UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Assessment and Recovery of Spinal Cord Lesion

2425-2-I0201D136-I0201D132M

Aims

Know and understand the use of new available technologies for rehabilitation

Contents

The development of technology and robotics has led to applications in rehabilitation and effective treatment systems.
Robotics applications make it possible to increase the intensity of physiotherapy treatment, propose stimulating and motivating scenarios using virtual reality and allow an objective measurement of some parameters.

Detailed program

- robotics in phyiscal therapy: principles and rationale
- systems for data collection and data analysis
- robotic devices (upper and lower limb)
- virtual reality
- efficacy and limitation of the robotic rehabilitation

Prerequisites

no

Teaching form

Classes
Interactive teaching (clinical case discussion)

Textbook and teaching resource

Swinnen E, Beckwée D, Meeusen R, Baeyens JP, Kerckhofs E. Does robot-assisted gait rehabilitation improve balance in stroke patients? A systematic review. Top Stroke Rehabil. 2014 Mar-Apr;21(2):87-100

Krebs HI, Hogan N. Robotic therapy: the tipping point. Am J Phys Med Rehabil. 2012 Nov;91(11 Suppl 3):S290-7

Krebs HI. Robotic technology and physical medicine and rehabilitation. Eur J Phys Rehabil Med. 2012 Jun;48(2):319-2

Lewis GN, Rosie JA. Virtual reality games for movement rehabilitation in neurological conditions: how do we meet the needs and expectations of the users? Disability and Rehabil.

2012 ;34(22):1880-6.

Semester

1st semester

Assessment method

Described in the subject's syllabus

Office hours

By appointment
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Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION | GENDER EQUALITY