

**ORAL PRESENTATIONS**  
*October 03 (THU) & 04 (FRI), 2019*

Session THU-AM1 (90'): 1000-1130
Session THU-AM2 (60'): 1130-1230
Session THU-PM1 (90'): 1530-1700
Session THU-PM2 (60'): 1700-1800
Session FRI-AM1 (90'): 1000-1130

Authors	Title	Session	Session Topic
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Prithviraj Dasgupta, Anoop Mishra, Carl Nelson and Judith Burnfield	Towards Intelligent Semi-Autonomous Control of a Modular Robot for Human Mobility Assistance	<b>THU-AM1</b>	<b>Medical &amp; Rehabilitation Robotics</b>
Lidia Al-Zogbi, Anirudh Topiwala, Thorsten Fleiter and Axel Krieger	Deep Learning Techniques for Abdominal Skin and Wound Segmentation		
Ashwin Goyal, Ruben Acevedo and Anindo Roy	Investigating the Benefits of Force Feedback On An Ankle Robot For Rehabilitation Of Foot Drop After Stroke		
Anderson Camp, Edward Chapman and Paola Jaramillo Cienfuegos	Control of Fluidic Artificial Muscles for Rehabilitation Exoskeleton		
Zhenyu Lin, Charles Meehan and John Baras	Statistics-Based Slippage Correction with a Dexterous Robotic Hand		
Michael Kam, Hamed Saeidi, Ori Perl, David King and Axel Krieger	An Autonomous Robotic System for Damage Control Surgery		

Huan Xu and Joseph Borson	The Future of Legal and Ethical Regulations for Autonomous Robotics	<b>THU-AM2</b>	<b>Robotics &amp; Emerging Technologies: Ethics, Regulations, and Policy Issues</b>
Sheryl Gross-Glaser	Automated Vehicles: Ensuring Improvements for Currently Transportation-Challenged Populations		
David Tomblin, Leah Kaplan, John Neslon and Mahmud Farooque	"Our Driverless Futures:" Informing Autonomous Vehicle Systems Design through Participatory Technology Assessment		
Robin Murphy	Ethics in Disaster Robotics		

Ariel Slepyan, Rupsa Acharya, Andrei Silva, Deepesh Kumar and Nitish Thakor	A Biomimetic Soft Finger for Palpation Applications	<b>THU-PM1</b>	<b>Assistive Robotics</b>
Bart Paulhamus, Edward Staley, Corban Rivera, Kapil Katyal and Chien-Ming Huang	Amplified Control for Robotic Teleoperation		
Louis Dankovich and Sarah Bergbreiter	CapSense: A Low Cost Wearable Gesture Recognition Technology		

Kapil Katyal, I-Jeng Wang, Gregory Hager and Chien-Ming Huang	Intent-Aware Human Motion Prediction using Deep Generative Neural Networks		
Javier Alfredo Hilario Poma, Jose Guillermo Balbuena Galvan, Christian Penalzoza, David Hernandez Carmona, Diego Quiroz, Jorge Ramirez and Francisco Cuellar	Development of a Mobile Robot for Inspections of Analog Gauges in Industrial Plants		
Jiawei Ge, Hamed Saeidi, Justin Opfermann, Arjun Joshi and Axel Krieger	Landmark-guided Deformable Image Registration for Supervised Autonomous Robotic Tumor Resection		

Ashwin Ashok	Creating a Pipeline for Women in Engineering and Computing through Girls Robotics Initiatives	<b>THU-PM2</b>	<b>Robotics Education &amp; Learning</b>
Nisha Pillai, Francis Ferraro and Cynthia Matuszek	The Need for Interactive Learning by Robots in Human-Centric Environments		
James Tangorra, Joseph Hughes and Mira Olson	Peace Engineering: Engineering for Communities Affected by Conflict		
Jonathan Kelly, Htoo Htet and João Dutra	Leveraging Robotics Education to Improve Prosperity in Developing Nations: An Early Case Study in Myanmar		

Jason Gregory, S. Al-Hussain and SK Gupta	Human-Robot Teaming for Safe, Resilient Operations in Humanitarian Applications	<b>FRI-AM1</b>	<b>Robotics for Environmental Assessment &amp; Sustainability</b>
Björn Lütjens, Lucas Liebenwein and Katharina Kramer	Using Machine Learning for Forest Inventory Assessment to increase Transparency in Reforestation		
Miao Yu, Jose-Luis Izursa, Ivan Penskiy, William Washburn and Diego Santaella	Urban Food Production Based on Robot-Assisted Vertical Hydroponic Systems		
Nathan Melenbrink and Justin Werfel	Autonomous Robots for Sustainable Land Management		
Anousheh Gholami, Usman A. Fiaz and John S. Baras	Drone-Assisted Communications for Remote Areas and Disaster Relief		
Katherine Glasheen and Eric Frew	Improving Understanding and Forecasting of Tornado Formation Using Networked Small UAS		

<b>POSTER PRESENTATIONS</b>	Session FRI-AM2 (60'): 1130-1230
<i>October 04 (FRI), 2019</i>	Session FRI-PM1 (60'): 1530-1630

Authors	Title	Session
Ramya Kanlapuli Rajasekaran and Eric Frew	Co-operative Estimation Architecture for Target Tracking using Small Unmanned Aircraft Systems	<b>FRI-AM2</b>
Kamakshi Jain and Ian Moss	The UMD Autonomous Micro Air Vehicle Team	
Caroline Kery, Cynthia Matuszek and Francis Ferraro	Cross-Language Learning of Visuolinguistic Concepts for Robot Assistants Serving Non-English Users	
Yanting Liu and Juan Rojas	Evaluation of the ROOT Robot System and Curriculum to Improve Computational Thinking in Young Children	
Craig Carignan, Tuvia Rappaport and Daniil Gribook	Exoskeleton Telepresence for Robots Performing In-Space Assembly and Servicing	
Yujiong Liu and Pinhas Ben-Tzvi	Maneuvering and Stabilization of Reduced Complexity Legged Robots Using Bioinspired Robotic Tails	
Patrick Fox	The UMD Kite Energy Project	
Gil Blankenship and Katrina Gramzinski	Sparky: An Autonomous In-Home Assistive Care Robot	
Nikhil Nair	Standardized TCP-IP-based Protocol for Improved Networking Between Unmanned Aerial Vehicles in City Protection Missions	

Authors	Title	Session
Huan Xu and Joseph Borson	Regulatory Approaches for Learning-Enabled Components in Cyberphysical Systems	<b>FRI-PM1</b>
Hamaik Dhami, Tianshu Xu, Qian Zhu, Song Li and Pratap Tokekar	Crop Height Estimation with LiDAR Equipped Robots	
John Winder, Stephanie Milani, Matthew Landen, Erebus Oh, Shane Parr, Shawn Squire, Marie desJardins and Cynthia Matuszek	Planning with Abstract, Learned Models	
Andrew Mills and Eric Frew	Rapid Frontier View Sampling in Unexplored Environments	
Yuxiang Gao and Chien-Ming Huang	Robot Programming by Situated Illustration	
Fatemeh Alimardani and John S. Baras	A Comparison of System Optimum and User Equilibrium Traffic Assignment Using the Concave Form of the Fundamental Diagram	
Lasitha Weerakoon and Nikhil Chopra	Bilateral Teleoperation of Soft Robots	
Ahmed Ramadan, Anindo Roy and Elisabeth Smela	A Wearable Pressure Sensor Recognizes Hemiparetic Ankle Deficits	
Behzad Sadrfaridpour, Kanishka Ganguly, Cornelia Fermüller and Yiannis Aloimonos	An Introduction to Computational Tactile Flow	