

Course Title:	Introduction to Modern Artificial Intelligence and Machine Learning
Institute/Division:	Department of Automation and Computer Engineering Faculty of Electrical and Computer Engineering
Course code:	E-IAI
Erasmus subject code:	0610 Information and Communication Technologies (ICTs)
Number of contact hours:	45
Course duration:	1 semester (Spring/Summer)
ECTS credits:	6
Course description:	<p>The course comprises lectures and laboratory exercises. It aims to provide students with an understanding of fundamental methods in modern Artificial Intelligence and Machine Learning:</p> <ul style="list-style-type: none">• Supervised and Unsupervised learning• Linear regression and Logistic regression• Introduction to the Neuron Model and Feedforward Network• Convolution neural network for object recognition in images• Introduction to Reinforce learning <p>The platforms and software used are Python programming language, scikit-learn, and PyTorch programming libraries.</p>
Course type:	Lectures (10h), Computer laboratory (25h), Project (10h)
Literature:	Andreas C. Müller; Sarah Guid: Introduction to machine learning with Python: a guide for data scientists Aurélien Géron: Hands-on machine learning with Scikit-Learn and TensorFlow
Assessment method:	The final project, laboratory exercises
Prerequisites:	Any programming language
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