Artificial Intelligence

TAUGHT IN FRENCH

/ AIMS

This major trains multi-skilled engineers in the field of artificial intelligence technologies. The wide range of course units covers the technological standards in force in industry as well as the scientific and technical bases of the domain. The curriculum is based on the implementation of application-oriented projects.

/ ACQUIRED SKILLS

As a student in this major, you will be able to critically implement recent machine learning models in the context of a specific topic such as decision analysis, pattern recognition, natural language processing, and many more besides. You will be proficient in the technical aspects of deploying models on a variety of computing architectures; parallel implementations, cloud computing, and embedded systems. Your scientific and technical knowledge will enable you to follow the constant evolution of models and technologies.

/ CAREER OPPORTUNITIES

Artificial intelligence technologies are in full development within companies of all sectors; Defense, transport, bio-medical engineering, finance and insurance. Companies in these fields are particularly interested in this type of profile. Depending on your background and interests, you will have access to different positions such as development engineer, research engineer, data scientist, consultant and many more.

COURSE UNITS

/ SEMESTER 8

- **Artificial Intelligence Project:** 98h - 8 ECTS
- **Basics of Optimisation:** 14h - 1.5 ECTS
- **Advanced Database Management:** 14h - 2 ECTS
- **Project Management and Software Engineering:** 14h - 1.5 ECTS
- **IS Security:** 14h - 2 ECTS
- **Introduction to Machine Learning:** 28h - 2.5 ECTS
- **Neural Networks:** 28h - 3 ECTS
- **Applied AI:** 28h - 2 ECTS
- **English:** 28h - 2 ECTS
- **Transversal Skills:** 28h − 3 ECTS

+ 1 selected Course Unit: 28h - 2.5 ECTS
To be chosen from the elective course units listed below:
- Operational Research
- Biometrics & Cybersecurity
- Human Computer Interactions (HCI)

/ SEMESTER 9

- **Final Year Project:** 168h - 10 ECTS
- **Optimisation and Distributed Computing:** 28h - 2.5 ECTS
- **Cloud Computing and Data Analysis:** 28h - 2.5 ECTS
- **Advanced Optimisation :** 28h - 2.5 ECTS
- **Probabilistic Models and AI:** 28h - 2.5 ECTS
- **Advanced Machine Learning:** 28h - 2.5 ECTS
- **Applied AI:** 28h - 2.5 ECTS

+ 2 selected Course Units: 56h - 5 ECTS
To be chosen from the elective course units listed below:
- Quantum Computing
- Pen Testing
- Computer Graphics
- Financial markets and Fin Tech