

Course title: Neural Networks
Institute/Division: F-3, Institute of Computer Science
Course code:
Erasmus subject code:
Number of contact hours: 45 hours
Course duration: 1 semester
ECTS credits: 6
Course description: General description of the neural networks. Relations between classical algorithms and neural methods in problem solving. Artificial neural network and human brain. Structure and functionality of a single artificial neuron. Architectures of neural networks and dependence between complexity of the solved problem and structural complexity of the network. Methods of neural network learning and training. Back propagation and other methods of learning. Self learning of the networks and problem of self-organization. Networks with feedback. Deep learning networks. Possibilities and limitations of many types of neural networks.

Literature:

1. Basic literature on the subject
2. Many additional materials and links will be given to all students during the lectures.

Course type: Lectures and exercises
Assessment method: There will be few homeworks. Each one should be returned to the teacher up to 2 weeks after distribution).

Prerequisites: None
Primary target group: computer science students of the 3rd or 4th year
Lecturer: Barbara Borowik, PhD
Contact person: Barbara Borowik, PhD; bborowik@pk.edu.pl
Deadline for application: 15th of September