Department of Artificial Intelligence and Machine Learning

Multi-Disciplinary Minor (MDM) – Track I

Minor in Data Science
Academic Year 2026–2027

1. Structure of the MDM

	Track-I: Minor in Data Science			
Minor	**Sr. No**	**Code**	**Title of the Course**	**Credits**
I	1.	UAIMM011	Digital Literacy & AI Applications	2
II	2.	UAIMM012	Data Structure & its applications	2
III	3.	UAIMM013	Introduction to Data Science	2
IV	4.	UAIMM014	Machine Learning & AI	2
V	5.	UAIMM015	Big Data Analytics	2
VI	6.	UAIMM016	Introduction to Deep Learning	2
			Total	**12**

Evaluation Scheme

Evaluation Scheme (In Semester)					Semester End Exam (SEE)		Total (Marks)
T1	**T2**	**FET**	**Total**	**Min pass**	**Marks**	**Min pass**	50
-	10	5	15	40%	35	40%	

2. Introduction and Significance of the MDM

The Minor in Data Science is designed to provide students from various engineering disciplines with fundamental and advanced knowledge in data-driven technologies and intelligent computing systems. In the modern digital era, data has become one of the most valuable resources for decision-making, automation, and innovation across industries.

This MDM introduces students to core concepts such as Data Science, Machine Learning, Big Data Analytics, and Deep Learning while enhancing their analytical, computational, and problem-solving abilities. The program focuses on practical applications and emerging technologies that enable students to understand, analyze, and derive meaningful insights from data.

The MDM promotes interdisciplinary learning and equips students with industry-relevant technical competencies essential for future careers in intelligent systems and data-centric domains.

3. Industrial Relevance

The demand for professionals with expertise in Data Science and AI technologies is rapidly increasing across industries worldwide. Organizations are utilizing data-driven approaches to improve decision-making, automate operations, enhance customer experiences, and develop intelligent products and services.

The proposed MDM provides exposure to:

- Data Analytics and Visualization
- Machine Learning Algorithms
- Big Data Technologies
- Deep Learning Applications
- AI-based Decision Systems
- Data Processing and Predictive Analytics

These technologies are widely used in sectors such as:

- Healthcare
- Banking and Finance
- Retail and E-Commerce
- Manufacturing
- Cyber security
- Transportation
- Smart Cities
- Research and Development

The program enhances students' employability, innovation skills, research aptitude, and readiness for internships, higher studies, and technology-driven careers.

4. Preamble aligned with NEP 2020

In alignment with the National Education Policy (NEP) 2020, the Minor in Data Science promotes multidisciplinary education, flexibility in learning, skill enhancement, innovation, and experiential learning. The program encourages students to explore emerging technologies beyond their parent discipline and develop competencies required for the future workforce.

The curriculum supports outcome-based education and fosters critical thinking, creativity, lifelong learning, and digital transformation through interdisciplinary and industry-oriented learning experiences.

"Transforming Data into Intelligent Solutions for the Future"

Mrs.Shweta Shete	**Mr.Amrish Patil**	**Dr.Santaji K.Shinde**	**Dr.V.V.Kulkarni**
BOS Member Secretary	**Program Coordinator**	**HOD**	**Dean,SOT**
		Dept. Of AIML	

Minor in Intelligent Systems & Applications

Academic Year 2026–2027

1. Structure of the MDM

	Track-II: Minor in Intelligent Systems & Applications			
Minor	**Sr. No**	**Code**	**Title of the Course**	**Credits**
I	1.	UAIMM021	AI Applications in Banking and Finance	2
II	2.	UAIMM022	Production o AI System Using LLMs	2
III	3.	UAIMM023	Full Stack AI Application	2
IV	4.	UAIMM024	AI for Product Management	2
V	5.	UAIMM025	Generative AI Models	2
VI	6.	UAIMM026	Physical AI & Embedded System	2

Evaluation Scheme

Evaluation Scheme (In Semester)					**Semester End Exam (SEE)**		**Total (Marks)**
T1	**T2**	**FET**	**Total**	**Min pass**	**Marks**	**Min pass**	50
-	10	5	15	40%	35	40%	

2. Introduction and Significance of the MDM

The Minor in Artificial Intelligence is designed to provide students from various engineering disciplines with knowledge of modern AI technologies and their real-world applications. The program covers emerging areas such as Generative AI, Large Language Models (LLMs), Full Stack AI Applications, and Embedded AI Systems to develop analytical thinking, innovation, and problem-solving skills.

The MDM promotes interdisciplinary learning and empowers students to design and develop intelligent solutions that support technological advancement and digital transformation across industries.

3. Industrial Relevance

Artificial Intelligence has emerged as one of the most influential technologies driving innovation across industries worldwide. Organizations are increasingly adopting AI-powered solutions for automation, prediction, optimization, intelligent decision-making, and enhanced customer experiences.

The proposed MDM provides students with exposure to:

- Generative AI and Large Language Models (LLMs)
- AI System Design and Deployment
- Intelligent Automation
- Full Stack AI Application Development
- Embedded and Physical AI Systems
- AI Product Engineering and Innovation

These technologies are extensively used in sectors such as:

- Banking and Finance
- Healthcare
- Manufacturing and Automation
- Robotics
- E-Commerce and Digital Platforms
- Cybersecurity
- Smart Cities and IoT
- Research and Product Development

The program enhances students' employability, entrepreneurial mindset, innovation capabilities, and readiness for higher studies, internships, startups, and AI-driven careers in emerging technological domains.

4. Preamble aligned with NEP 2020

In accordance with the National Education Policy (NEP) 2020, the proposed Minor in Artificial Intelligence promotes multidisciplinary and flexible learning opportunities that integrate emerging technologies into engineering education.

The program emphasizes:

- Interdisciplinary and holistic education
- Skill development and experiential learning
- Innovation and entrepreneurship
- Industry-oriented curriculum design
- Digital and technological empowerment
- Critical thinking and lifelong learning

The MDM enables students to acquire future-ready technical competencies beyond their core discipline while fostering creativity, problem-solving abilities, and intelligent innovation for addressing real-world challenges.

"Shaping Future-Ready Engineers through Intelligent Technologies and AI Innovation"

Mrs.Shweta Shete **BOS Member Secretary**	**Mr.Amrish Patil** **Program Coordinator**	**Dr.Santaji K.Shinde** **HOD** **Dept. Of AIML**	**Dr.V.V.Kulkarni** **Dean,SOT**