

Post-doctoral Research Position - Robotic Neurorehabilitation

ARTORG Center for Biomedical Engineering Research University of Bern, Switzerland

The **Motor Learning and Neurorehabilitation laboratory** is an interdisciplinary group that gathers the knowledge and expertise of mechanical and biomedical engineers, computer scientists, neuroscientists and psychologists. Our research focuses on human-machine interfaces and biological learning, and, specifically, on the use of robotic assistance and virtual reality (VR) to aid people in learning motor tasks and rehabilitate after neurologic injuries.

There is increasing interest in using robotic devices and VR to provide rehabilitation therapy following brain injury. We aim to enhance robotic neurorehabilitation by developing novel robotic devices and training strategies that modulate movement errors based on patients specific needs. The research group is well equipped with state-of-the-art robotic devices, immersive virtual reality devices, and neurophysiological measurement equipment (e.g. EEG).



UNIVERSITÄT

INSELSPITAL

ARTORG CENTER
BIOMEDICAL ENGINEERING RESEARCH

Prof. Dr. Laura Marchal-Crespo

ARTORG Center for Biomedical Engineering Research University of Bern

CH-3008 Bern

Tel. +41 31 632 93 44

laura.marchal@artorg.unibe.ch www.artorg.unibe.ch





We are seeking for a motivated post-doctoral researcher with strong knowledge in robotic neurorehabilitation and transcutaneous electrical stimulation. The successful candidate will be involved in the (re)design of robotic devices for arm rehabilitation. He/she would work closely with our clinical partners at Inselspital, Bern in the design concept and will evaluate the new technology in patients with brain injuries.

For this position, we are looking for an active and self-motivated person with a background in mechanical and/or biomedical engineering or similar. Interest to collaborate with an interdisciplinary team of roboticists, neuroscientists, and cognitive scientist and willingness to interact with older patients is important. A PhD degree, a proven track record of peer-reviewed publications and strong English communication skills are needed (German is a plus). Requirements include self-motivation to publish in scientific journals, strong experimental and analysis skills, and the ability to work independently and as part of a multidisciplinary team.

The position is available immediately; the starting date can be discussed.

We look forward to you joining our team!

Questions?

Always feel free to contact Prof. Dr. Laura Marchal-Crespo, at laura.marchal@artorg.unibe.ch or +41 31 632 93 44. Please send your complete application (CV, motivation letter, mechanical engineering design portfolio) via e-mail.