

IROS 2013 Workshop on Soft Technologies for Wearable Robots

Nov 7th 2013, Tokyo, Japan

Organizers

Prof. Jamie Paik Reconfigurable Robotics Lab, EPFL	Prof. Fumiya Iida Institute of Robotics and Intelligent Systems, ETH
Prof. Robert Wood Microbotics Lab, Harvard University	Dr. Liyu Wang Institute of Robotics and Intelligent Systems, ETH

Program

9:20	Welcoming	
9:30	Prof. Connor WALSH	Next generation soft wearable robots
9:50	Prof. Taro NAKAMURA	Instantaneous force control for artificial muscle manipulator with variable rheological joint using MR fluid device
10:10	Prof. Hiroshi KOBAYASHI	Muscle suit for supporting the upper and lower body motion
10:20	Discussion	
10:30	Coffee break	
11:00	Prof. Barry TRIMMER	Conformable passive grasping by caterpillars and soft robots
11:20	Prof. Kenji SUZUKI	Robot assisted rehabilitation and physiotherapy by soft and wearable Robotics
11:40	Prof. Kyujin CHO	Exo-Glove: Soft wearable robot for the hand
12:00	Prof. Carmel MAJIDI	Tunable elastic rigidity – Strategies for reversibly changing the stiffness of elastic materials
12:20	Discussion	
12:30	Lunch	
13:30	Prof. Dario FLOREANO	Flexible artificial compound eyes
13:50	Prof. Takanori SHIBATA	Neurological therapy with seal robot, PARO
14:10	Prof. Oliver BROCK	How soft hands can change grasping
14:30	Prof. Michael WANG	Soft robots with distributed structural compliance and actuators
14:50	Discussion	
15:00	Coffee break	
15:30	Prof. Toshiaki TSUJI	Haptic signal processing for compliant robotic motion
15:50	Dr. Yigit MENGUC	Wearable soft sensing suit for human gait measurement
16:10	Prof. Vincent DUCHAINE	Use of Ionic liquid and electrical impedance tomography for touch-sensitive skins in robotics
16:30	Dr. Yunseong SONG	Hindlimb Exoskeletons for Rodents: Two Distinctive Approaches
16:50	Discussion	
17:00	Closing remarks	