

Industry Workshop

Workshop Title

Upper Limb Robotics Group Therapy™ Concept: Interconnectivity and Gamification

Workshop Responsible

Sarah Lim (Fourier Intelligence)

Speakers

Sarah Lim, Jake Kee, Denny Oetomo

Attendee Engagement

Hands-on time with devices and discussion with speakers

Abstract

Fourier Intelligence Rehab is a total solution concept consisting of a comprehensive advanced rehabilitation technology including robotics therapy, neuromodulation, sensor technology, virtual reality, and functional electrical stimulation.

The principle of Rehab technology is to provide high-efficiency rehabilitation training, cost-effective therapy outcome and emphasises space-saving and ease of use. The 5 main application settings of the Rehab are neurological rehabilitation, sports rehabilitation, vocational training, pain management and healthy ageing.

The group therapy concept leveraged the advantages of having multiple advanced rehabilitation robotics in the Rehab allowing patients to have a cooperative or competitive training environment. Besides, the social interaction in the group therapy not only will retain the patient's interest and motivation in rehabilitation also helps with post-injury depression and avoidance of social withdrawal.

In this session, multiple upper limb devices are interconnected to provide a streamlined approach to group therapy. The patients could perform therapy with other patients or with their family, friends or even their therapists. Patients could utilise similar devices or multiple devices as robotics within the Rehab shares the similar platform thus allowing communication with identical and separate devices.

With telerehabilitation in mind, the devices also allow patients to play against someone using a tablet. Patient's progress could be monitored via the tablet or allow competitive and cooperative training to be performed. This truly has shown great advantages in providing group therapy that creates a smooth experience of clinical implementation for our users and patients.

Fourier Intelligence aims to accelerate the adoption of advanced rehabilitation technology and make technology mainstream by fully integrating them into the clinical settings, hence creating positive clinical outcomes.