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Scientific Seminar

Advancing Motion Analysis and Clinical Applications: Innovations in Rehabilitation and Sports Science

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Department of Occupational Therapy,
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Information

Date: Friday, **January 24**
10:00 AM , room Léonard de Vinci
Université Gustave Eiffel, Campus de Lyon
25 av. F. Mitterrand, Bron

Presentation in **English**

Abstract

The application of biomechanics in clinical rehabilitation and sports is crucial for optimizing functional performance and promoting recovery. This presentation will introduce a series of studies and interventions involving biomechanics in both clinical practice and sports, with a focus on motion analysis, balance assessment, postural control, and musculoskeletal modelling. It will include an exploration of the role of postural control in the elderly population, particularly those with and without fall experiences, analyzing their responses to continuous and unexpected perturbations. Additionally, the discussion will cover the impact of innovative virtual reality training on improving balance and functional performance in patients with degenerative lumbar spine disease, as well as its effects on post-stroke rehabilitation.

Short biography

I am a clinical researcher focused on evidence-based practice, specializing in gait, balance, and posture analysis in individuals with movement disorders. By combining expertise in biomedical engineering, movement and biomechanical analysis, and occupational therapy, I delve into the study of human movement and apply this knowledge to clinical rehabilitation, aiming to improve patients' quality of life, prevent injuries, and optimize the development of medical assistive devices. I currently serve as an Assistant Professor in the Department of Occupational Therapy at Da Yeh University, and have previously held postdoctoral fellow and visiting scholar positions at the School of Physical Therapy and Occupational Therapy at National Taiwan University, as well as at the French Alternative Energies and Atomic Energy Commission (CEA). I hold a PhD. in Biomedical Engineering from National Yang Ming Chiao Tung University and have received multiple international research fellowships. Throughout my clinical experience and academic career, I have identified significant research and development opportunities to meet the practical needs of the clinical field. This has driven my continued efforts in academic collaboration across different disciplines to truly address and fulfill clinical demands.

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