
Machine learning

Finalità

The course aims at providing students with the basic concepts regarding adaptive methods, often biologically-inspired, which allow computer emulation of learning-from-examples processes, and are used to optimize/design solutions to real-world problems.

Programma

Biological and automatic learning.
Review of the main classical machine-learning techniques
Soft Computing techniques
Neural Networks
Evolutionary Computation
Genetic Algorithms
Genetic Programming
Evolutionary Strategies
Elements of Fuzzy Logic
Hybrid systems
Examples of real-world applications

Attività d'esercitazione

Practical assignments in laboratory on real-world examples

Modalità d'esame

Intermediate evaluation of the lab assignments and final project.

Testi consigliati

Teaching material available online and other material that will be distributed and published online all through the course.