Wearable Robotics I	
Date / Time	Aug. 22 (Mon.), 2022 / 10:15-11:30
Room	Room 517
Session Chair	Damiano Zanotto *(Stevens Institute of Technology)*

[MoO1A.1] **10:15-10:30**

Human-Robot Interaction: Muscle Activation and Angular Location Affect Soft Tissue Stiffness

Saad N. Yousaf, Keya Ghonasgi, Paria Esmatloo, and Ashish D. Deshpande

[MoO1A.2] **10:30-10:45**

Reactive Postural Control during Sit-to-Stand Motion

Tatiana D. Luna, Victor Santamaria, Xupeng Ai, and Sunil K. Agrawal

[MoO1A.3] **10:45-11:00**

Reinforcement Learning-Based Adaptive Biofeedback Engine for Overground Walking Speed Training

Huanghe Zhang, Shuai Li, Qingya Zhao, Ashwini K. Rao, Yi Guo, and Damiano Zanotto

[MoO1A.4] **11:00-11:15**

2.5D Laser-Cutting-Based Customized Fabrication of Long-Term Wearable Textile sEMG Sensor: From Design to Intention Recognition

Hwayeong Jeong, Jirou Feng, and Jung Kim

[MoO1A.5] **11:15-11:30**

Effect of External Damping on Ankle Motion during the Swing Phase of Walking

Chinmay Jategaonkar, Yogesh Singh, and Vineet Vashista

Exoskeleton/Exosuit I	
Date / Time	Aug. 22 (Mon.), 2022 / 10:15-11:45
Room	Room 515
Session Chair	Jesus Ortiz *(IIT),* Brian Byunghyun Kang *(Sejong University)*

[MoO1B.1] **10:15-10:30**

Simulation of Energy Regeneration in Human Locomotion for Efficient Exoskeleton Actuation

Brokoslaw Laschowski, Keaton A. Inkol, Alex Mihailidis, and John McPhee

[MoO1B.2] **10:30-10:45**

Kinematic Validation of a Robotic Exoskeleton for Assisting Seated Pelvic Movements by Wheelchair Users with Trunk Impairments

Chawin Ophaswongse, Victoria Lent, and Sunil K. Agrawal

[MoO1B.3] **10:45-11:00**

Analysis of the Bayesian Gait-State Estimation Problem for Lower-Limb Wearable Robot Sensor Configurations

Roberto Leo Medrano, Gray Cortright Thomas, Elliott J. Rouse, and Robert D. Gregg

[MoO1B.4] **11:00-11:15**

The AGoRA V2 Unilateral Lower-Limb Exoskeleton: Mechatronic Integration and Biomechanical Assessment

Sophia Otálora, Felipe Ballen-Moreno, Luis Arciniegas-Mayag, Marcela Múnera, and Carlos A. Cifuentes

[MoO1B.5] **11:15-11:30**

Active and Passive Back-Support Exoskeletons: A Comparison in Static and Dynamic Tasks

Tommaso Poliero, Vasco Fanti, Matteo Sposito, Darwin G. Caldwell, and Christian Di Natali

[MoO1B.6] **11:30-11:45**

Improving the Efficacy of an Active Back-Support Exoskeleton for Manual Material Handling using the Accelerometer Signal

Maria Lazzaroni, Vasco Fanti, Matteo Sposito, Giorgia Chini, Francesco Draicchio, Christian Di Natali, Darwin G. Caldwell, and Jesús Ortiz

Biomedical Robotics I	
Date / Time	Aug. 22 (Mon.), 2022 / 10:15-11:45
Room	Room 513
Session Chair	Bum No Ahn *(KITECH)*

[MoO1C.1] **10:15-10:30**

Towards Humanoids using Personal Transporters: Learning to Ride a Segway from Humans

Vidyasagar Rajendran, Jonathan Feng-Shun Lin, and Katja Mombaur

[MoO1C.2] **10:30-10:45**

Reinforcement Learning Based CPG Controller for a Soft Gastropod Robot and its Gaits Comparison Study

Wenci Xin, Wing Yin Ng, Flippy Tianle Pan, Yehui Li, Philip Wai Yan Chiu, and Zheng Li

[MoO1C.3] **10:45-11:00**

Change in Muscle Synergies during Stairmill Ascentwith External Forces on the Pelvis

Biing-Chwen Chang and Sunil K. Agrawal

[MoO1C.4] **11:00-11:15**

Modulation of Prosthetic Ankle Plantarflexion through Direct Myoelectric Control of a Subject-Optimized Neuromuscular Model

Tony Shu, Christopher Shallal, Ethan Chun, Aashini Shah, Angel Bu, Daniel Levine, Seong Ho Yeon, Matthew Carney, Hyungeun Song, Tsung-Han Hsieh, and Hugh M. Herr

[MoO1C.5] **11:15-11:30**

Effectiveness of a Passive Neck Support Mechanism for Overhead Occupational Tasks

Marco Rossini, Sander De Bock, Vincent Ducastel, Kevin Langlois, Kevin De Pauw, Joost Geeroms, Carlos Rodriguez-Guerrero, and Dirk Lefeber

[MoO1C.6] **11:30-11:45**

Evaluation of Human Body Balance Ability through Geometric Solution based on an Equivalent Model using an RGB Camera

Hang Thi Phuong Nguyen, Yeongju Woo, Choonsung Shin, and Hieyong Jeong

Wearable Robotics II	
Date / Time	Aug. 22 (Mon.), 2022 / 14:00-15:00
Room	Room 517
Session Chair	Youngjin Na *(Sookmyung Women's University)*

[MoO2A.1] **14:00-14:15**

A Data-Based Approach to Simultaneously Align Local and Global Frames between an Inertial Measurement Unit (IMU) and an Optical Motion Capture System

Yichu Jin, Yu Meng Zhou, Connor M. McCann, Tommaso Proietti, Chris H. Rycroft, and Conor J. Walsh

[MoO2A.2] **14:15-14:30**

Changes in Gait Parameters due to Visual and Head Oscillations in Football Players and Non-Athletes

Fitsum E. Petros, Matthew E. Klenk, and Sunil K. Agrawal

[MoO2A.3] **14:30-14:45**

Guiding a Human Follower with Interaction Forces: Implications on Physical Human-Robot Interaction

George L. Holmes, Keyri Moreno Bonnett, Amy Costa, Devin Burns, and Yun Seong Song

[MoO2A.4] **14:45-15:00**

The Effect of Transcutaneous Spinal Cord Stimulation on Standing Postural Control in Healthy Adults

Robert M. Carrera, Isirame Omofuma, Bushra Yasin, and Sunil K. Agrawal

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 Anthopometric 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

Biomedical Robotics II	
Date / Time	Aug. 22 (Mon.), 2022 / 14:00-15:30
Room	Room 513
Session Chair	Jungwon Yoon *(GIST)*

[MoO2C.1] **14:00-14:15**

Arbitration of Authority in Physical Human-Robot Collaboration with Combined Preventive and Reactive Fatigue Management

Álvaro Gil Andrés, Niek Beckers, David A. Abbink, and Luka Peternel

[MoO2C.2] **14:15-14:30**

Comparison of Human Trimanual Performance between Independent and Dependent Multiple-Limb Training Modes

Arnaud Allemang--Trivalle, Jonathan Eden, Yanpei Huang, Ekaterina Ivanova, and Etienne Burdet

[MoO2C.3] **14:30-14:45**

Adaptive Control of Underactuated Planar Pronking

Güner Dilşad ER and Mustafa Mert Ankaralı

[MoO2C.4] **14:45-15:00**

Concept of an Observation-Driven Android Robot-Patient with Individualized Communication Skills

Jan Hendrik Röhl, Sandra Hellmers, Rebecca Diekmann, and Andreas Hein

[MoO2C.5] **15:00-15:15**

Biologically Inspired Model for Timed Motion in Robotic Systems

Sebastian Doliwa, Muhammad Ayaz Hussain, Tim Sziburis, and Ioannis Iossifidis

[MoO2C.6] **15:15-15:30**

Cartesian Space Vibrotactile Cues Outperform Tool Space Cues when Moving from 2D to 3D Needle Insertion Task

Edoardo Battaglia and Ann Majewicz Fey

Surgical Robotics I	
Date / Time	Aug. 23 (Tue.), 2022 / 10:00-11:00
Room	Room 517
Session Chair	Amy Kyungwon Han *(Seoul National University)*

[TuO1A.2] **10:00-10:15**

HDR Brachytherapy Planning using Active Needles – Reliminary Investigation on Dose Planning

Mahsa Rabiei, Seong Young Ko, Tarun K. Podder, John Lederer, and Bardia Konh

[TuO1A.3] **10:15-10:30**

Experimental Evaluation using Head Motion and Augmented Reality to Intuitively Control a Flexible Endoscope

Yoeko X. Mak, Maurits Zegel, Momen Abayazid, Massimo A. Mariani, and Stefano Stramigioli

[TuO1A.4] **10:30-10:45**

Preliminary Estimation of the Friction between Force-Sensing Forceps and Cornea

Yu Zheng, Yang Yang, Chuang Lin, Chen-Han Guang, Jun-Jie Zong, and Ke Ma

[TuO1A.5] **10:45-11:00**

Orientation Matters: 6-DoF Autonomous Camera Movement for Video-Based Skill Assessment in Robot-Assisted Surgery

Alaa Eldin Abdelaal, Nancy Hong, Apeksha Avinash, Divya Budihal, Maram Sakr, Gregory D. Hager, and Septimiu E. Salcudean

Regular Award Talks	
Date / Time	Aug. 23 (Tue.), 2022 / 10:00-11:30
Room	Room 515
Session Chair	Jung Kim *(KAIST)*

[TuO1B.1] **10:00-10:15**

A Hybrid Assistive Paradigm based on Neuromuscular Electrical Stimulation and Force Control for Upper Limb Exosuits

Elisa Galofaro, Erika D'Antonio, Nicola Lotti, and Lorenzo Masia

[TuO1B.2] **10:15-10:30**

Optimizing the Capsule-Based Refilling Strategy for an Implantable Insulin Delivery Device Tailored on Human Anatomy

Hind Al-Haddad, Daniele Guarnera, Izadyar Tamadon, Giulia Ballardini, Denise Luchetta, Simone M. Isolani, Cesare Gianfaldoni, Fabio Vistoli, Arianna Menciassi, Paolo Dario, Veronica Iacovacci, and Leonardo Ricotti

[TuO1B.3] **10:30-10:45**

Driving Simulator for Assessing Driving Skills of People with Multiple Sclerosis: A Pilot Study

Camilla Pierella, Paolo Romani, Filippo Gandolfi, Jessica Podda, Antonino Massone, Andrea Tacchino, Giampaolo Brichetto, Andrea Canessa, Serena Ricci, and Maura Casadio

[TuO1B.4] **10:45-11:00**

Vocal Pain Expression Augmentation to Improve Interaction Accuracy in Virtual Robopatient

Namnueng Protpagorn, Leone Costi, Thilina Dulantha Lalitharatne, Ilana Nisky, and Fumiya Iida

[TuO1B.5] **11:00-11:15**

Work-Sharing of Upper and Lower Limbs (WULL) to Assist Ambulatory Movements

Gabriel Rios Carbonell, Renoa Choudhury, Eric Frankle, Ibrahim Falih Kadhim, David Fukuda, and Joon-Hyuk Park

[TuO1B.6] **11:15-11:30**

Evaluating the Benefits of a Soft Inflatable Knee Exosuit during Squat Lifting

Emiliano Quinones Yumbla, Saivimal Sridar, and Wenlong Zhang

Biomedical Robotics III	
Date / Time	Aug. 23 (Tue.), 2022 / 10:00-11:30
Room	Room 513
Session Chair	Sukho Park *(DGIST)*

[TuO1C.1] **10:00-10:15**

PondusHand: Estimation Method of Fingertips Force by User's Forearm Muscle Deformation based on Calibration with Mobile Phone's Touch Screen

Satoshi Hosono, Tamon Miyake, and Emi Tamaki

[TuO1C.2] **10:15-10:30**

The Effect of Design and Control Parameters of a Soft Robotic Fish Tail to Maximize Propulsion Force in Undulatory Actuation

Robin Hall, Erik Skorina, Shou-Shan Chiang, and Cagdas D. Onal

[TuO1C.3] **10:30-10:45**

Free-Living Ambulatory Activity Classification: A Comparative Analysis of Wrist-Worn, Insole-Embedded, and Phone-Embedded Sensors

Ton T. H. Duongy, Leo Musacchiay, David Uherz, Jacqueline Montesz, and Damiano Zanotto

[TuO1C.4] **10:45-11:00**

Insect-Tarsus-Inspired Legs: Toward Improvement of Gripping Ability of Small Tree-Climbing Robots

Keitaro Ishibashi and Hiroyuki Ishii

[TuO1C.5] **11:00-11:15**

Maintaining Mobility in Older Age - Design and Initial Evaluation of the Robot SkyWalker for Walking & Sit-to-Stand Assistance

Anas Mahdi, Jonathan Feng-Shun Lin, and Katja Mombaur

[TuO1C.6] **11:15-11:30**

LocoESIS: Deep-Learning-Based Leg-Joint Angle Estimation from a Single Pelvis Inertial Sensor

Tsige Tadesse Alemayoh, Jae Hoon Lee, and Shingo Okamoto

Surgical Robotics II	
Date / Time	Aug. 23 (Tue.), 2022 / 14:00-15:45
Room	Room 517
Session Chair	Sukho Park *(DGIST)*

[TuO2A.1] **14:00-14:15**

Design and Characterization of a Multiple Needle Insertion MRI-Guided Robot for Irreversible Electroporation (IRE) Treatment

Girindra Wardhana, Yoeko X. Mak, Momen Abayazid, and Jurgen J. Fütterer

[TuO2A.2] **14:15-14:30**

A Kirigami-Based Magnetically Steerable Robotic Catheter for Treatment of Peripheral Artery Disease

Tarunraj G. Mohanraj, Jaeyun Song, Mohammad R. Rajebi, Lei Zhou, and Farshid Alambeigi

[TuO2A.3] **14:30-14:45**

A 3-D Haptic Trackball Interface for Teleoperating Continuum Robots

Mufeng Xie, Cédric Girerd, and Tania K. Morimoto

[TuO2A.4] **14:45-15:00**

Toward Correcting Anxious Movements using Haptic Cues on the Da Vinci Surgical Robot

Yi Zheng, Marzieh Ershad, and Ann Majewicz Fey

[TuO2A.5] **15:00-15:15**

Simulating and Optimizing Nasopharyngeal Swab Insertion Paths for Use in Robotics

Peter Q. Lee, John S. Zelek, and Katja Mombaur

[TuO2A.6] **15:15-15:30**

Evaluation of Surgical Performance after Extended Laparoscopic Training using Physical Haptic Constraints

Noah Wright, Deborah Farr, and Ann Majewicz Fey

[TuO2A.7] **15:30-15:45**

Soft Control Interface for Highly Dexterous Unilateral Remote Palpation

Leone Costi, Thilina Dulantha Lalitharatne, and Fumiya Iida

RAL Award Talks	
Date / Time	Aug. 23 (Tue.), 2022 / 14:00-15:30
Room	Room 515
Session Chair	Elliott J. Rouse *(University of Michigan)*

[TuO2B.1] **14:00-14:15**

Predicting Sagittal-Plane Swing Hip Kinematics in Response to Trips

Shannon M. Danforth, Xinyi Liu, Martin J. Ward, Patrick D. Holmes, and Ram Vasudevan

[TuO2B.2] **14:15-14:30**

Enhancing Gait Assistance Control Robustness of a Hip Exosuit by Means of Machine Learning

Xiaohui Zhang, Enrica Tricomi, Francesco Missiroli, Nicola Lotti, Casimir Bokranz, Daniela Nicklas, and Lorenzo Masia

[TuO2B.3] **14:30-14:45**

Is a Robot Needed to Modify Human Effort in Bimanual Tracking?

Nuria Peña Perez, Jonathan Eden, Ekaterina Ivanova, Etienne Burdet, and Ildar Farkhatdinov

[TuO2B.4] **14:45-15:00**

Immediate Biomechanical Effects of Providing Adaptive Assistance with an Ankle Exoskeleton in Individuals After Stroke

Jesús de Miguel-Fernández, Camille Pescatore, Alba Mesa-Garrido, Cindy Rikhof, Erik Prinsen, Josep M. Font-Llagunes, and Joan Lobo-Prat

[TuO2B.5] **15:00-15:15**

Ecological Validation of Machine Learning Models for Spatiotemporal Gait Analysis in Free-Living Environments using Instrumented Insoles

Ton T. H. Duong, David Uher, Jacqueline Montes, and Damiano Zanotto

[TuO2B.6] **15:15-15:30**

Thumb Stabilization and Assistance in a Robotic Hand Orthosis for Post-Stroke Hemiparesis

Ava Chen, Lauren Winterbottom, Sangwoo Park, Jingxi Xu, Dawn M. Nilsen, Joel Stein, and Matei Ciocarlie

Biomedical Robotics IV	
Date / Time	Aug. 23 (Tue.), 2022 / 14:00-15:45
Room	Room 513
Session Chair	Hyung-Soon Park *(KAIST)*

[TuO2C.1] **14:00-14:15**

Shared Control of Upper Limb Prosthesis for Improved Robustness and Usability

Rebecca J Greene, Dayeon Kim, Rahul Kaliki, Peter Kazanzides, and Nitish Thakor

[TuO2C.2] **14:15-14:30**

A Versatile Emulator for Haptic Communication to Alter Human Gait Parameters

Mengnan Wu, Yingxin Qiu, Jun Ueda, and Lena H. Ting

[TuO2C.3] **14:30-14:45**

Wrist-Squeezing Force Feedback Improves Accuracy and Speed in Robotic Surgery Training

Sergio Machaca, Eric Cao, Amy Chi, Gina Adrales, Katherine J Kuchenbecker, and Jeremy D Brown

[TuO2C.4] **14:45-15:00**

Therapists' Opinions on Telehealth, Robotics, and Socially Assistive Robot-Augmented Telepresence Systems for Rehabilitation

Michael J. Sobrepera, Vera G Lee, and Michelle J. Johnson

[TuO2C.5] **15:00-15:15**

Dynamic Finger Task Identification using Electromyography

Paria Esmatloo, Keya Ghonasgi, Raymond King, and Ashish D. Deshpande

[TuO2C.6] **15:15-15:30**

Resembled Tactile Feedback for Object Recognition using a Prosthetic Hand

Luis Vargas, He Huang, Yong Zhu, Derek Kamper, and Xiaogang Hu

[TuO2C.7] **15:30-15:45**

Reconfigurable Shape Morphing with Origami-Inspired Pneumatic Blocks

Yunha Park, Joohyeon Kang, and Youngjin Na

Wearable Robotics III	
Date / Time	Aug. 24 (Wed.), 2022 / 10:00-11:30
Room	Room 517
Session Chair	James Patton *(University of Illinois Chicago)*

[WeO1A.1] **10:00-10:15**

Theoretical Development of a Knee-Ankle ExoNET to Supplement Muscle Function

Beatrice Malizia, Michael Jacobson, Partha Ryali, Myunghee Kim, and James L. Patton

[WeO1A.2] **10:15-10:30**

ReRobApp: A Modular and Open-Source Software Framework for Robotic Rehabilitation and Human-Robot Interaction

Jose Y. Moreno, Felix M. Escalante, Thiago Boaventura, Marco H. Terra, and Adriano A. G. Siqueira

[WeO1A.3] **10:30-10:45**

HANS: A Haptic System for Human-to-Human Remote Handshake

Mihai Dragusanu, Zubair Iqbal, Alberto Villani, Nicole D'Aurizio, Domenico Prattichizzo, and Monica Malvezzi

[WeO1A.4] **10:45-11:00**

Phase Segmentation and Percentage Prediction of Trunk Movement Cycle

Xupeng Ai, Victor Santamaria, Antonio Prado, and Sunil K. Agrawal

[WeO1A.5] **11:00-11:15**

Comparison of Reaching Motion in Mixed Reality Headset and End-Effector-Based Robotic Arm with Flat Panel Display

Jae-Yeop Nam, Seong-Hoon Lee, and Won-Kyung Song

[WeO1A.6] **11:15-11:30**

Throwing Strategy in a Dual-Motor-Task of Aiming at the Bullseye while Walking in Virtual Reality

Yogesh Singh, Sunil K. Agrawal, and Vineet Vashista

Prosthesis	
Date / Time	Aug. 24 (Wed.), 2022 / 10:00-11:30
Room	Room 515
Session Chair	Jiyeon Kang *(SUNY Buffalo)*

[WeO1B.1] **10:00-10:15**

Empirical Validation of an Auxetic Structured Foot with the Powered Transfemoral Prosthesis

Woolim Hong, Namita Anil Kumar, Shawanee Patrick, Hui-Jin Um, Heon-Su Kim, Hak-Sung Kim, and Pilwon Hur

[WeO1B.2] **10:15-10:30**

A Low-Cost 3D Printed Prosthetic Hand with a Sensory Feedback Interface

Yair Herbst, Derick Sivakumaran, Yoav Medan, and Alon Wolf

[WeO1B.3] **10:30-10:45**

A Lightweight Transradial Prosthetic Emulator for Optimizing Prosthetic Wrist Design

Souvik Poddar and Jiyeon Kang

[WeO1B.4] **10:45-11:00**

The PrHand: Functional Assessment of an Underactuated Soft-Robotic Prosthetic Hand

Laura De Arco, Orion Ramos, Marcela Múnera, Mehran Moazen, Helge Wurdemann, and Carlos A. Cifuentes

[WeO1B.5] **11:00-11:15**

Effects of Modulation Coefficient Adjustment on Energy Regeneration of Damping Torque Controlled Transtibial Prosthesis

Wenduo Zhu, Jingeng Mai, and Qining Wang

[WeO1B.6] **11:15-11:30**

A Multi-Body Model of an Upper-Limb Prosthesis for Grip Force Estimation and Related Object Interaction Application

Giulia Bruni, Anna Bucchieri, Federico Tessari, Nicolò Boccardo, Andrea Marinelli, Elena De Momi, Matteo Laffranchi, and Lorenzo De Michieli

Biofeedback and Sensors	
Date / Time	Aug. 24 (Wed.), 2022 / 10:00-11:30
Room	Room 513
Session Chair	Charmayne M.L. Hughes *(San Francisco State University)*

[WeO1C.1] **10:00-10:15**

Effects of Localized Leg Muscle Vibration Timed to Gait Cycle Percentage during Overground Walking

Antonio Prado and Sunil K. Agrawal

[WeO1C.2] **10:15-10:30**

ErgoTac-Belt: Anticipatory Vibrotactile Feedback to Lead Centre of Pressure during Walking

Marta Lorenzini, Juan M. Gandarias, Luca Fortini, Wansoo Kim, and Arash Ajoudani

[WeO1C.3] **10:30-10:45**

Gait Analysis with an Integrated Mobile Robot and Wearable Sensor System Reveals Associations Between Cognitive Ability and Dynamic Balance in Older Adults

Qingya Zhao, Zhuo Chen, Corey D. Landis, Ashley Lytle, Ashwini K. Rao, Yi Guo, and Damiano Zanotto

[WeO1C.4] **10:45-11:00**

An AI -Based Model for Texture Classification from Vibrational Feedback: Towards Development of Self-Adapting Sensory Robotic Prosthesis

Morenike Magbagbeola, Mark Miodownik, Stephen Hailes, and Rui C. V. Loureiro

[WeO1C.5] **11:00-11:15**

Design and Evaluation of an IMU Sensor-Based System for the Rehabilitation of Upper Limb Motor Dysfunction

Bao Tran, Xiaorong Zhang, Amir Modan, and Charmayne M.L. Hughes

[WeO1C.6] **11:15-11:30**

CyberCoach: A Wearable Biofeedback System for Runners

Matthew R. Gibson, Richard J. Boergers, and Damiano Zanotto