DATA SCIENCE AND ARTIFICIAL INTELLIGENCE

DEPARTMENT OF INFORMATION AND COMMUNICATION TECHNOLOGIES
DEPARTMENT OF INDUSTRIAL SYSTEMS ENGINEERING

ABOUT THE PROGRAM

Data Science (DS) is concerned with extraction of useful knowledge from data sets. It is closely related to the fields of computer science, mathematics, and statistics. It is a relatively new term for a broad set of skills spanning the more established fields of machine learning, data mining, databases, and visualization, along with their applications in various fields. In 2012, Harvard Business Review called data science "The Sexiest Job of the 21st Century".

Artificial Intelligence (AI) is the broad field conceived in 1956 as the automation or simulation of human intelligence. AI has two primary "levels". The first level, "narrow AI", concerns perception, statistical inference, and actuation, drawing on data science, sensors, and robotics. The second level, sometimes called "artificial general intelligence (AGI), is concerned with more complex or flexible reasoning and decision making in less constrained domains.

The AIT Masters in DS&AI was designed in partnership with the Erasmus+ DS&AI consortium, a group of 15 European and Asian organizations with the mission of bringing European-standard advanced education to Asia. At AIT, we will prepare you to understand and execute projects using state of the art technology at both levels.

PROGRAM STRUCTURE

Core courses
▶ Data Modeling and Management
▶ Machine Learning
▶ Business Intelligence and Analytics
▶ Computer Programming for Data Science and Artificial Intelligence
▶ Artificial Intelligence: Natural Language Understanding

Elective course (choose two)
▶ Artificial Intelligence: Knowledge Representation and Reasoning
▶ Computer Vision
▶ Artificial Intelligence: Problem Solving and Planning
▶ HCI and Information Visualization
▶ Recent Trends in Machine Learning
▶ Multicriteria Optimization and Decision Analysis
▶ Software Development and Project Management

PREFERRED BACKGROUND

To study DS&AI, students should come from one of the following backgrounds.

- Computer Science / Computer Engineering / ICT.
- Engineering background with work experience, mathematical skills, and programming skills.
- Diverse backgrounds such as business, finance, or other non-engineering fields. Candidates must take a foundation course in calculus, discrete mathematics, linearalgebra, and basic computer programming.

DS&AI

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https://www.dsai-project.eu/

Data Science and AI

It has already begun. In the next 10 years, data science and AI will touch nearly every aspect of human endeavor, transforming the way we live and work. In the longer term, Artificial General Intelligence will likely emerge as one of the most disruptive and productive technologies humankind has ever seen.

Are you ready for the age of data science and AI? AIT is ready to help you get abreast of current technology and prepare for the big changes that are coming.

Contact Us

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