DEPARTMENT OF COMPUTER SCIENCE & APPLICATIONS

PROGRAM OUTCOMES (POs)

Bachelor of Science in Artificial Intelligence & Machine Learning (B.Sc AI & ML)

Introduction

The Bachelor of Science in Artificial Intelligence and Machine Learning (B.Sc AI & ML) program is designed to provide students with strong theoretical and practical foundations in artificial intelligence, machine learning, deep learning, data science, robotics, natural language processing, cloud computing, and intelligent automation systems. The program aims to develop analytical thinking, technical competence, communication skills, ethical values, and interdisciplinary understanding required for modern AI-driven industries, research, and higher education.

PROGRAM OUTCOMES (POs)

After successful completion of the B.Sc AI & ML program, graduates will be able to:

PO1 – AI and Computational Knowledge

Apply knowledge of computer science fundamentals, artificial intelligence, machine learning, programming, databases, cloud computing, and intelligent systems for solving computational problems.

PO2 – Problem Solving and Analytical Skills

Identify, analyze, and develop computational solutions for real-world problems using algorithms, statistical reasoning, machine learning techniques, and AI methodologies.

PO3 – Intelligent System Development

Design, develop, test, and implement intelligent applications, machine learning models, neural networks, and AI-based systems using appropriate tools and frameworks.

PO4 – Modern AI Tools and Technologies

Use modern AI frameworks, cloud platforms, robotics technologies, automation tools, big data technologies, and emerging computing technologies effectively in professional practice.

PO5 – Data Analysis and Predictive Modeling

Apply data analysis, visualization, predictive analytics, and deep learning techniques for intelligent decision making and real-world applications.

PO6 – Professional Ethics and Social Responsibility

Demonstrate professional ethics, cyber ethics, teamwork, leadership qualities, and awareness of social responsibilities in the development and deployment of AI technologies.

PO7 – Communication and Interpersonal Skills
Communicate effectively through oral, written, visual, and digital modes and function efficiently as an individual and as a team member in multidisciplinary environments.

PO8 – Lifelong Learning and Adaptability
Develop self-learning ability, critical thinking, adaptability, and continuous learning skills to cope with rapidly evolving technologies and professional challenges.

PO9 – Interdisciplinary and Scientific Knowledge
Integrate knowledge from multidisciplinary and minor courses such as mathematics, statistics, physics, electronics, finance, and social sciences for holistic understanding and intelligent problem solving.

CO-PO Mapping Methodology
The Course Outcomes (COs) of individual courses are mapped with the relevant Program Outcomes (POs) using the following scale:

Mapping Level	Description
3	High Correlation
2	Moderate Correlation
1	Low Correlation
-	No Correlation

Assessment and Attainment
The attainment of Program Outcomes is measured through:

- Internal Assessment Tests
- Semester End Examinations
- Laboratory Performance
- Assignments and Seminars
- AI Model Development Activities
- Mini Projects and Major Projects
- Viva-Voce Examinations
- Participation in Technical Events, Workshops, and Hackathons

The attainment levels are evaluated periodically for continuous improvement of curriculum delivery and academic quality enhancement.

Conclusion
The Program Outcomes of B.Sc AI & ML aim to prepare graduates with strong technical knowledge in artificial intelligence and machine learning, analytical abilities, ethical values, communication skills, and interdisciplinary competence required for careers in intelligent systems, automation, data analytics, research, higher education, and entrepreneurship.

The Program Outcomes are approved in BOS and Ratified in Academic Council.

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