

# Artificial Intelligence (AI) program



### **Overview of AI Department**

The Bachelor of Artificial Intelligence (AI) program at UPM is designed to address the rapid advancements in AI and related disciplines. It aims to lead AI education in the Kingdom and gain global recognition as a hub of knowledge, expertise, and innovation. The program prepares graduates to become skilled practitioners and innovators, meeting the increasing demand in both local and international markets.

### **Mission**

To graduate professionals in Artificial Intelligence by offering state-of-the-art knowledge and conducting innovative research projects with a focus on the rapidly growing demand of society.

### Goals

### The graduates of AI will:

- Demonstrate expertise in AI, achieving success through innovative accomplishments in AI applications across industry, government, and academia.
- Communicate and collaborate effectively in multidisciplinary teams, uphold professionalism and ethical standards, and contribute meaningfully to society.
- Have leadership roles, drive innovation and strategic thinking in AI, lead research initiatives, and advance organizations and communities.
- Engage in lifelong learning through graduate studies, professional courses, self-study, and research, enhancing AI skills and adapting to evolving organizational and societal needs

# **Partnerships**

A partnership with Purdue University, German Research Center for Artificial Intelligence (DFKI), Prince Sultan University, Alfaisal University, Prince Sultan Defense Studies and Research Center.

# Possible job opportunities

JOB ROLE	JOB DESCRIPTION
MACHINE LEARNING ENGINEER	Develop algorithms and models to enable machines to act without being explicitly programmed for specific tasks.
AI SPECIALIST	Implement and optimize AI models for various applications.
AI RESEARCH SCIENTIST	Conduct high-level research in AI, developing new theories, technologies, and algorithms to advance the field.
DATA SCIENTIST	Use statistical methods, machine learning, and analytics to extract insights from data to inform business decisions and strategy.
NATURAL LANGUAGE PROCESSING ENGINEER	Work with human language data, developing systems that enable computers to understand, interpret, and generate human languages.
ROBOTICS ENGINEER	Design and develop robotic systems that can perform tasks autonomously or semi-autonomously.
COMPUTER VISION ENGINEER	Develop systems and applications that can process, analyze, and make decisions based on visual data.
AI CONSULTANT	Provide expertise and guidance to businesses looking to implement AI solutions, helping them to solve complex problems and improve operations.
AUTONOMOUS VEHICLE SYSTEMS ENGINEER	Design and develop systems for self-driving vehicles, including perception, decision-making, and vehicle control systems.

### **Professional Job sectors**

- IT companies
- Data offices
- Finance and banking
- Healthcare
- Retail and e-commerce

- Manufacturing and logistics
- Government agencies
- Consulting firms
- Education and research institutions

# Why students should join the program

Joining UPM's AI program provides a unique opportunity to excel in a rapidly evolving field through:

- Comprehensive Curriculum: with a curriculum that bridges theory with practical and hands-on projects, students are prepared for real-world challenges.
- Advanced Infrastructure: Access to advanced labs, like the Deep Learning Lab, Robotics Lab, and AR/VR Lab, provides students with unique hands-on learning experience.
- Research and Innovation: The program encourages active participation in advanced research, adopting an environment of innovation and discovery.
- Diverse Career Opportunities: Graduates have a broad range of job opportunities, from machine learning engineers to AI specialists, in high-growth sectors like IT, healthcare, and finance.
- Industry Relevance: The program is designed to meet the growing demand for AI professionals both locally and globally.
- Global Recognition: The program aims for local and international acknowledgment as a hub of knowledge, innovation, and expertise in Artificial Intelligence, making its graduates highly preferred.
- Professional Development: The graduates will gain technical skills, ethical awareness, and lifelong learning capabilities to make significant contributions to society.