



IRA A. FULTON SCHOOL OF ENGINEERING

“Co-Adaptive Learning: Adaptive Technology for the Aging”

Arizona State University, Tempe, AZ

January 8-9, 2009

Supported by the National Science Foundation (SBE-0518697)

Poster Presentations

- 1 Poster Title: **Characterization of Motoneuron Morphology in a Complete and Incomplete Spinal Cord Injury Rodent Model**
Authors: Mallika Fairchild, J Graham, AV Iarkov, D Protas, A Diamond, R Jung
- 2 Poster Title: **Sensorimotor integration during multi-digit grasping in patients with Carpal Tunnel Syndrome.**
Authors: Lisa Bobich, Jamie Johnston, Marianne Merrit, Scott Duncan, Anthony Smith, Mark Ross, Marco Santello
- 3 Poster Title: **Effect of vision of grasp performance on anticipatory control of multi-digit kinematics and kinetics.**
Authors: Jamie Lukos, Marco Santello.
- 4 Poster Title: **Real Time Human Activity Recognition Using Tri-Axial Accelerometer**
Authors: Narayanan Chatapuramkrishnan, Dirk Colbry, Colin Juillard, Sethuraman Panchanathan
- 5 Poster Title: **Using a haptic belt to convey non-verbal communication cues during social interactions to individuals who are blind**
Authors: Troy McDaniel, Sreekar Krishna, Vineeth Balasubramanian, Dirk Colbry, Sethuraman Panchanathan
- 6 Poster Title: **Analysis of the organization of excitatory and inhibitory synaptic inputs to motoneurons during pattern generation by using impedance measurements**
Authors: Thomas. M. Hamm and Vlad V. Turkin.
- 7 Poster Title: **Adaptive Control for Neuromuscular Stimulation Therapy in an Intermittent Training Paradigm**
Authors: Seung-Jae Kim, Mallika Fairchild, Alexandre Iarkov, James Abbas, Ranu Jung
- 8 Poster Title: **NetworkML: Level 3 of the NeuroML Standards for Multiscale Model Specification and Exchange**
Authors: Sharon Crook, P Gleeson and RA Silver
- 9 Poster Title: **Modeling Changes in Motoneuron Morphology after Spinal Cord Injury**
Authors: Mini Kurian, Sharon Crook and Ranu Jung
- 10 Poster Title: **Low cost devices for reach and grasp assessment of stroke survivors**
Authors: Suneth Attygalle and Margaret Duff



IRA A. FULTON SCHOOL OF ENGINEERING

- 11 Poster Title: **Horizontal Leg Stiffness and Running Stability Simulation**
Authors: Mu Qiao and Devin Jindrich
- 12 Poster Title: **Computational model of the effects of muscle activation profile on foot drag in the SCI rat**
Authors: Brian Hillen, Devin Jindrich, James Abbas and Ranu Jung
- 13 Poster Title: **Morphologically realistic computational models of rat hindlimb motoneurons and the effects of spinal cord injury**
Authors: Joe W. Graham & Ranu Jung
- 14 Poster Title: **Effects of Deep Brain Stimulation on Dynamic Posture Shifts in Parkinson's Disease**
Authors: Narayanan Krishnamurthi, S.J. Mulligan, P. Mahant, J. Samanta, and J.J. Abbas
- Presenter Charla Lindley
- 15 Poster Title: **Force Coordination Training in Children with Spastic Diplegia**
Authors: A. Downing, D. Fay, K. Ganley, and J. Abbas
Presented by Charla Lindley
- 16 Poster Title: **Locomotor Retraining after Spinal Cord Injury using Adaptive Control of Electrical Stimulation**
Authors: M. Bhowmik-Stoker, D. Channer, S. Allison, R. Herman, R. Jung, and J. Abbas
Presented by Jaime Stovall
- 17 Poster Title: **Adaptive Control of Neuroprostheses**
Authors: James. Abbas, M. Bhowmik, S. Allison, J. Ou, E. Sites, J. Resig, D. Channer, R. Brandt, J. Lynksey, R. Jung, R. Herman, and E. Hartman
- 18 Poster Title: **Making Injured Neromusculoskeletal Systems Functional**
Authors: Ranu. Jung, A. Bellanger, J. Graham, D. Hagner, M. Mukherjee, K. Ichihara, J. Jolly, T. Kanchiku, J. Lynskey, A. Thota, G. Venkatasubramanian, A. Irakov, J. Abbas, V. Darbhe, B. Srimat, V. Jung, and S. Phillips.
- 19 Poster Title: **Dynamics of unconstrained three-dimensional reaching movements by Rhesus monkeys**
Authors: Devin.L. Jindrich, G. Courtine, J. J. Liu, H.L. McKay, R. Moseanko, T.J. Bernot, R.R. Roy, H. Zhong, M.H. Tuszynski, V.R. Edgerton
- 20 Poster Title: **Investigation of Cortical Neuronal Reorganization for Neuroprosthetics in Monkeys**
Authors: Chaolin Ma, Jiping He, and Hang Zhang



IRA A. FULTON SCHOOL OF ENGINEERING

- 21 Poster Title: **Ayushman: Wireless Sensor Based Health Monitoring System**
Authors: Sandeep Gupta and Krisha Venkatasubramanian
- 22 Poster Title: **Patterns of directional errors resulting from endpoint estimates of varying precision**
Authors: Ying Shi, Christopher Buneo
- 23 Poster Title: **Sensorimotor integration during online movement corrections**
Authors: Greg Apker, Timothy Darling, Christopher Buneo
- 24 Poster Title: **An Optoelectronic/Microfluidic Vestibular System**
Authors: David Welch, Sahana Sen, Jason Song, Stephen Herman, Julius Georgiou, Jennifer Blain Christen
- 25 Poster Title: **Channelrhodopsin expressing neurons stimulated with blue organic LEDs: initial engineering for integrating somatosensation in brain- controlled prosthetic hands.**
Authors: Liliana Rincon, Y Tufail, SI Helms Tillery, WJ Tyler
- 26 Poster Title: **A methodology for coupling a visual enhancement device to human visual attention**
Authors: John A Black Jr, Aleksandar Todorovic, Sethuraman Panchanathan
- 27 Poster Title: **Embodied Social Interaction Assistant**
Authors: Sreekar Krishna, Troy McDaniel, Narayanan C Krishnan, John A Black, Jr, Sethuraman Panchanathan
- 28 Poster Title: **A Rodent Model for Forelimb Neuromuscular Stimulation Based Movement Therapy**
Authors: J. Lynskey, T. Kanchiku, D. Protas, J.J.Abbas, and R. Jung