Master in
Artificial Intelligence

"AI is not a silver bullet, but it has the power to change the world." – Yoshua Bengio

FULL-TIME

This programme is delivered over two academic years.

Contact us

Telefon: 0232 231 343
Email:
decanat@ac.tuiasi.ro
Web: https://ac.tuiasi.ro/

Artificial intelligence (AI) has become prevalent in today's economy, as it begins to revolutionize industries worldwide. In healthcare, AI aids diagnosis, accelerates drug development, and enhances patient care. Finance benefits from data analysis, which can improve investment decisions. Transportation sees AI-driven advancements with autonomous vehicles and traffic optimization. Agriculture benefits from AI drones and sensors. Overall, diverse AI applications reshape industries, enhance efficiency, and elevate the quality of life. As AI evolves, its impact deepens, promising further innovation and transformation for humanity.

As AI continues to expand its influence across sectors, pursuing a Master's programme in AI presents a key opportunity to gain specialized skills and expertise, positioning oneself at the forefront of this rapidly evolving field and opening doors to rewarding career prospects in the immediate future. Graduates of the programme may also wish to continue to PhD level in this exciting field of study.

Department of Computer Science and Engineering / Computers

The Department of Computer Science and Engineering at the "Gheorghe Asachi" Technical University of Iași is a prominent department in Romania. It offers comprehensive undergraduate programmes and advanced opportunities at the Master's and PhD levels. Its educational programmes are designed to meet the needs of the economy, and produce graduates who are well- prepared for the job market.

Faculty members have established a strong national and international presence in research, which is supported by collaborations with industry and academia, and funded by organizations such as the Executive Unit for the Financing of Higher Education, Research, Development and Innovation (UEFISCDI) and the European Commission. The department is equipped with modern labs and resources, and provides a solid foundation for both education and research.

Artificial Intelligence (MSc)

The Master's programme "Artificial Intelligence" provides students with in-depth knowledge in the field of artificial intelligence. It includes advanced studies in machine learning and deep neural networks, natural language processing, probabilistic reasoning, multi-agent systems, reinforcement learning and notions of explainable artificial intelligence and neuro-symbolic methods. The programme also addresses practical aspects, including many projects that involve the use of AI techniques for various application areas such as automotive, cyber-security, or image and sound processing. The programme has international addressability, as it is taught in English.

Who Should Apply?

This Master of Science in Artificial Intelligence is suited for analytical thinkers who enjoy working with intelligent computer systems and solving challenging problems. Applicants should have good foundations in computer programming, algorithm design and mathematics. Candidates with a degree in Computer Science, Engineering, or a related discipline are the primary target, though applicants from other areas are also welcome. Familiarity with Python programming language is recommended.

Programme Structure

The programme features interesting subjects taught by experienced AI lecturers. Students will have the opportunity to explore modern research case studies. Practical projects and a variety of elective courses are available to students. The study programme spans two years and offers 120 credits. Each semester includes a set of mandatory courses and several elective ones (not all electives may be available).

Each semester also includes subjects related to individual research

Semester 1	Type
Fundamentals of Machine Learning	Mandatory
Probabilistic Reasoning	Mandatory
Knowledge Representation and Reasoning	Mandatory
Brain-Inspired Computing	Elective
Intelligent Systems	Elective
Optimization and Constraint Satisfaction	Elective
Data Analytics	Elective

Semester 2	Type
Natural Language Processing	Mandatory
Deep Learning	Mandatory
Ethics in Artificial Intelligence and Professional Integrity	Mandatory
Big Data Techniques	Elective
Computer Vision	Elective
Cloud Computing	Elective
Internet of Things	Elective

Semester 3	Type
Multi-Agent Systems	Mandatory
Reinforcement Learning	Mandatory
Explainable and Neuro-Symbolic Learning Methods	Mandatory
Edge Computing Applications	Elective
Visual Intelligence Applications	Elective
Intelligent Cyber-Security	Elective
Voice and Speech Recognition	Elective

Semester 4	Tip disp
Research Practice for Dissertation Thesis	Mandatory

Admission information at

https://ac.tuiasi.ro/admitere/masterat/