

# **2014 IEEE Workshop on Advanced Robotics and its Social Impacts**

**(ARSO 2014)**

**Evanston, Illinois, USA  
11-13 September 2014**



**IEEE Catalog Number: CFP14ARS-POD  
ISBN: 978-1-4799-6969-2**

# Content List of 2014 IEEE International Workshop on Advanced Robotics and its Social Impacts

## Technical Program for Friday September 12, 2014

FrAT1	Room T1
<b>Human-Robot Collaboration (Regular Session)</b>	
Chair: Wollherr, Dirk	Tech. Univ. München
09:00-09:20	FrAT1.1
<i>Evaluation of Supervisory Control Interfaces for Mobile Robot Integration with Tactical Teams</i> , pp. 1-6.	
Lalejini, Alexander	Mississippi State Univ
Duckworth, Dexter	Mississippi State Univ
Sween, Richard	Mississippi State Univ
Bethel, Cindy	Mississippi State Univ
Carruth, Daniel	Center for Advanced Vehicular Systems
09:20-09:40	FrAT1.2
<i>The Design of Interfaces for Multi-Robot Path Planning and Control</i> , pp. 7-13.	
Andolina, Salvatore	Univ. of Helsinki
Forlizzi, Jodi	Carnegie Mellon Univ
09:40-10:00	FrAT1.3
<i>Engagement Study of an Integrated Rehabilitation Robotic Tablet-Based Gaming System</i> , pp. 14-19.	
English, Brittney	Georgia Inst. of Tech
Howard, Ayanna	Georgia Inst. of Tech
10:00-10:20	FrAT1.4
<i>Human-Approaching Trajectories for a Person-Sized Balancing Robot</i> , pp. 20-25.	
Shomin, Michael	Carnegie Mellon Univ
Vaidya, Bhaskar	Carnegie Mellon Univ
Hollis, Ralph	Carnegie Mellon Univ
Forlizzi, Jodi	Carnegie Mellon Univ
FrCT1	Room T1
<b>Social Human-Robot Interaction (Regular Session)</b>	
Chair: Ueda, Jun	Georgia Inst. of Tech.
13:00-13:20	FrCT1.1
<i>Perceiving Intimacy from Both Robot View and First-Person View in Dyadic Human Interaction</i> , pp. 26-31.	
Chu, Ting-Sheng	National Taiwan Univ
Chiang, Yi-Shiu	National Taiwan Univ
LIM, CHUNG DIAL	NATIONAL TAIWAN Univ
Wu, Tung-Yen	Ntu
Tseng, Shih-Huan	National Taiwan Univ
Fu, Li-Chen	National Taiwan Univ
13:20-13:40	FrCT1.2
<i>Exploring Taiwanese Nursing Homes As Product Ecologies for Assistive Robots</i> , pp. 32-37.	
Chang, Wan-Ling	Indiana Univ
Sabanovic, Selma	Indiana Univ
13:40-14:00	FrCT1.3
<i>Development of a Robot with Photography Service As a RT-Middleware Application for the Widespread Use of Robots</i> , pp. 38-43.	

Matsuhira, Nobuto	Shibaura Inst. of Tech
Namatame, Shogo	Shibaura Inst. of Tech
Yamaguchi, Toru	Tokyo Metropolitan Univ
14:00-14:20	FrCT1.4
<i>Personalizing Robot Behavior for Interruption in Social Human-Robot Interaction</i> , pp. 44-49.	
Chiang, Yi-Shiu	National Taiwan Univ
Chu, Ting-Sheng	National Taiwan Univ
LIM, CHUNG DIAL	NATIONAL TAIWAN Univ
Wu, Tung-Yen	Ntu
Tseng, Shih-Huan	National Taiwan Univ
Fu, Li-Chen	National Taiwan Univ

FrET1	Room T1
<b>Robot Law (Organized Session)</b>	
Chair: Yamane, Katsu	Disney
Organizer: Yamane, Katsu	Disney
16:00-16:20	FrET1.1
<i>How the Law Will Think about Robots (and Why You Should Care) (I)</i> , pp. 50-55.	
Smart, William	Oregon State Univ
Richards, Neil	Washington Univ. in St. Louis
16:20-16:40	FrET1.2
<i>When Robots Lie: A Comparison of Auto-Defamation Law (I)</i> , pp. 56-61.	
Ambrose, Meg Leta	Georgetown Univ
Ambrose, Ben M.	Washington Univ. in St. Louis
16:40-17:00	FrET1.3
<i>An Exploration of Innovation in Open Licensing for Robotics (I)</i> , pp. 62-62.	
Cooper, Diana	Labarge Weinstein LLP

## Technical Program for Saturday September 13, 2014

SaAT1	Room T1
<b>Tracking and Recognition (Regular Session)</b>	
09:00-09:20	SaAT1.1
<i>Tracking of Multiple Humans Using Subtraction Stereo and Particle Filter</i> , pp. 63-68.	
Kawashita, Takehiro	Chuo Univ
Shibata, Masatoshi	Chuo Univ
Masuyama, Gakuto	Chuo Univ
Umeda, Kazunori	Chuo Univ
09:20-09:40	SaAT1.2
<i>3D Human Action Segmentation and Recognition Using Pose Kinetic Energy</i> , pp. 69-75.	
SHAN, JUNJIE	The Univ. of North Carolina at Charlotte
Akella, Srinivas	Univ. of North Carolina at Charlotte
09:40-10:00	SaAT1.3
<i>Using Penalized Spline Regression to Calculate Mean Trajectories Including Confidence Intervals of Human Motion Data</i> , pp. 76-81.	
Carton, Daniel	Tech. Univ. München
Turnwald, Annemarie	Tum
Olszowy, Wiktor	Ludwig-Maximilians-Univ
Wollherr, Dirk	Tech. Univ. München
Buss, Martin	Tech. Univ. München
10:00-10:20	SaAT1.4
<i>Real Time Image De-Blurring and Image Stitching for Muscle Inspired Camera Orientation System</i> , pp. 82-87.	
Kilbride, Sean	Georgia Inst. of Tech
Kim, Michael D.	Georgia Inst. of Tech
Ueda, Jun	Georgia Inst. of Tech
SaBT1	Room T1
<b>Automation (Regular Session)</b>	
Chair: Kroeger, Torsten	Google, Inc.
10:40-11:00	SaBT1.1
<i>Dynamic Bacterial Foraging Optimization Algorithm to Optimal Design of Parallel Manipulators</i> , pp. 88-93.	
Wu, Shenli	Xi'an Jiaotong Univ
Wang, Sun'an	Xi'an Jiaotong Univ
Li, Xiaohu	Xi'an Jiaotong Univ
11:00-11:20	SaBT1.2
<i>Reducing Uncertainty in Robotic Surface Assembly Tasks Based on Contact Information</i> , pp. 94-100.	
Saric, Amar	Computer Science, Univ. of North Carolina at Charlotte
Xiao, Jing	UNC-Charlotte
Shi, Jane	GM R&D Center
11:20-11:40	SaBT1.3
<i>Automated Diagnosis of Material Condition in Hammering Test Using a Boosting Algorithm</i> , pp. 101-107.	
Fujii, Hiromitsu	The Univ. of Tokyo
Yamashita, Atsushi	The Univ. of Tokyo
Asama, Hajime	The Univ. of Tokyo

SaCT1	Room T1
<b>Healthcare and Welfare Robotics (Organized Session)</b>	
Chair: Argall, Brenna	Northwestern Univ.
Organizer: Yamane, Katsu	Disney
13:00-13:20	SaCT1.1
<i>Musculoskeletal Modeling and Physiological Validation (I)</i> , pp. 108-113.	
Murai, Akihiko	The Univ. of Tokyo
Takeichi, Kazunari	The Univ. of Tokyo
Miyatake, Taira	The Univ. of Tokyo
Nakamura, Yoshihiko	Univ. of Tokyo
13:20-13:40	SaCT1.2
<i>Robotic Rehabilitation Exercise in Hemiparetic Limbs Based on Functional Synchronization of Voluntary and Involuntary Nerve Impulses (I)</i> , pp. 114-120.	
Ueda, Jun	Georgia Inst. of Tech
Lacey, Lauren	Georgia Tech
Turkseven, Melih	Georgia Inst. of Tech
Shinohara, Minoru	Georgia Inst. of Tech
Maliki, Arnold	Georgia Inst. of Tech
Kovalenko, Ilya	Georgia Inst. of Tech
13:40-14:00	SaCT1.3
<i>Wheeled Inverted Pendulum Type Robotic Wheelchair with Integrated Control of Seat Slider and Rotary Link between Wheels for Climbing Stairs (I)</i> , pp. 121-126.	
SHINO, Motoki	The Univ. of Tokyo
Tomokuni, Nobuyasu	Kinki Univ
Murata, Genki	R&D Center, JTEKT Corp
Segawa, Masaya	R&D Center, JTEKT Corp
14:00-14:20	SaCT1.4
<i>Emulating Prosthetic Feet During the Prescription Process to Improve Outcomes and Justifications (I)</i> , pp. 127-128.	
Collins, Steven H.	Carnegie Mellon Univ
Caputo, Joshua M.	Carnegie Mellon Univ
Adamczyk, Peter G.	Intelligent Prosthetic Systems
SaET1	Room T1
<b>Humanoid Robots (Regular Session)</b>	
Chair: Yokoi, Kazuhito	National Inst. of AIST
16:00-16:20	SaET1.1
<i>HERB's Sure Thing: A Rapid Drama System for Rehearsing and Performing Live Robot Theater</i> , pp. 129-136.	
Zeglin, Garth J	Carnegie Mellon Univ
Walsman, Aaron	Carnegie Mellon Univ
Herlant, Laura	Carnegie Mellon Univ
Zheng, Zhaodong	Carnegie Mellon Univ
Guo, Yuyang	Carnegie Mellon Univ
Koval, Michael	Carnegie Mellon Univ
Lenzo, Kevin	Carnegie Mellon Univ
Tay, Hui Jun	Carnegie Mellon Univ
Velagapudi, Prasanna	Carnegie Mellon Univ
Correll, Katie	Carnegie Mellon Univ
Srinivasa, Siddhartha	Carnegie Mellon Univ
16:20-16:40	SaET1.2

*Sitting Pose Generation Using Genetic Algorithm for NAO Humanoid Robots*, pp. 137-142.

Al-Hami, Mo'taz	Temple Univ
Lakaemper, Rolf	Temple Univ

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16:40-17:00 SaET1.3

*Development of a Upper Body Humanoid Robot*, pp. 143-148.

Dong, Yangyang	Harbin Inst. of Tech
Zhang, Zijian	Harbin Inst. of Tech
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17:00-17:20 SaET1.4

*Evaluation of Wheelchair Rolling Resistance Using a Robotic Device*, pp. 149-154.

Teran, Efrain	Georgia Inst. of Tech
Ueda, Jun	Georgia Inst. of Tech