Code B_2458

Department	Mechanical, Chemical and Material Engineering
UniCa reference person	Micaela Porta
Project title in English	Use of Immersive Virtual Reality in Neurorehabilitation
Project title in Italian	Impiego della Realtà Virtuale Immersiva in Neuroriabilitazione
Subject area of reference (World University Ranking)	CLINICAL, PRE-CLINICAL AND HEALTH
Project summary and VPS' profile	The current availability of low-cost off-the-shelf platforms for immersive Virtual Reality (VR) opened new perspectives in neurorehabilitation. As immersive VR offers the most realistic experience by entirely isolating individuals from external environmental stimuli, it is believed that, when used as “add-on” in combination with other techniques, might facilitate the transfer of the skills acquired during the training into activities of daily living. In this context, the proposed project aims to verify the feasibility of use of immersive VR in individuals with neurologic conditions (with a specific focus on Multiple Sclerosis, MS) characterized by relevant motor dysfunctions at upper limb level. In particular, the interaction with the VP should allow to define the fundamental elements to design a future clinical trial, also considering the integration of clinical and instrumental measurements to assess the effectiveness of immersive VR in terms of upper limb function. The eligible VP should have a strong clinical and scientific background in neurological rehabilitation with emphasis on physical activity, cognition, gait, balance and upper limb function in the neurological population, particularly people with MS. Previous experience with the use of VR in neurorehabilitation and familiarity with the application of quantitative techniques for human movement analysis will be considered a plus.
Proposed length of stay	Short visit of 10 days
Expected period of activity	May-July 2024
Academic position of the VPS'	Professor
Course of Study	Laurea triennale (1st cycle University Degree)
Language of instruction	English