UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Artificial Intelligence in Neuroscience: methods and applications

2526-122R-16

Title

Artificial Intelligence in Neuroscience: methods and applications

Teacher(s)

Francesca Gasparini
Cristina Crocamo
Elisabetta De Bernardi
Alfonso Mastropietro

Language

English

Short description

The course aims to introduce artificial intelligence methodologies and applications in neuroscience. In the first part key AI concepts in machine learning (supervised vs unsupervised learning; regression, classification, clustering) and deep learning (neural networks, convolutional neural networks, recurrent neural networks) will be covered, and AI analysis pipelines will be presented. Successively, applications in neuroimaging, data and signal analysis will be shown, with a particular focus on MRI, PET, EEG and audio signals in neurological diseases, psychiatry and brain

oncology.

CFU / Hours

2 CFU / 16 hours

Teaching period

First semester, January and February

Sustainable Development Goals

QUALITY EDUCATION