

ICT & Artificial Intelligence (AI7–Deep Learning)

The amount of data available in the world is enormous and increasing at an incredible speed. How can data in many different formats, and stored within a broad amount of sources, still be effectively used to add value to a business case and/or give answers to data-driven (research) questions in the domain of Artificial Intelligence (AI)?

Machine Learning (ML) algorithms like Decision Trees, Support Vector Machines, KNN, Naive Bayes and regression analysis are useful in many situations, but are often not "smart" enough to handle the more complex challenges.

In this AI7-semester, you explore the next steps in ML techniques, like Artificial Neural Networks (ANN), Convolutional Neural Networks (CNN), Reinforcement Learning (RL) and Natural Language Processing (NLP) to enrich your knowledge in the fascinating field of Artificial Intelligence.



"Data is everywhere and you're part of the collective... resistance is futile... you will be assimilated!"

Martijn Lamers - Coordinator ICT & Artificial Intelligence (AI7)

MORE INFO

Admission requirements:

This AI7 advanced specialisation is the follow up of semester AI4. Since AI7 starts where semester AI4 has ended, the knowledge of AI4 is a necessary prerequisite for entering the AI7 semester. You may have met this requirement in semester 4 Open Learning as well.

In case you were not in AI4 or Open Learning, but you are sure you did master the AI4-knowledge (like data collection techniques, basic Machine Learning algorithms, and data visualisation tools) on your own, you can ask for an oral assessment to enter AI7.

Furthermore, this semester is conducted in English, so good knowledge of the English language (IELTs 6.0/TOEFL 80) is required. However, in case there are no English speaking students around, Dutch may be used.

AI7 semester contents

In this semester, you are working both on a group project for an external client, and on individual challenges. For the group project, Partners-in-Innovation provide real-life cases with big data sets to work with. For the individual challenges, you can choose your own topic. We provide you with a technical tutor and a process tutor/semester coach.

Assessment

All products made, and the teacher feedback and your reflections on them, are documented in a portfolio (i.e. a Personal Development Report), which is evaluated regularly with your tutors. This way, you have an idea of your progression during the semester. At the end of the semester, a final assessment is held, based on your PDR, after which the semester grade is determined. Upon successfully completing this AI7 semester, the student receives 30 ECs.

Practical information:

This semester runs twice a year in Eindhoven, so both in the fall semester (September-February) and in the Spring semester (February-July).

For more information, contact the AI7 semester coordinator: [Martijn Lamers](#)