



Category: Clinical Application of Technology, underlying Principles

Workshop Title: From brain recovery knowledge to best clinical practice and technological tools development: Neurovision and Dualebike as examples

Workshop Organizer(s): Manuel Murie-Fernandez

In person Speaker(s):

- Manuel Murie-Fernandez, neurorehabilitation Unit, Hospital Ciudad de Telde, ICOT group, Spain
- Carmen Bhamonde, Neurorehabilitation Unit, Hospital Ciudad de Telde, ICOT group, Spain

Workshop Time: 10:30 - 12:00

Attendee Engagement:

Participants, will experience brain plasticity in themselves. Participants will experience the dual task cost for their brains. Participants will be able to use and experiment with Neurovision and Dualebike. Of course they can interact with speakers all time.

Abstract:

As clinical providers of neurorehabilitation, the Neurorehabilitation Unit of Hospital Ciudad de Telde, ICOT group (Spain) We believe that the best application of the neurorehabilitation process comes hand in hand with the best scientific evidence, on which all the actors involved in the development of Neurorehabilitation should be based, from doctors and therapists to engineers and politicians. We also strongly believe that this statement should be an international approach and is essential for relevant device development by engineers and enhances the effective uptake of technologies by clinicians.

In this interactive workshop we will explore and update the knowledge of brain plasticity and brain recovery establishing the most up-to-date guidelines in this field, and how we can apply it to clinical application for real patients and for developing new technologies to this kind of patients. A framework will be provided to support delegates in their own clinical reasoning, prompting engineers to consider the patient holistically and encouraging clinicians to challenge their practice in more depth. At the end of the workshop participants should be able to reason why they do what they do and how they do it, and what impact their work has on a brain level.

The session will conclude with two examples of how brain recovery knowledge and patients' needs combined with engineering expertise lead to the development of two technological tools for hemianopia and dual task training at the Hospital Ciudad de Telde. We will provide practical example of testing both tools for all the participants.

The objective of the workshop is to raise awareness about the need to establish the neurorehabilitation art based on brain recovery knowledge.