Developer

Machine Learning Engineer

Deep Learning Engineer

NLP / Conversational AI Engineer

Multimodal AI Engineer

Computer Vision Engineer

Edge AI / Robotics AI Engineer

Responsible AI / AI Governance Specialist

AI Research Engineer / Research Associate

AI Solutions Architect

AI Product Developer / AI Innovator

HIGHER EDUCATION & RESEARCH PATHWAYS



The programme provides a strong foundation for doctoral studies and advanced research in Artificial Intelligence, Generative AI, language intelligence, autonomous systems, multimodal AI, responsible AI, robotics and related interdisciplinary areas. 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 opportunities

● Artificial Intelligence & Software Product Companies

● Healthcare & Intelligent Diagnostics

● Robotics, Automation & Autonomous Systems

● Manufacturing & Industry 4.0/5.0

● Cloud, Edge AI & Intelligent Infrastructure

● Research & Development

● Generative AI & AI Startups

● Banking, Finance & FinTech

● Smart Mobility & Intelligent Transportation

● Conversational AI & Digital Experience

● Cybersecurity & AI Governance

● Higher Education & Academia

◆ WHAT WILL YOU GAIN?

✓ Advanced expertise in Artificial Intelligence, Machine Learning and Deep Learning.

✓ Ability to conceptualise and build intelligent agents, multi-agent and autonomous AI systems.

✓ Ability to design and evaluate responsible, explainable, secure and trustworthy AI solutions.

✓ Experience in innovation-driven projects, capstone research and a 15-week Industry/Research Internship.

✓ Practical understanding of Generative AI, LLMs, prompt engineering, RAG and AI application development.

✓ Exposure to multimodal AI, cognitive language approaches, Edge AI and robotics.

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

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

◆ TAKE THE NEXT STEP

Ready to go beyond using AI?

Join a research-driven M.Tech. programme built for engineers and innovators who want to design, build and deploy intelligent, responsible and autonomous AI systems.

2

YEARS

4

SEMESTERS

80

CREDITS

14+

CAREER TRACKS



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