UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Robotica ed Informatica in Riabilitazione

2526-2-I0201D136-I0201D132M

Aims

At the end of the course, students should understand the latest technological advancements in rehabilitation and the associated challenges.

Contents

Rehabilitation, assistive and prosthesis technologies: use and limitations.

Detailed program

- Principles and rationale of computer science and robotics in rehabilitation
- Systems for data acquisition and analysis
- Rehabilitation robots
- Assistive devices
- Robotic prostheses
- Virtual reality and motivation
- Effectiveness and limitations of rehabilitative technologies

Prerequisites

None

Teaching form

In presence

Textbook and teaching resource

- Douglas P. Murphy. *Robotics in Physical Medicine and Rehabilitation*. 1st edition (2023).
- *Rehabilitation Robotics: Technology and Application*. Eds: Roberto Colombo and Vittorio Sanguineti. 1st edition (2018).
- Lucia F. Lucca, Loris Pignolo, Stefano Mazzoleni. *La robotica in neuroriabilitazione*. 1st edition (2015).
- Articoli scientifici.

Semester

First semester

Assessment method

Described in the general course's syllabus

Office hours

By appointment (cristiano.alessandro@unimib.it)

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING