

Anselmo Frizera Neto – List of Talk Topics

Lecture Topic 1: Rehabilitation robotics and Assistive Technologies

Keywords: Rehabilitation robotics, Walker-assisted gait, exoskeletons, assistive technologies

Short Abstract: This topic addresses the development of robotic devices for rehabilitation and functional compensation and systems for movement analysis and the identification of parameters of interest for motor rehabilitation. Applications and recent developments in cognitive and motor rehabilitation are presented along with the validation in clinical scenarios.

Lecture Topic 2: Optical Fiber Sensors for healthcare applications

Keywords: Optical fiber sensors, healthcare, photonics, soft wearable sensors, smart textiles

Short Abstract: This topic addresses the latest developments and applications of optical fiber sensors in healthcare applications, which include wearable robots and the instrumentation of assistive devices, as well as wearable flexible sensors and smart textiles. The presentation is divided into three major parts: (i) introduction to soft robotics and flexible rehabilitation devices, (ii) optical fiber sensing and the (iii) development and validation of optical fiber sensors for rehabilitation systems.