MASTER OF SCIENCE IN ARTIFICIAL INTELLIGENCE
36 credits, 60 Weeks or 4 Terms (15 weeks in length each).

Program Description

The master's program in Artificial Intelligence provides students with the requisite skills and knowledge to pursue a career as an Artificial Intelligence Engineer in the information technology industry. This master's program comprises a comprehensive core curriculum that delves into the fundamental concepts pivotal in building a solid foundation for studying and applying the principles of artificial intelligence. Upon graduation, students will have the ability to lead or collaborate with interdisciplinary teams in both private and public organizations, leveraging their AI expertise to develop computational solutions that address pertinent social problems. The program will equip graduates with a sense of responsibility, ethics, and integrity.

Program Objective

The objective of the master's program in Artificial Intelligence is to equip students with the necessary theoretical knowledge and practical skills required to design, develop, and implement intelligent computer systems. The program strives to instill problem-solving skills, analytical thinking capabilities and programming proficiency required to develop intelligent algorithms and models. It also aims to provide students with a deep understanding of ethical implications of artificial intelligence and its potential impact on society.

By the end of the program, students are expected to be able to create intelligent computer systems that can learn from data, perform complex decision-making tasks, communicate with humans, and adapt to changing environments. Students will also be prepared to assume roles as artificial intelligence specialists in various industries.

Program outcomes: Upon completion of the program, students will:

- Develop the ability to apply a comprehensive understanding of mathematics, natural science, fundamental principles, and specialized knowledge in Engineering Technology to proficiently execute defined and practical procedures, processes, systems, or methodologies within the field of Engineering Technology.

- Develop the capacity to assess complex situations in the artificial intelligence domain through reflective judgment, critically analyze relevant information, and integrate diverse opinions, ultimately enabling the creation of innovative and effective solutions.

- Develop the ability to critically analyze ethical and social responsibility dimensions in artificial intelligence, exploring concepts such as social action, relations, institutions, and structures from academic literature.

- Develop advanced research skills to design, conduct, and analyze research, fostering a deep understanding of current trends, emerging technologies, and ethical considerations in artificial intelligence research.

- Develop project management competencies such as scope management, time and resource optimization, risk assessment, and mitigation to plan, execute, and control projects in AI development and deployment.

Master of Science in Artificial Intelligence PROGRAM OUTLINE		
Course Number	**Course Title**	**Credit Hours**
Semester 1		
MAD5403	Mathematics for Artificial Intelligence	3
COT5505	Computational Learning	3
CAI6605	Artificial Intelligence Ethics and Social Impacts of AI	3
Semester 2		
CIS5582	Cloud Computing	3
CGS6003	Algorithms Design and Analysis	3
CAI6610	Machine Learning	3
Semester 3		
CAI6619	Deep Learning	3
CAI6635	Research Advances in Artificial Intelligence	3
CAI6640	Natural Language Processing	3
Semester 4		
CAI6703	Information Visualization and Virtualization	3
CAI6704	Artificial Intelligence Project Management	3
CAI6720	Artificial Intelligence Capstone Project	3
	TOTAL:	**36**