UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Imaging Medico

2425-1-113R-13

Title

Medical imaging

Teacher(s)

Prof. Marco Paganoni, Dr. Marco Pizzichemi, Prof. Laura Sironi, Dr. Luca Presotto

Language

English

Short description

The aim of the course is to present the status of the art of advanced Medical Imaging methodologies, both from hardware and software points of view.
The main subjects of lectures will be:

1. Introduction to PET, CT and Multimodal Imaging
2. Introduction to image reconstruction techniques applied to tomographic imaging to minimize noise (bayesian and non-bayesian statistical priors, convolutional neural networks)
3. Use of Artificial Intelligence for disease detection, classification and prognosis

4. Introduction to Digital Pathology (image acquisition through whole-slide scanners; artificial intelligence-based algorithms for image analysis; morphology and texture features for diagnosis and prognosis; clinical applications)

CFU / Hours

2 CFU/ 16 hours

Teaching period

II semester (April-May)

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION | GENDER EQUALITY | DECENT WORK AND ECONOMIC GROWTH | INDUSTRY, INNOVATION AND INFRASTRUCTURE | REDUCED INEQUALITIES | SUSTAINABLE CITIES AND COMMUNITIES