

Session	Paper time	SchCode	Title	Paper#
Podium Session, POD1 09:30-10:30 "Therapeutic Robotics"  Session Co-chairs: James Patton (Uillinois Chicago)  Takehito Kikuchi (OsakaU)	09:30-09:45	WeAPOD1.1	Upper Limb Rehabilitation of Stroke Participants Using Electrical Stimulation: Changes in Tracking and EMG Timing Ann-Marie Hughes* , Chris T Freeman , Jane Helena Burrige , Paul H Chappell , Paul L Lewin , Eric Rogers Univeristy of Southampton [United Kingdom]	89
	09:45-10:00	WeAPOD1.2	Rehabilitation of Grasping and Forearm Pronation/Supination with the Haptic Knob Olivier Lamercy* , Ludovic Dovat , Hong Yun , Seng Kwee Wee , Christopher Wee Keong Kuah , Karen Sui Geok Chua , Roger Gassert , Theodore Edgar Milner , Chee Leong Teo , Etienne Burdet National University of Singapore [Singapore]	148
	10:00-10:15	WeAPOD1.3	Error-Enhanced Augmented Proprioceptive Feedback in Stroke Rehabilitation Training: A Pilot Study. Birgit I. Molier* , Jacintha de Boer , G.B. (Gerdienke) Prange , Michiel J.A. Jannink Roessingh Research & Development [Netherlands]	53
	10:15-10:30	WeAPOD1.4	Time Course of Abnormal Synergies of Stroke Patients Treated and Assessed by a Neuro-Rehabilitation Robot Pin-Cheng Kung , Chou-Ching K Lin* , Ming-Shaung Ju , Shu-Min Chen National Cheng Kung University Hospital [Taiwan]	23
Podium Session, POD2 14:15-15:15 "Cybernetics, Artificial Human Exoskeletons, & Neural-Machine Interfaces and Control"  Session Co-chairs: Axel Gräer (UBremen) Kazuo Kiguchi (SagaU)	14:15-14:30	WeCPOD2.1	Standing-Up Motion Support for Paraplegic Patient with Robot Suit HAL Atsushi Tsukahara* , Yasuhisa Hasegawa , Yoshiyuki Sankai University of Tsukuba [Japan]	95
	14:30-14:45	WeCPOD2.2	Gait Trials of an Active AFO for Achilles Tendon Ruptures Nobuyuki Yoshizawa* Nippon Institute of Technology [Japan]	34
	14:45-15:00	WeCPOD2.3	Design of a Joint-Coupled Orthosis for FES-Aided Gait Ryan Farris* , Hugo Quintero , Thomas Withrow , Michael Goldfarb Vanderbilt University [USA]	43
	15:00-15:15	WeCPOD2.4	Estimation of Finger Joint Angles from Semg Using a Recurrent Neural Network with Time-Delayed Input Vectors Masaaki Hioki* , Haruhisa Kawasaki Gifu University [Japan]	28
Podium Session, POD3 17:00-18:00  "Biocooperative Robotics & Mental and Physical Rehabilitation Engineering"	17:00-17:15	WeEPOD3.1	Bio-Cooperative Robotics: Controlling Mechanical, Physiological and Mental Patient States Robert Riener* , Alexander Christian Koenig , Bolliger Marc , Martin Wieser , Alexander Duschau-Wicke , Heike Vallery ETH Zurich [Switzerland]	36
	17:15-17:30	WeEPOD3.2	Biocooperation in Rehabilitation Robotics of Upper Extremities Marko Munih* , Domen Novak , Tadej Bajd , Matjaž Mihelj University of Ljubljana [Slovenia]	52

Podium Session, POD3 17:00-18:00  Session Co-chairs: Rui Loureiro(UReading) Yamamoto Shinichiro (ShibauraIT)	17:30-17:45	WeEPOD3.3	Methodological Consideration for the Recruitment of Upper Limb Muscles During Two Joint Arm Movements Tasuku Miyoshi* , Yoshiyuki Takahashi , Lee Hokyo , Masaki Yamaguchi , Takashi Komeda Iwate University [Japan]	21
	17:45-18:00	WeEPOD3.4	Mental Health Evaluation Using Chemical Sensor As Human-Machine Interface Yusuke Tahara* , Takayuki Takahashi , Kazunori Takeda , Tasuku Miyoshi , Masaki Yamaguchi Iwate University [Japan]	66
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	14:45-15:00	ThCPOD5.2	Powered Sit-To-Stand and Assistive Stand-To-Sit Framework for a Powered Transfemoral Prosthesis Huseyin Atakan Varol* , Frank Sup , Michael Goldfarb Vanderbilt University [USA]	80
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