

Scientific/Clinical Workshop

Workshop Title

Patients Engagement and Technologies for Rehabilitation and Prosthetics

Workshop Responsible

Giacinto Barresi (Rehab Technologies, Istituto Italiano di Tecnologia)

Speakers

Matteo Laffranchi, Giampaolo Bricchetto, Strahinja Dosen, Lorenzo Masia, Ana Lucia Faria, Jacopo Zenzeri

Attendee Engagement

After the talks, the moderator starts a brainstorming-like session (involving remote attendees too - students, in particular) with 4 phases: (i) the attendees write on (real and web) sticky notes some potential solutions (e.g., adopting mixed reality exergames in rehabilitation) to the problems discussed by the speakers about patients' engagement, (ii) the moderator and the speakers regroup the sticky notes on the blackboard/wall in terms of similarity, identifying a set of technological domains, (iii) the attendees and the speakers are invited to assess how much each domain is promising in their own fields, (iv) the speakers are invited to comment the group assessment of each domain and to discuss how advantageous and challenging it could be (the attendees can ask questions after each round on a topic during this last phase). The discussion will continue after the event (until the end of RehabWeek 2022) on an online blackboard reporting all clusters.

Abstract

Patient engagement is a dramatically important factor in clinical compliance, especially about the individual adherence to repetitive and tiring exercises as the ones included in protocols for rehabilitation and prosthetic training. This is true in technologically assisted procedures too: interactive features are not necessarily engaging if they are not appropriately designed - this is why serious games and gamification approaches are often adopted. High levels of motivation in the patients are not easy to achieve, and they require specific activities in user-centered design. This 180-minute workshop will present perspectives on patients' engagement. During 10-minute talks (with 5 minutes of questions and answers), a team of researchers will explore the opportunities offered by mechatronic and digital systems to implement engaging exercises for rehabilitation and prosthetic training. These researchers will present the issues they faced and their strategies to motivate the users of their clinical technologies (e.g., robotic devices, virtual and augmented environments). The attendees will be invited to write on sticky notes the solutions they propose to the problems presented by each speaker. After a break, each sticky note will be placed on a blackboard and read by the moderator. Subsequently, the notes will be visually clustered according to their similarity by the participants, who will assess each resulting domain in terms of its expected impact. On an online blackboard, the discussion will continue after the event (until the end of RehabWeek 2022). Students are especially suggested to catch this opportunity to interact with experts who work in both technological and clinical contexts.