

Exoskeleton/Exosuit II

Date / Time Aug. 22 (Mon.), 2022 / 14:00-15:30

Room Room 515

Session Chair Sunil K. Agrawal (*Columbia University*), Jonghyun Kim (*Sungkyunkwan University*)

[MoO2B.1]

14:00-14:15

Amyotrophic Lateral Sclerosis Patients Regain Head-Neck Control using a Powered Neck Exoskeleton

Haohan Zhang, Biing-Chwen Chang, Priya Kulkarni, Jinsy Andrews, Neil A. Shneider, and Sunil Agrawal

[MoO2B.2]

14:15-14:30

Interleaved Assistance and Resistance for Exoskeleton Mediated Gait Training: Validation, Feasibility and Effects

Thomas C. Bulea, Vahidreza Molazadeh, Maxwell Thurston, and Diane L. Damiano

[MoO2B.3]

14:30-14:45

Using Dynamic Simulations to Estimate the Feasible Stability Region of Feet-In-Place Balance Recovery for Lower-Limb Exoskeleton Users

Keaton A. Inkol and John McPhee

[MoO2B.4]

14:45-15:00

Measuring Anthropometric Fit for Exoskeletons: Methodologies and Preliminary Assessment

Matteo Sposito, Vasco Fanti, Pinar Sencandan, Darwin G. Caldwell, and Christian Di Natali

[MoO2B.5]

15:00-15:15

EMG Based Body-Machine Interface for Adaptive and Personalized Robotic Training of Persons with Multiple Sclerosis

Camilla Pierella, Laura Pellegrino, Margit Muller, Martina Coscia, Matilde Inglese, Claudio Solaro, and Maura Casadio

[MoO2B.6]

15:15-15:30

Development of Soft Variable Stiffness Actuator with Tendon-Driven Layer Jamming Mechanism

Seoyeon Ham, Brian Byunghyun Kang, Jihoo Kim, Seunghoon Hwang, and Wansoo Kim