Category: Clinical Application of Technology

Workshop Title: Restoring Hope, Rebuilding Lives: Transformation of Clinical Practice with Rehabilitation Technology

Workshop Organizer(s): Seng Kwee Wee

In person Speaker(s):

- Associate Professor Karen Chua Sui Geok, Tan Tock Seng Hospital (TTSH)
- Associate Professor Wee Seng Kwee, TTSH
- Dr Loh Yong Joo, TTSH
- Dr Ong Poo Lee, TTSH
- Mr Christopher Kuah Wee Keong, TTSH
- Mr Phua Min Wee, TTSH
- Ms Ng Chwee Yin, TTSH
- Ms Tegan Plunkett, TTSH

Workshop Time: 13:45 - 15:15

Attendee Engagement:

Brief 10-minute lecture on Neuroplasticity and Motor Learning to lay the foundational understanding for clinicians, engineers, neuroscientists, behavioural scientists and industry partners.

There are 5 stations to enable hands-on experiential learning of these rehabilitation technologies: robotics, virtual reality, telerehabilitation, wearable sensors and brain computer interface. Participants will have 15 minutes per station and then rotate amongst stations. The station masters will include one clinician and one industry partner in order to provide a holistic perspective of each rehabilitation technology.

In addition, there will be 25 mins set aside for breakout sessions consisting of 5 groups (7-8 participants per table). Each group will discuss pertinent issues for clinical and non-clinical practitioners in the rehabilitation ecosystem:

Group 1: Facilitators and barriers in the integration of Rehabilitation Technology into clinical practice.
Group 2: What are the rehabilitation technologies that you wish to adopt?
Group 3: What are the important outcomes for clinicians and patient-related outcomes for end users?
Group 4: Access, affordability and reimbursement.
Group 5: What do you wish to see in the evolution of Rehabilitation Technology in the next 5 years?
Each group will have 5 mins to present to the participants followed by 10 minutes Q & A.

Abstract:

This interactive hands-on workshop will introduce participants to principles of neuroplasticity and motor learning after neurological disorders. Participants will be exposed to various rehabilitation technologies such as robotics, virtual reality, telerehabilitation, brain computer interface and wearable technologies. There will be ample time to interact with faculty through breakout session to

discuss pertinent issues for clinical and non-clinical practitioners in the rehabilitation ecosystem. This workshop is suitable for medical professionals, allied health professionals, engineers, neuroscientists, behavioural scientists and industry partners.