INTELLIGENCE ARTIFICIELLE ET MULTIMEDIA

ECTS
5 credits

Component
École Nationale Supérieure d'Électrotechnique d'Électronique d'Informatique d'Hydraulique et des Télécommunications

In brief

> **Code:** N9EN15

Presentation

Objectives

The objective of this course is to present neural network architectures adapted to multimedia data processing.

Description

After an introduction to neural networks (2 classes, 2 lab sessions), different neural architectures are presented: convolutional networks (3 classes, 4 lab sessions), recurrent networks (2 classes, 3 lab sessions), auto-encoders (1 class, 1 lab session) and GANs (1 class, 1 lab session) with applications mainly in image and natural language processing. Audio/video data (1 lecture, 1 lab) and 3D data (1 lecture, 1 lab) and their processing by deep learning are also treated.

Pre-requisites

Probability and Statistics