

REHABWEEK 2019 / SCIENTIFIC PROGRAM

MONDAY, JUNE 24, 2019

Legend >>>

Plenary: RehabWeek Common Scientific Program

ICORR

ICORR

INRS

IFESS

RESNA

ACRM

ISPO

08:15 - 17:30

REHABWEEK WORKSHOPS

* Please refer to the workshop part for details schedule.

Evening

Welcome Reception

REHABWEEK 2019 / SCIENTIFIC PROGRAM

TUESDAY, JUNE 25, 2019

Legend >>>	Plenary: RehabWeek Common Scientific Program						
Hours / Halls	ICORR Main Hall / ICORR Hall A	ICORR ICORR Hall B	INRS INRS Hall	IFESS IFESS Hall	RESNA RESNA Hall A, B, C, D, E, F	ACRM ACRM Hall	ISPO ISPO Hall
08:00-10:00	<p>Welcome Address (08:00 - 08:30)</p> <p>Keynote Lecture (08:30 - 09:15) Chair: Gery Colombo</p> <p>Speaker: David Putrino, USA <i>How to be an Innovator: Exploring rehabilitation and human performance in the 21st Century</i></p> <p>Poster Fast Forward (09:15 - 10:00)</p>						
10:00-10:45	COFFEE BREAK / POSTER VIEWING / EXHIBITION						
10:45-12:15	<p>Podium Session: Assistive Robotics Chairs: Dino Accoto, Domenico Campolo</p> <p>Identifying the Effects of Assistive and Resistive Guidance on the Gait of Elderly People Using a Smart Walker, <i>Yasushi Uchiyama</i></p> <p>A Semi-Wearable Robotic Device for Sit-To-Stand Assistance, <i>Xiangrong Shen</i></p> <p>Autonomous Multi-Sensory Robotic Assistant for a Drinking Task, <i>Felix Ferdinand Goldau</i></p> <p>Preliminary Design of an Active Stabilization Assistive Eating Device for People Living with Movement Disorders, <i>Alexandre Campeau-Lecours</i></p> <p>Multidimensional Capacitive Sensing for Robot-Assisted Dressing and Bathing, <i>Zackory Erickson</i></p> <p>Interface Operation and Implications for Shared-Control Assistive Robots, <i>Mahdieh Nejati Javaremi</i></p>	<p>Podium Session: Biomechanics and Movement Analysis Chair: Ramazan Unal</p> <p>Ankle Dorsiflexion Strength Monitoring by Combining Sonomyography and Electromyography, <i>Nitin Sharma</i></p> <p>Ankle Mechanical Impedance During Walking in Chronic Stroke: Preliminary Results, <i>Elliott Rouse</i></p> <p>Immediate Effects of Force Feedback and Plantar Somatosensory Stimuli on Inter-Limb Coordination During Perturbed Walking, <i>Yufeng Zhang</i></p> <p>Wearable Monitoring of Joint Angle and Muscle Activity, <i>R. James Cotton</i></p> <p>Jerk Decomposition During Bimanual Independent Arm Cranking, <i>Jozsef Laczko</i></p> <p>MM-MRE: A New Technique to Quantify Individual Muscle Forces During Isometric Tasks of the Wrist Using MR Elastography, <i>Fabrizio Sergi</i></p>	<p>Session Organizer: ISART Chair: Gery Colombo</p> <p>Speakers: Neuromodulation and rehabilitation for recovery after spinal cord injury, <i>Susan Harkema</i></p> <p>Integrating technology into clinical practice to advance the quality of neurorehabilitation: challenges and solutions, <i>Kristin Musselman</i></p> <p>Innovation Technology in Gait Rehabilitation: Robotics and beyond!, <i>Rocco Salvatore Calabrò</i></p> <p>Advanced Gait Diagnostics and Treatment, <i>Jaap Harlaar</i></p>	<p>10:45 - 11:15 IFESS Keynote lecture 1 Chair: <i>Kei Masani</i> Neuromodulation of Spinal Networks to Recover Motor Function: Underlying Mechanisms and Clinical Translations, <i>Dimitry Sayenko</i></p> <p>11:15 - 12:00 Podium Session 1: Neural Circuits Chairs: <i>Kei Masani, Dimitry Sayenko</i> Median Nerve Electrical Stimulation Related Changes in Effective Connectivity in Subjects With Stroke, <i>Yubo Fan</i></p> <p>Restoration Of Natural Sensory Feedback For Prosthetic Hands With Evoked Tactile Sensation, <i>Man-Zhao Hao</i></p> <p>Characterization Of Optimal Electrode Configurations For Transcutaneous Spinal Cord Stimulation, <i>Christina Salchow-Hämnen</i></p> <p>Effect Of Neuromuscular Electrical Stimulation On Excitability Of Subcortical Circuits In Trunk Muscles, <i>Atsufshi Sasaki</i></p>	<p>6 Parallel Workshops</p> <p>1. LiveWell RERC State of the Science Conference: The Future of mHealth for People with Disabilities John Morris, Frank DeRuyter, June Kailes, Devin Mann</p> <p>2. Building Capacity in Assistive Technology: Innovative Strategies in Pre-Service and In-Service Education David McNaughton, Daniel Cochrane, Lynn Gitlow, David L. Jaffe, Caren Sax, Marcia J. Scherer, Therese Willkomm</p> <p>3. Watch Your Language: Communication for Power Mobility Trainin Angie Kiger</p> <p>4. Updating Seating and Mobility Practice for Older Adults Brenlee Mogul-Rotman</p> <p>5. Web Accessibility 101: A DIY Starting Point for Finding and Fixing Website Accessibility Problems Heidi Koester</p> <p>6. Training Program to Increase Access to Public Transportation Through the Use of Smartphone Technology Olivia Vega, Julie Faieta, Carmen DiGiovine, Sandra Metzler</p>	<p>Using Smart Watch Sensing in At-Risk Populations (SARP) System in Rehabilitation</p> <p>Presenters: Ramin Ramezani Arash Naeim Pamela Roberts</p>	<p>10:30-10:40 ISPO Canada Welcome/Opening Remarks: Linda Laakso (ISPO Canada President)</p> <p>10:45-11:20 Invited keynote: Dr. Ed Lemaire – Wearable and Wear-Nothing Approaches for Assistive Technology Assessment (30+5 mins Q&A)</p> <p>11:25-11:40 Open Paper: Dr. Krista Best – Development of a Mobility Device Training Catalogue: Online Resources for Training in the Use of Mobility Devices for People with Physical Disabilities (10+5 mins Q&A)</p> <p>11:45-12:00 Open Paper: Dr. Areezo Eshraghi – Clinical Aspects of Additive Manufacturing Application in Prosthetics and Orthotics: Current and Upcoming Overviews (10+5 mins Q&A)</p>
12:15-13:45	<p>12:30 - 13:30 SPEED NETWORKING</p> <p>LUNCH / POSTER VIEWING / EXHIBITION</p>						
13:45-15:15	<p>Keynote Lecture (13:45 - 14:30) Chair: Megan Mitchell</p> <p>Speaker: Deborah Backus, USA <i>Why Technology Innovation does not Equal Technology Adoption: Strategies for Successful Uptake</i></p> <p>Poster Fast Forward (14:30 - 15:15)</p>						
15:15-16:00	COFFEE BREAK / POSTER VIEWING / EXHIBITION						
16:00-17:30	<p>Podium Session: Robotic Prostheses Chairs: Jonathon Sensinger, Elliott Rouse</p> <p>Texture Discrimination Using a Soft Biomimetic Finger for Prosthetic Applications, <i>Nguyen Harrison</i></p> <p>Pattern Recognition and Direct Control Home Use of a Multi-Articulating Hand Prosthesis, <i>Levi Hargrave</i></p> <p>An Objective Functional Evaluation of Myoelectrically-Controlled Hand Prostheses: A Pilot Study Using the Virtual Peg Insertion Test, <i>Christoph M. Kanzler</i></p> <p>Automatic Detection of Myocontrol Failures Based Upon Situational Context Information, <i>Karoline Heiwolt</i></p> <p>Estimating Deep Muscles Activation from High Density Surface EMG Using Graph Theory, <i>Davide Piovesan</i></p> <p>Bio-Inspired Design and Validation of the Efficient Lockable Spring Ankle (ELSA) Prosthesis, <i>François Heremans</i></p>	<p>Podium Session: Design and Development in Rehabilitation Robotics Chairs: Etienne Burdet, Michelle J. Johnson</p> <p>Design and Development of a Novel Core, Balance and Lower Limb Rehabilitation Robot: Hunova®, <i>Alice De Luca</i></p> <p>Simplifying Exosuits: Kinematic Couplings in the Upper Extremity During Daily Living Tasks, <i>Anna-Maria Georgharakis</i></p> <p>A Robotic Platform for 3D Forelimb Rehabilitation with Rats, <i>Andrew Erwin</i></p> <p>Optimizing Self-Exercise Scheduling in Motor Stroke Using Challenge Point Framework Theory, <i>Rajinder Lotay</i></p> <p>Design and Characterization of a Robotic Device for the Assessment of Hand Proprioceptive, Motor, and Sensorimotor Impairments, <i>Monika Zbytnewska</i></p> <p>Development of Bimanual Coordination Training Game, <i>Ahalya Mandan</i></p>	<p>Session Organizer: NRN Chair: Susan Harkema</p> <p>Speakers: Outcomes of a Prospective, Longitudinal Clinical Trial using Standardized, Activity-based Locomotor Training in Pediatric SCI in the Reeve Foundation NeuroRecovery Network, <i>Andrea Behrman</i></p> <p>Outcomes of a Prospective, Longitudinal Clinical Trial using Standardized, Activity-based Locomotor Training in Adult SCI in the Reeve Foundation NeuroRecovery Network, <i>Gail Forrest</i></p>	<p>16:00 - 16:30 IFESS Keynote lecture 2 Chair: <i>Phil Troyk</i> Implant Technology, <i>Paul Meadows</i></p> <p>16:30 - 17:30 Special Session 1: Snapshots of FES in Asian Countries Chairs: <i>Phil Troyk, Paul Meadows</i></p> <p>Neurorehabilitation With Most Advanced Biomedical Engineering Technology, <i>Yoichi Shimada</i></p> <p>A Survey On Functional Electrical Stimulation In China, <i>Dingguo Zhang</i></p> <p>FES In Malaysia: A Decade And Thriving, <i>Nur Azah Hamzaid</i></p>	<p>6 Parallel Workshops</p> <p>7. ACT Sharing Solutions, Igniting Ideas Adina Bradshaw, Alisa Brownlee</p> <p>8. The Use of Video Visual Scene Displays to Provide Integrated Support for Participation and Communication for Persons with Complex Communication Needs David McNaughton, Erik Jakobs, Tom Jakobs, Janice Light</p> <p>9. Manual Wheelchair Skills Training: A Practical Workshop on Popping Over Obstacles R. Lee Kirby, Cher Smith</p> <p>10. Using wheelchair cushion performance standards to enhance product selection Patricia Karg, David Brienza, Alexandra Delazio</p> <p>11. Benefits of Accrediting Assistive Technology Certificate/Degree Programs Mary Goldberg, Rager Smith, Anne Cronin</p> <p>12. Scientific Paper Platform Session - 1 Moderator: Sajay Arthanat</p>	<p>LiveWell RERC State of the Science Conference: The Future of mRehab for People with Disabilities</p> <p>Presenters: Mike Jones John Morris</p>	<p>16:00-16:40 Panel Discussion Ethics of Additive Manufacturing in Prosthetic & Orthotic Care <i>Moderator: Ed Lemaire</i></p> <p>Panelists: Alican William Matt Ratto Jan Andrysek Sandra Ramedal Gordon Ruder</p> <p>17:00-17:40 OPC AGM</p>
Evening	17:30 - 19:30 IFESS EB Meeting				17:30 - 20:00 Business Meeting and Awards Reception		17:45 - 18:15 ISPO AGM

REHABWEEK 2019 / SCIENTIFIC PROGRAM

WEDNESDAY, JUNE 26, 2019

Legend >>> Plenary: RehabWeek Common Scientific Program							
ICORR	ICORR	INRS	IFESS	RESNA	ACRM	ISPO	
Hours / Halls	Main Hall / ICORR Hall A	ICORR Hall B	INRS Hall	IFESS Hall	RESNA Hall A, B, C, D, E, F	ACRM Hall	ISPO Hall
07:00-08:00					07:00 - 08:00 RESNA PSG Meetings (Professional Specialty Groups)		
08:00-10:00	<p>Keynote Lecture (08:00 - 08:45) Chair: Thierry Keller</p> <p>Speaker: Mark Stephan, USA <i>Recovery</i></p> <p>Poster Viewing & Judging Developer Showcase (09:15 - 10:00)</p>						
10:00-10:45	COFFEE BREAK / POSTER VIEWING / EXHIBITION						
10:45-12:15	<p>Podium Session: Wearable Robotic Systems 1 Chair: Ana Luisa Trejos</p> <p>Balance Control Strategies During Standing in a Locked-Ankle Passive Exoskeleton, <i>Jemina Fasola</i></p> <p>3-D Dynamic Walking Trajectory Generation for a Bipedal Exoskeleton with Underactuated Legs: A Proof of Concept, <i>Barkan Ugurlu</i></p> <p>Co-Ex: A Torque-Controllable Lower Body Exoskeleton for Dependable Human-Robot Co-Existence, <i>Barkan Ugurlu</i></p> <p>Admittance Control Scheme Comparison of EXO-UL8: A Dual-Arm Exoskeleton Robotic System, <i>Jianwei Sun</i></p> <p>On the Edge between Soft and Rigid: An Assistive Shoulder Exoskeleton with Hyper-Redundant Kinematics, <i>Luca Tiseni</i></p> <p>Acceleration-Based Assistive Strategy to Control a Back-Support Exoskeleton for Load Handling: Preliminary Evaluation, <i>Maria Lazzaroni</i></p>	<p>Podium Session: Systems for Therapy and Evaluation Chairs: Domen Novak, Rui C. V. Loureiro</p> <p>Is Simulator-Based Driver Rehabilitation Missing Motion Feedback? <i>Brendan W Smith</i></p> <p>Exploring the Capabilities of Harmony for Upper-Limb Stroke Therapy, <i>Ana Christine De Oliveira</i></p> <p>Stroke Rehabilitation with Distorted Vision Perceived As Forces, <i>Eyad Hajissa</i></p> <p>Pilot Long-Term Evaluation of Competitive and Cooperative Exercise Games in Inpatient Stroke Rehabilitation, <i>Domen Novak</i></p> <p>Age-Related Declines in Sensorimotor Proficiency Are Specific to the Tested Motor Skill Component, <i>Charmayne Hughes</i></p> <p>A Robot-Assisted Sensorimotor Training Program Improves Proprioception and Motor Function in Chronic Stroke Survivors, <i>Naveen Elangovan</i></p>	<p>Session Organizer: ISVR Chair: Patrice L. (Tamar) Weiss</p> <p>Speakers: Defining Virtual Reality Based Rehabilitation as a Field of Study, <i>Patrice L. (Tamar) Weiss</i></p> <p>Using Video Games and Virtual Reality for Stroke Rehabilitation, <i>Rachel Proffitt</i></p> <p>Using Virtual Reality for Upper Limb Rehabilitation after a Stroke: A Clinician's Perspective, <i>Marika Demers</i></p> <p>Design and Validation of Ecologically Valid Cognitive-Motor Rehabilitation Systems, <i>Sergi Bermúdez J Badia</i></p>	<p>10:45 - 11:15 IFESS Keynote lecture 3 Chair: <i>Christine Azevedo-Coste</i> FES to Bioelectronic Medicines: Neural Interfaces and Methods for the Autonomic Nervous System to Effect Changes to Organ Function, <i>Ken Yoshida</i></p> <p>11:15 - 12:15 Podium Session 2: Novel Technologies Chairs: <i>Christine Azevedo-Coste, Ken Yoshida</i> Influence Of Electrode Geometry On Selectivity And Comfort For Functional Electrical Stimulation, <i>Narrendar Ravichandran</i></p> <p>Wireless Glove For Estimation Of Hand Functions And Tracking Movement Amplitudes During FES Therapy, <i>Jovana Malešević</i></p> <p>Muscle Fatigue Assessment In A Wearable Neuroprosthesis Using Ultrasound Strain Imaging, <i>Zhiyu Sheng</i></p> <p>Treatment Of Deep Tissue Pressure Injury Using A Novel Electrical Stimulation Paradigm, <i>Vivian Mushahwar</i> Is It Possible To Use The Fes-Evoked Nociceptive Withdrawal Reflex As Feedback In A BCI System? <i>Enka G. Spaich</i></p>	<p>6 Parallel Workshops</p> <p>13. Adaptive and Therapeutic Approaches to Videogaming Erin Muston-Firsh, Maria Calder</p> <p>14. Implementing a Novel Eye Gaze Assistive Technology Evaluation (EGATE) in Clinical Practice with Children with Disabilities Claire Davies, Erin Perfect, Amir Moseleh, Roderick Spender</p> <p>15. Manual Wheelchair Skills Training – a Practical Workshop on Wheeles Skills R. Lee Kirby, Cher Smith</p> <p>16. More than mobility: Providing Power Mobility Training to Children and Adults with Cognitive Impairments Lisa Kenyon, Emma Smith, William C. Miller</p> <p>17. An Interactive Symposium on the Barriers Associated with Assistive Technology Transfer Michelle Zorrilla, Mary Goldberg, Jan Pearlman</p> <p>18. Scientific Paper Platform Session - 2 Moderator: Heidi Koester</p>	<p>Purposeful Use of Functional Electrical Stimulation to Optimize Functional Outcomes</p> <p>Presenters: Wendy Warfield, Deborah Backus</p>	<p>10:30-10:50 Invited Speaker: Dr. Michael Payne – The Impact of Cognition of Prosthetic Outcomes (15+5 min Q&A)</p> <p>10:55-11:15 Invited Speaker: Dr. Matthew Major – Personalized rehabilitation: Mapping the Links between Prosthetic Device Parameters, Motor Capacity, and Clinical Outcomes for Optimizing Interventions (15+5 min Q&A)</p> <p>11:20-11:40 Invited Speaker: Dr. Stefania Fatone – Development and Dissemination of the Northwestern University Flexible Sub-Ischial Socket Technique (15+5 mins Q&A)</p> <p>11:45-12:00 Open paper: Quinn Boser – Characterizing the Eye Gaze Behaviour of Body-Powered Prosthesis Users (10+5 mins Q&A)</p>
12:15-13:45		12:30 - 13:30 ICORR General Assembly	LUNCH / POSTER VIEWING / EXHIBITION				
13:45-15:15	<p>Keynote Lecture (13:45 - 14:30) Chair: William (Bill) Miller</p> <p>Speaker: Claude Tardif, Canada <i>Digital Transformation in Rehabilitation and Mobility Device Services: The Way Forward?</i></p> <p>Panel Discussion (14:30 - 15:15)</p> <p>Rehab Tech Development, Deployment and Assessment Moderators: Deborah Backus, Michael L Jones Panel Members: Jennifer French, Ursula Costa, Marcia O'Malley, Ann-Marie Hughes</p>						
15:15-16:00	COFFEE BREAK / POSTER VIEWING / EXHIBITION						
16:00-17:30	<p>Podium Session: Wearable Robotic Systems 2 Chairs: Lorenzo Masia, Arun Jayaraman</p> <p>Design and Validation of a Partial-Assist Knee Orthosis with Compact, Backdrivable Actuation, <i>Robert D. Gregg</i></p> <p>ExoProsthetics: Assisting Above-Knee Amputees with a Lightweight Powered Hip Exoskeleton, <i>Marshall Ishmael</i></p> <p>Development of a Robotic Unloader Brace for Investigation of Conservative Treatment of Medial Knee Osteoarthritis, <i>Dylan Reinsdorf</i></p> <p>Energy Recuperation at the Hip Joint for Paraplegic Walking: Interaction between Patient and Supportive Device, <i>Robert Riener</i></p> <p>User-Driven Walking Assistance: First Experimental Results Using the MyoSuit, <i>Robert Riener</i></p> <p>Wearable Lymphedema Massaging Modules: Proof of Concept Using Origami-Inspired Soft Fabric Pneumatic Actuators, <i>Hye Ju Yoo</i></p>	<p>Podium Session: Control Strategies in Rehabilitation Robotics Chairs: Angelo Basteris, G.B. (Gerdienke) Prange-Lasonder</p> <p>Method for Muscle Tone Monitoring During Robot-Assisted Therapy of Hand Function: A Proof of Concept, <i>Raffaele Ranzani</i></p> <p>A Neuromuscular-Model Based Control Strategy to Minimize Muscle Effort in Assistive Exoskeletons, <i>Manolo Garabini</i></p> <p>Performance Evaluation of EEG/EMG Fusion Methods for Motion Classification, <i>Ana Luisa Trejos</i></p> <p>Indirect Robotic Movement Shaping through Motor Cost Influence, <i>Justin Fang</i></p> <p>An Online Transition of Speed-Dependent Reference Joint Trajectories for Robotic Gait Training, <i>James Sulzer</i></p> <p>Gait Phase Identification During Level, Incline and Decline Ambulation Tasks Using Portable Sonomyographic Sensing, <i>Kenneth Hoyt</i></p>	<p>Session Organizer: WFNR Chair: Frans Steenbrink</p> <p>Speakers: Application of Virtual Reality for Stroke NeuroRehabilitation, <i>Won-Seok Kim</i></p> <p>Balance exercise assist robot for patients with stroke, <i>Yohel Otaka</i></p> <p>Overview of RATULS: The World Largest Rehabilitation Robotics RCT, <i>Hermano Igo Krebs</i></p> <p>Exploring the 'active ingredients' of motor learning and transfer in virtual environments, <i>Danielle Levac</i></p>	<p>16:00 - 16:30 IFESS Keynote lecture 4 Chair: <i>Ines Bersch</i> Utilising Physiological Principles to Reduce Contraction Fatigability during Functional Electrical Stimulation, <i>David F. Collins</i></p> <p>16:30 - 17:30 Podium Session 3: Movement Analysis of FES Chairs: <i>Ines Bersch, David F. Collins</i> Effects Of Different Types Of Neuromuscular Electrical Stimulation On The Excitability Of The Brain, <i>David F Collins</i></p> <p>Computational Study On Spatially Distributed Sequential Stimulation For Fatigue Resistant Neuromuscular Electrical Stimulation, <i>Silviu Agotici</i></p> <p>Gait Event Detection For Functional Electrical Stimulation During Lokomat Training, <i>Andreas Schicketmueller</i></p> <p>A FES-Rowing Control Based On Upper Limb Kinematics, <i>Lucas O. Fonseca</i></p> <p>Pilot Clinical Trial Of Novel Multi-Pad Based FES Grasping System And Two Treatment Modalities, <i>Milica Isakovic</i></p>	<p>6 Parallel Workshops</p> <p>19. Accommodations Show and Tell Therese Willkomm</p> <p>20. Macro Express, AutoHotkey and VBA: An Introduction to Software Shortcuts Alan Cantor</p> <p>21. Material Matters: The Substance and Design of Seating Components Brenlee Mogul-Rotman</p> <p>22. Night and Day Posture Care Management: A Toolkit To Get Started! Tamara Kittelson-Aldred, Lee Ann Hoffman</p> <p>23. Building Better Together: Leveraging Academic Resources to Meet Assistive Technology Needs Claire Davies, Katie Vantil, Elizabeth Hoskin, Caryn Voules</p> <p>24. A Conversation: Dr. Marcia Scherer and the Genius of Assistive Technology MaryEllen Buring, Marcia J. Scherer</p>	<p>Implementing Rehabilitation Technology in Clinical Practice: Challenges and Lessons Learned</p> <p>Presenters: Rachel Proffitt, Lynne Gauthier, William Janes, Lauren Sheehan</p>	<p>16:00-16:20 Invited Speaker: Dr. Jan Andrysek – Using Biofeedback Systems to Improve Gait of Lower-Limb Prosthetic Users (15+5 min Q&A)</p> <p>16:25-16:45 Invited Speaker: Dr. Robert Gregg – On the Design and Control of Partial-Assist Powered Orthoses for Broad Patient Populations (15+5 min Q&A)</p> <p>16:50-17:05 Open Paper: Nicolas Fromme – Assessment of a Soft, Passive Tremor Suppression Orthosis (10+5 mins Q&A)</p> <p>17:10-17:25 Open Paper: Michael Rosenberg – Muscle Coordination Differs between Non-Steady-State and Steady-State Walking with Ankle Exoskeletons (10+5 mins Q&A)</p> <p>17:30-17:40 Closing Remarks: Linda Laakso (ISPO Canada President)</p>
Evening	<p>RehabWeek Night ***Ticked Event</p>						

REHABWEEK 2019 / SCIENTIFIC PROGRAM

THURSDAY, JUNE 27, 2019

Legend >>>	Plenary: RehabWeek Common Scientific Program					
ICORR	ICORR	ICORR	INRS	IFESS	RESNA	ACRM
Hours / Halls	Main Hall / ICORR Hall A	ICORR Hall B	INRS Hall	IFESS Hall	RESNA Hall A, B, C, D, E, F	ACRM Hall
07:00-08:00					07:00 - 08:00 RESNA SIG Meetings (Special Interest Groups)	
08:00-10:00	<p>Keynote Lecture (08:00 - 08:45) Chair: Ana Louisa Trejos Speaker: Katherine Kuchenbecker, <i>Germany</i> <i>Haptic Interactions Matter</i></p> <p>Panel Discussion (08:45 - 09:20) On the Interface Between Implantable Neuromodulation Therapies, Neuroscience, and Neurorehabilitation Moderator: Milos R. Popovic Panel Members: B. Cathy Craven, Alireza Gharabaghi, Cesar Marquez-Chin, Luka Milosevic, Kristin Musselman, Vivian Mushahwar, Dimitry Sayenko, Taufik Valiante</p> <p>Panel Discussion (09:20 - 09:55) Getting the Ball Rolling: Using Assistive Technology with Children Moderator: Dan Cochrane Panel Members: Anne Cronin, Sue Redepenning, Amy Ratajczak, Tony Gentry, Alicia Drelick, Christa Lohman</p>					
10:00-10:45	COFFEE BREAK / POSTER VIEWING / EXHIBITION					
10:45-12:15	<p>Podium Session: Neuroengineering Chairs: Arun Jayaraman, Verena Klamroth-Marganska</p> <p>Allu: An Affordable Sensorized Toy for Detection of Neuro and Motor Delays in Infants, <i>Michelle J. Johnson</i></p> <p>Predicting Upper Limb Compensation During Prehension Tasks in Tetraplegic Spinal Cord Injured Patients Using a Single Wearable Sensor, <i>Sophie Schneider</i></p> <p>Identifying the Neural Representation of Fast and Slow States in Force Field Adaptation Via FMRI, <i>Andria Farrens</i></p> <p>Influence of Visual-Coupling on Bimanual Coordination in Unilateral Spastic Cerebral Palsy, <i>Sharah Abdul Mutalib</i></p> <p>Movement Related Activity in the μ Band of the Human EEG During a Robot-Based Proprioceptive Task, <i>Francesca Marini</i></p> <p>Automated Variable Stimulus Tendon Tapping Modulates Somatosensory Evoked Potentials, <i>Waiman Meinhold</i></p>	<p>Podium Session: Interfaces Chairs: Laura Marchal-Crespo, Jacopo Zenzeri</p> <p>Using Physiological Linkage for Patient State Assessment in a Competitive Rehabilitation Game, <i>Domen Novak</i></p> <p>Reaching in Several Realities: Motor and Cognitive Benefits of Different Visualization Technologies, <i>Nicolas Wenk</i></p> <p>A High-Resolution Tongue-Based Joystick to Enable Robot Control for Individuals with Severe Disabilities, <i>Mostafa Mohammadi</i></p> <p>A Myoelectric Computer Interface for Reducing Abnormal Muscle Activations after Spinal Cord Injury, <i>Fabio Rizzoglio</i></p> <p>EMG Pattern Recognition for Persons with Cervical Spinal Cord Injury, <i>Seth Nitin</i></p> <p>Natural Myocontrol in a Realistic Setting: A Comparison between Static and Dynamic Data Acquisition, <i>Andrea Gigli</i></p>	<p>Session Organizer: IISART Chair: Serena Maggioni</p> <p>Speakers: Falls in Parkinson's disease: pathophysiology and treatment, <i>Alfonso Fasano</i></p> <p>Using virtual reality and robotics to assess pain-related alterations in sensorimotor integration, <i>Catherine Mercier</i></p> <p>Understanding the gap in clinician and engineer expectations in the design and role of rehabilitation robotics, <i>Denny Oetomo</i></p> <p>Neural priming technology to enhance motor recovery after spinal cord injury, <i>Randy D Trumbower</i></p>	<p>10:45 - 11:15 IFESS Keynote lecture 5 <i>Chair: Milos R. Popovic</i> The Role of Functional Electrical Stimulation in Rehabilitation <i>Dejan Popović</i></p> <p>11:15 - 12:15 Podium Session 4: FES Clinical Trials and FES in Clinical Practice <i>Chairs: Milos R. Popovic, Dejan Popovic</i> Neuroplasticity After Functional Electrical Stimula-Tion Therapy (Fest) In Traumatic Brain Injury, <i>Matiya Milosevic</i></p> <p>Restoration Of Upper-Limb Motor Function After Chronic Severe Hemiplegia Using Brain-Computer Interface- Controlled Functional Electrical Stimulation Therapy: Results From Two Case Studies, <i>Lazar J Jovanovic</i></p> <p>Daily Gluteal And Hamstring Stimulation Improves Vascular Function, Limb Volume And Sitting Pressure In Sci, <i>Thomas Janssen</i></p> <p>Biofeedback Fes-Cycling And Balance Training En-Hances Motor Recovery In Subacute Stroke Survi-Vors, <i>Simona Ferrante</i></p> <p>Aerobic Response Elicited By Hybrid Fes Fes Cycling In Advanced Multiple Sclerosis, <i>Che Fornusek</i></p>	<p>6 Parallel Workshops</p> <p>25. Certification and Ethics - Raising the Bar of Professionalism Brian Burkhardt, Julie Piriano, Charlie Raphael</p> <p>26. Hands-free Mice: What's Currently Available and How to Make the "Right" Choice Heidi Koester</p> <p>27. Knowledge Translation: The Missing Link Sheilagh Sherman</p> <p>28. Hammie: Using 3D Printing to Build a Teaching Tool for Understanding Implications of Hip and Knee Flexion Contractures on Sitting and Lying Postures Tamara Kittelson-Aldred, Sammie Wakefield, Brian Burkhardt</p> <p>29. Building Relationships Around Assistive Technology in Brazil, Peru and Colombia Kim Adams, Dana Corfield, Teodiano Bastos, Adriana Rios-Rincon</p> <p>30. Student Scientific Paper Platform Session Moderator: John Anschutz</p>	<p>Technology Solutions to Enhance Supportive Homes and Communities</p> <p>Presenters: Alex Mihailidis, Frank Knoefel, Steve Robinovitch, Mark Elias, Goldie Nejat</p>
12:15-13:45	LUNCH / POSTER VIEWING / EXHIBITION				12:15 - 13:15 IFESS General Assembly	10:00 - 12:00 Student Design Challenge powered by RESNA
13:45-15:15	<p>Keynote Lecture - RESNA Collin McLaurin Distinguished Lectureship Award Lecture (13:45 - 14:30) Chair: Mary Ellen Buning</p> <p>Speaker: Geoff Fernie, <i>Canada</i> <i>Prevention is an Important Topic for Rehabilitation Researchers</i></p> <p>Closing (14:30 - 15:15)</p>					
15:15-16:00	COFFEE BREAK / POSTER VIEWING / EXHIBITION					
15:15-16:00					<p>6 Parallel Workshops</p> <p>31. Care Robots in Asia, Europe and North America; a Multicultural Perspective Won-Kyung Song, Jon Sanford, Luc de Witte, Stephen Potter, Hyunki In, Myung Joon Lim</p> <p>32. Programming iOS Recipes, Gestures, and Shortcuts: Promoting Engagement Through Alternative Access Ioren McMahon, Jennifer C. Buxton, Alycia Berg</p> <p>33. Job Accommodations –“ Works In Progress” Therese Wilkomm</p> <p>34. Unlocking Your Smartphone's Potential: Considerations and Application Karen Engstrom, Sarah Sanderman</p> <p>35. Development of a Hybrid Telehealth Service Delivery Program Carmen DiGiovine, Theresa Berner, Julie Faieta</p> <p>36. Smart Hospital Room: Full Automation for Rehab Patients with UE Deficits James Gardner</p>	<p>Magnetic stimulation for Neuromodulation in spinal cord injury: Models and Clinical Trial Results</p> <p>Presenters: Sue Ann Sisto, Anirban Dutta, Hemangi Dixit</p>

Hours
determined
to the
specific tour

LAB & CLINICAL VISITS

Lyndhurst Centre, KITE, Toronto Rehabilitation Institute - University Health Network
Krembil Research Institute - University Health Network
University Centre, KITE, Toronto Rehabilitation Institute - University Health Network
Holland Bloorview Kids Rehabilitation Hospital

***Registration obligatory for all visits.