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Luksch, Tobias	Univ. of Kaiserslautern
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**MoIT7** Mills 1  
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Co-Chair: Buchli, Jonas	Univ. of Southern California
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Bernardino, Alexandre	Inst. Superior Técnico - Inst. for Systems and Robotics	
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Graebing, Pierre	Univ. Louis Pasteur - Strasbourg (ULP)	
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**MoIT18** Sterling 9

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 Co-Chair: Tsubouchi, Takashi Sys. and Info. Eng., U of Tsukuba

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 Jeans, J. Blake Robotics and Mechanisms Lab. Virginia Tech.  
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*Stanford Testbed of Autonomous Rotorcraft for Multi-Agent Control*, pp. 404-405. [Attachment](#)  
 Hoffmann, Gabriel Palo Alto Res. Center (PARC)  
 Waslander, Steven Lake Univ. of Waterloo  
 Vitus, Michael Stanford Univ.  
 Huang, Haomiao Stanford Univ.  
 Gillula, Jeremy Stanford Univ.  
 Pradeep, Vijay Willow Garage  
 Tomlin, Claire UC Berkeley

09:25-10:45 MoIT18.3

*AWE: A Robotic Wall and Reconfigurable Desk Supporting Working Life in a Digital Society*, pp. 406-407. [Attachment](#)  
 Green, Keith Evan Clemson Univ.  
 Walker, Ian Clemson Univ.  
 Gugerty, Leo Clemson Univ.  
 Witte, James Clemson Univ.  
 Houayek, Henrique Clemson Univ.  
 Kwoka, Martha Clemson Univ.  
 Johnson, Joe Clemson Univ.  
 Teja, Krishna Clemson Univ.  
 Nick, Kuntzi Clemson Univ.

09:25-10:45 MoIT18.4

*The First Steps of a Robot Based on Jamming-Skin Enabled Locomotion*, pp. 408-409. [Attachment](#)  
 Steltz, Erik iRobot  
 Mozeika, Annan iRobot Corp.  
 Jaeger, Heinrich Univ. of Chicago

09:25-10:45 MoIT18.5

*The Yobotics-IHMC Lower Body Humanoid Robot*, pp. 410-411. [Attachment](#)  
 Pratt, Jerry Inst. for Human and Machine Cognition  
 Krupp, Ben Yobotics, Inc.  
 Ragusila, Victor Inst. for Human and Machine Cognition

Rebula, John	Univ. of Michigan
Koolen, Twan	Inst. for Human and Machine Cognition
van Nieuwenhuizen, Niels	Inst. for Human and Machine Cognition
Shake, Christopher	Inst. for Human and Machine Cognition
Craig, Travis	Inst. for Human and Machine Cognition
Taylor, John	Inst. for Human and Machine Cognition
Watkins, Greg	Inst. for Human and Machine Cognition
Neuhaus, Peter	Inst. for Human and Machine Cognition
Johnson, Matthew	Inst. for Human & Machine Cognition
Shooter, Steve	Inst. for Human and Machine Cognition
Buffinton, Keith	Bucknell Univ.
Canas, Fabian	Institute for Human and Machine Cognition
Carff, John	IHMC
Howell, William	IHMC
09:25-10:45	MoIT18.6
<a href="#">Video of a Small, Autonomous, Agile Robot with an On-Board, Neurobiologically-Based Control System</a> , pp. 412-413. <a href="#">Attachment</a>	
Lewinger, William	Case Western Res. Univ.
Quinn, Roger, D.	Case Western Res. Univ.
09:25-10:45	MoIT18.7
<a href="#">Engineering Self-Adaptive Modular Robotics: A Bio-Inspired Approach</a> , pp. 414-415. <a href="#">Attachment</a>	
Yu, Chih-Han	Harvard Univ.
Nagpal, Radhika	Harvard Univ.
09:25-10:45	MoIT18.8
<a href="#">Contact Planning for Acyclic Motion with Task Constraints and Experiment on HRP-2 Humanoid</a> , pp. 416-417. <a href="#">Attachment</a>	
Escande, Adrien	CEA
Kheddar, Abderrahmane	CNRS
09:25-10:45	MoIT18.9
<a href="#">DASH: A Resilient High-Speed 16g Hexapedal Robot</a> , pp. 418-419. <a href="#">Attachment</a>	
Birkmeyer, Paul	Univ. of California, Berkeley
Fearing, Ronald	Univ. of California at Berkeley
09:25-10:45	MoIT18.10
<a href="#">Experimental Validation of a Hybrid Mobile Robot Mechanism with Interchangeable Locomotion and Manipulation</a> , pp. 420-421. <a href="#">Attachment</a>	
Ben-Tzvi, Pinhas	The George Washington Univ.
09:25-10:45	MoIT18.11
<a href="#">Suturing Simulation in Surgical Training Environment</a> , pp. 422-423. <a href="#">Attachment</a>	
Shi, Hans Fuhan	Simon Fraser Univ.
Payandeh, Shahram	Simon Fraser Univ.
09:25-10:45	MoIT18.12
<a href="#">Self-Balancing Control and Manipulation of a Glove Puppet Robot on a Two-Wheel Mobile Platform</a> , pp. 424-425. <a href="#">Attachment</a>	
Hu, Jwu-Sheng	National Chiao Tung Univ.
Wang, Jyun-Ji	National Chiao Tung Univ.
Sun, Guan-Cyun	National Chiao Tung Univ.
09:25-10:45	MoIT18.13
<a href="#">A Robotic Micro-Assembly Process Inspired by the Construction of the Ancient Pyramids and Relying on Several Thousand Flagellated Bacteria Acting As Micro-Workers</a> , pp. 426-427. <a href="#">Attachment</a>	
Martel, Sylvain	Ec. Pol. de Montreal (EPM)
Mohammadi, Mahmood	Ec. Pol. de Montreal (EPM)
<b>MoIT1</b>	Grand A
<b>Humanoid Robot Body Motion (Regular Sessions)</b>	
Chair: Khatib, Oussama	Stanford Univ.
Co-Chair: Escande, Adrien	CEA
11:00-11:20	MoIT1.1
<a href="#">Whole-Body Motion of a Humanoid Robot for Passing through a Door - Opening a Door by Impulsive Force -</a> , pp. 428-434. <a href="#">Attachment</a>	
Arisumi, Hitoshi	National Inst. of AIST
Chardonnet, Jean-Remy	CNRS - AIST
Yokoi, Kazuhito	National Inst. of AIST
11:20-11:40	MoIT1.2
<a href="#">Contact Planning for Acyclic Motion with Tasks Constraints</a> , pp. 435-440. <a href="#">Attachment</a>	
Escande, Adrien	CEA
Kheddar, Abderrahmane	CNRS
11:40-12:00	MoIT1.3
<a href="#">Planning and Fast Re-Planning of Safe Motions for Humanoid Robots : Application to a Kicking Motion</a> , pp. 441-446.	
Lengagne, Sebastien	LIRMM
Ramdani, Nacim	INRIA Sophia Antipolis - Méditerranée
Fraisse, Philippe	LIRMM
12:00-12:20	MoIT1.4
<a href="#">Contact Dynamics Modeling of a Humanoid Robot for Tasks Utilizing Impact Dynamics</a> , pp. 447-452.	
Tsujita, Teppei	Tohoku Univ.



Konno, Atsushi Uchiyama, Masaru	Tohoku Univ. Tohoku Univ.
12:20-12:40 <i>Modeling and Control of Multi-Contact Centers of Pressure and Internal Forces in Humanoid Robots</i> , pp. 453-460.	MolIT1.5
Sentis, Luis Park, Jaeheung Khatib, Oussama	Stanford Univ. Stanford Univ. Stanford Univ.
<b>MolIT2</b>	<b>Grand B</b>
<b>Human Robot Interaction II (Regular Sessions)</b>	
Chair: Peer, Angelika Co-Chair: Sanfeliu, Alberto	Tech. Univ. München Univ. Pol. de Catalunya
11:00-11:20 <i>Efficiency Analysis in a Collaborative Task with Reciprocal Haptic Feedback</i> , pp. 461-466.	MolIT2.1
Groten, Raphaela Feth, Daniela Klatzky, Roberta Peer, Angelika Buss, Martin	Tech. Univ. München Tech. Univ. München Carnegie Mellon Tech. Univ. München Tech. Univ. München
11:20-11:40 <i>Robot Motion Control Using Mechanical Load Adjuster with Motion Measurement Interface for Human-Robot Cooperation</i> , pp. 467-472.	MolIT2.2
Tsumugiwa, Toru Watanabe, Yuki Yokogawa, Ryuichi	Doshisha Univ. Doshisha Univ. Doshisha Univ.
11:40-12:00 <i>An Intuitive Inexpensive Interface for Robots Using the Nintendo Wii Remote</i> , pp. 473-479. <a href="#">Attachment</a>	MolIT2.3
Olufs, Sven Vincze, Markus	Vienna Univ. of Tech. Vienna Univ. of Tech.
12:00-12:20 <i>Ergonomics of Exoskeletons: Subjective Performance Metrics</i> , pp. 480-485.	MolIT2.4
Schiele, Andre	European Space Agency
12:20-12:40 <i>Discrete Time Motion Model for Guiding People in Urban Areas Using Multiple Robots</i> , pp. 486-491. <a href="#">Attachment</a>	MolIT2.5
Garrell, Anais Sanfeliu, Alberto Moreno-Noguer, Francesc	UPC-CSIC Univ. Pol. de Catalunya CSIC
<b>MolIT3</b>	<b>Grand C</b>
<b>Medical Robotics II (Regular Sessions)</b>	
Chair: Solis, Jorge Co-Chair: Tobergte, Andreas	Waseda Univ. German Aerospace Centre
11:00-11:20 <i>Robust Multi Sensor Pose Estimation for Medical Applications</i> , pp. 492-497.	MolIT3.1
Tobergte, Andreas Pomarlan, Mihai	German Aerospace Centre German Aerospace Centre
11:20-11:40 <i>Small Bowel Tumor Detection for Wireless Capsule Endoscopy Images Using Textural Features and Support Vector Machine</i> , pp. 498-503.	MolIT3.2
Li, Baopu Meng, Max	Chinese Univ. of Hong Kong The Chinese Univ. of Hong Kong
11:40-12:00 <i>Placement Quality in Structured Light Systems</i> , pp. 504-509.	MolIT3.3
Bird, Nathaniel Papanikolopoulos, Nikos	Univ. of Minnesota Univ. of Minnesota
12:00-12:20 <i>Development of Assisted-Robotic System Designed to Measure the Wave Intensity with an Ultrasonic Diagnostic Device</i> , pp. 510-515. <a href="#">Attachment</a>	MolIT3.4
Nakadate, Ryu Uda, Hisato Hirano, Horoaki Solis, Jorge Takanishi, Atsuo Minagawa, Eiichi Sugawara, Motoaki Niki, Kiyomi	Takanishi Lab. Faculty of Science and Engineering, Waseda Waseda Univ. Waseda Univ. Waseda Univ. Waseda Univ. Aloka Co. Ltd. Himeji Dokkyo Univ. Musashi Inst. of Tech.
12:20-12:40 <i>EMG Pattern Recognition and Grasping Force Estimation: Improvement to the Myocontrol of Multi-DOF Prosthetic Hands</i> , pp. 516-521.	MolIT3.5
Yang, Dapeng Zhao, Jingdong Gu, Yikun	Harbin Inst. of Tech. Harbin Inst. of Tech. Harbin Inst. of Tech.

Jiang, Li  
Liu, Hong

Harbin Inst. of Tech.  
DLR

<b>MolIT4</b>		Grand F
<b>Microrobots (Regular Sessions)</b>		
Chair: Arai, Fumihito		Tohoku Univ.
Co-Chair: Martel, Sylvain		Ec. Pol. de Montreal (EPM)
11:00-11:20		MolIT4.1
<i>Active Size Controlled On-Chip Droplet Dispensing by Magnetically Driven Microtool</i> , pp. 522-527.		
Yamanishi, Yoko		Tohoku Univ.
Kihara, Yuki		Tohoku Univ.
Sakuma, Shinya		Tohoku Univ.
Arai, Fumihito		Tohoku Univ.
11:20-11:40		MolIT4.2
<i>Microparticle Manipulation Using Multiple Untethered Magnetic Micro-Robots on an Electrostatic Surface</i> , pp. 528-533. <a href="#">Attachment</a>		
Floyd, Steven		Carnegie Mellon Univ.
Pawashe, Chytra		Carnegie Mellon Univ.
Sitti, Metin		Carnegie Mellon Univ.
11:40-12:00		MolIT4.3
<i>Nonlinear Modeling and Robust Controller-Observer for a Magnetic Microrobot in a Fluidic Environment Using MRI Gradients</i> , pp. 534-539.		
Arcese, Laurent		Univ. of Orleans
Fruchard, Matthieu		Univ. of Orleans
Ferreira, Antoine		Univ. of Orleans
12:00-12:20		MolIT4.4
<i>Three-Dimensional Electromagnetic Actuation System for Intravascular Locomotive Microrobot</i> , pp. 540-545.		
Chungseon, Yu		Chonnam National Univ.
Choi, Hyunchul		Chonnam National Univ.
Park, Jongoh		Chonnam National Univ.
Park, Sukho		Chonnam National Univ.
12:20-12:40		MolIT4.5
<i>Hydrogel Encapsulated Magnetic Nanoparticles As Hyperthermic Actuators for Microrobots Designed to Operate in the Vascular Network</i> , pp. 546-551.		
Tabatabaei, Seyed Nasr		Ec. Pol. de Montreal
Lapointe, Jacinthe		Ec. Pol. de Montreal
Martel, Sylvain		Ec. Pol. de Montreal (EPM)
<b>MolIT5</b>		Grand G
<b>Sensor Fusion II (Regular Sessions)</b>		
Chair: Liu, Yunhui		Chinese Univ. of Hong Kong
Co-Chair: Roehrig, Christof		Univ. of Appl. Sci. Dortmund
11:00-11:20		MolIT5.1
<i>Indoor Location Tracking in Non-Line-Of-Sight Environments Using a IEEE 802.15.4a Wireless Network</i> , pp. 552-557. <a href="#">Attachment</a>		
Roehrig, Christof		Univ. of Appl. Sci. Dortmund
Müller, Marcel		Dortmund Univ. of Applied Sciences and Arts
11:20-11:40		MolIT5.2
<i>A Rigid Body Attitude Estimation for Bio-Logging Application: A Quaternion-Based Nonlinear Filter Approach</i> , pp. 558-563.		
Fourati, Hassen		Univ. Reims Champagne Ardenne
Manamanni, Nouredine		Univ. of Reims Champagne Ardenne
Afilal, Lissan		Univ. de Reims Champagne Ardenne
Handrich, Yves		Univ. Louis Pasteur
11:40-12:00		MolIT5.3
<i>Tracking Point or Diffusing Targets Using Mobile Sensor Networks under Sensing Noises</i> , pp. 564-569.		
Li, Yingying		Chinese University of Hong Kong
Liu, Yunhui		Chinese Univ. of Hong Kong
12:00-12:20		MolIT5.4
<i>A Statistical Approach to Gas Distribution Modelling with Mobile Robots - the Kernel DM+V Algorithm</i> , pp. 570-576.		
Lilienthal, Achim, J.		Örebro Univ.
Reggente, Matteo	AASS Res. Center - Learning Systems Lab. -ÖrebroUniversity	ÖrebroUniversity
Trincavelli, Marco		Örebro Univ.
Blanco, Jose-Luis		Univ. of Malaga
Gonzalez, Javier		Univ. of Malaga
12:20-12:40		MolIT5.5
<i>Hybrid Vision/Force Feedback Control for Pushing Micro-Objects (I)</i> , pp. 577-582.		
Khan, Shahzad		Delft Univ. of Tech. 3mE Faculty
Sabanovic, Asif		Sabancı Univ.
<b>MolIT6</b>		Grand H
<b>Biologically-Inspired Robotic Devices (Regular Sessions)</b>		
Chair: Tan, Xiaobo		Michigan State Univ.

Co-Chair: Nakamura, Taro	Chuo Univ.
11:00-11:20	MolIT6.1
<i>A Miniature Jumping Robot with Self-Recovery Capabilities</i> , pp. 583-588. <a href="#">Attachment</a>	
Kovac, Mirko	EPFL
Schlegel, Manuel	Ec. Pol. Federal, Lausanne
Zufferey, Jean-Christophe	EPFL
Floreano, Dario	Ec. Pol. Federal, Lausanne
11:20-11:40	MolIT6.2
<i>Concept Evaluation of a New Biologically Inspired Robot LittleApe</i> , pp. 589-594.	
Kuehn, Daniel	German Res. Center for Artificial Intelligence
Roemmermann, Malte	Robotics Group, Univ. of Bremen, Robert-Hooke-Str. 5,
Sauthoff, Nina	Hochschule Bremen
Grimminger, Felix	German Res. Center for Artificial Intelligence
Kirchner, Frank	Univ. of Bremen
11:40-12:00	MolIT6.3
<i>Analysis and Implementation of an Artificial Homeostatic Hormone System: A First Case Study in Robotic Hardware</i> , pp. 595-600.	
Stradner, Jürgen	Karl-Franzens Univ.
Hamann, Heiko	Univ. of Graz
Schmickl, Thomas	Univ. of Graz
Crailsheim, Karl	Univ. of Graz
12:00-12:20	MolIT6.4
<i>Adapting to Non-Uniform Resource Distributions in Robotic Swarm Foraging through Work-Site Relocation</i> , pp. 601-606.	
Lein, Adam	Autonomy Lab. Simon Fraser Univ.
Vaughan, Richard	Simon Fraser Univ.
12:20-12:40	MolIT6.5
<i>Development of a 6-DOF Manipulator Actuated with a Straight-Fiber-Type Artificial Muscle</i> , pp. 607-612.	
Maeda, Hiroyuki	Chuo Univ.
Nakamura, Taro	Chuo Univ.
12:20-12:40	MolIT6.6
<i>A Design of the Electromagnetic Driver for the "Internal Force-Static Friction" Capsobot</i> , pp. 613-617.	
Su, Gang	Shenyang Inst. of Automation, Chinese Acad.
Zhang, Cheng	Shenyang Inst. of Automation, Chinese Acad. of Sciences
Tan, Renjia	Shenyang Inst. of Automation, Chinese Acad. of Sciences
Li, Hongyi	Shenyang Inst. of Automation, Chinese Acad. of Sciences

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**MolIT7** Mills 1  
**Legged Robots II (Regular Sessions)**

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Chair: Quinn, Roger, D.	Case Western Res. Univ.
Co-Chair: Ma, Shugen	Ritsumeikan Univ.
11:00-11:20	MolIT7.1
<i>High-Step Climbing by a Crawler Robot DIR-2 - Realization of Automatic Climbing Motion -</i> , pp. 618-624.	
Kamimura, Akiya	National Inst. of Advanced Industrial Science and Technology
Kurokawa, Haruhisa	Inst. of Advanced Industrial Sci & Tech.
11:20-11:40	MolIT7.2
<i>Design of a Wall-Climbing Hexapod for Advanced Maneuvers</i> , pp. 625-630.	
Palmer III, Luther R.	Case Western Res. Univ.
Diller, Eric D.	Case Western Res. Univ.
Quinn, Roger, D.	Case Western Res. Univ.
11:40-12:00	MolIT7.3
<i>A Self-Exciting Controller for High-Speed Vertical Running</i> , pp. 631-638. <a href="#">Attachment</a>	
Lynch, Goran	Univ. of Pennsylvania
Clark, Jonathan	Florida State Univ.
Koditschek, Daniel	Univ. of Pennsylvania
12:00-12:20	MolIT7.4
<i>A Modular Crawler-Driven Robot: Mechanical Design and Preliminary Experiments</i> , pp. 639-644.	
Quan, Qiquan	Ritsumeikan Univ.
Ma, Shugen	Ritsumeikan Univ.
12:20-12:40	MolIT7.5
<i>Compliant Footpad Design Analysis for a Bio-Inspired Quadruped Amphibious Robot</i> , pp. 645-651.	
Park, Hyun Soo	Carnegie Mellon Univ.
Sitti, Metin	Carnegie Mellon Univ.

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**MolIT8** Mills 2  
**Robot Audition II (Invited Sessions)**

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Chair: Nakadai, Kazuhiro	Honda Res. Inst. Japan Co., Ltd.
Co-Chair: Okuno, Hiroshi G.	Kyoto Univ.
11:00-11:20	MolIT8.1
<i>Audio/Video Fusion for Objects Recognition (I)</i> , pp. 652-657.	
Lachčze, Loic	Univ. Pierre et Marie Curie

Guo, Yan	Paris 6 Univ.
Benosman, Ryad	UPMC/ISIR
Gas, Bruno	Univ. Pierre et Marie Curie
Couverture, Charlie	Univ. Pierre et Marie Curie
11:20-11:40	MolIT8.2
<i>Semi-Blind Suppression of Internal Noise for Hands-Free Robot Spoken Dialog System (I)</i> , pp. 658-663.	
Even, Jani	Nara Inst. of Science and Tech.
Sawada, Hiroshi	Nara Inst. of Science and Tech.
Saruwatari, Hiroshi	Nara Inst. of Sci. and Tech.
Kiyohiro Shikano, '	Nara Inst. of Science and Tech.
11:40-12:00	MolIT8.3
<i>Intelligent Sound Source Localization for Dynamic Environments (I)</i> , pp. 664-669.	
Nakamura, Keisuke	Tokyo Inst. of Tech.
Nakadai, Kazuhiro	Honda Res. Inst. Japan Co., Ltd.
Asano, Futoshi	AIST
Hasegawa, Yuji	Honda Res. Inst. Japan Co., Ltd.
Tsujino, Hiroshi	Honda Res. Inst. Japan Co., Ltd.
12:00-12:20	MolIT8.4
<i>Speaker Localization and Speech Extraction with the EAR Sensor (I)</i> , pp. 670-675.	
Bonnal, Julien	CNRS; LAAS
Argentieri, Sylvain	Univ. Pierre et Marie Curie; Inst. des Systèmes Intellig
Dančs, Patrick	Univ. de Toulouse ; LAAS-CNRS ; UPS ; F-31077
Manhes, Jérôme	CNRS; LAAS
12:20-12:40	MolIT8.5
<i>Real-Time Sound Source Orientation Estimation Using a 96 Channel Microphone Array (I)</i> , pp. 676-683.	
Nakajima, Hirofumi	Honda Res. Inst. Japan Co., Ltd.
Kikuchi, Keiko	Tokyo Denki Univ.
Daigo, Touru	Tokyo Denki Univ.
Kaneda, Yutaka	Tokyo Denki Univ.
Nakadai, Kazuhiro	Honda Res. Inst. Japan Co., Ltd.
Hasegawa, Yuji	Honda Res. Inst. Japan Co., Ltd.

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**MolIT9** Mills 3

**Autonomous Agents (Regular Sessions)**

Chair: Wollherr, Dirk	Tech. Univ. München
Co-Chair: Goodrich, Michael A.	Brigham Young Univ.
11:00-11:20	MolIT9.1
<i>Optical Flow-Based Controller for Reactive and Relative Navigation Dedicated to a Four Rotor Rotorcraft</i> , pp. 684-689. <a href="#">Attachment</a>	
Rondon, Eduardo	Heudiasyc UMR 6599. Univ. de Tech. de Compiègne
Fantoni, Isabelle	Univ. of Tech. of Compiègne
Sanchez, Anand	Univ. de Tech. de Compiègne
Sanahuja, Guillaume	Univ. de Tech. de Compiègne
11:20-11:40	MolIT9.2
<i>Mobile Robot Behavior Coordination Using Supervisory Control of Fuzzy Discrete Event Systems</i> , pp. 690-695. <a href="#">Attachment</a>	
Jayasiri, Awantha	Memorial Univ. of Newfoundland
Mann, George K. I.	Memorial Univ. of Newfoundland
Gosine, Raymond G.	Memorial Univ. of Newfoundland
11:40-12:00	MolIT9.3
<i>System Interdependence Analysis for Autonomous Mobile Robots</i> , pp. 696-701.	
Rohrmüller, Florian	Tech. Univ. München
Lidoris, Georgios	Tech. Univ. München
Wollherr, Dirk	Tech. Univ. München
Buss, Martin	Tech. Univ. München
12:00-12:20	MolIT9.4
<i>Motion Based Communication Channels between Mobile Robots – a Novel Paradigm for Low Bandwidth Information Exchange</i> , pp. 702-708.	
Raghunathan, Dhananjay	Boston Univ.
Baillieul, John	Boston Univ.
12:20-12:40	MolIT9.5
<i>UAV Intelligent Path Planning for Wilderness Search and Rescue</i> , pp. 709-714.	
Lin, Lanny	Brigham Young Univ.
Goodrich, Michael A.	Brigham Young Univ.

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**MolIT10** Mills 4

**Industrial Applications (Regular Sessions)**

Chair: Walker, Anthony John	Univ. of KwaZulu-Natal
Co-Chair: Mehrandezh, Mehran	Univ. of Regina
11:00-11:20	MolIT10.1
<i>An Automated Method to Calibrate Industrial Robot Joint Offset Using Virtual Line-Based Single-Point Constraint Approach</i> , pp. 715-720.	
Liu, Yong	Michigan State Univ.

Xi, Ning	Michigan State Univ.
Zhang, George	ABB Corp. Res. Center
Li, Xiongzi	ABB Inc.
Chen, Heping	ABB Inc.
Zhang, Chi	Michigan State Univ.
Jeffery, Michael	Michigan State Univ.
Fuhlbrigge, Thomas	ABB Inc.
11:20-11:40	MolIT10.2
<i>Windshield Shape Inspection Using Structured Light Patterns from Two Diffuse Planar Light Sources</i> , pp. 721-726.	
Xu, Jing	Michigan State Univ.
Xi, Ning	Michigan State Univ.
Zhang, Chi	Michigan State Univ.
Shi, Quan	Michigan State Univ.
11:40-12:00	MolIT10.3
<i>Flexible Process Integration for Mass Customisation Manufacturing Via Autonomous Mobile Payload Routing Platforms</i> , pp. 727-732.	
Walker, Anthony John	Univ. of KwaZulu-Natal
Bright, Glen	Univ. of KwaZulu Natal
12:00-12:20	MolIT10.4
<i>Dynamic Analysis and Human Analogous Control of a Pipe Crawling Robot</i> , pp. 733-740. <a href="#">Attachment</a>	
Heidari, Amir	Univ. of Regina
Mehrandezh, Mehran	Univ. of Regina
Paranjape, Raman	Univ. of Regina
Najjaran, Homayoun	Univ. of British Columbia, Okanagan
12:20-12:40	MolIT10.5
<i>Implementation of a Foldable 3 DOF Master Device to Handle a Large Glass Plate</i> , pp. 741-747. <a href="#">Attachment</a>	
Chung, Jaeheon	Hanayang Univ.
Seo, Jong Tae	Hanyang Univ.
Yi, Byung-Ju	Hanayang Univ.
Kim, Whee Kuk	Korea Univ.
Lee, Sang Heon	Samsung C&T Corp.

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**MolIT11** Mills 5  
**Advanced Control Techniques in Micro/Nano Manipulation I** (Invited Sessions)

Chair: Li, Yangmin	Univ. of Macau
11:00-11:20	MolIT11.1
<i>Apply Nonlinear Filter ESDS to Quantized Sensor Data (I)</i> , pp. 748-754.	
Emaru, Takanori	Hokkaido Univ.
Sase, Ryou	Hokkaido Univ.
Hoshino, Yohei	Hokkaido Univ.
Kobayashi, Yukinori	Hokkaido Univ.
11:20-11:40	MolIT11.2
<i>Global Sliding Mode-Based Tracking Control of a Piezo-Driven XY Micropositioning Stage with Unmodeled Hysteresis (I)</i> , pp. 755-760.	
Xu, Qingsong	Univ. of Macau
Li, Yangmin	Univ. of Macau
11:40-12:00	MolIT11.3
<i>Achieving Three-Dimensional Automated Micromanipulation at the Scale of Several Micrometers with a Nanotip Gripper (I)</i> , pp. 761-766.	
Xie, Hui	Univ. Pierre et Marie Curie-Paris VI/CNRS
Acosta, Juan Camilo	Univ. Pierre et Marie Curie
Régnier, Stéphane	Univ. Paris 6
12:00-12:20	MolIT11.4
<i>Characterization, Modeling and Robust Control of a Nonlinear 2-Dof Piezocantilever for Micromanipulation/microassembly (I)</i> , pp. 767-774.	
Rakotondrabe, Micky	FEMTO-st Inst.
Agnus, Joël	FEMTO-st Inst.
Rabenoroso, Kanty	FEMTO-st Inst.
Chaillet, Nicolas	Univ. of Franche-Comté / FEMTO-ST Inst.
12:20-12:40	MolIT11.5
<i>Active Vibration Control Based on a 3-DOF Dual Compliant Parallel Robot Using LQR Algorithm (I)</i> , pp. 775-780.	
Yun, Yuan	Univ. of Macau
Li, Yangmin	Univ. of Macau

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**MolIT12** Mills 6  
**Manipulator Motion Planning II** (Regular Sessions)

Chair: Akella, Srinivas	Rensselaer Pol. Inst.
Co-Chair: Alterovitz, Ron	Univ. of North Carolina at Chapel Hill
11:00-11:20	MolIT12.1
<i>Automated Manipulation of Spherical Objects in Three Dimensions Using a Gimbaled Air Jet</i> , pp. 781-786. <a href="#">Attachment</a>	
Becker, Aaron	Illinois
Sandheinrich, Robert	Univ. of Illinois at Urbana Champaign
Brett, Timothy	Univ. of Illinois at Urbana-Champaign

11:20-11:40		MolIT12.2
<i>Complementarity-Based Dynamic Simulation for Kinodynamic Motion Planning</i> , pp. 787-794.		
Chakraborty, Nilanjan		Carnegie Mellon Univ.
Akella, Srinivas		Rensselaer Pol. Inst.
Trinkle, Jeff		Rensselaer Pol. Inst.
11:40-12:00		MolIT12.3
<i>Analysis of Human-Operated Motions and Trajectory Replanning for Kinematically Redundant Manipulators</i> , pp. 795-800.		
Mettin, Uwe		Umeå Univ.
Westerberg, Simon		Umeå Univ.
Shiriaev, Anton		Umeå Univ.
La Hera, Pedro		Umeå Univ.
12:00-12:20		MolIT12.4
<i>Motion Planning for Active Cannulas</i> , pp. 801-806.		
Lyons, Lisa		Univ. of North Carolina at Chapel Hill
Webster, Robert		Vanderbilt Univ.
Alterovitz, Ron		Univ. of North Carolina at Chapel Hill
12:20-12:40		MolIT12.5
<i>Compact Design of Work Cell with Robot Arm and Positioning Table under a Task Completion Time Constraint</i> , pp. 807-813. <a href="#">Attachment</a>		
Gueta, Lounell B.		Univ. of Tokyo
Chiba, Ryosuke		Univ. of Tokyo
Arai, Tamio		Univ. of Tokyo
Ueyama, Tsuyoshi		DENSO WAVE INCORPORATED
Ota, Jun		The Univ. of Tokyo

<b>MolIT13</b>		Mills 7
<b>Gait Pattern and Locomotion</b> (Regular Sessions)		
Chair: Choset, Howie		Carnegie Mellon Univ.
Co-Chair: Shibata, Tomohiro		Nara Inst. of Science and Tech.
11:00-11:20		MolIT13.1
<i>Compliant Quadruped Locomotion Over Rough Terrain</i> , pp. 814-820. <a href="#">Attachment</a>		
Buchli, Jonas		Univ. of Southern California
Kalakrishnan, Mrinal		Univ. of Southern California
Mistry, Michael		Univ. of Southern California
Pastor, Peter		Univ. of Southern California
Schaal, Stefan		Univ. of Southern California
11:20-11:40		MolIT13.2
<i>Behavior Planning of an Unmanned Ground Vehicle with Actively Articulated Suspension to Negotiate Geometric Obstacles</i> , pp. 821-826.		
Lim, Kyeong Bin		KAIST
Park, Sukhoon		KAIST
Kim, Suengwoo		KAIST
Jung, Jae Muk		KAIST
Yoon, Yong-San		KAIST
11:40-12:00		MolIT13.3
<i>Acquisition of Energy-Efficient Bipedal Walking Using CPG-Based Reinforcement Learning</i> , pp. 827-832.		
Takita, Tomoyuki		Nara Inst. of Science and Tech.
Azuma, Yoshiyuki		Nara Inst. of Science and Tech.
Shibata, Tomohiro		Nara Inst. of Science and Tech.
12:00-12:20		MolIT13.4
<i>Gait Pattern Classification with Integrated Shoes</i> , pp. 833-839.		
Chen, Meng		The Chinese Univ. of Hong Kong
Yan, Jingyu		The Chinese Univ. of Hong Kong
Xu, Yangsheng		The Chinese Univ. of Hong Kong
12:20-12:40		MolIT13.5
<i>Generating Gaits for Snake Robots by Annealed Chain Fitting and Keyframe Wave Extraction</i> , pp. 840-845.		
Hatton, Ross		Carnegie Mellon Univ.
Choset, Howie		Carnegie Mellon Univ.

<b>MolIT14</b>		Mills 8
<b>Applications of Visual Tracking</b> (Regular Sessions)		
Chair: Luo, Ren		National Taiwan Univ.
Co-Chair: Yamagishi, Hiroyuki		Tokyo Metropolitan Coll. of Industrial Tech.
11:00-11:20		MolIT14.1
<i>Simultaneous People Tracking and Localization for Social Robots Using External Laser Range Finders</i> , pp. 846-853. <a href="#">Attachment</a>		
Glas, Dylan F.		ATR
Kanda, Takayuki		ATR
Ishiguro, Hiroshi		Osaka Univ.
Hagita, Norihiro		ATR

11:20-11:40		MolIT14.2
	<i>Distributive Target Tracking in Sensor Networks with a Markov Random Field Model</i> , pp. 854-859.	
	Shi, Lufeng Tan, Jindong	Michigan Tech. Univ. Michigan Tech. Univ.
11:40-12:00		MolIT14.3
	<i>Indoor Human Dynamic Localization and Tracking Based on Sensory Data Fusion Techniques</i> , pp. 860-865.	
	Luo, Ren Chen, Ogst	National Taiwan Univ. National Chung Cheng Univ.
12:00-12:20		MolIT14.4
	<i>Navigation Control for Tracking and Catching a Moving Target</i> , pp. 866-871.	
	Takagi, Fumiaki Sakahara, Hiroto Tabata, Tetsu Yamagishi, Hiroyuki Suzuki, Takashi Miyazaki, Fumio	Mitsubishi Electric Corp. Osaka Univ. Osaka Univ. Tokyo Metropolitan Coll. of Industrial Tech. Osaka Univ. Graduate School of Engineering Science, Osaka Univ.
12:20-12:40		MolIT14.5
	<i>Motion Clustering and Estimation with Conditional Random Fields</i> , pp. 872-877.	
	Tipaldi, Gian Diego Ramos, Fabio	Univ. of Freiburg Univ. of Sydney

<b>MolIT15</b>		Sterling 6
<b>Robot Control II (Regular Sessions)</b>		
	Chair: Islam, Shafiqul Co-Chair: Padois, Vincent	Carleton Univ. Univ. Pierre et Marie Curie
11:00-11:20		MolIT15.1
	<i>Control of Redundant Robots Using Learned Models: An Operational Space Control Approach</i> , pp. 878-885.	
	Salaün, Camille Padois, Vincent Sigaud, Olivier	Univ. Pierre et Marie Curie (UMPC-paris6) Univ. Pierre et Marie Curie UPMC-Paris 6
11:20-11:40		MolIT15.2
	<i>Novel Shared Control Architectures for Enhanced Users' Interaction in Haptic Training Simulation Systems</i> , pp. 886-892.	
	Khademian, Behzad Hashtrudi-Zaad, Keyvan	Queen's Univ. Queen's Univ.
11:40-12:00		MolIT15.3
	<i>A Learning Approach to Integration of Layers of a Hybrid Control Architecture</i> , pp. 893-898.	
	Powers, Matthew Balch, Tucker	Georgia Inst. of Tech. Georgia Inst. of Tech.
12:00-12:20		MolIT15.4
	<i>Adaptive Output Feedback Control for Robot Manipulators Using Lyapunov-Based Switching</i> , pp. 899-905.	
	Islam, Shafiqul Liu, Peter X.	Carleton Univ. Carleton Univ.
12:20-12:40		MolIT15.5
	<i>Real-Time Decentralized Neural Block Controller for a Robot Manipulator</i> , pp. 906-911.	
	Garcia, Ramon Sanchez, Edgar N. Santibanez, Victor Llama, Miguel Bayro-Corrochano, Eduardo-Jose	Univ. Autonoma del Carmen Centro de Investigacion y de Estudios Avanzados del Inst. Po Inst. Tecnologico de La Laguna Inst. Tecnologico de la Laguna CINVESTAV, Unidad Guadalajara

<b>MolIT16</b>		Sterling 7
<b>SLAM with Vision (Regular Sessions)</b>		
	Chair: Christensen, Henrik Iskov Co-Chair: Kootstra, Gert	Georgia Inst. of Tech. Univ. of Groningen
11:00-11:20		MolIT16.1
	<i>Multi-Robot SLAM Using Ceiling Vision</i> , pp. 912-917.	
	Lee, Hee Seok Lee, KyoungMu	Seoul National Univ. Seoul National Univ.
11:20-11:40		MolIT16.2
	<i>Normalized Graph Cuts for Visual SLAM</i> , pp. 918-923.	
	Rogers, John Christensen, Henrik Iskov	Georgia Inst. of Tech. Georgia Inst. of Tech.
11:40-12:00		MolIT16.3
	<i>Multiswarm Particle Filter for Vision Based SLAM</i> , pp. 924-929.	
	Lee, Hee Seok Lee, KyoungMu	Seoul National Univ. Seoul National Univ.
12:00-12:20		MolIT16.4
	<i>Using Symmetrical Regions of Interest to Improve Visual SLAM</i> , pp. 930-935.	
	Kootstra, Gert	Univ. of Groningen

Schomaker, Lambert R.B.	Univ. of Groningen
12:20-12:40	MolIT16.5
<i>VPass: Algorithmic Compass Using Vanishing Points in Indoor Environment</i> , pp. 936-941.	
Doh, Nakju	Korea Univ.
Nam, Changjoo	Graduate Student
Lee, Keon Yong	Graduate Student
Yuen, Shang Li	Korea Univ.
Yeon, Soo Yong	Graduate Student
Lee, Young Hoon	Graduate Student
<b>MolIT18</b>	Sterling 9
<b>Poster (Regular Sessions)</b>	
11:00-12:40	MolIT18.1
<i>Light Pattern Blur Estimation for Automatic Projector Focus Control of Structured Light 3D Camera</i> , pp. 942-947. <a href="#">Attachment</a>	
Bui, Lam Quang	Sungkyunkwan Univ.
Lee, Sukhan	Sungkyunkwan Univ.
11:00-12:40	MolIT18.2
<i>Mobile Manipulation Using Tracks of a Tracked Mobile Robot</i> , pp. 948-953. <a href="#">Attachment</a>	
Liu, Yugang	Ryerson Univ.
Liu, Guangjun	Ryerson Univ.
11:00-12:40	MolIT18.3
<i>Hybrid Control of Door-Opening by Modular Re-Configurable Robots</i> , pp. 954-959.	
Liu, Guangjun	Ryerson Univ.
Ahmad, Saleh	Ryerson Univ.
Ren, Lu	Univ. of Toronto
11:00-12:40	MolIT18.4
<i>Shape Control of a Deformable Object by Multiple Manipulators</i> , pp. 960-965.	
Das, Jadav	Vanderbilt Univ.
Sarkar, Nilanjan	Vanderbilt Univ.
11:00-12:40	MolIT18.5
<i>Measuring Tip and Side Forces of a Novel Catheter Prototype: A Feasibility Study</i> , pp. 966-971.	
Polygerinos, Panagiotis	King's Coll. London
Schaeffter, Tobias	King's Coll. London
Seneviratne, Lakmal	Kings Coll. London
Althoefer, Kaspar	Kings Coll. London
11:00-12:40	MolIT18.6
<i>Vibration Detection and Backlash Suppression in Machine Tools</i> , pp. 972-977.	
Mohammadiasl, Ebrahim	Mapna Turbine Manufacturing Co. (TUGA)
11:00-12:40	MolIT18.7
<i>Mobile Robot Path Planning with ; 3-Splines Using Spatial-Fitness-Sharing Variable-Length Genetic Algorithm</i> , pp. 978-983.	
Wei, Jiun-Hau	Acad. Sinica
Liu, Jing-Sin	Acad. Sinica
11:00-12:40	MolIT18.8
<i>Human-Computer Interactive Gaming System---A Chinese Chess Robot</i> , pp. 984-987.	
Tong, Guofeng	Northeastern Univ.
Qu, Ying	Northeastern Univ.
Wang, Jiao	Northeastern Univ.
Cheng, Tong	Northeastern Univ.
11:00-12:40	MolIT18.9
<i>Iarw: An Incremental Path Planner Algorithm Based on Adaptive Random Walks</i> , pp. 988-993.	
Adorno, Bruno Vilhena	Lab. d'Informatique, robotique et microelectronique de Mo
Borges, Geovany Araujo	Univ. de Brasilia
11:00-12:40	MolIT18.10
<i>Real-Time Object Classi_; Cation in 3D Point Clouds Using Point Feature Histograms</i> , pp. 994-1000.	
Himmelsbach, Michael	Univ. of the Bundeswehr, Neubiberg
Luettel, Thorsten	Univ. of the Bundeswehr München
Wuensche, Hans J "Joe"	UniBw Munich
11:00-12:40	MolIT18.11
<i>BEST: A Real-Time Tracking Method for Scout Robot</i> , pp. 1001-1006.	
Chen, Diansheng	Beihang Univ.
Bai, Feng	Beihang Univ.
Li, Peng	Beihang Univ.
Wang, Tianmiao	Beihang Univ.
11:00-12:40	MolIT18.12
<i>LabRat(TM): Miniature Robot for Students, Researchers, and Hobbyists</i> , pp. 1007-1012.	
Robinette, Paul	Missouri Univ. of Science and Tech.
Meuth, Ryan	Missouri Univ. of Science and Tech.
Dolan, RYanne	Univ. of Missouri
Wunsch, Donald C.	Missouri Univ. of Science and Tech.



11:00-12:40		MolIT18.13
	<i>Cue-Based Equivalence Classes and Incremental Discrimination for Multiple-Cue Recognition of "Interactionable" Objects</i> , pp. 1013-1018.	
	Aboutalib, Sarah Veloso, Manuela	Carnegie Mellon Univ. Carnegie Mellon Univ.
11:00-12:40		MolIT18.14
	<i>Fuzzy Logic Vorticity Control of Oscillating Foil UUV</i> , pp. 1019-1024.	
	Li, Wen	Beihang Univercity
11:00-12:40		MolIT18.15
	<i>A Novel Motor Function Training Assisted System for Upper Limbs Rehabilitation</i> , pp. 1025-1030.	
	Guo, Shuxiang Song, Zhibin	Kagawa Univ. Graduate School of Kagawa Univ. Japan
11:00-12:40		MolIT18.16
	<i>Calibration of a Multimodal Head-Mounted Device for Ecological Assessment of Social Orienting Behavior in Children</i> , pp. 1031-1036.	
	Schiavone, Giuseppina Campolo, Domenico Keller, Flavio Guglielmelli, Eugenio	Univ. Campus Bio-Medico Campus Bio-Medico Univ. Univ. "Campus Bio-Medico" Univ. Campus Bio-Medico
11:00-12:40		MolIT18.17
	<i>Gait Generation for a Quadruped Robot Using Kalman Filter As Optimizer</i> , pp. 1037-1042.	
	Souto, Rafael Fontes Borges, Geovany Araujo Romariz, Alexandre Ricardo Soares	State Univ. of Campinas - UNICAMP Univ. de Brasilia Univ. of Brasilia
11:00-12:40		MolIT18.18
	<i>Noise-Driven 1-DOF Mobile Robot Inspired by Bacterial Motion Mechanism</i> , pp. 1043-1048.	
	Shirai, Kazumichi Matsumoto, Yoshio Nakamura, Yutaka Koizumi, Satoshi Ishiguro, Hiroshi	Osaka Univ. Osaka Univ. Osaka Univ. Osaka Univ. Osaka Univ.
11:00-12:40		MolIT18.19
	<i>A Thin-Layer Protocol for Utilizing Multiple Paths</i> , pp. 1049-1054.	
	Cai, Yu	Michigan Tech. Univ.
11:00-12:40		MolIT18.20
	<i>A Fluoroscopic-Based Navigation System for ACL Reconstruction Assisted by Robot</i> , pp. 1055-1060.	
	Hu, Yan Hu, Lei Wang, Tianmiao Jun, Wei Lei, Sun Liu, Wenyong Li, Wen	Beihang Univ. Beijing, China. or Univ. of Jinan, Jinan Beihang Univ. Beihang Univ. Univ. of Jinan Jishuitan Hospital Beihang Univ. Beihang Univercity
11:00-12:40		MolIT18.21
	<i>Virtual Entity Based Rapid Prototype Developing Framework (VE-RPDF) for Intelligent Robots</i> , pp. 1061-1064.	
	Tong, Guofeng Cheng, Tong Liu, Miao Qu, Ying	Northeastern Univ. Northeastern Univ. Beihang Univ. Northeastern Univ.
11:00-12:40		MolIT18.22
	<i>Motion Control Strategies for Improved Multi Robot Perception</i> , pp. 1065-1070.	
	Aragues, Rosario Cortes, Jorge Sagues, Carlos	Univ. de Zaragoza, DIIS-I3A Univ. of California, San Diego Univ. de Zaragoza

<b>MolIT1</b>		Grand A
<b>Humanoid Robot Locomotion (Regular Sessions)</b>		
Chair: You, Bum Jae		KIST
Co-Chair: Ugurlu, Barkan		Yokohama National Univ.
14:00-14:20		MolIT1.1
	<i>Toward Human-Like Walking Pattern Generator</i> , pp. 1071-1077.	
	Harada, Kensuke Miura, Kanako Morisawa, Mitsuharu Kaneko, Kenji Nakaoka, Shin'ichiro Kanehiro, Fumio Tsuji, Tokuo Kajita, Shuuji	National Inst. of AIST National Inst. of Advanced Industrial Science and Technology National Inst. of AIST National Inst. of AIST AIST National Inst. of AIST National Inst. of AIST National Inst. of AIST

14:20-14:40		MolIIT1.2
<i>A Walking Pattern Generation Method with Feedback and Feedforward Control for Humanoid Robots</i> , pp. 1078-1083.		
Hong, Seokmin		Univ. of Science and Tech.
Oh, Yonghwan		KIST
Kim, Doik		KIST
You, Bum Jae		KIST
14:40-15:00		MolIIT1.3
<i>Real Time Motion Generation and Control for Biped Robot -1st Report: Walking Gait Pattern Generation</i> , pp. 1084-1091.		
Takenaka, Toru		Honda R&D Co.,Ltd.
Matsumoto, Takashi		Honda R&D Co.,Ltd.
Yoshiike, Takahide		Honda R&D Co.,Ltd.
15:00-15:20		MolIIT1.4
<i>Real Time Motion Generation and Control for Biped Robot -2nd Report: Running Gait Pattern Generation</i> , pp. 1092-1099.		
Takenaka, Toru		Honda R&D Co.,Ltd.
Matsumoto, Takashi		Honda R&D Co.,Ltd.
Yoshiike, Takahide		Honda R&D Co.,Ltd.
Shirokura, Shinya		Honda R&D Co.,Ltd.
15:20-15:40		MolIIT1.5
<i>Real-Time Running and Jumping Pattern Generation for Bipedal Robots Based on ZMP and Euler's Equations</i> , pp. 1100-1105.		
Ugurlu, Barkan		Yokohama National Univ.
Kawamura, Atsuo		Yokohama National Univ.

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<b>MolIIT2</b>		Grand B
<b>Rehabilitation Robotics I (Regular Sessions)</b>		

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Chair: Kiguchi, Kazuo		Saga Univ.
Co-Chair: Dubey, Rajiv		Univ. of South Florida
14:00-14:20		MolIIT2.1
<i>HANDEXOS: Towards an Exoskeleton Device for the Rehabilitation of the Hand</i> , pp. 1106-1111.		
Chiri, Azzurra		Scuola Superiore Sant' Anna
Giovacchini, Francesco		Scuola Superiore Sant' Anna
Vitiello, Nicola		Scuola Superiore Sant' Anna
Cattin, Emanuele		Scuola Superiore Sant' Anna
Roccella, Stefano		Scuola Superiore Sant' Anna - ARTS Lab.
Vecchi, Fabrizio		Scuola Superiore Sant' Anna
Carrozza, Maria Chiara		Scuola Superiore Sant' Anna
14:20-14:40		MolIIT2.2
<i>Estimation of Foot Orientation with Respect to Ground for an above Knee Robotic Prosthesis</i> , pp. 1112-1117.		
Scandaroli, Glauco Garcia		Univ. of Brasilia
Borges, Geovany Araujo		Univ. de Brasilia
Ishihara, Joao Yoshiyuki		Univ. de Brasilia
Terra, Marco Henrique		Univ. of Sao Paulo
da Rocha, Adson Ferreira		Univ. of Brasilia
Nascimento, Francisco Assis de Oliveira		Univ. of Brasilia
14:40-15:00		MolIIT2.3
<i>Navigating a Smart Wheelchair with a Brain-Computer Interface Interpreting Steady-State Visual Evoked Potentials</i> , pp. 1118-1125.		
Mandel, Christian		Univ. of Bremen
Lüth, Thorsten		Univ. of Bremen
Laue, Tim		Univ. Bremen
Röfer, Thomas		Deutsches Forschungszentrum für Künstliche Intelligenz
Gräser, Axel		Univ. of Bremen
Krieg-Brückner, Bernd		German Res. Center for Artificial Intelligence
15:00-15:20		MolIIT2.4
<i>SUEFUL-7: A 7DOF Upper-Limb Exoskeleton Robot with Muscle-Model-Oriented EMG-Based Control</i> , pp. 1126-1131.		
Gopura, Ranathunga Arachchilage Ruwan Chandra		Saga Univ.
Kiguchi, Kazuo		Saga Univ.
Li, Yang		Saga Univ.
15:20-15:40		MolIIT2.5
<i>Adaptive Dynamic Coupling Control of Human-Symbiotic Wheeled Mobile Manipulators with Hybrid Joints</i> , pp. 1132-1137.		
Li, Zhijun		Shanghai Jiao Tong Univ.
Luo, Jun		Shanghai Univ.
Dai, Lei		Shanghai Jiao Tong Univ.

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<b>MolIIT3</b>		Grand C
<b>Mapping I (Regular Sessions)</b>		

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Chair: Tomono, Masahiro		Chiba Inst. of Tech.
Co-Chair: Roumeliotis, Stergios		Univ. of Minnesota
14:00-14:20		MolIIT3.1
<i>3D Feature Based Mapping towards Mobile Robots' Enhanced Performance in Rescue Missions</i> , pp. 1138-1143. <a href="#">Attachment</a>		
de la Puente, Paloma		Univ. Pol. de Madrid
Rodriguez-Iosada, Diego		Univ. Pol. de Madrid

Valero, Alberto	Univ. Pol. de Madrid
Matia, Fernando	Univ. Pol. de Madrid
14:20-14:40	MoIIIT3.2
<i>On the Bending Problem for Large Scale Mapping</i> , pp. 1144-1149.	
Esteban, Isaac	Univ. of Amsterdam
Booij, Olaf	Univ. of Amsterdam
Dijk, Judith	TNO
Groen, Frans	Univ. of Amsterdam
14:40-15:00	MoIIIT3.3
<i>Fast 3D Mapping by Matching Planes Extracted from Range Sensor Point-Clouds</i> , pp. 1150-1155.	
Pathak, Kaustubh	Jacobs Univ. Bremen
Vaskevicius, Narunas	Jacobs Univ.
Poppinga, Jann	Jacobs Univ. Bremen
Schwertfeger, Sören	International Univ. Bremen
Pfingsthorn, Max	Jacobs Univ.
Birk, Andreas	Jacobs Univ.
15:00-15:20	MoIIIT3.4
<i>Towards Lifetime Visual Maps</i> , pp. 1156-1163.	
Konolige, Kurt	Willow Garage
Bowman, James	Willow Garage
15:20-15:40	MoIIIT3.5
<i>Detailed 3D Mapping Based on Image Edge-Point ICP and Recovery from Registration Failure</i> , pp. 1164-1169. <a href="#">Attachment</a>	
Tomono, Masahiro	Chiba Inst. of Tech.

<b>MoIIIT4</b>	Grand F
<b>Field Robotics - Planning &amp; Control (Regular Sessions)</b>	
Chair: Iagnemma, Karl	MIT
Co-Chair: Balakirsky, Stephen	NIST
14:00-14:20	MoIIIT4.1
<i>Towards Reliable Perception for Unmanned Ground Vehicles in Challenging Conditions</i> , pp. 1170-1176.	
Peynot, Thierry	The Univ. of Sydney
Underwood, James Patrick	The Univ. of Sydney
Scheding, Steven	The Univ. of Sydney
14:20-14:40	MoIIIT4.2
<i>A Multi-Element Generalized Polynomial Chaos Approach to Analysis of Mobile Robot Dynamics under Uncertainty</i> , pp. 1177-1182.	
Kewlani, Gaurav	Massachusetts Inst. of Tech.
Iagnemma, Karl	MIT
14:40-15:00	MoIIIT4.3
<i>Stochastic Mobility-Based Path Planning in Uncertain Environments</i> , pp. 1183-1189.	
Kewlani, Gaurav	Massachusetts Inst. of Tech.
Ishigami, Genya	Massachusetts Inst. of Tech.
Iagnemma, Karl	MIT
15:00-15:20	MoIIIT4.4
<i>Cooperative Multi-Robot Reinforcement Learning: A Framework in Hybrid State Space</i> , pp. 1190-1196. <a href="#">Attachment</a>	
Sun, Xueqing	Dartmouth Coll.
Mao, Tao	Dartmouth Coll.
Kralik, Jerald	Dartmouth Coll.
Ray, Laura	Dartmouth Coll.
15:20-15:40	MoIIIT4.5
<i>Multi-Model Based Sideslip Angle Observer: Accurate Control of High-Speed Mobile Robots in Off-Road Conditions</i> , pp. 1197-1202.	
Lenain, Roland	Cemagref
Thuilot, Benoit	Clermont-Ferrand Univ.
Cariou, Christophe	Cemagref
Martinet, Philippe	Blaise Pascal Univ.

<b>MoIIIT5</b>	Grand G
<b>Outdoor Navigation (Regular Sessions)</b>	
Chair: Burgard, Wolfram	Univ. of Freiburg
Co-Chair: Matsumoto, Yoshio	Osaka Univ.
14:00-14:20	MoIIIT5.1
<i>Using Linear Landmarks for Path Planning with Uncertainty in Outdoor Environments</i> , pp. 1203-1210.	
Gonzalez, Juan Pablo	GDRS
Stentz, Anthony	Carnegie Mellon Univ.
14:20-14:40	MoIIIT5.2
<i>Consistent Outdoor Vehicle Localization by Bounded-Error State Estimation</i> , pp. 1211-1216.	
Lambert, Alain	Inst. d'Electronique Fondamentale
Gruyer, Dominique	INRETS/LCPC
Vincke, Bastien	IEF Univ. de Paris Sud-XI
Seigniez, Emmanuel	Ec. Supérieure d'Ingénieurs en Electronique et Electrotechnique

14:40-15:00		MoIIIT5.3
<i>Improving Robot Navigation in Structured Outdoor Environments by Identifying Vegetation from Laser Data</i> , pp. 1217-1222. <a href="#">Attachment</a>		
Wurm, Kai M.		Univ. of Freiburg
Kuemmerle, Rainer		Univ. of Freiburg
Stachniss, Cyrill		Univ. of Freiburg
Burgard, Wolfram		Univ. of Freiburg
15:00-15:20		MoIIIT5.4
<i>New Likelihood Updating for the IMM Approach, Application to Outdoor Vehicles Localization</i> , pp. 1223-1228.		
Ndjeng Ndjeng, Alexandre		INRETS/LCPC
Gruyer, Dominique		INRETS/LCPC
Glaser, Sebastien		INRETS/LCPC
15:20-15:40		MoIIIT5.5
<i>View-Sequece Based Indoor/Outdoor Navigation Robust to Illumination Changes</i> , pp. 1229-1234. <a href="#">Attachment</a>		
Yamagi, Yoichiro	Nara Inst. of Science and Tech.	
Ido, Junichi	Nara Inst. of Science and Tech.	
Takemura, Kentaro	Nara Inst. of Science and Tech.	
Matsumoto, Yoshio	Osaka Univ.	
Takamatsu, Jun	Nara Inst. of Science and Tech.	
Ogasawara, Tsukasa	Nara Inst. of Science and Tech.	

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<b>MoIIIT6</b>	<b>Grand H</b>
<b>Haptics I (Regular Sessions)</b>	

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Chair: Suzumori, Koichi		Okayama Univ.
Co-Chair: Bleuler, Hannes		Ec. Pol. Federale de Lausanne
14:00-14:20		MoIIIT6.1
<i>A Shoe-Integrated Tactile Display for Directional Navigation</i> , pp. 1235-1240.		
Velazquez, Ramiro		Univ. Panamericana
Bazan, Omar		Univ. Panamericana
Magaña, Marco		Univ. Panamericana
14:20-14:40		MoIIIT6.2
<i>An Enhanced Haptic Assembly Simulation System for the Efficiency of Assembly Tasks</i> , pp. 1241-1246. <a href="#">Attachment</a>		
, Christiand		ETRI
Yoon, Jungwon		Gyeongsang National Univ.
Manurung, Auralius		Robot and Intelligent Systems
Yu, Wonpil		ETRI
14:40-15:00		MoIIIT6.3
<i>Experimental Performance Evaluation of a Haptic Training Simulation System</i> , pp. 1247-1252.		
Khademian, Behzad		Queen's Univ.
Hashtrudi-Zaad, Keyvan		Queen's Univ.
15:00-15:20		MoIIIT6.4
<i>Müller-Lyer Illusion Effect on a Reaching Movement in Simultaneous Presentation of Visual and Haptic/Kinesthetic Cues</i> , pp. 1253-1258.		
Hara, Masayuki		École Pol. Fédérale de Lausanne
Kosaka, Sho		Yokohama National Univ.
Huang, Jian		Kinki Univ.
Bleuler, Hannes		Ec. Pol. Federale de Lausanne
Yabuta, Tetsuro		Yokohama National Univ.
15:20-15:40		MoIIIT6.5
<i>Development of Active 80-Faced Polyhedron for Haptic Physical Human-Machine Interface</i> , pp. 1259-1264. <a href="#">Attachment</a>		
Kubo, Tomoya		Okayama Univ.
Kobayashi, Yusuke		Okayama Univ.
Mohd Faudzi, Ahmad `Athif		Okayama Univ.
Suzumori, Koichi		Okayama Univ.

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<b>MoIIIT7</b>	<b>Mills 1</b>
<b>Grasping I (Regular Sessions)</b>	

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Chair: Fagg, Andrew		Univ. of Oklahoma
Co-Chair: Allen, Peter		Columbia Univ.
14:00-14:20		MoIIIT7.1
<i>Learning Grasp Affordances with Variable Centroid Offsets</i> , pp. 1265-1271.		
Palmer, Thomas		Univ. of Oklahoma
Fagg, Andrew		Univ. of Oklahoma
14:20-14:40		MoIIIT7.2
<i>A Hybrid Approach for Grasping 3D Objects</i> , pp. 1272-1277.		
Sahbani, Anis	Univ. Pierre et Marie Curie - Paris 6, ISIR, CNRS-UMR 7222	
El-Khoury, Sahar	Univ. Pierre et Marie Curie (Paris6)	
14:40-15:00		MoIIIT7.3
<i>Data-Driven Grasping with Partial Sensor Data</i> , pp. 1278-1283.		
Goldfeder, Corey		Columbia Univ.
Ciocarlie, Matei		Columbia Univ.

Peretzman, Jaime	Columbia Univ.
Dang, Hao	Columbia Univ.
Allen, Peter	Columbia Univ.
15:00-15:20	MoIIIT7.4
<a href="#">3D Hand Trajectory Segmentation by Curvatures and Hand Orientation for Classification through a Probabilistic Approach</a> , pp. 1284-1289.	
Faria, Diego	Univ. of Coimbra
Dias, Jorge	Univ. of Coimbra
15:20-15:40	MoIIIT7.5
<a href="#">Floating Visual Grasp of Unknown Objects</a> , pp. 1290-1295.	
Lippiello, Vincenzo	Univ. di Napoli Federico II
Ruggiero, Fabio	Univ. di Napoli Federico II
Villani, Luigi	Univ. di Napoli Federico II

MoIIIT8	Mills 2
<b>Underactuated Robots (Regular Sessions)</b>	
Chair: Hasegawa, Yasuhisa	Univ. of Tsukuba
Co-Chair: Ishikawa, Masato	Kyoto Univ.
14:00-14:20	MoIIIT8.1
<a href="#">Energy-Based Control Design of an Underactuated 2-Dimensional TORA System</a> , pp. 1296-1301.	
Gao, Bingtuan	Michigan State Univ.
Zhang, Xiaohua	Harbin Inst. of Tech.
Chen, Hongjun	Harbin Inst. of Tech.
Zhao, Jianguo	Michigan State Univ.
14:20-14:40	MoIIIT8.2
<a href="#">Estimation-Based Disturbance Rejection in Control for Limit Cycle Generation on Inertia Wheel Inverted Pendulum Testbed</a> , pp. 1302-1307.	
<a href="#">Attachment</a>	
Andary, Sebastien	LIRMM - Univ. Montpellier 2
Chemori, Ahmed	LIRMM
Krut, Sebastien	LIRMM (CNRS & Univ. Montpellier 2)
14:40-15:00	MoIIIT8.3
<a href="#">Experimental Verification of 3D Bipedal Walking Based on Passive Dynamic Autonomous Control</a> , pp. 1308-1313. <a href="#">Attachment</a>	
Aoyama, Tadayoshi	Nagoya Univ.
Sekiyama, Kosuke	Nagoya Univ.
Hasegawa, Yasuhisa	Univ. of Tsukuba
Fukuda, Toshio	Nagoya Univ.
15:00-15:20	MoIIIT8.4
<a href="#">Control of the Double-Linked Trident Snake Robot Based on the Analysis of Its Oscillatory Dynamics</a> , pp. 1314-1319.	
Ishikawa, Masato	Kyoto Univ.
Fujino, Takahiro	Kyoto Univ.
15:20-15:40	MoIIIT8.5
<a href="#">The Dynamical Servo Control Problem for the Acrobot Based on Virtual Constraints Approach</a> , pp. 1320-1325.	
Zhang, Xiaohua	Harbin Inst. of Tech.
Cheng, Hongtai	Harbin Inst. of Tech.
Zhao, Yini	Harbin Inst. of Tech.
Gao, Bingtuan	Michigan State Univ.

MoIIIT9	Mills 3
<b>Nanorobotic Manipulation (Regular Sessions)</b>	
Chair: Régnier, Stéphane	Univ. Paris 6
Co-Chair: Liu, Lianqing	Shenyang Inst. of Automation
14:00-14:20	MoIIIT9.1
<a href="#">Atomic Force Microscopy-Based Single-Cell Indentation: Experimentation and Finite Element Simulation</a> , pp. 1326-1332.	
Ladjal, Hamid	ENSI Bourges, Univ. Orleans
Hanus, Jean Luc	ENSI Bourges
Pillariseti, Anand	Univ. of Maryland
Keefer, Carol	UMCP
Ferreira, Antoine	Univ. of Orleans
Desai, Jaydev P.	Univ. of Maryland
14:20-14:40	MoIIIT9.2
<a href="#">Pick-And-Place Nanomanipulation with Three-Dimensional Manipulation Force Microscopy (I)</a> , pp. 1333-1338.	
Xie, Hui	Univ. Pierre et Marie Curie-Paris VI/CNRS
Acosta, Juan Camilo	Univ. Pierre et Marie Curie
Haliyo, Dogan Sinan	Univ. Paris 6
Régnier, Stéphane	Univ. Paris 6
14:40-15:00	MoIIIT9.3
<a href="#">Motion Controller for the Atomic Force Microscopy Based Nanomanipulation System</a> , pp. 1339-1344.	
Yang, Ruiguo	Michigan State Univ.
Xi, Ning	Michigan State Univ.
Lai, King Wai Chiu	Michigan State Univ.
Gao, Bingtuan	Michigan State Univ.

Chen, Hongzhi	Michigan State Univ.
Su, Chanmin	Veeco Inst.
Shi, Jian	Veeco Inst. Inc.
15:00-15:20	MolIIT9.4
<i>Local Scan for Compensation of Drift Contamination in AFM Based Nanomanipulation</i> , pp. 1345-1350.	
Li, Guangyong	Univ. of Pittsburgh
Wang, Yucai	Univ. of Pittsburgh
Liu, Lianqing	Shenyang Inst. of Automation
15:20-15:40	MolIIT9.5
<i>Feature Referenced Tip Localization in Nano Robotic Manipulation</i> , pp. 1351-1356.	
Liu, Lianqing	Shenyang Inst. of Automation
Xi, Ning	Michigan State Univ.
Wang, Yuechao	Shenyang Inst. of Automation
Dong, Zaili	Shenyang Inst. of Automation

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<b>MolIIT10</b>	Mills 4
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<b>Multi-Robot Systems Communication (Regular Sessions)</b>	
Chair: Vaughan, Richard	Simon Fraser Univ.
Co-Chair: Goldberg, Ken	UC Berkeley
14:00-14:20	MolIIT10.1
<i>Coordinating Recharging of Large Scale Robotic Teams</i> , pp. 1357-1362.	
Drenner, Andrew	UMN
Janssen, Michael	Univ. of Minnesota, Minneapolis
Papanikolopoulos, Nikos	Univ. of Minnesota
14:20-14:40	MolIIT10.2
<i>Adaptive Mobile Charging Stations for Multi-Robot Systems</i> , pp. 1363-1368.	
Couture-Beil, Alex	Simon Fraser Univ.
Vaughan, Richard	Simon Fraser Univ.
14:40-15:00	MolIIT10.3
<i>Nonparametric Belief Propagation for Distributed Tracking of Robot Networks with Noisy Inter-Distance Measurements</i> , pp. 1369-1376.	
Schiff, Jeremy	UC Berkeley
Sudderth, Erik	Univ. of California, Berkeley
Goldberg, Ken	UC Berkeley
15:00-15:20	MolIIT10.4
<i>An Adaptive Mobile Robots Tethering Algorithm in Constrained Environments</i> , pp. 1377-1382. <a href="#">Attachment</a>	
Chen, Xi	Michigan Tech. Univ.
Tan, Jindong	Michigan Tech. Univ.
15:20-15:40	MolIIT10.5
<i>TENTACLES: Self-Configuring Robotic Radio Networks in Unknown Environments</i> , pp. 1383-1388.	
Chiu, Chi Ho	Univ. of Southern California
Salemi, Behnam	USC/ISI
Rubenstein, Michael	Univ. of southern california
Shen, Wei-Min	USC Information Science Inst.
Zhu, Hua	ArgonST
Maheswaran, Rajiv	Univ. of Southern California - Information Sciences Inst.
Szekely, Pedro	Univ. of Southern California
Rogers, Craig	Univ. of Southern California

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<b>MolIIT11</b>	Mills 5
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<b>Advanced Control Techniques in Micro/Nano Manipulation II (Invited Sessions)</b>	
Co-Chair: Li, Yangmin	Univ. of Macau
14:00-14:20	MolIIT11.1
<i>Parasitic Effects on Nanoassembly Processes (I)</i> , pp. 1389-1394.	
Wich, Thomas	Univ. of Oldenburg
Stolle, Christian	Univ. of Oldenburg
Edeler, Christoph	Univ. of Oldenburg
Fatikow, Sergej	Univ. of Oldenburg
14:20-14:40	MolIIT11.2
<i>Microbubble Generation Using a Syringe Pump (I)</i> , pp. 1395-1400.	
Lenders, Cyrille	Univ. libre de Bruxelles (U.L.B.)
Gauthier, Michael	FEMTO-ST Inst.
Lambert, Pierre	Univ. libre de Bruxelles
14:40-15:00	MolIIT11.3
<i>Micromanipulation Using Artificial Bacterial Flagella (I)</i> , pp. 1401-1406.	
Zhang, Li	ETH Zurich
Abbott, Jake	Univ. of Utah
Dong, Lixin	Michigan State Univ.
Kratochvil, Bradley	ETH Zurich
Nelson, Bradley J.	ETH Zurich

15:00-15:20		MolIIT11.4
	<a href="#">Metal-Filled Carbon Nanotubes for Nanofluidic Systems: Modes of Melting and Evaporation (I)</a> , pp. 1407-1412.	
	Dong, Lixin	Michigan State Univ.
	Tao, Xinyong	Zhejiang Univ.
	Zhang, Li	ETH Zurich
	Zhang, Xiaobin	Zhejiang Univ.
	Nelson, Bradley J.	ETH Zurich
15:20-15:40		MolIIT11.5
	<a href="#">Laser Manipulation and Optical Adhesion Control of Functional Gel-Microtool for On-Chip Cell Manipulation (I)</a> , pp. 1413-1418.	
	Maruyama, Hisataka	Tohoku Univ.
	Fukuda, Toshio	Nagoya Univ.
	Arai, Fumihito	Tohoku Univ.

<b>MolIIT12</b>		Mills 6
<b>Manipulator Motion Planning III (Regular Sessions)</b>		
	Chair: Kuffner, James	Carnegie Mellon Univ.
	Co-Chair: Xiao, Jing	UNC-Charlotte
14:00-14:20		MolIIT12.1
	<a href="#">Addressing Pose Uncertainty in Manipulation Planning Using Task Space Regions</a> , pp. 1419-1425.	
	Berenson, Dmitry	Carnegie Mellon
	Srinivasa, Siddhartha	Intel Res. Pittsburgh
	Kuffner, James	Carnegie Mellon Univ.
14:20-14:40		MolIIT12.2
	<a href="#">Lazy-PRM for a Manipulator with Base Pose Uncertainty</a> , pp. 1426-1432.	
	Huang, Yifeng	Simon Fraser Univ.
	Gupta, Kamal	Simon Fraser Univ.
14:40-15:00		MolIIT12.3
	<a href="#">Perceiving Guaranteed Continuously Collision-Free Robot Trajectories in an Unknown and Unpredictable Environment</a> , pp. 1433-1438.	
	<a href="#">Attachment</a>	
	Vatcha, Rayomand	Univ. of North Carolina - Charlotte
	Xiao, Jing	UNC-Charlotte
15:00-15:20		MolIIT12.4
	<a href="#">Path Planning in Changing Environments by Using Optimal Path Segment Search</a> , pp. 1439-1445.	
	Liu, Hong	Peking Univ.
	Wen, He	Peking Univ.
	Li, Yan	Peking Univ.
15:20-15:40		MolIIT12.5
	<a href="#">Optimal Placement of a Two-Link Manipulator for Door Opening</a> , pp. 1446-1451.	
	Urakubo, Takateru	Graduate School of Engineering, Kobe Univ.
	Mashimo, Tomoaki	Carnegie Mellon Univ.
	Kanade, Takeo	Carnegie Mellon Univ.

<b>MolIIT13</b>		Mills 7
<b>Body Movement Modeling and Analysis (Regular Sessions)</b>		
	Chair: Dariush, Behzad	Honda Res. Inst. USA
	Co-Chair: Esteban, Isaac	Univ. of Amsterdam
14:00-14:20		MolIIT13.1
	<a href="#">Toward a Vision Based Hand Gesture Interface for Robotic Grasping</a> , pp. 1452-1459.	
	Gopalan, Raghuraman	Univ. of Maryland
	Dariush, Behzad	Honda Res. Inst. USA
14:20-14:40		MolIIT13.2
	<a href="#">Fingertip Detection with Morphology and Geometric Calculation</a> , pp. 1460-1465.	
	Nguyen, Duc Dung	SungKyunKwan Univ.
	Pham, Thien Cong	Sungkyunkwan Univ.
	Jeon, Jae Wook	Sungkyunkwan Univ.
14:40-15:00		MolIIT13.3
	<a href="#">Robust Real-Time 3D Head Tracking Based on Online Illumination Modeling and Its Application to Face Recognition</a> , pp. 1466-1471.	
	An, Kwang Ho	KAIST
	Chung, Myung Jin	KAIST
15:00-15:20		MolIIT13.4
	<a href="#">Modeling and Analysis of a Biomimetic Foot Mechanism</a> , pp. 1472-1477. <a href="#">Attachment</a>	
	Seo, Jong Tae	Hanyang Univ.
	Yi, Byung-Ju	Hanayang Univ.
15:20-15:40		MolIIT13.5
	<a href="#">Simple Components for a Reconfigurable Modular Robotic System</a> , pp. 1478-1483. <a href="#">Attachment</a>	
	Moses, Matthew S	Johns Hopkins Univ.
	Chirikjian, Gregory	Johns Hopkins Univ.

<b>MolIIT14</b>		Mills 8
<b>Cellular Robots (Regular Sessions)</b>		
Chair: Goldstein, Seth Copen		Carnegie Mellon Univ.
Co-Chair: Ishiguro, Akio		Tohoku Univ.
14:00-14:20		MolIIT14.1
<i>Scalable Self-Assembly and Self-Repair in a Collective of Robots</i> , pp. 1484-1489. <a href="#">Attachment</a>		
Rubenstein, Michael		Univ. of southern california
Shen, Wei-Min		USC Information Science Inst.
14:20-14:40		MolIIT14.2
<i>Design of Prismatic Cube Modules for Convex Corner Traversal in 3D</i> , pp. 1490-1495. <a href="#">Attachment</a>		
Weller, Michael Philetus		Carnegie Mellon Univ.
Kirby, Brian		Carnegie Mellon Univ.
Brown, H. Ben		Carnegie Mellon Univ.
Gross, Mark D.		Carnegie Mellon Univ.
Goldstein, Seth Copen		Carnegie Mellon Univ.
14:40-15:00		MolIIT14.3
<i>An Amoeboid Modular Robot That Exhibits Real-Time Adaptive Reconfiguration</i> , pp. 1496-1501. <a href="#">Attachment</a>		
Shimizu, Masahiro		Tohoku Univ.
Ishiguro, Akio		Tohoku Univ.
15:00-15:20		MolIIT14.4
<i>On the Efficiency of Local and Global Communication in Modular Robots</i> , pp. 1502-1508.		
Mendoza Garcia, Ricardo Franco	Univ. of Southern Denmark,	Univ. de Tarapaca Arica Ch
Schultz, Ulrik Pagh		Univ. of Southern Denmark
Stoy, Kasper		Univ. of Southern Denmark
15:20-15:40		MolIIT14.5
<i>Building a Distributed Robot Garden</i> , pp. 1509-1516. <a href="#">Attachment</a>		
Correll, Nikolaus		Massachusetts Inst. of Tech.
Bolger, Adrienne		Massachusetts Inst. of Tech.
Bollini, Mario		MIT
Charrow, Benjamin		MIT
Clayton, Adam		MIT
Dominguez, Felipe		MIT
Donahue, Kenneth		MIT
Dyar, Samuel		MIT
Johnson, Luke		MIT
Liu, Huan		MIT
Patrikalakis, Alexander		MIT
Smith, Jeremy		MIT
Tanner, Melissa		MIT
White, Lauren		MIT
Robertson, Timothy		MIT
Soltero, Daniel		MIT
Arechiga, Nikos		MIT
Rus, Daniela		MIT
<b>MolIIT15</b>		Sterling 6
<b>Robot Localization and Mapping I (Regular Sessions)</b>		
Chair: Fu, Li-Chen		National Taiwan Univ.
Co-Chair: Lepinay, Pascal		Univ. of Montpellier II
14:00-14:20		MolIIT15.1
<i>NDT Scan Matching Method for High Resolution Grid Map</i> , pp. 1517-1522.		
Takubo, Tomohito		Osaka Univ.
Kaminade, Takuya		Osaka Univ.
Mae, Yasushi		Osaka Univ.
Ohara, Kenichi		Osaka Univ.
Arai, Tatsuo		Osaka Univ.
14:20-14:40		MolIIT15.2
<i>A Hybrid Approach to RBPF Based SLAM with Grid Mapping Enhanced by Line Matching</i> , pp. 1523-1528.		
Kuo, Wei-Jen		National Taiwan Univ.
Tseng, Shih-Huan		National Taiwan Univ.
Yu, Jia-Yuan		National Taiwan Univ.
Fu, Li-Chen		National Taiwan Univ.
14:40-15:00		MolIIT15.3
<i>A Parallel Maximum Likelihood Algorithm for Robot Mapping</i> , pp. 1529-1534.		
Lodi Rizzini, Dario		Univ. of Parma
Caselli, Stefano		Univ. of Parma
15:00-15:20		MolIIT15.4
<i>Event-Driven Loop Closure in Multi-Robot Mapping</i> , pp. 1535-1540. <a href="#">Attachment</a>		
Vidal-Calleja, Teresa A.		Univ. of Sydney
Berger, Cyrille		Univ. de Toulouse, LAAS/CNRS, Thalcs



Lacroix, Simon	LAAS/CNRS
15:20-15:40	MoIIIT15.5
<i>Self-Adaptive Monte Carlo Localization for Mobile Robots Using Range Sensors</i> , pp. 1541-1546. <a href="#">Attachment</a>	
Zhang, Lei	Univ. of Montpellier II
Zapata, René	Univ. of Montpellier II
Lepinay, Pascal	Univ. of Montpellier II

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**MoIIIT16** Sterling 7

**Visual SLAM (Regular Sessions)**

Chair: Eustice, Ryan M.	Univ. of Michigan
Co-Chair: Solf, Joan	LAAS-CNRS, Univ. of Toulouse
14:00-14:20	MoIIIT16.1
<i>Efficient Integration of Inertial Observations into Visual SLAM without Initialization</i> , pp. 1547-1552.	
Lupton, Todd	Univ. of Sydney
Sukkarieh, Salah	Univ. of Sydney
14:20-14:40	MoIIIT16.2
<i>Undelayed Initialization of Line Segments in Monocular SLAM</i> , pp. 1553-1558. <a href="#">Attachment</a>	
Solf, Joan	LAAS-CNRS, Univ. of Toulouse
Vidal-Calleja, Teresa A.	CNRS
Devy, Michel	LAAS-CNRS
14:40-15:00	MoIIIT16.3
<i>Pose-Graph Visual SLAM with Geometric Model Selection for Autonomous Underwater Ship Hull Inspection</i> , pp. 1559-1565. <a href="#">Attachment</a>	
Kim, Ayoung	Univ. of Michigan
Eustice, Ryan	Univ. of Michigan
15:00-15:20	MoIIIT16.4
<i>Monocular Vision SLAM for Indoor Aerial Vehicles</i> , pp. 1566-1573. <a href="#">Attachment</a>	
Celik, Koray	Iowa State Univ.
Chung, Soon-Jo	Univ. of Illinois at Urbana-Champaign
Clausman, Matthew	Iowa State Univ.
Somani, Arun K.	Iowa State Univ.
15:20-15:40	MoIIIT16.5
<i>Performance Evaluation of Visual SLAM Using Several Feature Extractors</i> , pp. 1574-1581.	
Klippenstein, Jonathan Stephen	Univ. of Alberta
Zhang, Hong	Univ. of Alberta

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**MoIVT1** Grand A

**Humanoid Robot Planning and Control (Regular Sessions)**

Chair: Zhou, Yu	SUNY at Stony Brook
Co-Chair: Liu, Lianqing	Shenyang Inst. of Automation
16:00-16:20	MoIVT1.1
<i>Decentralized Planning for Dynamic Motion Generation of Multi-Link Robotic Systems</i> , pp. 1582-1587.	
Tazaki, Yuichi	Nagoya Univ.
Sugiura, Hisashi	Honda Res. Inst. Europe
Janssen, Herbert	Honda Res. Inst. Europe
Goerick, Christian	Honda Res. Inst. Europe GmbH
16:20-16:40	MoIVT1.2
<i>ZMP Trajectory Reference for the Sagittal Plane Control of a Biped Robot Based on a Human CoP and Gait</i> , pp. 1588-1593. <a href="#">Attachment</a>	
Ferreira, João	ISEC
Crisóstomo, Manuel Marques	Inst. of Systems & Robotics - Univ. of Coimbra
Coimbra, A. Paulo	Inst. de Sistemas de Robotica - Univ. of Coimbra, VAT 5
16:40-17:00	MoIVT1.3
<i>Real Time Motion Generation and Control for Biped Robot -3rd Report: Gait Pattern Modification to Compensate Approximated Dynamics Error -</i> , pp. 1594-1600.	
Takenaka, Toru	Honda R&D Co.,Ltd.
Matsumoto, Takashi	Honda R&D Co.,Ltd.
Yoshiike, Takahide	Honda R&D Co.,Ltd.
17:00-17:20	MoIVT1.4
<i>Real Time Motion Generation and Control for Biped Robot -4th Report: Integrated Balance Control</i> , pp. 1601-1608.	
Takenaka, Toru	Honda R&D Co.,Ltd.
Matsumoto, Takashi	Honda R&D Co.,Ltd.
Yoshiike, Takahide	Honda R&D Co.,Ltd.
Hasegawa, Tadaaki	Honda R&D Co.,Ltd.
Shirokura, Shinya	Honda R&D Co.,Ltd.
Kaneko, Hiroyuki	Honda R&D Co.,Ltd.
Orita, Atsuo	Honda R&D Co.,Ltd.
17:20-17:40	MoIVT1.5
<i>Optimization of Tasks Warping and Scheduling for Smooth Sequencing of Robotic Actions</i> , pp. 1609-1614. <a href="#">Attachment</a>	
Keith, François	AIST/CNRS
Mansard, Nicolas	AIST/CNRS JRL-Japan

<b>MoIVT2</b>		Grand B
<b>Rehabilitation Robotics II (Regular Sessions)</b>		
Chair: Nakamura, Yoshihiko		Univ. of Tokyo
Co-Chair: Fujie, Masakatsu G.		Waseda Univ.
16:00-16:20		MoIVT2.1
<a href="#">Optimal Design of a Micro Macro Neural Network to Recognize Rollover Movement</a> , pp. 1615-1620.		
Ando, Takeshi		Waseda Univ.
Okamoto, Jun		Waseda Univ.
Fujie, Masakatsu G.		Waseda Univ.
16:20-16:40		MoIVT2.2
<a href="#">EMG-To-Force Estimation with Full-Scale Physiology Based Muscle Model</a> , pp. 1621-1626.		
Hayashibe, Mitsuhiro		INRIA
Guiraud, David		INRIA
Poignet, Philippe		LIRMM UMR 5506 CNRS UM2
16:40-17:00		MoIVT2.3
<a href="#">Optimal Estimation of Human Body Segments Dynamics Using Realtime Visual Feedback</a> , pp. 1627-1632.		
Venture, Gentiane		Tokyo Univ. of Agriculture and Tech.
Ayusawa, Ko		Univ. of Tokyo
Nakamura, Yoshihiko		Univ. of Tokyo
17:00-17:20		MoIVT2.4
<a href="#">FES-Controlled Co-Contraction Strategies for Pathological Tremor Compensation</a> , pp. 1633-1638.		
Bó, António Padilha Lanari		LIRMM UMR 5506 CNRS UM2
Poignet, Philippe		LIRMM UMR 5506 CNRS UM2
Zhang, Dingguo		NTU
Ang, Wei Tech		Nanyang Tech. Univ.
17:20-17:40		MoIVT2.5
<a href="#">Regressor-Free Force/Position Control of Fixed-Base Exoskeletons for Rehabilitation Tasks</a> , pp. 1639-1645.		
Lugo Villeda, Luis Ivan		Scuola Superiore Sant'Anna, PERCRO
Frisoli, Antonio		Scuola Superiore Sant'Anna
Parra Vega, Vicente		CINVESTAV
Bergamasco, Massimo		Scuola Superiore S.Anna
<b>MoIVT3</b>		Grand C
<b>Mapping II (Regular Sessions)</b>		
Chair: Kuipers, Benjamin		Univ. of Michigan
Co-Chair: Sagues, Carlos		Univ. de Zaragoza
16:00-16:20		MoIVT3.1
<a href="#">A Stereo Vision Based Mapping Algorithm for Detecting Inclines, Drop-Offs, and Obstacles for Safe Local Navigation</a> , pp. 1646-1653.		
<a href="#">Attachment</a>		
Murarka, Aniket		The Univ. of Texas at Austin
Kuipers, Benjamin		Univ. of Michigan
16:20-16:40		MoIVT3.2
<a href="#">Simultaneous Multi-Line-Segment Merging for Robot Mapping Using Mean Shift Clustering</a> , pp. 1654-1660. <a href="#">Attachment</a>		
Lakaemper, Rolf		Temple Univ.
16:40-17:00		MoIVT3.3
<a href="#">Topological Maps Based on Graphs of Planar Regions</a> , pp. 1661-1666.		
Montijano, Eduardo		Univ. de Zaragoza
Sagues, Carlos		Univ. de Zaragoza
17:00-17:20		MoIVT3.4
<a href="#">Learning Moving Objects in a Multi-Target Tracking Scenario for Mobile Robots That Use Laser Range Measurements</a> , pp. 1667-1672.		
Kondaxakis, Polychronis		Foundation for Res. and Tech. – Hellas (FORTH)
Baltzakis, Haris		Foundation for Res. and Tech. - Hellas
Trahanias, Panos		Foundation for Res. and Tech. – Hellas (FORTH)
17:20-17:40		MoIVT3.5
<a href="#">Robust 3D-Mapping with Time-Of-Flight Cameras</a> , pp. 1673-1678.		
May, Stefan		INRIA
Fuchs, Stefan		German Aerospace Center
Droeschel, David		Fraunhofer IAIS
Holz, Dirk		IAIS
Nuechter, Andreas		Univ. of Osnabrueck
<b>MoIVT4</b>		Grand F
<b>Field Robotics - Systems (Regular Sessions)</b>		
Chair: Iagnemma, Karl		MIT
Co-Chair: Tadakuma, Kenjiro		Massachusetts Inst. of Tech.

16:00-16:20		MoIVT4.1
<i>Basic Running Test of the Cylindrical Tracked Vehicle with Sideways Mobility</i> , pp. 1679-1684. <a href="#">Attachment</a>		
Tadakuma, Kenjiro		Massachusetts Inst. of Tech.
Tadakuma, Riichiro		Harvard Univ.
Nagatani, Keiji		Tohoku Univ.
Yoshida, Kazuya		Tohoku Univ.
Ming, Aiguo		The Univ. of Electro-Communications
Shimojo, Makoto		Univ. of Electro-COMmunications
Iagnemma, Karl		MIT
16:20-16:40		MoIVT4.2
<i>Development of an Autonomous Robot for Ground Penetrating Radar Surveys of Polar Ice</i> , pp. 1685-1690.		
Trautmann, Eric		Dartmouth Coll.
Ray, Laura		Dartmouth Coll.
Lever, James		U.S. Army CRREL
16:40-17:00		MoIVT4.3
<i>Mag-Foot: A Steel Bridge Inspection Robot</i> , pp. 1691-1696. <a href="#">Attachment</a>		
Mazumdar, Anirban		Massachusetts Inst. of Tech.
Asada, Harry		MIT
17:00-17:20		MoIVT4.4
<i>Docking Manipulator for a Reconfigurable Mobile Robot System</i> , pp. 1697-1702. <a href="#">Attachment</a>		
Wang, Wei		Beihang Univ.
Zhang, Houxiang		Computer Science
Yu, Wenpeng		BeiJing Univ. of Aeronautics And Astronautics
Zhang, Jianwei		Univ. of Hamburg
17:20-17:40		MoIVT4.5
<i>Reliable and Intuitive Teleoperation of LineScout: A Mobile Robot for Live Transmission Line Maintenance</i> , pp. 1703-1710.		
Pouliot, Nicolas		Hydro-Québec Res. Inst.
Latulippe, Pierre		Hydro-Québec/IREQ
Montambault, Serge		Hydro-Québec Res. Inst.
Tremblay, Simon		Hydro-Quebec

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<b>MoIVT5</b>	<b>Grand G</b>
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<b>Intelligent Vehicle Navigation (Regular Sessions)</b>		
Chair: Huang, Albert S.		Massachusetts Inst. of Tech.
Co-Chair: Heracles, Martin		Res. Inst. for Cognition and Robotics, Bielefeld Univ.
16:00-16:20		MoIVT5.1
<i>Regression-Based Online Situation Recognition for Vehicular Traffic Scenarios</i> , pp. 1711-1716.		
Meyer-Delius, Daniel		Univ. Freiburg
Sturm, Jürgen		Univ. of Freiburg
Burgard, Wolfram		Univ. of Freiburg
16:20-16:40		MoIVT5.2
<i>Fast Shadow Detection for Urban Autonomous Driving Applications</i> , pp. 1717-1722.		
Park, Sooho		MIT
Lim, Sejoon		MIT
16:40-17:00		MoIVT5.3
<i>Stereovision-Based Road Boundary Detection for Intelligent Vehicles in Challenging Scenarios</i> , pp. 1723-1728.		
Guo, Chunzhao		Toyota Tech. Inst.
Mita, Seiichi		Toyota Tech. Inst.
McAllester, David		Toyota Tech. Inst. at Chicago
17:00-17:20		MoIVT5.4
<i>Lane Boundary and Curb Estimation with Lateral Uncertainties</i> , pp. 1729-1734.		
Huang, Albert S.		Massachusetts Inst. of Tech.
Teller, Seth		MIT
17:20-17:40		MoIVT5.5
<i>A Dynamic Attention System That Reorients to Unexpected Motion in Real-World Traffic Environments</i> , pp. 1735-1742. <a href="#">Attachment</a>		
Heracles, Martin		Res. Inst. for Cognition and Robotics, Bielefeld Univ.
Körner, Ursula		Honda Res. Inst. Europe
Michalke, Thomas		Honda Res. Inst. Europe
Sagerer, Gerhard		Univ. of Bielefeld
Fritsch, Jannik		Honda Res. Inst. Europe GmbH
Goerick, Christian		Honda Res. Inst. Europe GmbH

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<b>MoIVT6</b>	<b>Grand H</b>
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<b>Haptics II (Regular Sessions)</b>		
Chair: Tahara, Kenji		Kyushu Univ.
Co-Chair: Lee, Dongjun		Univ. of Tennessee-Knoxville
16:00-16:20		MoIVT6.1
<i>Modeling Global Deformation Using Circular Beams for Haptic Interaction</i> , pp. 1743-1748. <a href="#">Attachment</a>		
Cui, Tong		Univ. of North Carolina at Charlotte

Xiao, Jing	UNC-Charlotte
Song, Aiguo	Southeast Univ.
16:20-16:40	MoIVT6.2
<i>Haptic Device Using Flexible Sheet and Air Jet for Presenting Virtual Lumps under Skin</i> , pp. 1749-1754.	
Inoue, Kenji	Yamagata Univ.
Kato, Fuyuki	Yamagata Univ.
Lee, Suwoong	Yamagata Univ.
16:40-17:00	MoIVT6.3
<i>Internal Dissipation in Passive Sampled Haptic Feedback Systems</i> , pp. 1755-1760.	
Franken, Michel	Univ. of Twente
Stramigioli, Stefano	Univ. of Twente
17:00-17:20	MoIVT6.4
<i>Extension of Colgate's Passivity Condition for Variable-Rate Haptics</i> , pp. 1761-1766.	
Lee, Dongjun	Univ. of Tennessee-Knoxville
17:20-17:40	MoIVT6.5
<i>Segmentation Method of Human Manipulation Task Based on Measurement of Force Imposed by a Human Hand on a Grasped Object</i> , pp. 1767-1772.	
Matsuo, Kazuya	Kyushu Univ.
Murakami, Kouji	Kyushu Univ.
Hasegawa, Tsutomu	Kyushu Univ.
Tahara, Kenji	Kyushu Univ.
Kurazume, Ryo	Kyushu Univ.

<b>MoIVT7</b>	Mills 1
<b>Grasping II (Regular Sessions)</b>	
Chair: Ueno, Taihei	Tokyo Inst. of Tech.
Co-Chair: Yamanobe, Natsuki	Advanced Industrial Science and Tech.
16:00-16:20	MoIVT7.1
<i>Efficient Search of Obstacle-Free Paths for Anthropomorphic Hands</i> , pp. 1773-1778. <a href="#">Attachment</a>	
Suarez, Raul	Tech. Univ. of Catalonia
Rosell, Jan	Tech. Univ. of Catalonia
Pérez, Alexander	Tech. Univ. of Catalonia
Rosales, Carlos	Univ. Pol. de Catalunya, UPC
16:20-16:40	MoIVT7.2
<i>Development of Minimal Grasper: Preliminary Result of a Simple and Flexible Enveloping Grasper</i> , pp. 1779-1784. <a href="#">Attachment</a>	
Lee, Young Hoon	Graduate Student
Jin, Jing Fu	Graduate Student
Nam, Changjoo	Graduate Student
Doh, Nakju	Korea Univ.
Kim, Jinhyun	Seoul National Univ. of Tech.
16:40-17:00	MoIVT7.3
<i>Picking up a Towel by Cooperation of Functional Finger Actions</i> , pp. 1785-1790.	
Nagata, Kazuyuki	National Inst. of AIST
Yamanobe, Natsuki	Advanced Industrial Science and Tech.
17:00-17:20	MoIVT7.4
<i>Robotic Hand Developed for Both Space Missions on the International Space Station and Commercial Applications on the Ground</i> , pp. 1791-1796.	
Ueno, Taihei	Tokyo Inst. of Tech.
Oda, Mitsushige	Japan Aerospace Exploration Agency
17:20-17:40	MoIVT7.5
<i>Grasp Planning by Alignment of Pairwise Shape Descriptors</i> , pp. 1797-1804.	
Agovic, Amer	Univ. of Minnesota
Papanikolopoulos, Nikos	Univ. of Minnesota

<b>MoIVT8</b>	Mills 2
<b>Multi-Finger Grasping (Regular Sessions)</b>	
Chair: Morales, Antonio	Univ. Jaume I
Co-Chair: Morales, Antonio	Univ. Jaume I
16:00-16:20	MoIVT8.1
<i>Pinching 2D Object with Arbitrary Shape by Two Robot Fingers under Rolling Constraints</i> , pp. 1805-1810. <a href="#">Attachment</a>	
Yoshida, Morio	RIKEN
Arimoto, Suguru	Ritsumeikan Univ.
Tahara, Kenji	Kyushu Univ.
16:20-16:40	MoIVT8.2
<i>Robust Sensor-Based Grasp Primitive for a Three-Finger Robot Hand</i> , pp. 1811-1816. <a href="#">Attachment</a>	
Felip, Javier	Univ. Jaume I
Morales, Antonio	Univ. Jaume I

16:40-17:00		MoIVT8.3
<i>Heuristic Approach for Multiple Queries of 3D N-Finger Frictional Force Closure Grasp</i> , pp. 1817-1822.		
Niparnan, Nattee		Chulalongkorn Univ.
Phoka, Thanathorn		Chulalongkorn Univ.
Sudsang, Attawith		Chulalongkorn Univ.
17:00-17:20		MoIVT8.4
<i>Regrasp Planning in the Grasp Space Using Independent Regions</i> , pp. 1823-1829.		
Roa, Maximo		Tech. Univ. of Catalonia
Suarez, Raul		Tech. Univ. of Catalonia
17:20-17:40		MoIVT8.5
<i>Easy and Fast Evaluation of Grasp Stability by Using Ellipsoidal Approximation of Friction Cone</i> , pp. 1830-1837.		
Tsuji, Tokuo		National Inst. of AIST
Harada, Kensuke		National Inst. of AIST
Kaneko, Kenji		National Inst. of AIST

<b>MoIVT9</b>		Mills 3
<b>Micro/Nano Robots and Assembly</b> (Regular Sessions)		
Chair: Gauthier, Michael		FEMTO-ST Inst.
Co-Chair: Fukuda, Toshio		Nagoya Univ.
16:00-16:20		MoIVT9.1
<i>An Empirical Study of the Performance of Active Self-Assembly</i> , pp. 1838-1842.		
Tangchoopong, Thanaphon		USC
Requicha, Ari		USC
16:20-16:40		MoIVT9.2
<i>Implementation of Graspless Handling System for Microparticles Using AFM Probe</i> , pp. 1843-1848. <a href="#">Attachment</a>		
Ihn, Yong Seok		SungKyunKwan Univ.
Kim, Yoo Chang		SungKyunKwan Univ.
Choi, Hyook Ryeol		Sungkyunkwan Univ.
Lee, Sang Mu		kitech
Koo, Ja Choon		Sungkyunkwan Univ.
16:40-17:00		MoIVT9.3
<i>On-Chip Fabrication and Assembly of Rotational Microstructures</i> , pp. 1849-1854.		
Ito, Masaki		Nagoya Univ.
Nakajima, Masahiro		Nagoya Univ.
Maruyama, Hisataka		Tohoku Univ.
Fukuda, Toshio		Nagoya Univ.
17:00-17:20		MoIVT9.4
<i>Robotic Microhandling Controlled by Chemical Self-Assembly</i> , pp. 1855-1860.		
Dejeu, Jérôme		FEMTO-ST Inst.
Rougeot, Patrick		Univ. of Franche-Comté, FEMTO-ST Inst.
Gauthier, Michael		FEMTO-ST Inst.
Boireau, Wilfrid		FEMTO-ST Inst.
17:20-17:40		MoIVT9.5
<i>Characterization of Vertically Aligned Carbon Nanofibers Grown on Ni Dots Nanoelectrode Array Using Atomic Force Microscopy</i> , pp. 1861-1866.		
Dong, Zhuxin		Univ. of Arkansas
Wejinya, Uchechukwu C.		Univ. of Arkansas
Elhaji, Imad		American Univ. of Beirut

<b>MoIVT10</b>		Mills 4
<b>Autonomous Vehicles</b> (Regular Sessions)		
Chair: Yang, Ruoting		Washington Univ. in St. Louis
Co-Chair: Martinet, Philippe		Blaise Pascal Univ.
16:00-16:20		MoIVT10.1
<i>On-Line Reference Trajectory Generation for Manually Convoying a Platoon of Automatic Urban Vehicles</i> , pp. 1867-1872. <a href="#">Attachment</a>		
Avanzini, Pierre		Univ. Blaise Pascal
Thuilot, Benoit		Clermont-Ferrand Univ.
Dallej, Tej		LASMEA
Martinet, Philippe		Blaise Pascal Univ.
Derutin, Jean Pierre		LASMEA
16:20-16:40		MoIVT10.2
<i>Passive vs. Aggressive Strategies: A Game Theoretic Analysis of Military Defense</i> , pp. 1873-1878.		
Bewick, Sharon		The Univ. of Tennessee, Knoxville
Zhang, Mingjun		Univ. of Tennessee
Hamel, William R.		Univ. of Tennessee
Yang, Ruoting		Washington Univ. in St. Louis
16:40-17:00		MoIVT10.3
<i>Spatiotemporal State Lattices for Fast Trajectory Planning in Dynamic on Road Driving Scenarios</i> , pp. 1879-1884.		
Ziegler, Julius		Univ. of Karlsruhe

Stiller, Christoph	Univ. Karlsruhe (TH)
17:00-17:20	MoIVT10.4
<a href="#">On the Use of 2D Navigable Maps for Enhancing Ground Vehicle Localization</a> , pp. 1885-1890.	
Fouque, Clément Bonnifait, Philippe	Univ. de Tech. de Compiègne Univ. of Tech. of Compiègne
17:20-17:40	MoIVT10.5
<a href="#">Sliding Angle Reconstruction and Robust Lateral Control of Autonomous Vehicles in Presence of Lateral Disturbance</a> , pp. 1891-1896.	
Fang, Hao Dou, Lihua Chen, Jie	Beijing Inst. of Tech. Beijing Inst. of Tech. Beijing Inst. of Tech.
<b>MoIVT11</b>	Mills 5
<b>Motion Analysis (Regular Sessions)</b>	
Chair: Fu, Li-Chen Co-Chair: Choi, Sunglok	National Taiwan Univ. ETRI
16:00-16:20	MoIVT11.1
<a href="#">Robust Video Stabilization to Outlier Motion Using Adaptive RANSAC</a> , pp. 1897-1902.	
Choi, Sunglok Yu, Wonpil	ETRI ETRI
16:20-16:40	MoIVT11.2
<a href="#">View-Invariant Analysis of Periodic Motion</a> , pp. 1903-1908.	
Ribnick, Evan Papanikolopoulos, Nikos	Univ. of Minnesota Univ. of Minnesota
16:40-17:00	MoIVT11.3
<a href="#">Inertial-Aided KLT Feature Tracking for a Moving Camera</a> , pp. 1909-1916.	
Hwangbo, Myung Kim, Jun-Sik Kanade, Takeo	Carnegie Mellon Univ. Carnegie Mellon Univ. Carnegie Mellon Univ.
17:00-17:20	MoIVT11.4
<a href="#">Upper Body Tracking for Human-Machine Interaction with a Moving Camera</a> , pp. 1917-1922.	
Chen, Yi-Ru Huang, Cheng-Ming Fu, Li-Chen	National Taiwan Univ. National Taiwan Univ. National Taiwan Univ.
17:20-17:40	MoIVT11.5
<a href="#">Motion Vision Based Structure Estimation in Forest Environment</a> , pp. 1923-1928.	
Kulovesi, Jakke Sakari	Helsinki Univ. of Tech.
<b>MoIVT12</b>	Mills 6
<b>Distributed Robotics: Traffic Control and Exploration (Regular Sessions)</b>	
Chair: Chaimowicz, Luiz Co-Chair: de Almeida, Anibal	Federal Univ. of Minas Gerais Univ. of Coimbra
16:00-16:20	MoIVT12.1
<a href="#">Multi-Robot Exploration and Fire Searching</a> , pp. 1929-1934. <a href="#">Attachment</a>	
Marjovi, Ali Nunes, João Gonçalo Marques, Lino de Almeida, Anibal	Univ. of Coimbra Inst. of Systems and Robotics (ISR) - Univ. of Coimbra Univ. of Coimbra Univ. of Coimbra
16:20-16:40	MoIVT12.2
<a href="#">Predictive Constrained Gain Scheduling for UGV Path Tracking in a Networked Control System</a> , pp. 1935-1940.	
Klingenberg, Bryan Ojha, Unnati Chow, Mo-Yuen	North Carolina State Univ. North Carolina State Univ. North Carolina State Univ.
16:40-17:00	MoIVT12.3
<a href="#">Cluster Space Collision Avoidance for Mobile Two-Robot Systems</a> , pp. 1941-1948.	
Kitts, Christopher Stanhouse, Kyle Chindaphorn, Piya	Santa Clara Univ. Santa Clara Univ. Santa Clara Univ.
17:00-17:20	MoIVT12.4
<a href="#">Traffic Control for a Swarm of Robots: Avoiding Group Conflicts</a> , pp. 1949-1954. <a href="#">Attachment</a>	
Marcolino, Leandro Chaimowicz, Luiz	Federal Univ. of Minas Gerais Federal Univ. of Minas Gerais
17:20-17:40	MoIVT12.5
<a href="#">Traffic Control for a Swarm of Robots: Avoiding Target Congestion</a> , pp. 1955-1961. <a href="#">Attachment</a>	
Marcolino, Leandro Chaimowicz, Luiz	Federal Univ. of Minas Gerais Federal Univ. of Minas Gerais
<b>MoIVT13</b>	Mills 7
<b>Robot Calibration (Regular Sessions)</b>	
Chair: Hirai, Shinichi	Ritsumeikan Univ.

Co-Chair: Liu, Yong	Michigan State Univ.
16:00-16:20	MoIVT13.1
<i>Using Robust Regressions and Residual Analysis to Verify the Reliability of LS Estimation: Application in Robotics</i> , pp. 1962-1967.	
Janot, Alexandre	Haption SA
Vandanjon, Pierre Olivier	Lab. Central des Pont et Chaussées
Gautier, Maxime	Univ. de Nantes
16:20-16:40	MoIVT13.2
<i>Modeling and Parameter Identification of Rheological Object Based on FE Method and Nonlinear Optimization</i> , pp. 1968-1973.	
Wang, Zhongkui	Ritsumeikan Univ.
Hirai, Shinichi	Ritsumeikan Univ.
16:40-17:00	MoIVT13.3
<i>Configurations and Mathematical Models of Parallel Link Mechanisms Using Multi Drive Linear Motors</i> , pp. 1974-1979. <a href="#">Attachment</a>	
Harada, Takashi	Kinki Univ.
Nagase, Motoya	Kinki Univ.
17:00-17:20	MoIVT13.4
<i>Ceiling Beam Screw Removal Using a Robotic Manipulator</i> , pp. 1980-1985.	
Biggs, Geoffrey	National Inst. of Advanced Industrial Science and Tech.
Kotoku, Tetsuo	National Inst. of AIST
Tanikawa, Tamio	National Inst. of AIST
17:20-17:40	MoIVT13.5
<i>Identification of the Servomechanism Used for Micro-Displacement</i> , pp. 1986-1991.	
Bogdan, Ioana Corina	Paul Verlaine of Metz
Abba, Gabriel	Arts et Métiers ParisTech

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<b>MoIVT14</b>	Mills 8
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**Service Robots (Regular Sessions)**

Chair: Gross, Horst-Michael	Ilmenau Univ. of Tech.
Co-Chair: Kuno, Yoshinori	Saitama Univ.
16:00-16:20	MoIVT14.1
<i>Care-O-Bot 3 - Creating a Product Vision for Service Robot Applications by Integrating Design and Technology</i> , pp. 1992-1998.	
Reiser, Ulrich	Fraunhofer IPA
Connette, Christian Pascal	Fraunhofer IPA
Parlitz, Christopher	Fraunhofer IPA
16:20-16:40	MoIVT14.2
<i>Autonomous Planning for Mobile Manipulation Services Based on Multi-Level Robot Skills</i> , pp. 1999-2004.	
Weser, Martin	Univ. of Hamburg
Zhang, Jianwei	Univ. of Hamburg
16:40-17:00	MoIVT14.3
<i>TOOMAS: Interactive Shopping Guide Robots in Everyday Use – Final Implementation and Experiences from Long-Term Field Trials</i> , pp. 2005-2012.	
Gross, Horst-Michael	Ilmenau Univ. of Tech.
Schroeter, Christof	Ilmenau Univ. of Tech.
Mueller, Steffen	Ilmenau Univ. of Tech.
Koenig, Alexander	Ilmenau Univ. of Tech.
Einhorn, Erik	Ilmenau Tech. Univ.
Martin, Christian	MetraLabs GmbH
Merten, Matthias	MetraLabs GmbH
Bley, Andreas	MetraLabs GmbH
Boehme, Hans-Joachim	Ilmenau Tech. Univ.
17:00-17:20	MoIVT14.4
<i>Robotic Wheelchair Based on Observations of People Using Integrated Sensors</i> , pp. 2013-2018.	
Kobayashi, Yoshinori	Saitama Univ.
Kinpara, Yuki	Saitama Univ.
Shibusawa, Tomoo	Saitama Univ.
Kuno, Yoshinori	Saitama Univ.
17:20-17:40	MoIVT14.5
<i>QoS Based Framework for Ubiquitous Robotic Services Composition*</i> , pp. 2019-2026.	
Yachir, Ali	Univ. of Paris 12
Tari, Karim	Univ. of Paris 12
Amirat, Yacine	Univ. of Paris 12
Chibani, Abdelghani	Lissi Lab. Paris EST Univ.
Badache, Nadjib	USTHB Univ.

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<b>MoIVT15</b>	Sterling 6
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**Robot Localization I (Regular Sessions)**

Chair: Lee, Ju-Jang	KAIST
Co-Chair: Aghili, Farhad	Canadian Space Agency

16:00-16:20		MoIVT15.1
	<a href="#">Evaluation of a MUSIC-Based Real-Time Sound Localization of Multiple Sound Sources in Real Noisy Environments</a> , pp. 2027-2032.	
	<a href="#">Attachment</a>	
	Ishi, Carlos Toshinori	ATR
	Chatot, Olivier	MIT
	Ishiguro, Hiroshi	Osaka Univ.
	Hagita, Norihiro	ATR
16:20-16:40		MoIVT15.2
	<a href="#">Evaluating Real-Time Audio Localization Algorithms for Artificial Audition in Robotics</a> , pp. 2033-2038.	
	Badali, Anthony P	Univ. of Toronto
	Valin, Jean Marc	Octasic Inc.
	Michaud, Francois	Univ. de Sherbrooke
	Aarabi, Parham	Univ. of Toronto
16:40-17:00		MoIVT15.3
	<a href="#">Mobile Robot Localization in Indoor Environment Using RFID and Sonar Fusion System</a> , pp. 2039-2044.	
	Choi, Byoung-Suk	KAIST
	Lee, Ju-Jang	KAIST
17:00-17:20		MoIVT15.4
	<a href="#">Attitude Determination and Localization of Mobile Robots Using Two RTK GPSs and IMU</a> , pp. 2045-2052.	
	Aghili, Farhad	Canadian Space Agency
	Salerno, Alessio	Canadian Space Agency
17:20-17:40		MoIVT15.5
	<a href="#">Preliminary Deep Water Results in Single-Beacon One-Way-Travel-Time Acoustic Navigation for Underwater Vehicles</a> , pp. 2053-2060.	
	Webster, Sarah E.	Johns Hopkins Univ.
	Eustice, Ryan	Univ. of Michigan
	Singh, Hanumant	Woods Hole Oceanographic Inst.
	Whitcomb, Louis	The Johns Hopkins Univ.
<b>MoIVT16</b>		Sterling 7
<b>SLAM: Theory (Regular Sessions)</b>		
	Chair: Aghamohammadi, Ali Akbar	Texas A&M Univ.
	Co-Chair: Oh, Se-Young	POSTECH
16:00-16:20		MoIVT16.1
	<a href="#">On the Nonlinear Observability and the Information Form of the SLAM Problem</a> , pp. 2061-2068.	
	Perera, Linthothage Dushantha Lochana	The Univ. of Sydney
	Nettleton, Eric	The Univ. of Sydney
16:20-16:40		MoIVT16.2
	<a href="#">SLAM in <math>O(\log N)</math> with the Combined Kalman - Information Filter</a> , pp. 2069-2076. <a href="#">Attachment</a>	
	Cadena Lerma, Cesar Dario	Univ. of Zaragoza
	Neira, José	Univ. de Zaragoza
16:40-17:00		MoIVT16.3
	<a href="#">Measurement Noise Estimator Assisted Extended Kalman Filter for SLAM Problem</a> , pp. 2077-2082.	
	Choi, Won-Seok	POhang Univ. of Science and Tech. (POSTECH)
	Kang, Jeong Gwan	POSTECH(Pohang Univ. of Science and Tech.
	Oh, Se-Young	POSTECH
17:00-17:20		MoIVT16.4
	<a href="#">On the Consistency of EKF-SLAM: Focusing on the Observation Models</a> , pp. 2083-2088.	
	Tamjidi, Amir Hossein	K.N. Toosi Univ. of Tech.
	Taghirad, Hamid	K.N.Toosi Univ. of Tech.
	Aghamohammadi, Ali Akbar	Texas A&M Univ.
17:20-17:40		MoIVT16.5
	<a href="#">A Comparison of SLAM Algorithms Based on a Graph of Relations</a> , pp. 2089-2095.	
	Burgard, Wolfram	Univ. of Freiburg
	Stachniss, Cyrill	Univ. of Freiburg
	Grisetti, Giorgio	Unviersität Freiburg
	Steder, Bastian	Univ. of Freiburg
	Kuemmerle, Rainer	Univ. of Freiburg
	Dornhege, Christian	Univ. of Freiburg
	Ruhnke, Michael	Univ. of Freiburg
	Kleiner, Alexander	Univ. of Freiburg
	Tardos, Juan D.	Univ. de Zaragoza
<b>TuIT1</b>		Grand A
<b>Motion Control (Regular Sessions)</b>		
	Chair: Hoffmann, Alwin	Univ. of Augsburg
	Co-Chair: Orin, David	The Ohio State Univ.
09:10-09:30		TuIT1.1
	<a href="#">Modeling Mobile Robot Motion with Polar Representations</a> , pp. 2096-2101.	
	Djugash, Joseph	Carnegie Mellon Univ.



Singh, Sanjiv Grocholsky, Ben	Carnegie Mellon Univ. Carnegie Mellon Univ.
09:30-09:50 <i>Fuzzy Logic Based Adjustment Control of a Cable-Driven Auto-Leveling Parallel Robot</i> , pp. 2102-2107.	TuIT1.2
Yu, Yi Yi, Jianqiang Li, Chengdong Zhao, Dongbin Zhang, Jianhong	Chinese Acad. of Science Chinese Acad. of Science Chinese Acad. of Science Chinese Acad. of Sciences Chinese Acad. of Sciences
09:50-10:10 <i>Hiding Real-Time: A New Approach for the Software Development of Industrial Robots</i> , pp. 2108-2113.	TuIT1.3
Hoffmann, Alwin Angerer, Andreas Ortmeier, Frank Vistein, Michael Reif, Wolfgang	Univ. of Augsburg Univ. of Augsburg Univ. of Augsburg Univ. of Augsburg Univ. of Augsburg
10:10-10:30 <i>Nonlinear Dual Mode Adaptive Control of PAR2 : A 2-Dof Planar Parallel Manipulator, with Real-Time Experiments</i> , pp. 2114-2119. <a href="#">Attachment</a>	TuIT1.4
Sartori Natal, Guilherme Chemori, Ahmed Pierrot, François Company, Olivier	LIRMM, Univ. of Montpellier 2 LIRMM CNRS - LIRMM Univ. of Montpellier 2

<b>TuIT2</b>	Grand B
<b>Fish-Like Robot (Regular Sessions)</b>	
Chair: Tangorra, James Co-Chair: Tan, Xiaobo	Drexel Univ. Michigan State Univ.
09:10-09:30 <i>Biorobotic Fins for Investigations of Fish Locomotion</i> , pp. 2120-2125.	TuIT2.1
Tangorra, James Esposito, Christopher Lauder, George	Drexel Univ. Drexel Univ. Harvard Univ.
09:30-09:50 <i>Analytical and Computational Modeling of Robotic Fish Propelled by Soft Actuation Material-Based Active Joints</i> , pp. 2126-2131.	TuIT2.2
Anton, Mart Chen, Zheng Kruusmaa, Maarja Tan, Xiaobo	Tartu Univ. Michigan State Univ. Tallinn Univ. of Tech. Michigan State Univ.
09:50-10:10 <i>Locomotion Planning for Biomimetic Robotic Fish with Multi-Joint Actuation</i> , pp. 2132-2137.	TuIT2.3
Zhou, Chunlin Low, K. H.	Nanyang Tech. Univ. Nanyang Tech. Univ.
10:10-10:30 <i>Design of a Robotic Fish Propelled by Oscillating Flexible Pectoral Foils</i> , pp. 2138-2142.	TuIT2.4
Cai, Yueri Bi, Shusheng Zhang, Lige Gao, Jun	Beijing Univ. of Aeronautics and Astronautics Beihang Univ. of Aeronautics and Astronautics Beihang Univ. of Aeronautics and Astronautics Beijing Univ. of Aeronautics and Astronautics

<b>TuIT3</b>	Grand C
<b>Medical Robotics III (Regular Sessions)</b>	
Chair: Röse, Andreas Co-Chair: Hamel, William R.	Tech. Univ. Darmstadt Univ. of Tennessee
09:10-09:30 <i>An Analysis Framework for Near Infrared Spectroscopy Based Brain-Computer Interface and Prospective Application to Robotic Surgery</i> , pp. 2143-2148.	TuIT3.1
Caproni, Marco Orihuela-Espina, Felipe James, David R C Menciassi, Arianna Dario, Paolo Darzi, Ara Yang, Guang-Zhong	Univ. di Pisa Imperial Coll. London Imperial Coll. London Scuola Superiore Sant'Anna - SSSA Scuola Superiore Sant'Anna Imperial Coll. London Imperial Coll. London
09:30-09:50 <i>Development of a Miniature Robot for Hearing Aid Implantation</i> , pp. 2149-2154.	TuIT3.2
Salzmann, Jonas Zheng, Guoyan Gerber, Nicolas Stieger, Christof	Univ. of Bern Univ. of Bern Univ. of Bern Univ. of Bern

Caversaccio, Marco	Univ. of Bern
Nolte, Lutz-Peter	Univ. of Bern
Weber, Stefan	Univ. of Bern
Arnold, Andreas Michael	Inselspital
Rohrer, Urs	Univ. of Bern
09:50-10:10	TuIT3.3
<a href="#">Parameter Setting Method Considering Variation of Organ Stiffness for the Control Method to Prevent Overload at Fragile Tissue</a> , pp. 2155-2161.	
Kobayashi, Yo	Waseda Univ.
Kato, Atsushi	Waseda Univ.
Hoshi, Takeharu	Waseda Univ.
Kawamura, Kazuya	Waseda Univ.
Fujie, Masakatsu G.	Waseda Univ.
10:10-10:30	TuIT3.4
<a href="#">A Novel Piezoelectric Driven Laparoscopic Instrument with Multiple Degree of Freedom Parallel Kinematic Structure</a> , pp. 2162-2167.	
<a href="#">Attachment</a>	
Röse, Andreas	Tech. Univ. Darmstadt
Wohlleber, Cédric	Tech. Univ. Darmstadt
Kassner, Sebastian	Tech. Univ. Darmstadt
Schlaak, Helmut F.	Tech. Univ. Darmstadt
Werthschützky, Roland	Univ. of Tech. Darmstadt

<b>TuIT4</b>	Grand F
<b>Laser Ranging Applications (Regular Sessions)</b>	
Chair: Collins, Emmanuel	FAMU-FSU Coll. of Engineering
Co-Chair: Shimosaka, Masamichi	Univ. of Tokyo
09:10-09:30	TuIT4.1
<a href="#">Adaptive Sensing System for Human Detecting with Dynamic Disposition</a> , pp. 2168-2173.	
Kawata, Hirohiko	Univ. of Tsukuba
Kohno, Hiroaki	Univ. of Tsukuba
Ohya, Akihisa	Univ. of Tsukuba
Yuta, Shinichi	Univ. of Tsukuba
09:30-09:50	TuIT4.2
<a href="#">Terrain Surface Classification for Autonomous Ground Vehicles Using a 2D Laser Stripe-Based Structured Light Sensor</a> , pp. 2174-2181.	
Lu, Liang	FAMU-FSU Coll. of Engineering
Ordonez, Camilo	Florida State Univ.
Collins, Emmanuel	FAMU-FSU Coll. of Engineering
DuPont, Edmond	FAMU-FSU Coll. of Engineering
09:50-10:10	TuIT4.3
<a href="#">Objective Evaluation of Scanning Ladar Configurations for Mobile Robots</a> , pp. 2182-2189.	
Desai, Ankit	Carnegie Mellon Univ.
Huber, Daniel	CMU
10:10-10:30	TuIT4.4
<a href="#">Pose Estimation of Multiple People Using Contour Features from Multiple Laser Range Finders</a> , pp. 2190-2196. <a href="#">Attachment</a>	
Matsumoto, Takashi	The Univ. of Tokyo
Shimosaka, Masamichi	Univ. of Tokyo
Noguchi, Hiroshi	The Univ. of Tokyo
Sato, Tomomasa	The Univ. of Tokyo
Mori, Taketoshi	The Univ. of Tokyo

<b>TuIT5</b>	Grand G
<b>Sensors Networks (Regular Sessions)</b>	
Chair: Lin, Pei-Chun	National Taiwan Univ.
Co-Chair: Luo, Ren C.	National Taiwan Univ.
09:10-09:30	TuIT5.1
<a href="#">Design and Implementation of a 12-Axis Accelerometer Suite</a> , pp. 2197-2202.	
Ho, Chi-Wei	National Taiwan Univ.
Lin, Pei-Chun	National Taiwan Univ.
09:30-09:50	TuIT5.2
<a href="#">Multi-Sensor Fusion for Reduced Uncertainty in Autonomous Mobile Robot Docking and Recharging</a> , pp. 2203-2208.	
Luo, Ren	National Taiwan Univ.
Liao, Chung T.	National Chung Cheng Univ.
Lin, Shih Chi	National Chung Cheng Univ.
09:50-10:10	TuIT5.3
<a href="#">Multi-Robot Active Target Tracking with Distance and Bearing Observations</a> , pp. 2209-2216.	
Zhou, Ke	Univ. of Minnesota
Roumeliotis, Stergios	Univ. of Minnesota
10:10-10:30	TuIT5.4
<a href="#">Development of a Miniature Self-Stabilization Jumping Robot</a> , pp. 2217-2222.	
Zhao, Jianguo	Michigan State Univ.

Yang, Ruiguo	Michigan State Univ.
Xi, Ning	Michigan State Univ.
Gao, Bingtuan	Michigan State Univ.
Fan, Xinggang	Zhejiang Univ. of Tech.
Mutka, Matt	Michigan State University
Xiao, Li	Michigan State Univ.

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**TuIT6** Grand H

**Bio-Inspired Robots (Regular Sessions)**

Chair: Dong, Lixin	Michigan State Univ.
Co-Chair: Kim, Sangbae	Massachusetts Inst. of Tech.
09:10-09:30	TuIT6.1
<a href="#">Development of Novel Molecular Robots Fueled by Organic Acid</a> , pp. 2223-2227.	
Hara, Yusuke	Waseda Univ.
Maeda, Shingo	Waseda Univ.
Yoshida, Ryo	The Univ. of Tokyo
Hashimoto, Shuji	Waseda Univ.
09:30-09:50	TuIT6.2
<a href="#">Micro Artificial Muscle Fiber Using NiTi Spring for Soft Robotics</a> , pp. 2228-2234. <a href="#">Attachment</a>	
Kim, Sangbae	Massachusetts Inst. of Tech.
Hawkes, Elliot Wright	School of Engineering and Applied Sciences, Harvard
Cho, Kyu-Jin	Seoul National Univ.
Jolda, Matthew	iRobot, Wentworth Inst. of Tech.
Foley, Joseph Timothy	iRobot
Wood, Robert	Harvard Univ.
09:50-10:10	TuIT6.3
<a href="#">Self-Adapting Robot Arm Movement Employing Neural Oscillators</a> , pp. 2235-2242.	
Yang, Woosung	Korea Inst. of Science & Tech.
Bae, Ji-Hun	Korea Inst. of Science and Tech.
Kwon, JaeSung	Korea Inst. of Science and Tech.
Chong, Nak Young	Japan Advanced Inst. of Sci. and Tech.
Oh, Yonghwan	KIST
You, Bum Jae	KIST
10:10-10:30	TuIT6.4
<a href="#">Insect-Like Mapless Navigation Based on Head Direction Cells and Contextual Learning Using Chemo-Visual Sensors</a> , pp. 2243-2250.	
<a href="#">Attachment</a>	
Mathews, Zenon	Univ. Pompeu Fabra
Lechón, Miguel	Univ. Pompeu Fabra
Blanco M.C., Jose	Univ. Pompeu Fabra
Dhir, Anant	Univ. Pompeu Fabra
Duff, Armin	Univ. Pompeu Fabra
Bermudez i Badia, Sergi	Univ. Pompeu Fabra (UPF)
Verschure, Paul	Catalan Inst. of Advanced Studies (ICREA), Foundation

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**TuIT7** Mills 1

**Robot Hand (Regular Sessions)**

Chair: Sugano, Shigeki	Waseda Univ.
Co-Chair: Fujie, Masakatsu G.	Waseda Univ.
09:10-09:30	TuIT7.1
<a href="#">Development of Drum CVT for a Wire-Driven Robot Hand</a> , pp. 2251-2256.	
Matsushita, Kojiro	The Univ. of Tokyo
Shikanai, Shimpei	The Univ. of Tokyo
Yokoi, Hiroshi	The Univ. of Tokyo
09:30-09:50	TuIT7.2
<a href="#">Dynamic Force/Torque Equilibrium for Stable Grasping by a Triple Robotic Fingers System</a> , pp. 2257-2263. <a href="#">Attachment</a>	
Tahara, Kenji	Kyushu Univ.
Arimoto, Suguru	Ritsumeikan Univ.
Yoshida, Morio	RIKEN
09:50-10:10	TuIT7.3
<a href="#">Dynamic Grasping for an Arbitrary Polyhedral Object by a Multi-Fingered Hand-Arm System</a> , pp. 2264-2270.	
Kawamura, Akihiro	Kyushu Univ.
Tahara, Kenji	Kyushu Univ.
Kurazume, Ryo	Kyushu Univ.
Hasegawa, Tsutomu	Kyushu Univ.
10:10-10:30	TuIT7.4
<a href="#">NAIST Hand 2: Human-Sized Anthropomorphic Robot Hand with Detachable Mechanism at the Wrist</a> , pp. 2271-2276.	
Kurita, Yuichi	Nara Inst. of Science and Tech.
Ono, Yasuhiro	Nara Inst. of Science and Tech.
Ikeda, Atsutoshi	Nara Inst. of Science and Tech.
Ogasawara, Tsukasa	Nara Inst. of Science and Tech.

<b>TuIT8</b>		Mills 2
<b>Robot Audition III (Invited Sessions)</b>		
Chair: Nakadai, Kazuhiro	Honda Res. Inst. Japan Co., Ltd.	
Co-Chair: Okuno, Hiroshi G.	Kyoto Univ.	
09:10-09:30		TuIT8.1
<i>Step-Size Parameter Adaptation of Multi-Channel Semi-Blind ICA with Piecewise Linear Model for Barge-In-Able Robot Audition (I)</i> , pp. 2277-2282.		
Takeda, Ryu		Kyoto Univ.
Nakadai, Kazuhiro	Honda Res. Inst. Japan Co., Ltd.	
Takahashi, Toru	Kyoto Univ.	
Komatani, Kazunori	Kyoto Univ.	
Ogata, Tetsuya	Kyoto Univ.	
Okuno, Hiroshi G.	Kyoto Univ.	
09:30-09:50		TuIT8.2
<i>Underwater Transient and Non Transient Signals Classification Using Predictive Neural Networks (I)</i> , pp. 2283-2288.		
Guo, Yan		Paris 6 Univ.
Gas, Bruno		Univ. Pierre et Marie Curie
09:50-10:10		TuIT8.3
<i>Incremental Polyphonic Audio to Score Alignment Using Beat Tracking for Singer Robots (I)</i> , pp. 2289-2296.		
Otsuka, Takuma		Kyoto Univ.
Murata, Kazumasa		Tokyo Inst. of Tech.
Nakadai, Kazuhiro	Honda Res. Inst. Japan Co., Ltd.	
Takahashi, Toru	Kyoto Univ.	
Komatani, Kazunori	Kyoto Univ.	
Ogata, Tetsuya	Kyoto Univ.	
Okuno, Hiroshi G.	Kyoto Univ.	
10:10-10:30		TuIT8.4
<i>Thereminist Robot: Development of a Robot Theremin Player with Feedforward and Feedback Arm Control Based on a Theremin's Pitch Model (I)</i> , pp. 2297-2302.		
Mizumoto, Takeshi		Kyoto Univ.
Tsujino, Hiroshi	Honda Res. Inst. Co., Ltd.	
Takahashi, Toru	Kyoto Univ.	
Ogata, Tetsuya	Kyoto Univ.	
Okuno, Hiroshi G.	Kyoto Univ.	
<b>TuIT9</b>		Mills 3
<b>Entertainment Robotics (Regular Sessions)</b>		
Chair: Nemeč, Bojan		Jozef Stefan Inst.
Co-Chair: Yam, Yeung		The Chinese Univ. of Hong Kong
09:10-09:30		TuIT9.1
<i>Development of a Aural Real-Time Rhythmical and Harmonic Tracking to Enable the Musical Interaction with the Waseda Flutist Robot</i> , pp. 2303-2308. <a href="#">Attachment</a>		
Petersen, Klaus		Waseda Univ.
Solis, Jorge		Waseda Univ.
Takanishi, Atsuo		Waseda Univ.
09:30-09:50		TuIT9.2
<i>Development of Anthropomorphic Musical Performance Robots: From Understanding the Nature of Music Performance to Its Application to Entertainment Robotics</i> , pp. 2309-2314. <a href="#">Attachment</a>		
Solis, Jorge		Waseda Univ.
Petersen, Klaus		Waseda Univ.
Ninomiya, Takeshi		Waseda Univ.
Takeuchi, Masaki		Waseda Univ.
Takanishi, Atsuo		Waseda Univ.
09:50-10:10		TuIT9.3
<i>Stroke Trajectory Generation Experiment for a Robotic Chinese Calligrapher Using a Geometric Brush Footprint Model</i> , pp. 2315-2320.		
Lam, Josh H.M.		The Chinese Univ. of Hong Kong
Yam, Yeung		The Chinese Univ. of Hong Kong
10:10-10:30		TuIT9.4
<i>Control and Navigation of the Skiing Robot</i> , pp. 2321-2326. <a href="#">Attachment</a>		
Nemeč, Bojan		Jozef Stefan Inst.
Lahajnar, Leon		Jozef Stefan Inst.
<b>TuIT10</b>		Mills 4
<b>Education Robotics (Regular Sessions)</b>		
Chair: Sanghvi, Saurabh		Carnegie Mellon Univ.
Co-Chair: Voorhies, Randolph		Univ. of Southern California
09:10-09:30		TuIT10.1
<i>Enhancing an Automated Braille Writing Tutor</i> , pp. 2327-2333.		
Dias, M. Bernardine		Carnegie Mellon Univ.

Dias, M. Freddie	Carnegie Mellon Univ.
Belousov, Sarah	Carnegie Mellon Univ.
Rahman, Mohammed Kaleemur	Carnegie Mellon Univ.
Sanghvi, Saurabh	Carnegie Mellon Univ.
El-Moughny, Noura	Carnegie Mellon Univ. in Qatar
09:30-09:50	TuIT10.2
<a href="#">Centralized Server Environment for Educational Robotics</a> , pp. 2334-2340.	
Voorhies, Randolph	Univ. of Southern California
Siagian, Christian	Univ. of Southern California
Elazary, Lior	Univ. of Southern California
Itti, Laurent	Univ. of Southern California
09:50-10:10	TuIT10.3
<a href="#">Robotics Education: Development of Cheap and Creative EMG Prosthetic Applications</a> , pp. 2341-2346.	
Matsushita, Kojiro	The Univ. of Tokyo
Yokoi, Hiroshi	The Univ. of Tokyo
10:10-10:30	TuIT10.4
<a href="#">Development of the Two-Wheeled Inverted Pendulum Type Mobile Robot WV-2R for Educational Purposes</a> , pp. 2347-2352. <a href="#">Attachment</a>	
Solis, Jorge	Waseda Univ.
Nakadate, Ryu	Takanishi Lab. Faculty of Science and Engineering, Waseda
Yoshimura, Yuki	Waseda Univ.
Hama, Yuichiro	Waseda Univ.
Takanishi, Atsuo	Waseda Univ.

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**TuIT11** Mills 5

<b>Space Robotics I (Regular Sessions)</b>	
Chair: Nagatani, Keiji	Tohoku Univ.
Co-Chair: Aghili, Farhad	Canadian Space Agency
09:10-09:30	TuIT11.1
<a href="#">Robust Adaptive Composite Control of Space-Based Robot System with Uncertain Parameters and External Disturbances</a> , pp. 2353-2358.	
Chen, Zhiyong	Fuzhou Univ.
Chen, Li	Fuzhou Univ.
09:30-09:50	TuIT11.2
<a href="#">Adaptive Control for a Torque Controlled Free-Floating Space Robot with Kinematic and Dynamic Model Uncertainty</a> , pp. 2359-2364.	
Abiko, Satoko	Tohoku Univ.
Hirzinger, Gerd	German Aerospace Center (DLR)
09:50-10:10	TuIT11.3
<a href="#">Coordination Control of a Free-Flying Manipulator and Its Base Attitude to Capture and Detumble a Noncooperative Satellite</a> , pp. 2365-2372.	
Aghili, Farhad	Canadian Space Agency
10:10-10:30	TuIT11.4
<a href="#">Accurate Estimation of Drawbar Pull of Wheeled Mobile Robots Traversing Sandy Terrain Using Built-In Force Sensor Array Wheel</a> , pp. 2373-2378.	
Nagatani, Keiji	Tohoku Univ.
Ikeda, Ayako	Tohoku Univ.
Sato, Keisuke	Tohoku Univ.
Yoshida, Kazuya	Tohoku Univ.

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**TuIT12** Mills 6

<b>Robots with Emerging Technologies I (Regular Sessions)</b>	
Chair: Toyama, Shigeki	TUAT
Co-Chair: Yao, Shuangji	School of Automation Science and Electrical Engineering, Beihang Univ.
09:10-09:30	TuIT12.1
<a href="#">Development of Spherical Ultrasonic Motor As a Camera Actuator for Pipe Inspection Robot</a> , pp. 2379-2384. <a href="#">Attachment</a>	
Hoshina, Masahiko	Tokyo Univ. of Agriculture and Tech.
Mashimo, Tomoaki	Carnegie Mellon Univ.
Toyama, Shigeki	TUAT
09:30-09:50	TuIT12.2
<a href="#">Development of Novel Robots with Modularization Methodology</a> , pp. 2385-2390.	
Guan, Yisheng	South China Univ. of Tech.
Zhang, Xianmin	South China Univ. of Tech.
Jiang, Li	South China Univ. of Tech.
Zhang, Hong	Univ. of Alberta
09:50-10:10	TuIT12.3
<a href="#">Analysis and Optimal Design of a Modular Underactuated Mechanism for Robot Fingers</a> , pp. 2391-2396.	
Yao, Shuangji	School of Automation Science and Electrical Engineering, Beihang
Wu, Licheng	Tsinghua Univ. Beijing, P.R.China
Ceccarelli, Marco	LARM, Univ. of Cassino
Carbone, Giuseppe	LARM, Univ. of Cassino
Lu, Zhen	School of Automation Science and Electrical Engineering, Beihang

10:10-10:30		TuIT12.4
<a href="#">DSP/FPGA-Based Highly Integrated Flexible Joint Robot</a> , pp. 2397-2402.		
Xie, Zongwu	Harbin Inst. of Tech.	
Zhao, Jingdong	Harbin Inst. of Tech.	
Huang, Jianbin	Harbin Inst. of Tech. China	
Sun, Kui	Harbin Inst. of Tech.	
Xiong, Genliang	Harbin Inst. of Tech.	
Liu, Hong	DLR	

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<b>TuIT13</b>		Mills 7
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<b>Robot Control III (Regular Sessions)</b>		
Chair: Asama, Hajime	The Univ. of Tokyo	
Co-Chair: Watanabe, Wataru	Tohoku Univ.	

09:10-09:30		TuIT13.1
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<a href="#">Improvement of Adaptive Cruise Control System Based on Speed Characteristics and Time Headway</a> , pp. 2403-2408.		
Parnichkun, Manukid	Asian Inst. of Tech.	

09:30-09:50		TuIT13.2
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<a href="#">Adaptive Division of Labor Control for Robot Group</a> , pp. 2409-2414.		
Ikemoto, Yusuke	Univ. of Toyo	
Miura, Toru	Hokkaido Univ.	
Asama, Hajime	The Univ. of Tokyo	

09:50-10:10		TuIT13.3
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<a href="#">Online Hand Gesture Recognition Using Neural Network Based Segmentation</a> , pp. 2415-2420.		
Zhu, Chun	Oklahoma State Univ.	
Sheng, Weihua	Oklahoma State Univ.	

10:10-10:30		TuIT13.4
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<a href="#">A Fully Decentralized Control of a Serpentine Robot Based on the Discrepancy between Body, Brain and Environment</a> , pp. 2421-2426.		
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<a href="#">Attachment</a>		
Watanabe, Wataru	Tohoku Univ.	
Sato, Takahide	Tohoku Univ.	
Ishiguro, Akio	Tohoku Univ.	

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<b>TuIT14</b>		Mills 8
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<b>Nonholonomic Motion Planning (Regular Sessions)</b>		
Chair: Sucan, Ioan Alexandru	Rice Univ.	
Co-Chair: Wilde, Doran	Brigham Young Univ.	

09:10-09:30		TuIT14.1
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<a href="#">Kinodynamic Motion Planning for Mobile Robots Using Splines</a> , pp. 2427-2433.		
Lau, Boris	Univ. of Freiburg	
Sprunk, Christoph	Univ. of Freiburg	
Burgard, Wolfram	Univ. of Freiburg	

09:30-09:50		TuIT14.2
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<a href="#">On the Performance of Random Linear Projections for Sampling-Based Motion Planning</a> , pp. 2434-2439.		
Sucan, Ioan Alexandru	Rice Univ.	
Kavraki, Lydia	Rice Univ.	

09:50-10:10		TuIT14.3
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<a href="#">Computing Clothoid Segments for Trajectory Generation</a> , pp. 2440-2445.		
Wilde, Doran	Brigham Young Univ.	

10:10-10:30		TuIT14.4
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<a href="#">The Surface Walker: A Hemispherical Mobile Robot with Rolling Contact Constraint</a> , pp. 2446-2451. <a href="#">Attachment</a>		
Ishikawa, Masato	Kyoto Univ.	
Kobayashi, Yoshinori	Kyoto Univ.	
Kitayoshi, Ryouhei	Kyoto Univ.	
Toshiharu, Sugie	Kyoto Univ.	

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<b>TuIT15</b>		Sterling 6
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<b>Path Planning for Multi-Arm Systems (Regular Sessions)</b>		
Chair: Huang, Han-Pang	National Taiwan Univ.	
Co-Chair: Simeon, Thierry	LAAS-CNRS	

09:10-09:30		TuIT15.1
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<a href="#">Smooth Proximity Computation for Collision-Free Optimal Control of Multiple Robotic Manipulators</a> , pp. 2452-2457.		
Cascio, Joe	Naval Postgraduate School	
Karpenko, Mark	Naval Postgraduate School	
Gong, Qi	Univ. of California, Santa Cruz	
Sekhavat, Pooya	Naval Postgraduate School	
Ross, Isaac	naval postgraduate school	

09:30-09:50		TuIT15.2
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<a href="#">Motion Planning of a Dual-Arm Mobile Robot in the Configuration-Time Space</a> , pp. 2458-2463.		
Tsai, Yi-Chih	National Taiwan Univ.	

Huang, Han-Pang	National Taiwan Univ.
09:50-10:10	TuIT15.3
<i>Humanoid Motion Planning for Dual-Arm Manipulation and Re-Grasping Tasks</i> , pp. 2464-2470.	
Vahrenkamp, Nikolaus	Univ. of Karlsruhe
Berenson, Dmitry	Carnegie Mellon Univ.
Asfour, Tamim	Univ. of Karlsruhe
Kuffner, James	Carnegie Mellon Univ.
Dillmann, Rüdiger	Univ. of Karlsruhe
10:10-10:30	TuIT15.4
<i>Roadmap Composition for Multi-Arm Systems Path Planning</i> , pp. 2471-2476.	
Gharbi, Mokhtar	LAAS-CNRS
Cortes, Juan	LAAS-CNRS
Simeon, Thierry	LAAS-CNRS

<b>TuIT16</b>	Regency D
<b>Visual Tracking I (Regular Sessions)</b>	
Chair: Zhou, Yu	SUNY at Stony Brook
Co-Chair: Fransen, Benjamin R.	Beyond Robotics, Inc.
09:10-09:30	TuIT16.1
<i>Vision-Based Estimation of Three-Dimensional Position and Pose of Multiple Underwater Vehicles</i> , pp. 2477-2482.	
Butail, Sachit	Univ. of Maryland
Paley, Derek	Princeton Univ.
09:30-09:50	TuIT16.2
<i>Real-Time Face and Object Tracking</i> , pp. 2483-2488. <a href="#">Attachment</a>	
Fransen, Benjamin R.	Beyond Robotics, Inc.
Herbst, Evan	Univ. of Washington
Harrison, Anthony	Naval Res. Lab.
Adams, William	US Naval Res. Lab.
Trafton, Greg	Naval Res. Lab.
09:50-10:10	TuIT16.3
<i>Mobile Robotic Dynamic Tracking for Assembly Tasks</i> , pp. 2489-2495.	
Hamner, Brad	Carnegie Mellon Univ.
Koterba, Seth	Caregie Mellon Univ.
Shi, Jane	GM R&D Center
Simmons, Reid	Carnegie Mellon Univ.
Singh, Sanjiv	Carnegie Mellon Univ.
10:10-10:30	TuIT16.4
<i>Online 3-D Trajectory Estimation of a Flying Object from a Monocular Image Sequence</i> , pp. 2496-2501.	
Herrejon, Rafael	Tohoku Univ.
Kagami, Shingo	Tohoku Univ.
Hashimoto, Koichi	Tohoku Univ.

<b>TuIT1</b>	Grand A
<b>Humanoid Robot Motion Control (Regular Sessions)</b>	
Chair: Yamane, Katsu	Disney
Co-Chair: Chalodhorn, Rawichote	Univ. of Washington
10:50-11:10	TuIT1.1
<i>Using Eigenposes for Lossless Periodic Human Motion Imitation</i> , pp. 2502-2509. <a href="#">Attachment</a>	
Chalodhorn, Rawichote	Univ. of Washington
Rao, Rajesh P. N.	Univ. of Washington
11:10-11:30	TuIT1.2
<i>Simultaneous Tracking and Balancing of Humanoid Robots for Imitating Human Motion Capture Data</i> , pp. 2510-2517. <a href="#">Attachment</a>	
Yamane, Katsu	Disney
Hodgins, Jessica	Carnegie Mellon Univ.
11:30-11:50	TuIT1.3
<i>Stable Whole-Body Motion Generation for Humanoid Robots to Imitate Human Motions</i> , pp. 2518-2524. <a href="#">Attachment</a>	
Kim, Seungsu	EPFL
Kim, ChangHwan	Korea Inst. of Science and Tech.
You, Bum Jae	KIST
Oh, Sang-Rok	MIC
11:50-12:10	TuIT1.4
<i>A Robotic Closed-Loop Scheme to Model Human Postural Coordination</i> , pp. 2525-2530.	
Bonnet, Vincent	Lirmm
Fraisse, Philippe	LIRMM
Ramdani, Nacim	INRIA Sophia Antipolis - Méditerranée
Lagarde, Julien	Univ. Montpellier 1
Ramdani, Sofiane	Univ. Montpellier 1
Bardy, Benoit	Univ. Montpellier 1

12:10-12:30 TullIT1.5  
*Analyzing the "Knack" of Human Piggyback Motion Based on Simultaneous Measurement of Tactile and Movement Data As a Basis for Humanoid Control*, pp. 2531-2536.  
 Ogata, Kunihiro The Univ. of Tokyo  
 Shiramatsu, Daisuke the Univ. of Tokyo  
 Ohmura, Yoshiyuki The Univ. of Tokyo  
 Kuniyoshi, Yasuo The Univ. of Tokyo

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**TullIT2** Grand B

**Human Robot Interaction III (Regular Sessions)**  
 Chair: Bobick, Aaron Georgia Tech.  
 Co-Chair: Nakamura, Yoshihiko Univ. of Tokyo

10:50-11:10 TullIT2.1  
*Unsupervised Simultaneous Learning of Gestures, Actions and Their Associations for Human-Robot Interaction*, pp. 2537-2544.

Mohammad, Yasser F. O. Kyoto Univ.  
 Nishida, Toyoaki Kyoto Univ.  
 Okada, Shogo Kyoto Univ.

11:10-11:30 TullIT2.2  
*Incremental Learning of Integrated Semiotics Based on Linguistic and Behavioral Symbols*, pp. 2545-2550. [Attachment](#)

Takano, Wataru Tokyo Univ.  
 Nakamura, Yoshihiko Univ. of Tokyo

11:30-11:50 TullIT2.3  
*Effective Robot Task Learning by Focusing on Task-Relevant Objects*, pp. 2551-2556.

Lee, Kyu Hwa Georgia Inst. of Tech.  
 Lee, Jinhan Georgia Inst. of Tech.  
 Thomaz, Andrea Lockerd Georgia Inst. of Tech.  
 Bobick, Aaron Georgia Tech.

11:50-12:10 TullIT2.4  
*Binaural Sound Localization Based on Sparse Coding and SOM*, pp. 2557-2562.

Kim, Hong Shik KIST (Korea Inst. of Science and Tech.)  
 Choi, Jong Suk Korea Inst. of Sci. and Tech.

12:10-12:30 TullIT2.5  
*Persuasive Robotics: The Influence of Robot Gender on Human Behavior*, pp. 2563-2568.

Siegel, Mikey Massachusetts Inst. of Tech.  
 Breazeal, Cynthia MIT  
 Norton, Michael Harvard Business School

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**TullIT3** Grand C

**Biomedical Mechatronics (Invited Sessions)**  
 Chair: Noakes, Mark W Oak Ridge National Lab.

10:50-11:10 TullIT3.1  
*Active Tracking Control between a Bio-Robot and a Human Subject (I)*, pp. 2569-2574.

Nycz, Andrzej The Univ. of Tennessee  
 Hamel, William R. Univ. of Tennessee

11:10-11:30 TullIT3.2  
*Multi-Axis Foot Reaction Force/Torque Sensor for Biomedical Applications (I)*, pp. 2575-2579.

Lind, Randall Oak Ridge National Lab.  
 Love, Lonnie J. Oak Ridge National Lab.  
 Rowe, John Oak Ridge National Lab.  
 Pin, François Oak Ridge National Lab.

11:30-11:50 TullIT3.3  
*Development of a Remote Trauma Care Assist Robot (I)*, pp. 2580-2585.

Noakes, Mark W Oak Ridge National Lab.  
 Lind, Randall Oak Ridge National Lab.  
 Jansen, John Oak Ridge National Lab.  
 Love, Lonnie J. Oak Ridge National Lab.  
 Pin, François Oak Ridge National Lab.  
 Richardson, Bradley Oak Ridge National Lab.

11:50-12:10 TullIT3.4  
*Mesofluidic Actuation for Articulated Finger and Hand Prosthetics (I)*, pp. 2586-2591.

Love, Lonnie J. Oak Ridge National Lab.  
 Lind, Randall Oak Ridge National Lab.  
 Jansen, John Oak Ridge National Lab.

12:10-12:30 TullIT3.5  
*Force-Based Needle Insertion for Medical Applications (I)*, pp. 2592-2597.

Love, Lonnie J. Oak Ridge National Lab.  
 Jansen, John Oak Ridge National Lab.  
 Lloyd, Peter Oak Ridge National Lab.



<b>TuIT4</b>		Grand F
<b>Learning I (Regular Sessions)</b>		
Chair: Saegusa, Ryo Co-Chair: Kobayashi, Toshiharu		Italian Inst. of Tech. Hosei Univ.
10:50-11:10		TuIT4.1
<i>Active Learning for Multiple Sensorimotor Coordination Based on State Confidence</i> , pp. 2598-2603. <a href="#">Attachment</a>		
Saegusa, Ryo Metta, Giorgio Sandini, Giulio		Italian Inst. of Tech. Univ. of Genoa Italian Inst. of Tech.
11:10-11:30		TuIT4.2
<i>Bayesian Reinforcement Learning in Continuous POMDPs with Gaussian Processes</i> , pp. 2604-2609.		
Dallaire, Patrick Ross, Stephane Chaib-draa, Brahim Besse, Camille		Univ. Laval McGill Univ. Laval Univ. Univ. Laval
11:30-11:50		TuIT4.3
<i>Active Learning Using Mean Shift Optimization for Robot Grasping</i> , pp. 2610-2615.		
Kroemer, Oliver Detry, Renaud Piater, Justus Peters, Jan	Max-Planck Inst. for Biological Cybernetics Univ. of Liege Univ. of Liege Max-Planck Inst. for Bio. Cybernetics	
11:50-12:10		TuIT4.4
<i>Experience-Based Learning Mechanism for Neural Controller Adaptation: Application to Walking Biped Robots</i> , pp. 2616-2621.		
Nassour, John Henaff, Patrick Ben Ouezdou, Fathi Cheng, Gordon	Versailles St Quentin Univ. Univ. of Versailles St Quentin Univ. of Versailles-Saint-Quentin Tech. Univ. Munich	
12:10-12:30		TuIT4.5
<i>Hardware Design of Autonomous Snake-Like Robot for Reinforcement Learning Based on Environment -Discussion of Versatility on Different Tasks</i> , pp. 2622-2627. <a href="#">Attachment</a>		
Ito, Kazuyuki Takayama, Akihiro Kobayashi, Toshiharu		Hosei Univ. Hosei Univ. Hosei Univ.
<b>TuIT5</b>		Grand G
<b>Sensing and Control in Medical Robotics (Regular Sessions)</b>		
Chair: Renaud, Pierre Co-Chair: Muñoz, Victor		LSIIT, Strasbourg Univ. Univ. of Malaga
10:50-11:10		TuIT5.1
<i>Illumination Position Estimation for 3D Soft-Tissue Reconstruction in Robotic Minimally Invasive Surgery</i> , pp. 2628-2633.		
Stoyanov, Danail Elson, Daniel Yang, Guang-Zhong		Imperial Coll. London Imperial Coll. London Imperial Coll. London
11:10-11:30		TuIT5.2
<i>Compensation for 3D Physiological Motion in Robotic-Assisted Surgery Using a Predictive Force Controller. Experimental Results</i> , pp. 2634-2639. <a href="#">Attachment</a>		
Dominici, Michel Poignet, Philippe Dombre, Etienne Cortesao, Rui Tempier, Olivier		Univ. Montpellier II LIRMM UMR 5506 CNRS UM2 Univ. Montpellier II & CNRS Univ. of Coimbra Univ. Montpellier 2 (LIRMM)
11:30-11:50		TuIT5.3
<i>Kinematic Analysis for a Novel Design of MRI-Compatible Torque Sensor</i> , pp. 2640-2646.		
Renaud, Pierre de Mathelin, Michel		LSIIT, Strasbourg Univ. Univ. of Strasbourg
11:50-12:10		TuIT5.4
<i>A Novel MRI Compatible Air-Cushion Tactile Sensor for Minimally Invasive Surgery</i> , pp. 2647-2652.		
Zbyszewski, Dinusha Polygerinos, Panagiotis Seneviratne, Lakmal Althoefer, Kaspar		kings Coll. london King's Coll. London Kings Coll. London Kings Coll. London
12:10-12:30		TuIT5.5
<i>Three-Layer Control for Active Wrists in Robotized Laparoscopic Surgery</i> , pp. 2653-2658.		
Bauzano, Enrique Muñoz, Victor Garcia-Morales, Isabel Estebanez, Belen		Univ. of Malaga, Spain Univ. of Malaga Univ. of Malaga, Spain Univ. de Málaga

<b>TuIT6</b>		Grand H
<b>Biologically-Inspired Robot Design (Regular Sessions)</b>		
Chair: Jones, Bryan Co-Chair: Sitti, Metin		Mississippi State Univ. Carnegie Mellon Univ.
10:50-11:10		TuIT6.1
<i>Three Dimensional Statics for Continuum Robotics</i> , pp. 2659-2664.		
Gray, Ricky Jones, Bryan Turlapati, Krishna		Mississippi State Univ. Mississippi State Univ. Mississippi State Univ.
11:10-11:30		TuIT6.2
<i>A Brainstem-Like Modulation Approach for Gait Transition in a Quadruped Robot</i> , pp. 2665-2670. <a href="#">Attachment</a>		
Matos, Vitor Santos, Cristina Pinto, Carla		Univ. do Minho Univ. of Minho Superior Inst. of Engineering of Porto and Center of Mathema
11:30-11:50		TuIT6.3
<i>Control of a Quadruped Robot with Enhanced Adaptability Over Unstructured Terrain</i> , pp. 2671-2676. <a href="#">Attachment</a>		
Vo, Gia Loc Roh, Se-gon Koo, Ig Mo Tran, Duc Trong Kim, Ho Moon Moon, Hyungpil Choi, Hyouk Ryeol Park, Sangdeok		Sungkyunkwan Univ. Sungkyunkwan Univ. Sung Kyun Kwan Univ. SungKyunKwan Univ. SKKU IRMS Lab. SungKyunKwan Univ. Sungkyunkwan Univ. Korea Inst. of Industrial Tech.
11:50-12:10		TuIT6.4
<i>Development of Emotional Tremor-Based Vision System</i> , pp. 2677-2682.		
Yonekura, Shogo Kuniyoshi, Yasuo Kawaguchi, Yoichiro		the Univ. of Tokyo The Univ. of Tokyo the Univ. of Tokyo
12:10-12:30		TuIT6.5
<i>DASH: A Dynamic 16g Hexapedal Robot</i> , pp. 2683-2689. <a href="#">Attachment</a>		
Birkmeyer, Paul Peterson, Kevin Fearing, Ronald		Univ. of California, Berkeley Univ. of California, Berkeley Univ. of California at Berkeley
<b>TuIT7</b>		Mills 1
<b>Pose Estimation (Regular Sessions)</b>		
Chair: Roumeliotis, Stergios Co-Chair: Burschka, Darius		Univ. of Minnesota Tech. Univ. München
10:50-11:10		TuIT7.1
<i>Accurate Shape-Based 6-DoF Pose Estimation of Single-Colored Objects</i> , pp. 2690-2695. <a href="#">Attachment</a>		
Azad, Pedram Asfour, Tamim Dillmann, Rüdiger		Univ. of Karlsruhe Univ. of Karlsruhe Univ. of Karlsruhe
11:10-11:30		TuIT7.2
<i>Efficient Camera-Based Pose Estimation for Real-Time Applications</i> , pp. 2696-2703.		
Mair, Elmar Strobl, Klaus H. Suppa, Michael Burschka, Darius		Tech. Univ. München (TUM) German Aerospace Center (DLR) German Aerospace Center (DLR) Tech. Univ. München
11:30-11:50		TuIT7.3
<i>Fast Pose Estimation for Visual Navigation Using Homographies</i> , pp. 2704-2709. <a href="#">Attachment</a>		
Montijano, Eduardo Sagues, Carlos		Univ. de Zaragoza Univ. de Zaragoza
11:50-12:10		TuIT7.4
<i>Interoperable RT Component for Object Detection and 3D Pose Estimation for Service Robots</i> , pp. 2710-2715.		
Choi, Jaeil Takahashi, Hideyasu Mae, Yasushi Ohara, Kenichi Takubo, Tomohito Arai, Tatsuo		Div. of Systems Science and Applied Informatics, OsakaUniv Osaka Univ. Osaka Univ. Osaka Univ. Osaka Univ. Osaka Univ.
12:10-12:30		TuIT7.5
<i>A 3D Pose Estimator for the Visually Impaired</i> , pp. 2716-2723.		
Hesch, Joel Mirzaei, Faraz Mariottini, Gian Luca Roumeliotis, Stergios		Univ. of Minnesota Univ. of Minnesota Dept. of Computer Science and Engineering Univ. of Minnesota

<b>TuIT8</b>		Mills 2
<b>Robot Audition IV (Invited Sessions)</b>		
Chair: Nakadai, Kazuhiro Co-Chair: Okuno, Hiroshi G.	Honda Res. Inst. Japan Co., Ltd. Kyoto Univ.	
10:50-11:10		TuIT8.1
<i>Daily Sound Recognition Using Pitch-Cluster-Maps for Mobile Robot Audition (I)</i> , pp. 2724-2729.		
Sasaki, Yoko Kaneyoshi, Masahito Kagami, Satoshi Mizoguchi, Hiroshi Enomoto, Tadashi	National Inst. of Advanced Industrial Science and Tech. AIST National Inst. of AIST Tokyo Univ. of Science Kansai Electric Power Co., Inc.	
11:10-11:30		TuIT8.2
<i>Missing-Feature-Theory-Based Robust Simultaneous Speech Recognition System with Non-Clean Speech Acoustic Model (I)</i> , pp. 2730-2735.		
Takahashi, Toru Nakadai, Kazuhiro Komatani, Kazunori Ogata, Tetsuya Okuno, Hiroshi G.	Kyoto Univ. Honda Res. Inst. Japan Co., Ltd. Kyoto Univ. Kyoto Univ. Kyoto Univ.	
11:30-11:50		TuIT8.3
<i>Robot Auditory System Using Head-Mounted Square Microphone Array (I)</i> , pp. 2736-2741.		
Hosoya, Kosuke Ogawa, Tetsuji Kobayashi, Tetsunori	Univ. Waseda Univ. Waseda Univ.	
11:50-12:10		TuIT8.4
<i>Extracting Space Dimension Information from the Auditory Modality Sensori-Motor Flow Using a Bio-Inspired Model of the Cochlea (I)</i> , pp. 2742-2747.		
Couverture, Charlie Gas, Bruno	Univ. Pierre et Marie Curie Univ. Pierre et Marie Curie	
12:10-12:30		TuIT8.5
<i>Multimodal Word Learning from Infant Directed Speech (I)</i> , pp. 2748-2754.		
Hörnstein, Jonas Santos-Victor, José Lacerda, Francisco Gustavsson, Lisa	Inst. Superior Tecnico Inst. Superior Técnico - Inst. for Systems and Robotics Stockholm Univ. Stockholm Univ.	
<b>TuIT9</b>		Mills 3
<b>Millirobots (Regular Sessions)</b>		
Chair: Hoover, Aaron Co-Chair: Rajkowski, Jessica	Univ. of California, Berkeley Univ. of Maryland, Coll. Park	
10:50-11:10		TuIT9.1
<i>Asymmetric Flapping for a Robotic Fly Using a Hybrid Power-Control Actuator</i> , pp. 2755-2762.		
Finio, Benjamin Oland, Christopher Andrew Eum, Brandon Wood, Robert	Harvard Univ. Harvard Univ. Harvard Univ. Harvard Univ.	
11:10-11:30		TuIT9.2
<i>Stress-Driven MEMS Assembly + Electrostatic Forces = 1mm Diameter Robot</i> , pp. 2763-2769. <a href="#">Attachment</a>		
Karagozler, Mustafa Emre Goldstein, Seth Copen Reid, James Robert	Carnegie Mellon Univ. Carnegie Mellon Univ. Air Force Res. Lab.	
11:30-11:50		TuIT9.3
<i>Analysis of Off-Axis Performance of Compliant Mechanisms with Applications to Mobile Millirobot Design</i> , pp. 2770-2776.		
Hoover, Aaron Fearing, Ronald	Univ. of California, Berkeley Univ. of California at Berkeley	
11:50-12:10		TuIT9.4
<i>A Multi-Material Milli-Robot Prototyping Process</i> , pp. 2777-2782. <a href="#">Attachment</a>		
Rajkowski, Jessica Gerratt, Aaron P. Schaler, Ethan W. Bergbreiter, Sarah	Univ. of Maryland, Coll. Park Univ. of Maryland, Coll. Park Univ. of Maryland, Coll. Park Univ. of Maryland, Coll. Park	
12:10-12:30		TuIT9.5
<i>Perceptually Docked Control Environment for Multiple Microbots: Application to the Gastric Submucosal Tumor Resection</i> , pp. 2783-2788.		
Kwok, Ka Wai Sun, Loi Wah Vitiello, Valentina James, David R C Mylonas, George Yang, Guang-Zhong Darzi, Ara	Imperial Coll. London The Chinese Univ. of Hong Kong Imperial Coll. London Imperial Coll. London Imperial Coll. London Imperial Coll. London Imperial Coll. London	

<b>TuIT10</b>		Mills 4
<b>Search and Rescue Robots (Regular Sessions)</b>		
Chair: Matsuno, Fumitoshi	The Univ. of Electro-Communications	
Co-Chair: An, Jinung	DGIST	
10:50-11:10		TuIT10.1
<a href="#">Portable Fire Evacuation Guide Robot System</a> , pp. 2789-2794.		
Kim, Young-Duk	DGIST	
Kim, Yoon-Gu	DGIST(Daegu Gyeongbuk Inst. of Science & Tech.	
Lee, Seung Hyun	Daegu Gyeongbuk Inst. of Science and Tech.	
An, Jinung	DGIST	
Kang, Jeong Ho	Company	
11:10-11:30		TuIT10.2
<a href="#">HELIOS System: A Team of Tracked Robots for Special Urban Search and Rescue Operations</a> , pp. 2795-2800. <a href="#">Attachment</a>		
Guarnieri, Michele	Tokyo Inst. of Tech.	
Kurazume, Ryo	Kyushu Univ.	
Masuda, Hiroshi	Kyushu Univ.	
Inoh, Takao	E-N studio	
Takita, Kensuke	HiBot Corp.	
Hodoshima, Ryuichi	Tokyo Inst. of Tech.	
Debenest, Paulo	Tokyo Inst. of Tech.	
Fukushima, Edwardo F.	Tokyo Inst. of Tech.	
Hirose, Shigeo	Tokyo Inst. of Tech.	
11:30-11:50		TuIT10.3
<a href="#">Throwable Tetrahedral Robot with Transformation Capability</a> , pp. 2801-2808. <a href="#">Attachment</a>		
Tadakuma, Kenjiro	Massachusetts Inst. of Tech.	
Tadakuma, Riichiro	Harvard Univ.	
Nagatani, Keiji	Tohoku Univ.	
Yoshida, Kazuya	Tohoku Univ.	
Ming, Aiguo	The Univ. of Electro-Communications	
Shimojo, Makoto	Univ. of Electro-COMmunications	
Iagnemma, Karl	MIT	
11:50-12:10		TuIT10.4
<a href="#">The Autonomous Generation System of a Behavioral Trace Map</a> , pp. 2809-2814.		
Mano, Hayato	The Univ. of Electro-Communications	
Miyazawa, Katsunori	The Univ. of Electro-Communications	
Chatterjee, Ranajit	Univ. of Electro-Communications	
Matsuno, Fumitoshi	The Univ. of Electro-Communications	
12:10-12:30		TuIT10.5
<a href="#">Semi-Autonomous Operation of Tracked Vehicles on Rough Terrain Using Autonomous Control of Active Flippers</a> , pp. 2815-2820. <a href="#">Attachment</a>		
Okada, Yoshito	Tohoku Univ.	
Nagatani, Keiji	Tohoku Univ.	
Yoshida, Kazuya	Tohoku Univ.	
<b>TuIT11</b>		Mills 5
<b>Networked Robots I (Regular Sessions)</b>		
Chair: Mosteo, Alejandro R.	Univ. de Zaragoza	
Co-Chair: Parker, Lynne	Univ. of Tennessee	
10:50-11:10		TuIT11.1
<a href="#">Bilateral Teleoperation of a Formation of Nonholonomic Mobile Robots under Constant Time Delay</a> , pp. 2821-2826.		
Martinez-Palafox, Oscar	Texas A&M Univ.	
Spong, Mark	Univ. of Texas at Dallas	
11:10-11:30		TuIT11.2
<a href="#">ISRobotNet: A Testbed for Sensor and Robot Network Systems</a> , pp. 2827-2833.		
Barbosa, Marco	Inst. Superior Técnico - Inst. for Systems and Robotics	
Bernardino, Alexandre	Inst. Superior Técnico - Inst. for Systems and Robotics	
Figueira, Dario	Inst. Superior Técnico - Inst. for Systems and Robotics	
Gaspar, Jose	Inst. Superior Técnico - Inst. for Systems and Robotics	
Goncalves, Nelson	Inst. Superior Técnico - Inst. for Systems and Robotics	
Lima, Pedro	Inst. Superior Técnico - Inst. for Systems and Robotics	
Moreno, Plinio	Inst. Superior Técnico - Inst. for Systems and Robotics	
Pahliani, Abdolkarim	Inst. Superior Técnico - Inst. for Systems and Robotics	
Santos-Victor, José	Inst. Superior Técnico - Inst. for Systems and Robotics	
Spaan, Matthijs	Inst. Superior Técnico - Inst. for Systems and Robotics	
Sequeira, Joao	Inst. Superior Técnico - Inst. for Systems and Robotics	
11:30-11:50		TuIT11.3
<a href="#">Experimental Characterization of Radio Signal Propagation in Indoor Environments with Application to Estimation and Control</a> , pp. 2834-2839.		
Fink, Jonathan	Univ. of Pennsylvania	

Michael, Nathan	Univ. of Pennsylvania
Kushleyev, Aleksandr	Univ. of Pennsylvania
Kumar, Vijay	Univ. of Pennsylvania
11:50-12:10	TullIT11.4
<i>Concurrent Tree Traversals for Improved Mission Performance under Limited Communication Range</i> , pp. 2840-2845.	
Mosteo, Alejandro	Univ. de Zaragoza
Montano, Luis	Univ. de Zaragoza
12:10-12:30	TullIT11.5
<i>Field Trial of Networked Social Robots in a Shopping Mall</i> , pp. 2846-2853. <a href="#">Attachment</a>	
Shiomi, Masahiro	ATR
Kanda, Takayuki	ATR
Glas, Dylan F.	ATR
Satake, Satoru	ATR
Ishiguro, Hiroshi	Osaka Univ.
Hagita, Norihiro	ATR

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**TullIT12** Mills 6

**Aerial Robotics I** (Regular Sessions)

Chair: Leven, Severin	Ec. Pol. Federale de Lausanne
Co-Chair: Floreano, Dario	Ec. Pol. Federal, Lausanne
10:50-11:10	TullIT12.1
<i>Efficient Resonant Drive of Flapping-Wing Robots</i> , pp. 2854-2860.	
Baek, Stanley	UC Berkeley
Ma, Kevin	Univ. of California, Berkeley
Fearing, Ronald	Univ. of California at Berkeley
11:10-11:30	TullIT12.2
<i>Improvement of Simulation Model and Development of Control Mechanism of Force Direction for a Flying Robot with Cyclogyro Wing</i> , pp. 2861-2866. <a href="#">Attachment</a>	
Higashi, Yoshiyuki	Univ. of Electro-Communications
Tanaka, Kazuo	Univ. of Electro-Communications
Ohtake, Hiroshi	Univ. of Electro-Communications
Wang, Hua O.	Boston Univ.
11:30-11:50	TullIT12.3
<i>Sliding Mode Observer to Estimate Both the Attitude and the Gyro-Bias by Using Low-Cost Sensors</i> , pp. 2867-2872.	
El Hadri, AbdelHafid	Versailles Univ.
Benallegue, Abdelaziz	Univ. of Versailles St Quentin en Yvelines
11:50-12:10	TullIT12.4
<i>A Minimalist Control Strategy for Small UAVs</i> , pp. 2873-2878.	
Leven, Severin	Ec. Pol. Federale de Lausanne
Zufferey, Jean-Christophe	EPFL
Floreano, Dario	Ec. Pol. Federal, Lausanne
12:10-12:30	TullIT12.5
<i>A Pan-Tilt Camera Fuzzy Vision Controller on an Unmanned Aerial Vehicle</i> , pp. 2879-2884.	
Olivares-Mendez, Miguel A.	Univ. Pol. de Madrid
Campoy, Pascual	Computer Vision Group. Univ. Pol. de Madrid
Martínez, Carol	UPM
Mondragón, Iván Fernando	Computer Vision Group. Univ. Pol. de Madrid

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**TullIT13** Mills 7

**Smart Actuators** (Regular Sessions)

Chair: Tan, Xiaobo	Michigan State Univ.
Co-Chair: Niemeyer, Gunter	Willow Garage and Stanford Univ.
10:50-11:10	TullIT13.1
<i>Variable Impedance Magnetorheological Clutch Actuator and Telerobotic Implementation</i> , pp. 2885-2891.	
Walker, Daniel S.	Stanford
Thoma, Dan J.	Los Alamos National Lab.
Niemeyer, Gunter	Willow Garage and Stanford Univ.
11:10-11:30	TullIT13.2
<i>Fiber-Reinforced Conjugated Polymer Torsional Actuator and Its Nonlinear Elasticity Modeling</i> , pp. 2892-2897.	
Fang, Yang	Michigan State Univ.
Pence, Thomas	Michigan State Univ.
Tan, Xiaobo	Michigan State Univ.
11:30-11:50	TullIT13.3
<i>Characteristics Evaluation of PVC Gel Actuators</i> , pp. 2898-2903.	
Ogawa, Naoki	Shinshu Univ.
Hashimoto, Minoru	Shinshu Univ.
Takasaki, Midori	Shinshu Univ.
Hirai, Toshihiro	Shinshu Univ.

11:50-12:10		TullIT13.4
<i>On the Feasibility and Suitability of MR and ER Based Actuators in Human Friendly Manipulators</i> , pp. 2904-2909.		
Shafer, Alex		The Univ. of Western Ontario
Kermani, Mehrdad R.		Univ. of Western Ontario
12:10-12:30		TullIT13.5
<i>Experimental Evaluation of Optimal Conically-Shaped Dielectric Elastomer Linear Actuators</i> , pp. 2910-2915.		
Berselli, Giovanni		Univ. di Bologna
Vertechy, Rocco		Scuola Superiore Sant' Anna
Vassura, Gabriele		Univ. of Bologna
Parenti Castelli, Vincenzo		Univ. of Bologna
<b>TullIT14</b>		
<b>Control Methods for Biped Walking Robots (Regular Sessions)</b>		
Chair: Braun, David		Vanderbilt Univ.
Co-Chair: Sugihara, Tomomichi		Kyushu Univ.
10:50-11:10		TullIT14.1
<i>A Controller for Dynamic Walking in Bipedal Robots</i> , pp. 2916-2921. <a href="#">Attachment</a>		
Braun, David J.		Vanderbilt Univ.
Goldfarb, Michael		Vanderbilt Univ.
11:10-11:30		TullIT14.2
<i>Terrain-Adaptive Control with Small Landing Impact Force for Biped Vehicle</i> , pp. 2922-2927. <a href="#">Attachment</a>		
Hashimoto, Kenji		Waseda Univ.
Hayashi, Akihiro		Waseda Univ.
Sawato, Terumasa		Waseda Univ.
Yoshimura, Yuki		Waseda Univ.
Asano, Teppei		Waseda Univ.
Hattori, Kentaro		Waseda Univ.
Sugahara, Yusuke		Tohoku Univ.
Lim, Hun-ok		Kanagawa Univ.
Takanishi, Atsuo		Waseda Univ.
11:30-11:50		TullIT14.3
<i>Generation of Energy Saving Motion for Biped Walking Robot through Resonance-Based Control Method</i> , pp. 2928-2933.		
Uemura, Mitsunori		Ritsumeikan Univ.
Kousuke, Kimura		Ritsumeikan Univ.
Kawamura, Sadao		Ritsumeikan Univ.
11:50-12:10		TullIT14.4
<i>Efficient Parametric Excitation Walking with Delayed Feedback Control</i> , pp. 2934-2939.		
Harata, Yuji		Nagoya Univ.
Asano, Fumihiko		Japan Advanced Inst. of Science and Tech.
Taji, Kouichi		Nagoya University
Uno, Yoji		Nagoya Univ.
12:10-12:30		TullIT14.5
<i>Dynamics Morphing from Regulator to Oscillator on Bipedal Control</i> , pp. 2940-2945.		
Sugihara, Tomomichi		Kyushu Univ.
<b>TullIT15</b>		
<b>Path Following and Control (Regular Sessions)</b>		
Chair: Ye, Cang		Univ. of Arkansas at Little Rock
Co-Chair: Guo, Yi		Stevens Inst. of Tech.
10:50-11:10		TullIT15.1
<i>A Lyapunov-Stable, Sensor-Based Model for Real-Time Path-Tracking among Unknown Obstacles</i> , pp. 2946-2951.		
Sgorbissa, Antonio		Univ. of Genova
Vargiu, Andrea		Univ. of Genova
Villa, Alessandro		Univ. di Genova
Zaccaria, Renato		Univ. of Genova
11:10-11:30		TullIT15.2
<i>A Minimalist Feedback Control for Path Tracking in Cartesian Space</i> , pp. 2952-2957.		
Sgorbissa, Antonio		Univ. of Genova
Zaccaria, Renato		Univ. of Genova
11:30-11:50		TullIT15.3
<i>Automated Synthesis of Control Algorithms from First Principles</i> , pp. 2958-2965.		
Berg, Henrik		Norwegian Defence Res. Establishment
Olsson, Roland		R�stfold Univ. Coll.
Rus�s, Per-Olav		Prediktor AS
Jakobsen, Morgan		Kongsberg Norcontrol IT
11:50-12:10		TullIT15.4
<i>Versatile Reactive Navigation</i> , pp. 2966-2972. <a href="#">Attachment</a>		
Tychonievich, Luther A.		Brigham Young Univ.
Tychonievich, Louis P.		Cleveland State Univ.

Burton, Robert P.	Brigham Young Univ.
12:10-12:30	TullIT15.5
<a href="#">Trajectory Control of Wheeled Mobile Robots Based on Virtual Manipulators</a> , pp. 2973-2978.	
Yamazaki, Kimitoshi	The Univ. of Tokyo
Inaba, Masayuki	The Univ. of Tokyo

<b>TullIT16</b>	Regency D
<b>Visual Tracking II (Regular Sessions)</b>	
Chair: Ye, Weilong	Tsinghua Univ.
Co-Chair: Trahanias, Panos	Foundation for Res. and Tech. – Hellas (FORTH)
10:50-11:10	TullIT16.1
<a href="#">Vehicle Tracking Based on Co-Learning Particle Filter</a> , pp. 2979-2984.	
Ye, Weilong	Tsinghua Univ.
11:10-11:30	TullIT16.2
<a href="#">Collaboration of Spatial and Feature Attention for Visual Tracking</a> , pp. 2985-2992.	
Liu, Hong	Peking Univ.
Wan, Weiwei	Peking Univ.
Shi, Ying	Peking Univ.
11:30-11:50	TullIT16.3
<a href="#">The Application of Intrinsic Variable Preserving Manifold Learning Method to Tracking Multiple People with Occlusion Reasoning</a> , pp. 2993-2998. <a href="#">Attachment</a>	
Zheng, Suiwu	Inst. of Automation Chinese Acad. of Sciences
Qiao, Hong	Chinese Acad. of Sciences
Zhang, Bo	Acad. of Mathematics and Systems Science, Chinese Acad. of Sc
Zhang, Peng	Chinese Acad. of Sciences
11:50-12:10	TullIT16.4
<a href="#">Visual Tracking of Planes with an Uncalibrated Central Catadioptric Camera</a> , pp. 2999-3004.	
Salazar-Garibay, Adan	INRIA Sophia-Antipolis
Malis, Ezio	INRIA
Mei, Christopher	Univ. of Oxford
12:10-12:30	TullIT16.5
<a href="#">Visual Tracking of Independently Moving Body and Arms</a> , pp. 3005-3010.	
Sigalas, Markos	Foundation for Res. and Tech. - Hellas
Baltzakis, Haris	Foundation for Res. and Tech. - Hellas
Trahanias, Panos	Foundation for Res. and Tech. – Hellas (FORTH)

<b>TullIT1</b>	Grand A
<b>Humanoid Robot Biped Walking and Balance Control (Regular Sessions)</b>	
Chair: Buschmann, Thomas	TU Munich
Co-Chair: Khatib, Oussama	Stanford Univ.
14:00-14:20	TullIT1.1
<a href="#">Compliant Humanoid Robot Control by the Torque Transformer</a> , pp. 3011-3018.	
Yoshikawa, Taizo	Honda Res. Inst. USA, Inc.
Khatib, Oussama	Stanford Univ.
14:20-14:40	TullIT1.2
<a href="#">Biped Walking Control Based on Hybrid Position/Force Control</a> , pp. 3019-3024.	
Buschmann, Thomas	TU Munich
Lohmeier, Sebastian	Tech. Univ. Munich
Ulbrich, Heinz	Tech. Univ. Muenchen
14:40-15:00	TullIT1.3
<a href="#">Micro Rubber Structure Realizing Multi-Legged Passive Walking -Integration and Miniaturization by Micro Rubber Molding Process</a> , pp. 3025-3030.	
Saito, Fumitaka	Okayama Univ.
Suzumori, Koichi	Okayama Univ.
15:00-15:20	TullIT1.4
<a href="#">Standing Balance Control Using a Trajectory Library</a> , pp. 3031-3036.	
Liu, Chenggang	Shanghai Jiaotong Univ.
Atkeson, Christopher	CMU
15:20-15:40	TullIT1.5
<a href="#">Planning Approach and Local Reactivity for 3D Operational Space Control of 3D Bipedal Robots with Flexible Feet</a> , pp. 3037-3042.	
Bruneau, Olivier	UVSQ / LISV
Gravez, Fabrice	CEA LIST
Ben Oueddou, Fathi	Univ. of Versailles-Saint-Quentin

<b>TullIT2</b>	Grand B
<b>Human Robot Interaction IV (Regular Sessions)</b>	
Chair: Hein, Björn	Univ. Karlsruhe (TH)
Co-Chair: Carff, John	IHMC

14:00-14:20		TuIIIT2.1
<i>Human-Robot Team Navigation in Visually Complex Environments</i> , pp. 3043-3050.		
Carff, John		IHMC
Johnson, Matthew		Inst. for Human & Machine Cognition
El-Sheikh, Eman		Univ. of West Florida
Pratt, Jerry		Inst. for Human and Machine Cognition
14:20-14:40		TuIIIT2.2
<i>A Simple Control Design for Human-Robot Coordination Based on the Knowledge of Dynamical Role Division</i> , pp. 3051-3056.		
Ueha, Ryohei		Graduate School of Engineering Science, Osaka Univ.
Pham, Hang		Graduate School of Engineering Science, Osaka Univ.
Hirai, Hiroaki		Graduate School of Engineering Science, Osaka Univ.
Miyazaki, Fumio		Graduate School of Engineering Science, Osaka Univ.
14:40-15:00		TuIIIT2.3
<i>Understanding of Positioning Skill Based on Feedforward / Feedback Switched Dynamical Model</i> , pp. 3057-3057.		
Okuda, Hiroyuki		Nagoya Univ.
Takeuchi, Hidenori		Nagoya Univ.
Inagaki, Shinkichi		Nagoya Univ.
Suzuki, Tatsuya		Nagoya Univ.
Hayakawa, Soichiro		Toyota Tech. Insititute
15:00-15:20		TuIIIT2.4
<i>Constraint Task-Based Control in Industrial Settings</i> , pp. 3058-3063.		
Lenz, Claus		Tech. Univ. München
Rickert, Markus		Tech. Univ. München
Panin, Giorgio		Tech. Univ. Muenchen
Knoll, Alois		TU Munich
15:20-15:40		TuIIIT2.5
<i>Intuitive and Model-Based On-Line Programming of Industrial Robots: New Input Devices</i> , pp. 3064-3069. <a href="#">Attachment</a>		
Hein, Björn		Univ. Karlsruhe (TH)
Woern, Heinz		Univ. Karlsruhe

<b>TuIIIT3</b>		Grand C
<b>Mapping III (Regular Sessions)</b>		
Chair: Andrade-Cetto, Juan		CSIC-UPC
Co-Chair: Sandoval, Francisco		Univ. Málaga
14:00-14:20		TuIIIT3.1
<i>Compressive Mobile Sensing in Robotic Mapping</i> , pp. 3070-3075. <a href="#">Attachment</a>		
Huang, Shuo		Michigan Tech. Univ.
Tan, Jindong		Michigan Tech. Univ.
14:20-14:40		TuIIIT3.2
<i>3D Mapping for Urban Service Robots</i> , pp. 3076-3081. <a href="#">Attachment</a>		
Valencia, Rafael		CSIC-UPC
Teniente Avilés, Ernesto Homar		CSIC-UPC
Trulls, Eduard		CSIC-UPC
Andrade-Cetto, Juan		CSIC-UPC
14:40-15:00		TuIIIT3.3
<i>3D Environment Reconstruction Using Modified Color ICP Algorithm by Fusion of a Camera and a 3D Laser Range Finder</i> , pp. 3082-3088. <a href="#">Attachment</a>		
Joung, Ji Hoon		Electronics and Telecommunications Res. Inst.
An, Kwang Ho		KAIST
Kang, Jung Won		Korea Advanced Inst. of Science and Tech.
Chung, Myung Jin		KAIST
Yu, Wonpil		ETRI
15:00-15:20		TuIIIT3.4
<i>Estimation of Camera Motion with Feature Flow Model for 3D Environment Modeling by Using Omni-Directional Camera</i> , pp. 3089-3094. <a href="#">Attachment</a>		
Kawanishi, Ryosuke		Shizuoka Univ.
Yamashita, Atsushi		Shizuoka Univ.
Kaneko, Toru		Shizuoka Univ.
15:20-15:40		TuIIIT3.5
<i>Combined Constraint Matching Algorithm for Stereo Visual Odometry Based on Local Interest Points</i> , pp. 3095-3100.		
Núñez Trujillo, Pedro		Univ. de Extremadura
Vazquez Martin, Ricardo		Univ. of Malaga
Bandera, Antonio		Univ. de Málaga
Sandoval, Francisco		Univ. Málaga

<b>TuIIIT4</b>		Grand F
<b>Learning II (Regular Sessions)</b>		
Chair: Kawamura, Sadao		Ritsumeikan Univ.
Co-Chair: Beetz, Michael		Tech. Univ. München



14:00-14:20		TuIIIT4.1
	<i>Understanding Robot Motor Capability Using Information-Theory-Based Approach</i> , pp. 3101-3106.	
	Lin, Hsien-I	Purdue Univ.
	Lee, C. S. George	Purdue Univ.
14:20-14:40		TuIIIT4.2
	<i>Planning-Space Shift Learning: Variable-Space Motion Planning Toward Flexible Extension of Body Schema</i> , pp. 3107-3114.	
	Kobayashi, Yuichi	Tokyo Univ. of Agriculture and Tech.
	Hosoe, Shigeyuki	RIKEN
14:40-15:00		TuIIIT4.3
	<i>Action-Related Place-Based Mobile Manipulation</i> , pp. 3115-3120. <a href="#">Attachment</a>	
	Stulp, Freek	Tech. Univ. München
	Fedrizzi, Andreas	TU Muenchen
	Beetz, Michael	Tech. Univ. München
15:00-15:20		TuIIIT4.4
	<i>Sparse Online Model Learning for Robot Control with Support Vector Regression</i> , pp. 3121-3126.	
	Nguyen-Tuong, Duy	Max Planck Inst.
	Schoelkopf, Bernhard	Max Planck Inst. for Biological Cybernetics
	Peters, Jan	Max-Planck Inst. for Bio. Cybernetics
15:20-15:40		TuIIIT4.5
	<i>Basis-Motion Torque Composition Approach: Generation of Feedforward Inputs for Control of Multi-Joint Robots</i> , pp. 3127-3132.	
	Sekimoto, Masahiro	Ritsumeikan Univ.
	Kawamura, Sadao	Ritsumeikan Univ.
	Ishitsubo, Tomoya	Ritsumeikan Univ.
	Akizuki, Shinsuke	Ritsumeikan Univ.
	Mizuno, Masayuki	Ritsumeikan Univ.

## TuIIIT5

### Sensing, Cognition, and Learning (Regular Sessions)

	Chair: Aloimonos, Yiannis	Univ. of Maryland
	Co-Chair: Caputo, Barbara	IDIAP Res. Inst.
14:00-14:20		TuIIIT5.1
	<i>Active Segmentation for Robotics</i> , pp. 3133-3139. <a href="#">Attachment</a>	
	Mishra, Ajay	Univ. of Maryland, National Univ. of Singapore
	Aloimonos, Yiannis	Univ. of Maryland
	Fermüller, Cornelia	Univ. of Maryland
14:20-14:40		TuIIIT5.2
	<i>A Computer Vision Integration Model for a Multi-Modal Cognitive System</i> , pp. 3140-3147.	
	Vrecko, Alen	Univ. of Ljubljana, Faculty of Computer and Information Sci
	Skocaj, Danijel	Univ. of Ljubljana
	Hawes, Nick	Univ. of Birmingham
	Leonardis, Ales	Univ. of Ljubljana
14:40-15:00		TuIIIT5.3
	<i>A Cognitive System for Autonomous Robotic Welding</i> , pp. 3148-3153.	
	Schroth, Georg	Tech. Univ. München
	Stork genannt Wersborg, Ingo	Tech. Univ. München
	Diepold, Klaus	Tech. Univ. München
15:00-15:20		TuIIIT5.4
	<i>You Live, You Learn, You Forget: Continuous Learning of Visual Places with a Forgetting Mechanism</i> , pp. 3154-3161.	
	Ullah, Muhammad Muneeb	INRIA Rennes, IRISA, Rennes, France
	Orabona, Francesco	Idiap Res. Inst.
	Caputo, Barbara	IDIAP Res. Inst.
15:20-15:40		TuIIIT5.5
	<i>A Neuro-Dynamic Architecture for One Shot Learning of Objects That Uses Both Bottom-Up Recognition and Top-Down Prediction</i> , pp. 3162-3169.	
	Faubel, Christian	Ruhr-Univ. Bochum
	Schöner, Gregor	Ruhr Univ. Bochum

## TuIIIT6

### Haptics III (Regular Sessions)

	Chair: Fujie, Masakatsu G.	Waseda Univ.
	Co-Chair: Ito, Tatsuya	Saitama Univ.
14:00-14:20		TuIIIT6.1
	<i>Haptic Display of Realistic Tool Contact Via Dynamically Compensated Control of a Dedicated Actuator</i> , pp. 3170-3177.	
	McMahan, William	Univ. of Pennsylvania
	Kuchenbecker, Katherine J.	Univ. of Pennsylvania
14:20-14:40		TuIIIT6.2
	<i>Command Recognition by Haptic Interface on Human Support Robot</i> , pp. 3178-3183.	
	Tsuji, Toshiaki	Saitama Univ.
	Ito, Tatsuya	Saitama Univ.

14:40-15:00		TuIIIT6.3
<i>Active Touch II: Vibrotactile Representation of Friction and a New Approach to Surface Shape Display</i> , pp. 3184-3189.		
Tsuchiya, Sho		Tohoku Univ.
Konyo, Masashi		Tohoku Univ.
Yamada, Hiroshi		Tohoku Univ.
Yamauchi, Takahiro		Tohoku Univ.
Okamoto, Shogo		Tohoku Univ.
Tadokoro, Satoshi		Tohoku Univ.
15:00-15:20		TuIIIT6.4
<i>Enhanced Haptic Device Compatible with Fmri Environment</i> , pp. 3190-3195.		
Hribar, Ales	Faculty of Electrical Engineering; Univ. of Ljubljana	
Munih, Marko	Univ. of Ljubljana	
15:20-15:40		TuIIIT6.5
<i>Development of a Cane with a Haptic Interface Using IC Tags for the Visually Impaired</i> , pp. 3196-3201.		
Ando, Takeshi		Waseda Univ.
Yamamoto, Masahiro		Waseda Univ.
Seki, Masatoshi		Waseda Univ.
Fujie, Masakatsu G.		Waseda Univ.
<b>TuIIIT7</b>		Mills 1
<b>Walking Robots</b> (Regular Sessions)		
Chair: Chemori, Ahmed		LIRMM
Co-Chair: Taji, Kouichi		Nagoya Unviersity
14:00-14:20		TuIIIT7.1
<i>Optimal Trajectory Design for Parametric Excitation Walking</i> , pp. 3202-3207.		
Banno, Yoshihisa		Nagoya Univ.
Harata, Yuji		Nagoya Univ.
Taji, Kouichi		Nagoya Unviersity
Uno, Yoichi		Nagoya Univ.
14:20-14:40		TuIIIT7.2
<i>Understanding the Common Principle Underlying Passive Dynamic Walking and Running</i> , pp. 3208-3213. <a href="#">Attachment</a>		
Owaki, Dai		Tohoku Univ.
Osuka, Koichi		Kobe Univ.
Ishiguro, Akio		Tohoku Univ.
14:40-15:00		TuIIIT7.3
<i>Effects of Swing-Leg Retraction and Mass Distribution on Energy-Loss Coefficient in Limit Cycle Walking</i> , pp. 3214-3219.		
Asano, Fumihiko	Japan Advanced Inst. of Science and Tech.	
15:00-15:20		TuIIIT7.4
<i>The Instantaneous Leg Extension Model of Virtual Slope Walking</i> , pp. 3220-3225.		
Zhao, Mingguo		Tsinghua Univ.
Dong, Hao		Tsinghua Univ.
Zhang, Naiyao	Tsinghua Univ. Department of Automation	
15:20-15:40		TuIIIT7.5
<i>A Discrete-Time Control Strategy for Dynamic Walking of a Planar Under-Actuated Biped Robot</i> , pp. 3226-3231.		
Chemori, Ahmed		LIRMM
<b>TuIIIT8</b>		Mills 2
<b>Force Control</b> (Regular Sessions)		
Chair: Johansson, Rolf		LTH, Lund Univ.
Co-Chair: Ben Ouedzou, Fathi	Univ. of Versailles-Saint-Quentin	
14:00-14:20		TuIIIT8.1
<i>Modeling &amp; Characterizing Stochastic Actuator Arrays</i> , pp. 3232-3237.		
MacNair, David		Georgia Inst. of Tech.
Ueda, Jun		Georgia Inst. of Tech.
14:20-14:40		TuIIIT8.2
<i>Stability of Haptic Obstacle Avoidance and Force Interaction</i> , pp. 3238-3243.		
Rolf, Johansson		Lund Univ.
Annerstedt, Magnus		Lund Univ. Hospital
Robertsson, Anders		LTH, Lund Univ.
14:40-15:00		TuIIIT8.3
<i>Base Force/Torque Sensing for Position Based Cartesian Impedance Control</i> , pp. 3244-3250.		
Ott, Christian		Univ. of Tokyo
Nakamura, Yoshihiko		Univ. of Tokyo
15:00-15:20		TuIIIT8.4
<i>Proposal and Development of Arrayed Sole Sensor for Legged Robot and Contact Force Detection Using Neural Networks</i> , pp. 3251-3256.		
Aoyagi, Seiji		Kansai Univ.
Matsuda, Takashi		Kansai Univ.
Ikejiri, Yuuki		Kansai Univ.
Suzuki, Masato		Kansai Univ.

Inoue, Kenji Yamagata Univ.  
 15:20-15:40 TuIIIT8.5  
*Concept of a Novel Four-Wheel-Type Mobile Robot for Rough Terrain, RT-Mover*, pp. 3257-3264.  
 Nakajima, Shuro Chiba Inst. of Tech. Japan

**TuIIIT9** Mills 3

**Micro-Manipulators (Regular Sessions)**

Chair: Sitti, Metin Carnegie Mellon Univ.  
 Co-Chair: Liljebäck, Pål SINTEF IKT

14:00-14:20 TuIIIT9.1

*2D Micro Teleoperation with Force Feedback*, pp. 3265-3270.  
 Bolopion, Aude Univ. Pierre et Marie-Curie, Paris 6  
 Cagneau, Barthélemy Univ. Pierre et Marie-Curie, Paris6  
 Régnier, Stéphane Univ. Paris 6

14:20-14:40 TuIIIT9.2

*Automated Initial Setup Method for Two-Fingered Micro Hand System*, pp. 3271-3276.  
 Hatta, Izumi Osaka Univ.  
 Ohara, Kenichi Osaka Univ.  
 Arai, Tatsuo Osaka Univ.  
 Mae, Yasushi Osaka Univ.  
 Takubo, Tomohito Osaka Univ.

14:40-15:00 TuIIIT9.3

*Design of Semi-Decentralized Control Laws for Distributed-Air-Jet Micromanipulators by Reinforcement Learning*, pp. 3277-3283.  
 Matignon, Laetitia UMR CNRS 6174 - UFC / ENSMM / UTBM  
 Laurent, Guillaume ENSMM - Univ. de Franche-Comté  
 Lefort-Piat, Nadine Lab. d'Automatique de Besançon

15:00-15:20 TuIIIT9.4

*Microrosassembly of Complex and Solid 3D MEMS by 3D Vision-Based Control*, pp. 3284-3289. [Attachment](#)  
 Tamadazte, Brahim CNRS, UFC/ENSMM/UTBM  
 Lefort-Piat, Nadine Lab. d'Automatique de Besançon  
 Marchand, Eric Univ. de Rennes 1  
 Dembélé, Sounkalo Lab. d'Automatique de Besançon

15:20-15:40 TuIIIT9.5

*Development of Micro/Nano Displacement Sensor for Piezoelectric Actuator*, pp. 3290-3296.  
 Yu, Yong Kagoshima Univ.  
 Song, Bo Univ. of Science and Tech. of China  
 Ge, Yunjian Chinese Acad. of Sciences

**TuIIIT10** Mills 4

**Robotics in Hazardous Fields (Regular Sessions)**

Chair: Trincavelli, Marco Örebro Univ.  
 Co-Chair: Noakes, Mark W Oak Ridge National Lab.

14:00-14:20 TuIIIT10.1

*Self Calibration of Step-By-Step Based Climbing Robots*, pp. 3297-3303. [Attachment](#)  
 Tavakoli, Mahmoud Univ. of Coimbra  
 Marques, Lino Univ. of Coimbra  
 de Almeida, Anibal Univ. of Coimbra

14:20-14:40 TuIIIT10.2

*Large Scale Multi-Fingered End Effector Teleoperation*, pp. 3304-3310.  
 Hamel, William R. Univ. of Tennessee  
 Humphreys, Heather Georgia Inst. of Tech.  
 Nycz, Andrzej The Univ. of Tennessee  
 Park, Joong-kyoo The Univ. of Tennessee  
 Noakes, Mark W Oak Ridge National Lab.

14:40-15:00 TuIIIT10.3

*Online Classif. of Gases for Environmental Exploration*, pp. 3311-3316.  
 Trincavelli, Marco Örebro Univ.  
 Coradeschi, Silvia Örebro Univ.  
 Loutfi, Amy Örebro Univ.

15:00-15:20 TuIIIT10.4

*Mobile Robots for Offshore Inspection and Manipulation*, pp. 3317-3322.  
 Bengel, Matthias Fraunhofer IPA  
 Pfeiffer, Kai Fraunhofer IPA  
 Graf, Birgit Fraunhofer Inst. Manufacturing Engineering and Automation IP  
 Bubeck, Alexander Fraunhofer IPA  
 Verl, Alexander Fraunhofer-Gesellschaft

15:20-15:40 TuIIIT10.5

*Development of a Biped Line-Walking Mechanism for Power Transmission Line Inspection Purpose*, pp. 3323-3328.  
 Wang, Ludan Lab. of Intelligent Robot Engineering, KunShan Inst.

TullIT11		Mills 5
<b>Space Robotics II (Regular Sessions)</b>		
Chair: Schwendner, Jakob Co-Chair: Pugh, Stephen Medwyn	German Res. Center for Artificial Intelligence (DFKI) Univ. Aberystwyth	
14:00-14:20 <i>Autonomous Science Target Identification and Acquisition (ASTIA) for Planetary Exploration</i> , pp. 3329-3335.		TullIT11.1
Barnes, David Preston Pugh, Stephen Medwyn Tyler, Laurence Gethyn	Aberystwyth Univ. Univ. Aberystwyth Aberystwyth Univ.	
14:20-14:40 <i>A Rough--Terrain, Casting Robot for the ESA Lunar Robotics Challenge</i> , pp. 3336-3342.		TullIT11.2
Alicino, Simone Catalano, Manuel Bonomo, Fabio Belo, Felipe Grioli, Giorgio Schiavi, Riccardo Fagiolini, Adriano Bicchi, Antonio	Faculty of Engineering - Univ. of Pisa Faculty of Engineering - Univ. of Pisa Faculty of Engineering - Univ. of Pisa Univ. of Pisa Univ. di Pisa Univ. of Pisa Univ. of Pisa Univ. of Pisa	
14:40-15:00 <i>Slip Ratio for Lugged Wheel of Planetary Rover in Deformable Soil: Definition and Estimation</i> , pp. 3343-3348.		TullIT11.3
Ding, Liang Gao, Haibo Deng, Zongquan Yoshida, Kazuya Nagatani, Keiji	Harbin Inst. of Tech. Harbin Inst. of Tech. Harbin Inst. of Tech. Tohoku Univ. Tohoku Univ.	
15:00-15:20 <i>Multi-Modal Image Registration for Localization in Titan's Atmosphere</i> , pp. 3349-3354.		TullIT11.4
Ansar, Adnan Matthies, Larry	Jet Propulsion Lab. Caltech Jet Propulsion Lab.	
15:20-15:40 <i>CESAR: A Lunar Crater Exploration and Sample Return Robot</i> , pp. 3355-3360.		TullIT11.5
Schwendner, Jakob Grimminger, Felix Bartsch, Sebastian Kaupisch, Thilo Philipp Yüksel, Mehmed Bresser, Andreas Bessekon Akpo, Joel Seydel, Michael K.-G. Dieterle, Alexander Schmidt, Steffen Kirchner, Frank	German Res. Center for Artificial Intelligence (DFKI) German Res. Center for Artificial Intelligence German Res. Center for Artificial Intelligence DFKI DFKI DFKI DFKI DFKI DFKI DFKI Univ. of Bremen	
<b>TullIT12</b>		Mills 6
<b>Aerial Robotics II (Regular Sessions)</b>		
Chair: DeSouza, Guilherme Co-Chair: Olivares-Mendez, Miguel A.	Univ. of Missouri-Columbia Univ. Pol. de Madrid	
14:00-14:20 <i>Trinocular Ground System to Control UAVs</i> , pp. 3361-3367.		TullIT12.1
Martinez, Carol Campoy, Pascual Mondragón, Iván Fernando Olivares-Mendez, Miguel A.	UPM Computer Vision Group. Univ. Pol. de Madrid Computer Vision Group. Univ. Pol. de Madrid Univ. Pol. de Madrid	
14:20-14:40 <i>Fast and Robust Photomapping with an Unmanned Aerial Vehicle (UAV)</i> , pp. 3368-3373.		TullIT12.2
Buelow, Heiko Birk, Andreas	Jacobs Univ. Jacobs Univ.	
14:40-15:00 <i>GPS-Based Position Control and Waypoint Navigation System for Quadcopters</i> , pp. 3374-3379.		TullIT12.3
Puls, Tim Kemper, Markus Küke, Reimund Hein, Andreas	associated Inst. of the Univ. of oldenburg Univ. of Oldenburg Company Univ. of Oldenburg	
15:00-15:20 <i>On the Generation of Feasible Paths for Aerial Robots in Environments with Obstacles</i> , pp. 3380-3385.		TullIT12.4
Macharet, Douglas Guimarães	Univ. Federal de Minas Gerais	

Alves Neto, Armando  
Campos, Mario F. Montenegro  
15:20-15:40  
[A Stereo Vision System for UAV Guidance](#), pp. 3386-3391. [Attachment](#)  
Moore, Richard James Donald  
Thurrowgood, Saul  
Bland, Daniel Peter  
Soccol, Dean  
Srinivasan, Mandyam

Univ. Federal de Minas Gerais  
Federal Univ. of Minas Gerais  
TullIT12.5  
Univ. of Queensland  
Univ. of Queensland  
Univ. of Queensland  
Univ. of Queensland  
The Univ. of Queensland

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**TullIT13** Mills 7  
**Impedance and Force Control (Regular Sessions)**

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Chair: Wejinya, Uchechukwu C.  
Co-Chair: Aghili, Farhad  
14:00-14:20  
[A Practical Decoupled Stabilizer for Joint-Position Controlled Humanoid Robots](#), pp. 3392-3397. [Attachment](#)  
Kaynov, Dmitry  
Soueres, Philippe  
Pierro, Paolo  
Balaguer, Carlos  
14:20-14:40  
[Impact Forces in the Simulation of Simultaneous Impacts and Contacts in Multibody Systems with Friction](#), pp. 3398-3403.  
Flickinger, Daniel Montralio  
Bowling, Alan  
14:40-15:00  
[An Experimental Study and Modeling of Loading and Unloading of Nonlinear Viscoelastic Contacts](#), pp. 3404-3409.  
Tsai, Chia-Hung  
Kao, Imin  
Yoshimoto, Kayo  
Higashimori, Mitsuru  
Kaneko, Makoto  
15:00-15:20  
[Impedance Control of Manipulators Carrying a Heavy Payload](#), pp. 3410-3415.  
Aghili, Farhad  
15:20-15:40  
[A Compact Kick-And-Bounce Mobile Robot Powered by Unidirectional Impulse Force Generators](#), pp. 3416-3421. [Attachment](#)  
Tsuda, Takashi  
Mochiyama, Hiromi  
Fujimoto, Hideo

Univ. of Arkansas  
Canadian Space Agency  
TullIT13.1  
Univ. Carlos III of Madrid  
LAAS-CNRS  
Univ. Carlos III of Madrid  
Univ. Carlos III de Madrid  
TullIT13.2  
Univ. of Texas Arlington  
The Univ. of Texas at Arlington  
TullIT13.3  
SUNY@Stony Brook  
SUNY at Stony Brook  
Osaka Univ.  
Osaka Univ.  
Osaka Univ.  
TullIT13.4  
Canadian Space Agency  
TullIT13.5  
Univ. of Tsukuba  
Univ. of Tsukuba  
Nagoya Inst. of Tech.

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**TullIT14** Mills 8  
**Robot Programming (Regular Sessions)**

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Chair: Anderson, Monica  
Co-Chair: Pedrocchi, Nicola  
14:00-14:20  
[Using Real-Time Awareness to Manage Performance of Java Clients on Mobile Robots](#), pp. 3422-3428.  
McKenzie, Andrew  
Anderson, Monica  
Alexander, Quentin  
Dawson, Shameka  
14:20-14:40  
[A Component Based Design Framework for Robot Software Architecture](#), pp. 3429-3434.  
Wei, Hongxing  
Duan, Xinming  
Li, Shiyi  
Tong, Guofeng  
Wang, Tianmiao  
14:40-15:00  
[Safe Obstacle Avoidance for Industrial Robot Working without Fences](#), pp. 3435-3440.  
Pedrocchi, Nicola  
Malosio, Matteo  
Molinari Tosatti, Lorenzo  
15:00-15:20  
[Synchronization on a Segment without Localization: Algorithm and Applications](#), pp. 3441-3446.  
Wang, Hua  
Guo, Yi  
15:20-15:40  
[High-Fidelity Radio Communications Modeling for Multi-Robot Simulation](#), pp. 3447-3452.  
Shell, Dylan

The Univ. of Alabama  
National Council of Res.  
TullIT14.1  
The Univ. of Alabama  
The Univ. of Alabama  
The Univ. of Alabama  
Univ. of Alabama  
TullIT14.2  
Beihang Univ.  
Beijing Univ. of Aeronautics and Astronautics  
Beijing Univ. of Aeronautics and Astronautics  
Northeastern Univ.  
Beihang Univ.  
TullIT14.3  
National Council of Res.  
National Res. Council  
National Council of Res.  
TullIT14.4  
Stevens Inst. of Tech.  
Stevens Inst. of Tech.  
TullIT14.5  
Univ. of Southern California

<b>TullIT15</b>		Sterling 6
<b>Robot Localization and Mapping II (Regular Sessions)</b>		
Chair: Zhou, Yu		SUNY at Stony Brook
Co-Chair: Quinlan, Michael		Univ. of Texas at Austin
14:00-14:20		TullIT15.1
<i>Vehicle Localization Integrity Based on Trajectory Monitoring</i> , pp. 3453-3458.		
Le Marchand, Olivier		Univ. of Tech. of Compiegne
Bonnifait, Philippe		Univ. of Tech. of Compiegne
Ibanez-Guzman, Javier		Renault
Bétaille, David		Lab. Central des Ponts et Chaussées
14:20-14:40		TullIT15.2
<i>Bayesian Robot Localization with Action-Associated Sparse Appearance-Based Map in a Dynamic Indoor Environment</i> , pp. 3459-3466.		
Park, Young-Bin		hanyang Univ.
Suh, Il Hong		Hanyang Univ.
Choi, Byung-Uk		hanyang Univ.
14:40-15:00		TullIT15.3
<i>Bayesian Robot Localization Using Spatial Object Contexts</i> , pp. 3467-3473.		
Yi, Chuho		Hanyang Univ.
Suh, Il Hong		Hanyang Univ.
Lim, Gi Hyun		Hanyang Univ.
Choi, Byung-Uk		hanyang Univ.
15:00-15:20		TullIT15.4
<i>An Efficient Least-Squares Trilateration Algorithm for Mobile Robot Localization</i> , pp. 3474-3479.		
Zhou, Yu		SUNY at Stony Brook
15:20-15:40		TullIT15.5
<i>Improving Particle Filter Performance Using SSE Instructions</i> , pp. 3480-3485.		
Djeu, Peter		Univ. of Texas at Austin
Quinlan, Michael		Univ. of Texas at Austin
Stone, Peter		Univ. of Texas at Austin
<b>TullIT16</b>		Regency D
<b>Visual Odometry (Regular Sessions)</b>		
Chair: Civera, Javier		Univ. de Zaragoza
Co-Chair: Kuroda, Yoji		Meiji Univ.
14:00-14:20		TullIT16.1
<i>On the Error Analysis of Vertical Line Pair-Based Monocular Visual Odometry in Urban Area</i> , pp. 3486-3491.		
Zhang, Ji		Texas A&M Univ.
Song, Dezhen		Texas A&M Univ.
14:20-14:40		TullIT16.2
<i>Visual Odometry with Effective Feature Sampling; for Untextured Outdoor Environment</i> , pp. 3492-3497.		
Tamura, Yuya		Meiji Univ.
Suzuki, Masataka		Meiji Univ.
Ishii, Akira		Meiji Univ.
Kuroda, Yoji		Meiji Univ.
14:40-15:00		TullIT16.3
<i>1-Point RANSAC for EKF-Based Structure from Motion</i> , pp. 3498-3504.		
Civera, Javier		Univ. de Zaragoza
Grasa, Oscar G.		Univ. de Zaragoza
Davison, Andrew J		Imperial Coll. London
Montiel, J.M.M		Univ. de Zaragoza
15:00-15:20		TullIT16.4
<i>Appearance Contrast for Fast, Robust Trail-Following</i> , pp. 3505-3512.		
Rasmussen, Christopher		Univ. of Delaware
Lu, Yan		Univ. of Delaware
Kocamaz, Mehmet		Univ. of Delaware
15:20-15:40		TullIT16.5
<i>Visual Odometry for the Autonomous City Explorer</i> , pp. 3513-3518. <a href="#">Attachment</a>		
Zhang, Tianguang		Tech. Univ. München
Liu, Xiaodong		Tech. Univ. Muenchen
Kühnlenz, Kolja		Tech. Univ. München
Buss, Martin		Tech. Univ. München
<b>TuIVT1</b>		Grand A
<b>Humanoid Robot Action (Regular Sessions)</b>		
Chair: Kuffner, James		Carnegie Mellon Univ.
Co-Chair: Sugihara, Tomomichi		Kyushu Univ.

16:00-16:20		TuIVT1.1
<a href="#">Interactive Control of Humanoid Navigation</a> , pp. 3519-3524. <a href="#">Attachment</a>		
Chestnutt, Joel	National Inst. of Advanced Industrial Science and Tech.	
Nishiwaki, Koichi	National Inst. of AIST	
Kuffner, James	Carnegie Mellon Univ.	
Kagami, Satoshi	National Inst. of AIST	
16:20-16:40		TuIVT1.2
<a href="#">Self-Consistent Automatic Navigation of COM and Feet for Realtime Humanoid Robot Steering</a> , pp. 3525-3530.		
Kobayashi, Hidehito, Hidehito	Kyushu Univ.	
Sugihara, Tomomichi	Kyushu Univ.	
16:40-17:00		TuIVT1.3
<a href="#">Online Motion Planning for HOAP-2 Humanoid Robot Navigation</a> , pp. 3531-3536.		
Elmoggy, Mohammed	Hamburg Univ.	
Habel, Christopher	Univ. of Hamburg	
Zhang, Jianwei	Univ. of Hamburg	
17:00-17:20		TuIVT1.4
<a href="#">Composing and Coordinating Body Models of Arbitrary Connectivity and Redundancy: A Biomimetic, Field Computing Approach</a> , pp. 3537-3542.		
Mohan, Vishwanathan	Istituto Italiano di Tecnologia	
Metta, Giorgio	Univ. of Genoa	
Morasso, Pietro Giovanni	Univ. of Genoa	
Zenzeri, Jacopo	Univ. of Genoa	
17:20-17:40		TuIVT1.5
<a href="#">Biped Navigation in Rough Environments Using On-Board Sensing</a> , pp. 3543-3548. <a href="#">Attachment</a>		
Chestnutt, Joel	National Inst. of Advanced Industrial Science and Tech.	
Takaoka, Yutaka	Toyota Motor Corp.	
Suga, Keisuke	TOYOTA motor Corp.	
Nishiwaki, Koichi	National Inst. of AIST	
Kuffner, James	Carnegie Mellon Univ.	
Kagami, Satoshi	National Inst. of AIST	

<b>TuIVT2</b>		Grand B
<b>Rehabilitation Robotics III (Regular Sessions)</b>		
Chair: Grigorescu, Sorin Mihai		Univ. of Bremen
Co-Chair: De Silva, Ravindra Senarathna		Toyota Tech. Inst.
16:00-16:20		TuIVT2.1
<a href="#">Physiological Musculoskeletal Model Identification for the Lower Limbs Control of Paraplegic under Implanted FES</a> , pp. 3549-3554.		
Benoussaad, Mourad	LIRMM UMR CNRS-Univ. of Montpellier2	
Guiraud, David	INRIA	
Poignet, Philippe	LIRMM UMR 5506 CNRS UM2	
16:20-16:40		TuIVT2.2
<a href="#">Evaluation of a Robot-Assisted Rehabilitation System with Assist-As-Needed and Visual Error Augmentation Training Methods</a> , pp. 3555-3560.		
Wang, Furui	Vanderbilt Univ.	
Erol Barkana, Duygun	Yeditepe Univ.	
Sarkar, Nilanjan	Vanderbilt Univ.	
16:40-17:00		TuIVT2.3
<a href="#">Therapeutic-Assisted Robot for Children with Autism</a> , pp. 3561-3567.		
De Silva, Ravindra Senarathna	Toyota Tech. Inst.	
Tadano, Katsunori	Toyota Tech. Inst.	
Saito, Azusa	Univ. of Aizu	
Lambacher, Stephen G.	Aoyama Gakuin Univ.	
Higashi, Masatake	Toyota Tech. Inst.	
17:00-17:20		TuIVT2.4
<a href="#">An Assistive Mask with Biorobotic Control to Enhance Facial Expressiveness</a> , pp. 3568-3573.		
Jayatilake, Prabhath Dushyantha	Univ. of Tsukuba	
Takahashi, Keisuke	Univ. of Tsukuba	
Suzuki, Kenji	Univ. of Tsukuba	
17:20-17:40		TuIVT2.5
<a href="#">ROVIS: RObust Machine Vision for Service Robotic System FRIEND</a> , pp. 3574-3581.		
Grigorescu, Sorin Mihai	Univ. of Bremen	
Ristic-Durrant, Danijela	Univ. of Bremen	
Gräser, Axel	Univ. of Bremen	

<b>TuIVT3</b>		Grand C
<b>Mapping IV (Regular Sessions)</b>		
Chair: Yuta, Shinichi		Univ. of Tsukuba
Co-Chair: Choi, Jinwoo		POSTECH

16:00-16:20		TuIVT3.1
<a href="#">Incremental Topological Modeling Using Sonar Gridmap in Home Environment</a> , pp. 3582-3587.		
Choi, Jinwoo		POSTECH
Choi, Minyong		POSTECH
Chung, Wan Kyun		POSTECH
16:20-16:40		TuIVT3.2
<a href="#">Vehicle 3D Localization in Mountainous Woodland Environments</a> , pp. 3588-3594.		
Morales Saiki, Luis Yoichi	U of Tsukuba, Intelligent Robot Lab.	
Tsubouchi, Takashi	Univ. of Tsukuba	
Yuta, Shinichi	Univ. of Tsukuba	
16:40-17:00		TuIVT3.3
<a href="#">An Experimental Assessment of the HSM3D Algorithm for Sparse and Colored Data</a> , pp. 3595-3600.		
Carpin, Stefano	Univ. of California, Merced	
Censi, Andrea	California Inst. of Tech.	
17:00-17:20		TuIVT3.4
<a href="#">Model-Based and Learned Semantic Object Labeling in 3D Point Cloud Maps of Kitchen Environments</a> , pp. 3601-3608. <a href="#">Attachment</a>		
Rusu, Radu Bogdan	Tech. Univ. Muenchen	
Marton, Zoltan-Csaba	Tech. Univ. Muenchen	
Blodow, Nico	Computer Science Department, Tech. Univ.	
Holzbach, Andreas	Tech. Univ. Muenchen	
Beetz, Michael	Tech. Univ. München	
17:20-17:40		TuIVT3.5
<a href="#">Improving Topological Maps for Safer and Robust Navigation</a> , pp. 3609-3614.		
Murillo, Ana Cristina	Univ. of Zaragoza	
Abad, Pablo	Univ. of Zaragoza	
Guerrero, J.J.	Univ. de Zaragoza	
Sagues, Carlos	Univ. de Zaragoza	

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<b>TuIVT4</b>		Grand F
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<b>Snake-Like Robot (Regular Sessions)</b>		
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Chair: Ma, Shugen	Shenyang Inst. of Automation, Chinese Acad. of Sciences	
Co-Chair: Takita, Yoshihiro	National Defense Acad.	
16:00-16:20		TuIVT4.1
<a href="#">Controllability Analysis of Planar Snake Robots Influenced by Viscous Ground Friction</a> , pp. 3615-3622.		
Liljebäck, Pål	SINTEF IKT	
Pettersen, Kristin Y.	Norwegian Univ. of Science and Tech.	
Stavdahl, R̥yvind	Norwegian Univ. of Science and Tech. (NTNU)	
Gravdahl, Jan Tommy	Norwegian Univ. of Science and Tech.	
16:20-16:40		TuIVT4.2
<a href="#">Stability Analysis of Snake Robot Locomotion Based on Poincaré Maps</a> , pp. 3623-3630.		
Liljebäck, Pål	SINTEF IKT	
Pettersen, Kristin Y.	Norwegian Univ. of Science and Tech.	
Stavdahl, R̥yvind	Norwegian Univ. of Science and Tech. (NTNU)	
Gravdahl, Jan Tommy	Norwegian Univ. of Science and Tech.	
16:40-17:00		TuIVT4.3
<a href="#">Dynamic Modeling for Locomotion-Manipulation of a Snake-Like Robot by Using Geometric Methods</a> , pp. 3631-3636.		
Wang, Zhifeng	Shenyang Inst. of Automation, CAS	
Ma, Shugen	Ritsumeikan Univ.	
Li, Bin	Shenyang Inst. of Automation	
Wang, Yuechao	Shenyang Inst. of Automation	
17:00-17:20		TuIVT4.4
<a href="#">An Electricity-Free Snake-Like Propulsion Mechanism Driven and Controlled by Fluids</a> , pp. 3637-3642. <a href="#">Attachment</a>		
Date, Hisashi	National Defense Acad.	
Takita, Yoshihiro	National Defense Acad.	
17:20-17:40		TuIVT4.5
<a href="#">Modeling and Path-Following for a Snake-Robot with Active Wheels</a> , pp. 3643-3650.		
Murugendran, Boathy	Norwegian Univ. of Science and Tech.	
Transeth, Aksel Andreas	SINTEF ICT	
Fjerdingen, Sigurd Aksnes	SINTEF ICT	

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<b>TuIVT5</b>		Grand G
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<b>Sensing Systems and Algorithms (Regular Sessions)</b>		
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Chair: Ohara, Kenichi	Osaka Univ.	
Co-Chair: Arai, Tatsuo	Osaka Univ.	
16:00-16:20		TuIVT5.1
<a href="#">Joint Calibration of Multiple Sensors</a> , pp. 3651-3658. <a href="#">Attachment</a>		
Le, Quoc	Stanford Univ.	
Ng, Andrew	Stanford Univ.	



16:20-16:40		TuIVT5.2
<a href="#">2.5D Infrared Range and Bearing System for Collective Robotics</a> , pp. 3659-3664.	Roberts, James F. Stirling, Timothy Zufferey, Jean-Christophe Floreano, Dario	Ec. Pol. Fédérale de Lausanne EPFL EPFL Ec. Pol. Federal, Lausanne
16:40-17:00		TuIVT5.3
<a href="#">A Method of Target Recognition from Remote Sensing Images</a> , pp. 3665-3670.	Fu, Yili Xing, Kun Han, Xianwei Wang, Shuguo	Harbin Inst. of Tech. Harbin Inst. of Tech. Harbin Inst. of Tech. Harbin Inst. of Tech.
17:00-17:20		TuIVT5.4
<a href="#">Development of High-Speed and Real-Time Vision Platform, H3 Vision</a> , pp. 3671-3678. <a href="#">Attachment</a>	Ishii, Idaku Taniguchi, Taku Sukenobe, Ryo Yamamoto, Kenkichi	Hiroshima Univ. Hiroshima Univ. Hiroshima Univ. Hiroshima Univ.
17:20-17:40		TuIVT5.5
<a href="#">Detection Sensor for Flowing Particles in Micro Channel</a> , pp. 3679-3684.	Okuda, Ichiro Arai, Tatsuo Takubo, Tomohito Hasegawa, Akiyuki Mae, Yasushi Ohara, Kenichi	Osaka Univ. Osaka Univ. Osaka Univ. Osaka Univ. Osaka Univ. Osaka Univ.
<b>TuIVT6</b>		Grand H
<b>Haptics IV (Regular Sessions)</b>		
Chair: Carignan, Craig		Georgetown Univ.
Co-Chair: Niemeyer, Gunter		Willow Garage and Stanford Univ.
16:00-16:20		TuIVT6.1
<a href="#">Towards On-Line Fingertip Bio-Impedance Identification for Enhancement of Electro-Tactile Rendering</a> , pp. 3685-3690.	Gregory, John Xi, Ning Shen, Yantao	Michigan State Univ. Michigan State Univ. Univ. of Nevada, Reno
16:20-16:40		TuIVT6.2
<a href="#">A Tendon Skeletal Finger Model for Evaluation of Pinching Effort</a> , pp. 3691-3696.	Ikeda, Atsutoshi Kurita, Yuichi Ogasawara, Tsukasa	Nara Inst. of Science and Tech. Nara Inst. of Science and Tech. Nara Inst. of Science and Tech.
16:40-17:00		TuIVT6.3
<a href="#">Development of an Exoskeleton Haptic Interface for Virtual Task Training</a> , pp. 3697-3702.	Carignan, Craig Tang, Jonathan Roderick, Stephen	Georgetown Univ. ISIS Center Georgetown Univ. Univ. of Maryland
17:00-17:20		TuIVT6.4
<a href="#">An Exoskeleton Master Hand for Controlling DLR/HIT Dexterous Hand</a> , pp. 3703-3708.	Fang, Honggen Xie, Zongwu Liu, Hong	Harbin Inst. of Tech. Harbin Inst. of Tech. Harbin Inst. of Tech.
17:20-17:40		TuIVT6.5
<a href="#">Improved Multi-DOF Haptics with Spring Drive Amplifiers</a> , pp. 3709-3714.	Wilson, Robert Niemeyer, Gunter	Stanford Univ. Willow Garage and Stanford Univ.
<b>TuIVT7</b>		Mills 1
<b>Social Human-Robot Interaction (Regular Sessions)</b>		
Chair: Xiao, Jizhong		City Coll. of New York
Co-Chair: Wejinya, Uchechukwu C.		Univ. of Arkansas
16:00-16:20		TuIVT7.1
<a href="#">Real-Time Social Touch Gesture Recognition for Sensate Robots</a> , pp. 3715-3720.	Knight, Heather	MIT
16:20-16:40		TuIVT7.2
<a href="#">Psychological Effects on Interpersonal Communication by Bystander Android Using Motions Based on Human-Like Needs</a> , pp. 3721-3726.	Takano, Eri Chikaraishi, Takenobu Matsumoto, Yoshio Nakamura, Yutaka	Osaka Univ. Osaka Univ. Osaka Univ. Osaka Univ.

Ishiguro, Hiroshi	Osaka Univ.
Sugamoto, Kazuomi	Osaka Univ.
16:40-17:00	TuIVT7.3
<i>Lexical Entrainment in Human-Robot Interaction: - Can Robots Entrain Human Vocabulary? -</i> , pp. 3727-3734. <a href="#">Attachment</a>	
Iio, Takamasa	ATR/Doshisha Univ.
Shiomi, Masahiro	ATR
Shinozawa, Kazuhiko	Advanced Telecommunications Res. Inst.
Miyashita, Takahiro	ATR
Akimoto, Takaaki	ATR
Hagita, Norihiro	ATR
17:00-17:20	TuIVT7.4
<i>Gendered Voice and Robot Entities: Perceptions and Reactions of Male and Female Subjects</i> , pp. 3735-3741.	
Crowell, Charles R.	Univ. of Notre Dame
Scheutz, Matthias	Indiana Univ. Bloomington
Schermerhorn, Paul	Indiana Univ.
Villano, Michael	Univ. of Notre Dame
17:20-17:40	TuIVT7.5
<i>Evaluation of Affective State Estimations Using an On-Line Reporting Device During Human-Robot Interactions</i> , pp. 3742-3749.	
Zoghbi, Susana	Univ. of British Columbia
Kulic, Dana	Univ. of Waterloo
Croft, Elizabeth	Univ. of British Columbia
Van der Loos, H.F. Machiel	Univ. of British Columbia (UBC)

<b>TuIVT8</b>	Mills 2
<b>Formation Planning and Control (Regular Sessions)</b>	
Chair: Kyriakopoulos, Kostas	National Tech. Univ. of Athens
Co-Chair: Lien, Jyh-Ming	George Mason Univ.
16:00-16:20	TuIVT8.1
<i>A Discrete Grid Abstraction for Formation Control in the Presence of Obstacles</i> , pp. 3750-3755.	
Miklic, Damjan	Univ. of Zagreb
Bogdan, Stjepan	Univ. of Zagreb
Fierro, Rafael	Univ. of New Mexico
Nestic, Sanjin	Univ. of Zagreb
16:20-16:40	TuIVT8.2
<i>Decentralized Lattice Formation Control for Micro Robotic Swarms</i> , pp. 3756-3761.	
Lionis, Grigoris	National Tech. Univ. of Athens
Kyriakopoulos, Kostas	National Tech. Univ. of Athens
16:40-17:00	TuIVT8.3
<i>Potential Based Control Strategy for Arbitrary Shape Formations of Mobile Robots</i> , pp. 3762-3767.	
Sabattini, Lorenzo	Univ. of Modena and Reggio Emilia
Secchi, Cristian	Univ. of Modena & Reggio Emilia
Fantuzzi, Cesare	Univ. di Modena e Reggio Emilia
17:00-17:20	TuIVT8.4
<i>Behavior-Based Motion Planning for Group Control</i> , pp. 3768-3773.	
Vo, Christopher	George Mason Univ.
Harrison, Joseph F.	George Mason Univ.
Lien, Jyh-Ming	George Mason Univ.
17:20-17:40	TuIVT8.5
<i>A Dynamic Priority Strategy in Decentralized Motion Planning for Formation Forming of Multiple Mobile Robots</i> , pp. 3774-3779.	
Liu, Shuang	Suzhou Res. Inst. of City Univ. of HongKongand the
Sun, Dong	City Univ. of Hong Kong
Zhu, Changan	Univ. of Science and Tech. of China
Shang, Wen	City Univ. of Hong Kong

<b>TuIVT9</b>	Mills 3
<b>Surveillance with Vision (Regular Sessions)</b>	
Chair: Song, Dezhen	Texas A&M Univ.
Co-Chair: Yamashita, Atsushi	Shizuoka Univ.
16:00-16:20	TuIVT9.1
<i>Issues and Solutions in Surveillance Camera Placement</i> , pp. 3780-3785.	
Fehr, Duc	Univ. of Minnesota
Fiore, Loren	UMN
Papanikolopoulos, Nikos	Univ. of Minnesota
16:20-16:40	TuIVT9.2
<i>Real Time Tracking Using an Active Pan-Tilt-Zoom Network Camera</i> , pp. 3786-3793. <a href="#">Attachment</a>	
Dinh, Thang	Univ. of Southern California
Yu, Qian	Univ. of Southern California
Medioni, Gerard	Univ. of Southern California

16:40-17:00		TuIVT9.3
<i>Noises Removal from Image Sequences Acquired with Moving Camera by Estimating Camera Motion from Spatio-Temporal Information</i> , pp. 3794-3801. <a href="#">Attachment</a>		
Yamashita, Atsushi		Shizuoka Univ.
Fukuchi, Isao		Shizuoka Univ.
Kaneko, Toru		Shizuoka Univ.
17:00-17:20		TuIVT9.4
<i>Systems and Algorithms for Autonomously Simultaneous Observation of Multiple Objects Using Robotic PTZ Cameras Assisted by a Wide-Angle Camera</i> , pp. 3802-3807.		
Xu, Yiliang		Texas A&M Univ.
Song, Dezhen		Texas A&M Univ.
17:20-17:40		TuIVT9.5
<i>Hopping Odometry: Motion Estimation Using Selective Vision</i> , pp. 3808-3813.		
So, Edmond Wai Yan		The Graduate Univ. for Advanced Studies
Yoshimitsu, Tetsuo		Japan Aerospace Exploration Agency
Kubota, Takashi		JAXA ISAS

<b>TuIVT10</b>		Mills 4
<b>Advanced Industrial Robot Applications</b> (Invited Sessions)		
Chair: Chen, Heping		ABB Inc.
16:00-16:20		TuIVT10.1
<i>Robotic Wheel Loading Process in Automotive Manufacturing Automation</i> , pp. 3814-3819.		
Chen, Heping		ABB Inc.
Eakins, William		ABB Inc.
Wang, Jianjun		ABB Inc.
Zhang, George		ABB Corp. Res. Center
Fuhlbrigge, Thomas		ABB Inc.
16:20-16:40		TuIVT10.2
<i>Robotic De-Palletizing Using Uncalibrated Vision and 3D Laser-Assisted Image Analysis</i> , pp. 3820-3825.		
Zhang, Biao		ABB Inc.
Skaar, Steven B.		Univ. of Notre Dame
16:40-17:00		TuIVT10.3
<i>Improving Machining Accuracy with Robot Deformation Compensation</i> , pp. 3826-3831.		
Wang, Jianjun		ABB Inc.
Zhang, Hui		ABB
Fuhlbrigge, Thomas		ABB Inc.
17:00-17:20		TuIVT10.4
<i>Objective Metric Study for DOE-Based Parameter Optimization in Robotic Torque Converter Assembly</i> , pp. 3832-3837.		
Gravel, David		Ford Motor Company
Zhang, George		ABB Corp. Res. Center
Zhang, Biao		ABB Inc.
17:20-17:40		TuIVT10.5
<i>Development and Sensitivity Analysis of a Portable Calibration System for Joint Offset of Industrial Robot</i> , pp. 3838-3843.		
Liu, Yong		Michigan State Univ.
Xi, Ning		Michigan State Univ.
Zhao, Jianguo		Michigan State Univ.
Nieves-Rivera, Erick		Michigan State Univ.
Jia, Yunyi		Michigan State Univ.
Gao, Bingtuan		Michigan State Univ.
Lu, Jun		Michigan State Univ.

<b>TuIVT11</b>		Mills 5
<b>Networked Robots II</b> (Regular Sessions)		
Chair: Sanfeliu, Alberto		Univ. Pol. de Catalunya
Co-Chair: Isler, Volkan		Univ. of Minnesota
16:00-16:20		TuIVT11.1
<i>Task Oriented Control of Smart Camera Systems in the Context of Mobile Service Robots</i> , pp. 3844-3849.		
Bistry, Hannes		Univ. of Hamburg, Germany
Zhang, Jianwei		Univ. of Hamburg
16:20-16:40		TuIVT11.2
<i>Integrating Asynchronous Observations for Mobile Robot Position Tracking in Cooperative Environments</i> , pp. 3850-3855. <a href="#">Attachment</a>		
Corominas Murtra, Andreu		CSIC-UPC
Mirats Tur, Josep M.		CSIC-UPC
Sanfeliu, Alberto		Univ. Pol. de Catalunya
16:40-17:00		TuIVT11.3
<i>Hopping Sensor Relocation in Rugged Terrains</i> , pp. 3856-3861.		
Pei, Yuanteng		Michigan State Univ.
Cintron, Fernando		Michigan State Univ.
Mutka, Matt		Michigan State University

Zhao, Jianguo	Michigan State Univ.
Xi, Ning	Michigan State Univ.
17:00-17:20	TuIVT11.4
<i>A Body Sensor Network for Tracking and Monitoring of Functional Arm Motion</i> , pp. 3862-3867.	
Nguyen, Kim Doang	Nanyang Tech. Univ.
Chen, I-Ming	Nanyang Tech. Univ.
Luo, Zhiqiang	Nanyang Tech. Univ.
Yeo, Song Huat	Nanyang Tech. Univ.
Duh, Henry	National Univ. of Singapore
17:20-17:40	TuIVT11.5
<i>Data Gathering Tours for Mobile Robots</i> , pp. 3868-3873.	
Bhadauria, Deepak	Univ. of Minnesota
Isler, Volkan	Univ. of Minnesota

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<b>TuIVT12</b>	Mills 6
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<b>Aerial Robotics III (Regular Sessions)</b>	
Chair: Nonami, Kenzo	Chiba Univ.
Co-Chair: Campos, Mario F. Montenegro	Federal Univ. of Minas Gerais
16:00-16:20	TuIVT12.1
<i>An Experimental Study of Hierarchical Autopilot for Untrimmed Hingeless Helicopters</i> , pp. 3874-3879. <a href="#">Attachment</a>	
Lau, Tak Kit	The Chinese Univ. of Hong Kong
Liu, Yunhui	Chinese Univ. of Hong Kong
Lin, Kai Wun	The Chinese Univ. of Hong Kong
16:20-16:40	TuIVT12.2
<i>UAV Global Pose Estimation by Matching Forward-Looking Aerial Images with Satellite Images</i> , pp. 3880-3887.	
Son, Kil-Ho	ADD
Hwang, Youngbae	KAIST
Kweon, In So	KAIST
16:40-17:00	TuIVT12.3
<i>A Visual Navigation System for Autonomous Flight of Micro Air Vehicles</i> , pp. 3888-3893.	
Kendoul, Farid	Chiba Univ.
Nonami, Kenzo	Chiba Univ.
17:00-17:20	TuIVT12.4
<i>A Path Planning Algorithm for UAVs with Limited Climb Angle</i> , pp. 3894-3899.	
Alves Neto, Armando	Univ. Federal de Minas Gerais
Campos, Mario F. Montenegro	Federal Univ. of Minas Gerais
17:20-17:40	TuIVT12.5
<i>Autonomous Altitude Estimation of a UAV Using a Single Onboard Camera</i> , pp. 3900-3905.	
Cherian, Anoop	U. of Minnesota
Andersh, Jonathan	Univ. of Minnesota
Morellas, Vassilios	U. of Minnesota
Papanikolopoulos, Nikos	Univ. of Minnesota
Mettler, Bernard	Univ. of Minnesota

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<b>TuIVT13</b>	Mills 7
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<b>Motion Planning for Mobile Robots (Regular Sessions)</b>	
Chair: Xiao, Jizhong	City Coll. of New York
Co-Chair: Zhu, Chun	Oklahoma State Univ.
16:00-16:20	TuIVT13.1
<i>Visual Steering of UAV in Unknown Environments</i> , pp. 3906-3911.	
Yuan, Chunrong	Eberhard Karls Univ. of Tübingen
Recktenwald, Fabian	Univ. of Tübingen
Mallot, Hanspeter	Eberhard Karls Univ. of Tübingen
16:20-16:40	TuIVT13.2
<i>Finding and Exploiting Goal Opportunities in Real-Time During Plan Execution</i> , pp. 3912-3917.	
Schermerhorn, Paul	Indiana Univ.
Benton, J.	Arizona State Univ.
Scheutz, Matthias	Indiana Univ. Bloomington
Talamadupula, Kartik	Arizona State Univ.
Kambhampati, Subbarao	Arizona State Univ.
16:40-17:00	TuIVT13.3
<i>High-Speed Planning and Reducing Memory Usage of a Precomputed Search Tree Using Pruning</i> , pp. 3918-3923.	
Suzuki, Yumiko	Nara Inst. of Science and Tech.
Thompson, Simon	National Inst. of Advanced Industrial Science
Kagami, Satoshi	National Inst. of AI&ST
17:00-17:20	TuIVT13.4
<i>Efficient Cost Computation in Cost Map Planning for Non-Circular Robots</i> , pp. 3924-3930.	
King, Jennifer	Univ. of Pennsylvania
Likhachev, Maxim	Univ. of Pennsylvania

17:20-17:40		TuIVT13.5
<a href="#">Planning-Based Prediction for Pedestrians</a> , pp. 3931-3936. <a href="#">Attachment</a>		
Ziebart, Brian		Carnegie Mellon Univ.
Ratliff, Nathan		Toyota Tech. Inst.
Gallagher, Garratt		Carnegie Mellon Univ.
Mertz, Christoph		CMU
Peterson, Kevin M		Carnegie Mellon Univ.
Bagnell, James		Carnegie Mellon Univ.
Hebert, Martial		CMU
Dey, Anind		Carnegie Mellon Univ.
Srinivasa, Siddhartha		Intel Res. Pittsburgh

<b>TuIVT14</b>		<b>Mills 8</b>
<b>Artificial Intelligence (Regular Sessions)</b>		
Chair: Christensen, Henrik Iskov		Georgia Inst. of Tech.
Co-Chair: Choi, Dongkyu		CSLI, Stanford Univ.
16:00-16:20		TuIVT14.1
<a href="#">Mathematical Modeling of the Prediction Mechanism of Sensory Processing in the Context of a Bayes Filter</a> , pp. 3937-3942.		
Zhang, Guoxuan		Hanyang Univ.
Suh, Il Hong		Hanyang Univ.
16:20-16:40		TuIVT14.2
<a href="#">Grounding of Word Meanings in Multimodal Concepts Using LDA</a> , pp. 3943-3948.		
Nakamura, Tomoaki		Univ. of Electro-Communications
Nagai, Takayuki		Univ. of Electro-Communications
Iwahashi, Naoto		National Inst. of Information and Communications Technology
16:40-17:00		TuIVT14.3
<a href="#">Knowledge-Based Control of a Humanoid Robot</a> , pp. 3949-3954.		
Choi, Dongkyu		CSLI, Stanford Univ.
Kang, Yeonsik		KIST
Lim, Heonyoung		Seoul National Univ.
You, Bum Jae		KIST
17:00-17:20		TuIVT14.4
<a href="#">Decomposition Algorithm for Global Reachability Analysis on a Time-Varying Graph with an Application to Planetary Exploration</a> , pp. 3955-3960.		
Kuwata, Yoshiaki		JPL
Blackmore, Lars		Jet Propulsion Lab. California Inst. of
Wolf, Michael		NASA Jet Propulsion Lab.
Fathpour, Nanaz		Jet Propulsion Lab.
Newman, Claire		California Inst. of Tech.
Elfes, Alberto		Jet Propulsion Lab.
17:20-17:40		TuIVT14.5
<a href="#">Adding Diagnostics to Intelligent Robot Systems</a> , pp. 3961-3967.		
Chandrababu, Sneha		Georgia Tech.
Christensen, Henrik Iskov		Georgia Inst. of Tech.

<b>TuIVT15</b>		<b>Sterling 6</b>
<b>Robot Localization II (Regular Sessions)</b>		
Chair: Parnichkun, Manukid		Asian Inst. of Tech.
Co-Chair: Bori, Francesco		Univ. degli Studi
16:00-16:20		TuIVT15.1
<a href="#">A Fitness-Sharing Based Genetic Algorithm for Collaborative Multi Robot Localization</a> , pp. 3968-3973. <a href="#">Attachment</a>		
Gasparri, Andrea		Univ. degli Studi Roma Tre
Panzieri, Stefano		Univ. Roma Tre
Bori, Francesco		Univ. degli Studi "Roma Tre"
16:20-16:40		TuIVT15.2
<a href="#">Mutual Localization in a Multi-Robot System with Anonymous Relative Position Measures</a> , pp. 3974-3980. <a href="#">Attachment</a>		
Franchi, Antonio		Univ. di Roma
Oriolo, Giuseppe		Univ. di Roma "La Sapienza"
Stegagno, Paolo		Univ. La Sapienza, Roma
16:40-17:00		TuIVT15.3
<a href="#">Intelligent Vehicle Localization Using GPS, Compass, and Machine Vision</a> , pp. 3981-3986.		
Limsoonthrakul, Somphop		Asian Inst. of Tech.
Dailey, Matthew N.		Asian Inst. of Tech.
Parnichkun, Manukid		Asian Inst. of Tech.
17:00-17:20		TuIVT15.4
<a href="#">Hierarchical Appearance-Based Classifiers for Qualitative Spatial Localization</a> , pp. 3987-3992.		
Fazl-Ersi, Ehsan		York Univ.
Elder, James		York Univ.
Tsotsos, John		York Univ.

17:20-17:40 TuIVT15.5  
*Coarse-To-Fine Global Localization for Mobile Robots with Hybrid Maps of Objects and Spatial Layouts*, pp. 3993-4000.  
 Park, Soonyong Korea Inst. of Science and Tech.  
 Park, Sung-Kee Korea Inst. of Science and Tech.  
 Cheong, Howon KIST/Yonsei Univ.

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**TuIVT16** Regency D

**View Planning (Regular Sessions)**

Chair: Laugier, Christian INRIA Rhône-Alpes  
 Co-Chair: Frahm, Jan-Michael The Univ. North Carolina Chapel Hill

16:00-16:20 TuIVT16.1

*Developing Visual Sensing Strategies through Next Best View Planning*, pp. 4001-4008.  
 Dunn, Enrique UNC Chapel Hill  
 van den Berg, Jur Univ. of North Carolina at Chapel Hill  
 Frahm, Jan-Michael The Univ. North Carolina Chapel Hill

16:20-16:40 TuIVT16.2

*Autonomous Switching of Top-Down and Bottom-Up Attention Selection for Vision Guided Mobile Robots*, pp. 4009-4014. [Attachment](#)  
 Xu, Tingting Tech. Univ. München  
 Chenkov, Nikolay Aleksandrov Bernstein Center for Computational Neuroscience  
 Kühnlenz, Kolja Tech. Univ. München  
 Buss, Martin Tech. Univ. München

16:40-17:00 TuIVT16.3

*View Planning for 3D Object Reconstruction*, pp. 4015-4020.  
 Vasquez Gomez, Juan Irving INAOE  
 López-Damian, Efraín INAOE  
 Sucar, Luis Enrique Inst. Nacional de Astrafisica, Optica y Electronica

17:00-17:20 TuIVT16.4

*Probabilistic View Planner for 3D Modelling Indoor Environments*, pp. 4021-4026.  
 López-Damian, Efraín INAOE  
 Etcheverry, Gibran INAOE  
 Sucar, Luis Enrique Inst. Nacional de Astrafisica, Optica y Electronica  
 López-Estrada, Jesús UNAM

17:20-17:40 TuIVT16.5

*Probabilistic Motion Planning among Moving Obstacles Following Typical Motion Patterns*, pp. 4027-4033.  
 Fulgenzi, Chiara INPG, INRIA Rhone Alpes  
 Spalanzani, Anne INRIA Rhône-Alpes  
 Laugier, Christian INRIA Rhône-Alpes

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**WeIT1** Grand A

**Ranging with Sonar, Laser and Lidar (Regular Sessions)**

Chair: Ye, Cang Univ. of Arkansas at Little Rock  
 Co-Chair: Browne, Damien Monash Univ.

09:10-09:30 WeIT1.1

*Extraction of Planar Features from Swissranger SR-3000 Range Images by a Clustering Method Using Normalized Cuts*, pp. 4034-4039.  
 Hegde, GuruPrasad M. Univ. of Arkansas at Little Rock  
 Ye, Cang Univ. of Arkansas at Little Rock

09:30-09:50 WeIT1.2

*An Advanced Sonar Ring Design with 48 Channels of Continuous Echo Processing Using Matched Filters*, pp. 4040-4046.  
 Browne, Damien Monash Univ.  
 Kleeman, Lindsay Monash Univ.

09:50-10:10 WeIT1.3

*Pairwise Region-Based Scan Alignment*, pp. 4047-4053.  
 Silva Rocha Aguiar, Carla Lab. d'Informatique, d'Electronique et de  
 Druon, Sebastien LIRMM  
 Crosnier, André LIRMM

10:10-10:30 WeIT1.4

*A Compensated Sliding-Window DFT Algorithm for Fine-Grained Underwater Acoustic Ranging*, pp. 4054-4059.  
 Shatara, Stephan Michigan State Univ.  
 Tan, Xiaobo Michigan State Univ.

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**WeIT2** Grand B

**Rehabilitation Robotics IV (Regular Sessions)**

Chair: Liu, Yunhui Chinese Univ. of Hong Kong  
 Co-Chair: Hauser, Kris Indiana Univ.

09:10-09:30 WeIT2.1

*An Algorithm of Walk Phase Estimation with Only Treadmill Motor Current*, pp. 4060-4066.  
 Ohki, Eiichi Waseda Univ.  
 Nakashima, Yasutaka Waseda Univ.  
 Ando, Takeshi Waseda Univ.

Fujie, Masakatsu G.	Waseda Univ.
09:30-09:50	WeIT2.2
<i>A Human Interface for Stride Control on a Wearable Robot</i> , pp. 4067-4072.	
Kagawa, Takahiro	Nagoya Univ.
Uno, Yoji	Nagoya Univ.
09:50-10:10	WeIT2.3
<i>Walking Assist Device with Bodyweight Support System</i> , pp. 4073-4079.	
Ikeuchi, Yasushi	Honda R&D Co.,Ltd.
Ashihara, Jun	Honda R&D Co., Ltd.
Hiki, Yutaka	Honda R&D Co.,Ltd.
Kudoh, Hiroshi	Honda R&D Co.,Ltd.
Noda, Tatsuya	Honda R&D Co.,Ltd.
10:10-10:30	WeIT2.4
<i>ReachMAN: A Personal Robot to Train Reaching and Manipulation</i> , pp. 4080-4085.	
Yeong, Che Fai	Univ. Teknologi Malaysia
Melendez, Alejandro	Imperial Coll. London
Gassert, Roger	ETH Zurich
Burdet, Etienne	imperial Coll. london

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**WeIT3** Grand C

**Medical Surgery Robot** (Regular Sessions)

Chair: Bebek, Ozkan	Case Western Res. Univ.
Co-Chair: Takanishi, Atsuo	Waseda Univ.
09:10-09:30	WeIT3.1
<i>Objective Skill Analysis and Assessment of Neurosurgery by Using the Waseda Bioinstrumentation System WB-3 – Pilot Tests –</i> , pp. 4086-4091.	
Sessa, Salvatore	Waseda Univ.
Zecca, Massimiliano	Waseda Univ.
Lin, Zhuohua	Waseda Univ.
Sasaki, Tomoya	Waseda Univ.
Suzuki, Takashi	Tokyo Women's Medical Univ.
Itoh, Kazuko	Waseda Univ.
Iseki, Hiroshi	Tokyo Women's Medical Univ.
Takanishi, Atsuo	Waseda Univ.
09:30-09:50	WeIT3.2
<i>Surgical Retraction of Non-Uniform Deformable Layers of Tissue: 2D Robot Grasping and Path Planning</i> , pp. 4092-4097. <a href="#">Attachment</a>	
Jansen, Rik	Univ. of Utrecht
Hauser, Kris	UC Berkeley
Chentanez, Nuttapong	Univ. of California at Berkeley
van der Stappen, Frank	Utrecht Univ.
Goldberg, Ken	UC Berkeley
09:50-10:10	WeIT3.3
<i>Design and Characterization of a 7-DOF Haptic Interface for a Minimally Invasive Surgery Test-Bed</i> , pp. 4098-4103.	
Bassan, Harmanpreet	The Univ. of Western Ontario
Talasaz, Ali	Univ. of Western Ontario
Patel, Rajni	The Univ. of Western Ontario
10:10-10:30	WeIT3.4
<i>Kinematic Calibration of a Parallel Robot for Small Animal Biopsies</i> , pp. 4104-4109.	
Hwang, Myun Joong	Case Western Res. Univ.
Bebek, Ozkan	Case Western Res. Univ.
Liang, Fan	Case Western Res. Univ.
Fei, Baowei	Case Western Res. Univ.
Cavusoglu, M. Cenk	Case Western Res. Univ.

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**WeIT4** Grand F

**Robot Vehicles I** (Regular Sessions)

Chair: Siegwart, Roland	ETH Zurich
Co-Chair: Ishikawa, Jun	Tokyo Denki Univ.
09:10-09:30	WeIT4.1
<i>Dynamics and Control of an Omnidirectional Unmanned Ground Vehicle</i> , pp. 4110-4115.	
Khan, Imad	Illinois Inst. of Tech.
Spenko, Matthew	Illinois Inst. of Tech.
09:30-09:50	WeIT4.2
<i>Compact Magnetic Wheeled Robot for Inspecting Complex Shaped Structures in Generator Housings and Similar Environments</i> , pp. 4116-4121. <a href="#">Attachment</a>	
Fischer, Wolfgang	ETH Zürich
Caprari, Gilles	ETHZ
Siegwart, Roland	ETH Zurich
Moser, Roland	ALSTOM

09:50-10:10		WeIT4.3
	<a href="#">Parameter Identification for Planetary Soil Based on Decoupled Analytical Wheel-Soil Interaction Terramechanics Model</a> , pp. 4122-4127.	
Ding, Liang		Harbin Inst. of Tech.
Yoshida, Kazuya		Tohoku Univ.
Nagatani, Keiji		Tohoku Univ.
Gao, Haibo		Harbin Inst. of Tech.
Deng, Zongquan		Harbin Inst. of Tech.
10:10-10:30		WeIT4.4
	<a href="#">Analysis and Optimization of Obstacle Clearance of Articulated Rovers</a> , pp. 4128-4133. <a href="#">Attachment</a>	
Ben Amar, Faiz		Univ. Pierre et Marie Curie, Paris 6
Jarrault, Pierre		Univ. Pierre et Marie Curie Paris 6
Bidaud, Philippe		Univ. Pierre et Marie Curie - Paris 6
Grand, Christophe		Univ. Pierre et Marie Curie - Paris6

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**WeIT5** Grand G

**Sensor Fusion for Localization & Mapping** (Regular Sessions)

Chair: Xiao, Jizhong		City Coll. of New York
Co-Chair: Zakhor, Avideh		Univ. of California, Berkeley
09:10-09:30		WeIT5.1
	<a href="#">Image Augmented Laser Scan Matching for Indoor Localization</a> , pp. 4134-4141.	
Naikal, Nikhil Santosh		Univ. of California, Berkeley
Kua, John		Univ. of California, Berkeley
Chen, George		UC Berkeley
Zakhor, Avideh		Univ. of California, Berkeley
09:30-09:50		WeIT5.2
	<a href="#">Visual and Laser Guided Robot Relocalization Using Lines, Hough Transformation and Machine Learning Techniques</a> , pp. 4142-4147.	
Bernal-Marin, Miguel		CINVESTAV, Unidad Guadalajara
Bayro-Corrochano, Eduardo-Jose		CINVESTAV, Unidad Guadalajara
09:50-10:10		WeIT5.3
	<a href="#">3D Laser Scan Registration of Dual-Robot System Using Vision</a> , pp. 4148-4153.	
Kaushik, Ravi		The City Univ. of New York
Xiao, Jizhong		City Coll. of New York
Morris, William		City Coll. of New York
Zhu, Zhigang		CUNY - City Coll.
10:10-10:30		WeIT5.4
	<a href="#">An Efficient Solution to 6DOF Localization Using Unscented Kalman Filter for Planetary Rovers</a> , pp. 4154-4159.	
Sakai, Atsushi		Meiji Univ.
Tamura, Yuya		Meiji Univ.
Kuroda, Yoji		Meiji Univ.

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**WeIT6** Grand H

**Dexterous Manipulation** (Regular Sessions)

Chair: Sugano, Shigeki		Waseda Univ.
Co-Chair: Ciocarlie, Matei		Columbia Univ.
09:10-09:30		WeIT6.1
	<a href="#">Optimal Tightening Forces for Multi-Fingered Robust Manipulation</a> , pp. 4160-4167.	
Michalec, Romain		Commissariat f l'Energie Atomique
Micaelli, Alain		Commissariat f l'Energie Atomique
09:30-09:50		WeIT6.2
	<a href="#">Dexterous Hand-Arm Coordinated Manipulation Using Active Body-Environment Contact</a> , pp. 4168-4173.	
Sugaiwa, Taisuke		Waseda Univ.
Yamaguchi, Yasumasa		Waseda Univ.
Iwata, Hiroyasu		Waseda Univ.
Sugano, Shigeki		Waseda Univ.
09:50-10:10		WeIT6.3
	<a href="#">Contact Point Clustering Approach for 5-Fingered Regrasp Planning</a> , pp. 4174-4179.	
Phoka, Thanathorn		Chulalongkorn Univ.
Sudsang, Attawith		Chulalongkorn Univ.
10:10-10:30		WeIT6.4
	<a href="#">A Method for Handling a Specific Part of Clothing by Dual Arms</a> , pp. 4180-4185. <a href="#">Attachment</a>	
Kita, Yasuyo		Inst. of Advanced Industrial Sci. & Tech.
Ueshiba, Toshio		National Inst. of Advanced Industrial Science and
Neo, Ee Sian		National Inst. of Advanced Industrial Science and Tech.
Kita, Nobuyuki		National Inst. of Advanced Industrial Science and Technology

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**WeIT7** Mills 1

**Learning and Adaptive Systems** (Regular Sessions)

Chair: Okuno, Hiroshi G.		Kyoto Univ.
Co-Chair: Nunes, Urbano		Univ. of Coimbra



09:10-09:30		WeiT7.1
<i>Emergence of Evolutionary Interaction with Voice and Motion between Two Robots Using RNN</i> , pp. 4186-4192.		
Hinoshita, Wataru		Kyoto Univ.
Ogata, Tetsuya		Kyoto Univ.
Kozima, Hideki		Miyagi Univ.
Kanda, Hisashi		Informatics, Kyoto Univ.
Takahashi, Toru		Kyoto Univ.
Okuno, Hiroshi G.		Kyoto Univ.
09:30-09:50		WeiT7.2
<i>A Brain Computer Interface Methodology Based on a Visual P300 Paradigm</i> , pp. 4193-4198.		
Pires, Gabriel		Univ. of Coimbra
Nunes, Urbano		Univ. of Coimbra
09:50-10:10		WeiT7.3
<i>An Imitation Model Based on Central Pattern Generator with Application in Robotic Marionette Behavior Learning</i> , pp. 4199-4205.		
Ajalloeian, Mostafa	Robolab, Ec. dept. Faculty of Engineering, Univ. of Tehran,	
Nili Ahmadabadi, Majid		Univ. of Tehran
Nadjar Araabi, Babak		Univ. of Tehran
Moradi, Hadi		The Univ. of Tehran, Robotics and AI Lab.
10:10-10:30		WeiT7.4
<i>Consideration on Robotic Giant-Swing Motion Generated by Reinforcement Learning</i> , pp. 4206-4211.		
Hara, Masayuki		École Pol. Fédérale de Lausanne
Kawabe, Naoto		The Univ. of Tokyo
Sakai, Naoki		Yokohama National Univ.
Huang, Jian		Kinki Univ.
Bleuler, Hannes		Ec. Pol. Federale de Lausanne
Yabuta, Tetsuro		Yokohama National Univ.

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<b>WeiT8</b>		Mills 2
<b>Dynamic Modeling and Control (Regular Sessions)</b>		

Chair: Spenko, Matthew		Illinois Inst. of Tech.
Co-Chair: Chuy, Oscar Jr.		Florida A & M Univ. -Florida State Univ. COE
09:10-09:30		WeiT8.1
<i>Dynamic Modeling of a Skid-Steered Wheeled Vehicle with Experimental Verification</i> , pp. 4212-4219.		
Yu, Wei		FAMU-FSU Coll. of Engineering
Chuy, Oscar Jr.		Florida A & M Univ. -Florida State Univ. COE
Collins, Emmanuel		FAMU-FSU Coll. of Engineering
Hollis, Patrick		FAMU-FSU Coll. of Engineering
09:30-09:50		WeiT8.2
<i>Dynamic Yaw and Velocity Control of the 6WD Skid-Steering Mobile Robot RobuROC6 Using Sliding Mode Technique</i> , pp. 4220-4225.		
Lucet, Eric		Univ. Pierre et Marie Curie - Paris6
Grand, Christophe		Univ. Pierre et Marie Curie - Paris6
Sallé, Damien		ROBOSOFT
Bidaud, Philippe		Univ. Pierre et Marie Curie - Paris 6
09:50-10:10		WeiT8.3
<i>Execution of Dynamic Maneuvers for Unmanned Ground Vehicles Using Variable Internal Inertial Properties</i> , pp. 4226-4231.		
Nie, Chenghui		Illinois Inst. of Tech.
Cusi Van Dooren, Simo		Illinois Inst. of Tech.
Shah, Jainam		Illinois Inst. of Tech.
Spenko, Matthew		Illinois Inst. of Tech.
10:10-10:30		WeiT8.4
<i>Swinging up and Stabilization Control of Double Furuta Pendulum by Safe Manual Control</i> , pp. 4232-4237. <a href="#">Attachment</a>		
Noguchi, Keigo		Tokyo Denki Univ.
Izutsu, Masaki		Tokyo Denki Univ.
Kamamichi, Norihiro		Tokyo Denki Univ.
Ishikawa, Jun		Tokyo Denki Univ.
Furuta, Katsuhisa		Tokyo Denki Univ.

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<b>WeiT9</b>		Mills 3
<b>Personal Robots (Regular Sessions)</b>		

Chair: Beetz, Michael		Tech. Univ. München
Co-Chair: Chitta, Sachin		Willow Garage Inc.
09:10-09:30		WeiT9.1
<i>Object Dynamics Virtualization by Robotic Assistance for Cooperative Object Handling with Human</i> , pp. 4238-4244. <a href="#">Attachment</a>		
Ishikawa, Jun		Tokyo Denki Univ.
Sakai, Atsushi		Tokyo Denki Univ.
Furuta, Katsuhisa		Tokyo Denki Univ.
09:30-09:50		WeiT9.2
<i>Real-Time Perception-Guided Motion Planning for a Personal Robot</i> , pp. 4245-4252. <a href="#">Attachment</a>		
Rusu, Radu Bogdan		Tech. Univ. Muenchen
Sucan, Ioan Alexandru		Rice Univ.

Gerkey, Brian	Willow Garage
Chitta, Sachin	Willow Garage Inc.
Beetz, Michael	Tech. Univ. München
Kavraki, Lydia	Rice Univ.
09:50-10:10	WeIT9.3
<i>A Framework for Planning Comfortable and Customizable Motion of an Assistive Mobile Robot</i> , pp. 4253-4260.	
Gulati, Shilpa	Univ. of Texas at Austin
Jhurani, Chetan	Univ. of Texas at Austin
Kuipers, Benjamin	Univ. of Michigan
Longoria, Raul	Univ. of Texas at Austin
10:10-10:30	WeIT9.4
<i>KnowRob Knowledge Processing for Autonomous Personal Robots</i> , pp. 4261-4266.	
Tenorth, Moritz	TU München
Beetz, Michael	Tech. Univ. München

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**WeIT10** Mills 4

<b>Object Detection and Recognition</b> (Regular Sessions)	
Chair: Coates, Adam	Stanford Univ.
Co-Chair: Choi, Changhyun	Georgia Inst. of Tech.
09:10-09:30	WeIT10.1
<i>Cognitive Vision for Efficient Scene Processing and Object Categorization in Highly Cluttered Environments</i> , pp. 4267-4274.	
Choi, Changhyun	Georgia Inst. of Tech.
Christensen, Henrik Iskov	Georgia Inst. of Tech.
09:30-09:50	WeIT10.2
<i>Combining Harris Interest Points and the SIFT Descriptor for Fast Scale-Invariant Object Recognition</i> , pp. 4275-4280. <a href="#">Attachment</a>	
Azad, Pedram	Univ. of Karlsruhe
Asfour, Tamim	Univ. of Karlsruhe
Dillmann, Rüdiger	Univ. of Karlsruhe
09:50-10:10	WeIT10.3
<i>Rapid and Precise Object Detection Based on Color Histograms and Adaptive Bandwidth Mean Shift</i> , pp. 4281-4286.	
Chen, Xiaopeng	Beijing Inst. of Tech.
Huang, Qiang	Beijing Inst. of Tech.
Hu, Peng	Inst. of Automation, Chinese Acad. of Sciences
Li, Min	Beijing Inst. of Tech.
Tian, Ye	Beijing Inst. of Tech.
Li, Chen	Beijing Inst. of Tech.
10:10-10:30	WeIT10.4
<i>Scalable Learning for Object Detection with GPU Hardware</i> , pp. 4287-4293.	
Coates, Adam	Stanford Univ.
Baumstarck, Paul	Stanford Univ.
Le, Quoc	Stanford Univ.
Ng, Andrew	Stanford Univ.

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**WeIT11** Mills 5

<b>Monitoring Humans</b> (Regular Sessions)	
Chair: Guglielmelli, Eugenio	Univ. Campus Bio-Medico
Co-Chair: Kundu, Abhijit	IIIT Hyderabad
09:10-09:30	WeIT11.1
<i>3D Human Modeling Using Virtual Multi-View Stereopsis and Object-Camera Motion Estimation</i> , pp. 4294-4299.	
DeSouza, Guilherme	Univ. of Missouri-Columbia
Lam, Dao Minh	Univ. of Missouri
Hong, Ruizhi	Univ. of Missouri
09:30-09:50	WeIT11.2
<i>Comparative Study of Representations for Segmentation of Whole Body Human Motion Data</i> , pp. 4300-4305.	
Kulic, Dana	Univ. of Waterloo
Nakamura, Yoshihiko	Univ. of Tokyo
09:50-10:10	WeIT11.3
<i>Moving Object Detection by Multi-View Geometric Techniques from a Single Camera Mounted Robot</i> , pp. 4306-4312. <a href="#">Attachment</a>	
Kundu, Abhijit	IIIT Hyderabad
Krishna, Madhava	IIIT Hyderabad
Sivaswamy, Jayanthi	IIIT-Hyderabad
10:10-10:30	WeIT11.4
<i>Detecting Pedestrians at Very Small Scales</i> , pp. 4313-4318.	
Spinello, Luciano	ETH Zurich
Triebel, Rudolph	Swiss Federal Inst. of Tech.
Siegwart, Roland	ETH Zurich

<b>WeiT12</b>		Mills 6
<b>Robots with Emerging Technologies II (Regular Sessions)</b>		
Chair: Maeda, Shingo		Waseda Univ.
Co-Chair: Sanan, Siddharth		Carnegie Mellon Univ.
09:10-09:30		WeiT12.1
<a href="#">Development of Novel Self-Oscillating Gel Actuator for Achievement of Chemical Robot</a> , pp. 4319-4324.		
Nakamaru, Satoshi		Waseda Univ.
Maeda, Shingo		Waseda Univ.
Hara, Yusuke		Waseda Univ.
Hashimoto, Shuji		Waseda Univ.
09:30-09:50		WeiT12.2
<a href="#">Chemical Robot-Design of Peristaltic Polymer Gel Actuator</a> , pp. 4325-4330.		
Maeda, Shingo		Waseda Univ.
Hara, Yusuke		Waseda Univ.
Yoshida, Ryo		The Univ. of Tokyo
Hashimoto, Shuji		Waseda Univ.
09:50-10:10		WeiT12.3
<a href="#">Robots with Inflatable Links</a> , pp. 4331-4336.		
Sanan, Siddharth		Carnegie Mellon Univ.
Moidel, Justin		Carnegie Mellon Univ.
Atkeson, Christopher		CMU
10:10-10:30		WeiT12.4
<a href="#">Mechanical Modeling Characterization of Biological Cells Using Microrobotics Cell Injection Test Bed</a> , pp. 4337-4342.		
Tan, Youhua		Suzhou Res. Inst. of City Univ. of HongKong
Sun, Dong		City Univ. of Hong Kong
Huang, Wenhao		Univ. of Science and Tech. of China
<b>WeiT13</b>		Mills 7
<b>Multi-Robot Interaction and Control (Regular Sessions)</b>		
Chair: Chong, Nak Young		Japan Advanced Inst. of Sci. and Tech.
Co-Chair: Shimizu, Masahiro		Tohoku Univ.
09:10-09:30		WeiT13.1
<a href="#">Stable and Spontaneous Self-Assembly of a Multi-Robotic System by Exploiting Physical Interaction between Agents</a> , pp. 4343-4348.		
<a href="#">Attachment</a>		
Suzuki, Kazuya		Tohoku Univ.
Tsukidate, Tsunamichi		Tohoku Univ.
Shimizu, Masahiro		Tohoku Univ.
Ishiguro, Akio		Tohoku Univ.
09:30-09:50		WeiT13.2
<a href="#">Segregation in Swarms of Mobile Robots Based on the Brazil Nut Effect</a> , pp. 4349-4356.		
Groß, Roderich		EPFL
Magnenat, Stéphane		EPFL
Mondada, Francesco		EPFL
09:50-10:10		WeiT13.3
<a href="#">Self-Configuring Robot Swarms with Dual Rotating Infrared Sensors</a> , pp. 4357-4362.		
Lee, Geunho		Japan Advanced Inst. of Sci. & Tech.
Yoon, Seokhoon		Japan Advanced Inst. of Science and Tech.
Chong, Nak Young		Japan Advanced Inst. of Sci. and Tech.
Christensen, Henrik Iskov		Georgia Inst. of Tech.
10:10-10:30		WeiT13.4
<a href="#">Multiplicative Potential Energy Function for Swarm Control</a> , pp. 4363-4368.		
Hou, Saing Paul		Nanyang Tech. Univ.
Cheah, C. C.		Nanyang Tech. Univ.
<b>WeiT14</b>		Mills 8
<b>Planning in Robotic Sensing (Invited Sessions)</b>		
Chair: Sheng, Weihua		Oklahoma State Univ.
Co-Chair: Berns, Karsten		Univ. of Kaiserslautern
09:10-09:30		WeiT14.1
<a href="#">Viewpoint Planning for Automated 3D Digitization Using a Low-Cost Mobile Platform (I)</a> , pp. 4369-4374.		
Zhang, Sijian		Zhejiang Univ.
Yan, Gangfeng		Zhejiang Univ.
Sheng, Weihua		Oklahoma State Univ.
09:30-09:50		WeiT14.2
<a href="#">Reactive Planning for Olfactory-Based Mobile Robots (I)</a> , pp. 4375-4380.		
Pang, Shuo		Embry-Riddle Aeronautical Univ.
09:50-10:10		WeiT14.3
<a href="#">Develop Feedback Robot Planning Method for 3D Surface Inspection (I)</a> , pp. 4381-4386.		
Shi, Quan		Michigan State Univ.

Zhang, Chi Michigan State Univ.  
 Xi, Ning Michigan State Univ.  
 Xu, Jing Michigan State Univ.  
 10:10-10:30 WeIT14.4  
[Topological Large-Scale Off-Road Navigation and Exploration RAVON at the European Land Robot Trial 2008 \(I\)](#), pp. 4387-4392.  
 Braun, Tim Univ. of Kaiserslautern  
 Schäfer, Bernd-Helge Univ. of Kaiserslautern  
 Berns, Karsten Univ. of Kaiserslautern

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**WeIT15** Sterling 6

**Path Planning and Navigation** (Regular Sessions)

Chair: Otte, M.W. Univ. of Colorado at boulder  
 Co-Chair: Damas, Bruno Inst. Superior Técnico  
 09:10-09:30 WeIT15.1  
[Avoiding Moving Obstacles: The Forbidden Velocity Map](#), pp. 4393-4398. [Attachment](#)  
 Damas, Bruno Inst. Superior Técnico  
 Santos-Victor, José Inst. Superior Técnico - Inst. for Systems and Robotics  
 09:30-09:50 WeIT15.2  
[Adaptive Node Sampling Method for Probabilistic Roadmap Planners](#), pp. 4399-4405.  
 Park, Byungjae Pohang Univ. of science and Tech.  
 Chung, Wan Kyun POSTECH  
 09:50-10:10 WeIT15.3  
[Extracting Paths from Fields Built with Linear Interpolation](#), pp. 4406-4413.  
 Otte, M.W. Univ. of Colorado at boulder  
 Grudic, Greg Univ. of Colorado at Boulder  
 10:10-10:30 WeIT15.4  
[Efficient Computation of Level Sets for Path Planning](#), pp. 4414-4419.  
 Xu, Bin Virginia Tech.  
 Stilwell, Daniel Virginia Tech.  
 Kurdila, Andrew Virginia Tech.

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**WeIT16** Regency D

**Autonomous Marine Robotics** (Regular Sessions)

Chair: Lee, Beom-Hee Seoul National Univ.  
 Co-Chair: Englot, Brendan MIT  
 09:10-09:30 WeIT16.1  
[3-D Terrain Covering and Map Building Algorithm for an AUV](#), pp. 4420-4425.  
 Lee, Tae-Seok Seoul National Univ.  
 Choi, Jeong-Sik Seoul National Univ.  
 Lee, Jeong-Hee Seoul National Univ.  
 Lee, Beom-Hee Seoul National Univ.  
 09:30-09:50 WeIT16.2  
[Stability and Robustness Analysis Tools for Marine Robot Localization and SLAM Applications](#), pp. 4426-4432.  
 Englot, Brendan MIT  
 Hover, Franz MIT  
 09:50-10:10 WeIT16.3  
[A Programming Architecture for Smart Autonomous Underwater Vehicles](#), pp. 4433-4438.  
 Woithe, Hans Rutgers Univ.  
 Kremer, Ulrich Rutgers Univ.  
 10:10-10:30 WeIT16.4  
[Using Petri Nets to Specify and Execute Missions for Autonomous Underwater Vehicles](#), pp. 4439-4444.  
 Palomeras, Narcis Univ. de Girona - VAT:ESQ6750002E  
 Ridao, Pere Univ. de Girona  
 Silvestre, Carlos Jorge Ferreira Silvestre Inst. Superior Tecnico  
 Carreras, Marc Univ. de Girona

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**WeIT1** Grand A

**Humanoid Robot I** (Regular Sessions)

Chair: Nenchev, Dragomir Tokyo City Univ.  
 Co-Chair: Laumond, Jean-Paul LAAS-CNRS  
 10:50-11:10 WeIT1.1  
[Three-Dimensional Limit Cycle Walking with Joint Actuation](#), pp. 4445-4450.  
 Miyahara, Kentaro Musashi Inst. of Tech.  
 Harada, Yuzuru Tokyo City Univ.  
 Nenchev, Dragomir Tokyo City Univ.  
 Sato, Daisuke Tokyo City Univ.  
 11:10-11:30 WeIT1.2  
[Steering a Humanoid Robot by Its Head](#), pp. 4451-4456. [Attachment](#)  
 Sreenivasa, Manish N. LAAS-CNRS

Soueres, Philippe	LAAS-CNRS
Laumond, Jean-Paul	LAAS-CNRS
Berthoz, Alain	CNRS - Coll. de France
11:30-11:50	WellT1.3
<a href="#">Complex Networks of Simple Neurons for Bipedal Locomotion</a> , pp. 4457-4462. <a href="#">Attachment</a>	
Allen, Brian	Univ. of California, Los Angeles
Faloutsos, Petros	Univ. of California, Los Angeles
11:50-12:10	WellT1.4
<a href="#">Novel Mechanical Design of Biped Robot SHERPA Using 2 DOF Cable Differential Modular Joints</a> , pp. 4463-4468.	
Olaru, Ionut Mihai Constantin	CNRS - LIRMM
Krut, Sebastien	LIRMM (CNRS & Univ. Montpellier 2)
Pierrot, François	CNRS - LIRMM
12:10-12:30	WellT1.5
<a href="#">Bringing the Compass-Gait Bipedal Walker to Three Dimensions</a> , pp. 4469-4474. <a href="#">Attachment</a>	
Gregg, Robert	Univ. of Illinois at Urbana-Champaign
Spong, Mark	Univ. of Texas at Dallas

<b>WellT2</b>	Grand B
<b>Rehabilitation Robotics V (Regular Sessions)</b>	
Chair: Siqueira, Adriano	Univ. of Sao Paulo
Co-Chair: O'Malley, Marcia	Rice Univ.
10:50-11:10	WellT2.1
<a href="#">Gait-Pattern Adaptation Algorithms Based on Neural Network for Lower Limbs Active Orthoses</a> , pp. 4475-4480.	
Gomes, Marciel Alberto	Univ. of Sao Paulo
Silveira, Guilherme Lara Machado	Univ. of Sao Paulo
Siqueira, Adriano	Univ. of Sao Paulo
11:10-11:30	WellT2.2
<a href="#">Cooperative Walk Control of Paraplegia Patient and Assistive System</a> , pp. 4481-4486.	
Hasegawa, Yasuhisa	Univ. of Tsukuba
Jang, Junho	Univ. of Tsukuba
Sankai, Yoshiyuki	Univ. of Tsukuba
11:30-11:50	WellT2.3
<a href="#">A Motion Control of a Robotic Walker for Continuous Assistance During Standing, Walking and Seating Operation</a> , pp. 4487-4492.	
Chugo, Daisuke	Kwansei Gakuin Univ.
Asawa, Tai	The Univ. of Electro-Communications
Kitamura, Takuya	The Univ. of Electro-Communications
Jia, Songmin	Univ. of Electro-Communications
Takase, Kunikatsu	Univ. of Electro-communications
11:50-12:10	WellT2.4
<a href="#">A New Compliant Motion Control Design of a Walking-Help Robot Based on Motor Current and Speed Measurement</a> , pp. 4493-4498.	
<a href="#">Attachment</a>	
Song, Kai-Tai	National Chiao Tung Univ.
Lin, Chen-Yang	National Chiao Tung Univ.
12:10-12:30	WellT2.5
<a href="#">Intermittency of Slow Arm Movements Increases in Distal Direction</a> , pp. 4499-4504.	
Celik, Ozkan	Rice Univ.
Gu, Qin	Univ. of Houston
Deng, Zhigang	Univ. of Houston
O'Malley, Marcia	Rice Univ.

<b>WellT3</b>	Grand C
<b>Medical Robotic System (Regular Sessions)</b>	
Chair: Abbott, Jake	Univ. of Utah
Co-Chair: Mitsuishi, Mamoru	The Univ. of Tokyo
10:50-11:10	WellT3.1
<a href="#">Neurosurgical Robot Design and Interactive Motion Planning for Resection Task</a> , pp. 4505-4510.	
Martin, Carole	Blaise Pascal Univ. / French Inst. of Advanced Mechanic
Chapelle, Frédéric	French Inst. for Advanced Mechanics (IFMA) / BlaisePascal Un
Lemaire, Jean-Jacques	CHU Clermont-Ferrand
Gogu, Grigore	Blaise Pascal Univ. and French Inst. ofAdvancedMechanic
11:10-11:30	WellT3.2
<a href="#">A Control Framework for the Non-Invasive Ultrasound Theragnostic System</a> , pp. 4511-4516. <a href="#">Attachment</a>	
Koizumi, Norihiro	Engineering Synthesis
Seo, Joonho	The Univ. of Tokyo
Mitsuishi, Mamoru	The Univ. of Tokyo
11:30-11:50	WellT3.3
<a href="#">Planning Fireworks Trajectories for Steerable Medical Needles to Reduce Patient Trauma</a> , pp. 4517-4522.	
Xu, Jijie	Rochester Inst. of Tech.
Duindam, Vincent	Univ. of California, Berkeley

Alterovitz, Ron	Univ. of North Carolina at Chapel Hill
Cunha, J. Adam	Univ. of California, San Francisco
Pouliot, Jean	Univ. of California, San Francisco
Hsu, I-Chow Joe	Univ. of California, San Francisco
Goldberg, Ken	UC Berkeley
11:50-12:10	WellT3.4
<a href="#">Wide-Angle Localization of Intraocular Devices from Focus</a> , pp. 4523-4528.	
Bergeles, Christos	ETH Zurich
Shamaei Ghahfarokhi, Kamran	ETH
Abbott, Jake	Univ. of Utah
Nelson, Bradley J.	ETH Zurich
12:10-12:30	WellT3.5
<a href="#">Design of a Manipulator System for Hemorrhage Detection and Treatment Using High Intensity Focused Ultrasound</a> , pp. 4529-4534.	
Valdivia y Alvarado, Pablo	MIT
Chang, Chu-yin	Energid Tech. Corp.
Hynynen, Kullervo	Univ. of Toronto
<b>WellT4</b>	Grand F
<b>Robot Vehicles II (Regular Sessions)</b>	
Chair: Hirose, Shigeo	Tokyo Inst. of Tech.
Co-Chair: Yamakita, Masaki	Tokyo Inst. of Tech.
10:50-11:10	WellT4.1
<a href="#">Development of the Arm-Wheel Hybrid Robot "Souki-II"</a> , pp. 4535-4540. <a href="#">Attachment</a>	
Mizunuma, Shintaro	Tokyo Inst. of Tech.
11:10-11:30	WellT4.2
<a href="#">Controlling Balancer and Steering for Bicycle Stabilization</a> , pp. 4541-4546.	
Keo, Lyчек	Tokyo Inst. of Tech.
Yamakita, Masaki	Tokyo Inst. of Tech.
11:30-11:50	WellT4.3
<a href="#">Coordinated Path Following Control of Multiple Wheeled Mobile Robots through Decentralized Speed Adaptation</a> , pp. 4547-4552.	
Xiang, Xianbo	LIRMM/CNRS
Lapierre, Lionel	LIRMM
11:50-12:10	WellT4.4
<a href="#">Simultaneous Estimation of Slope Angle and Handling Force When Getting on and Off a Human-Riding Wheeled Inverted Pendulum Vehicle</a> , pp. 4553-4558.	
Takei, Toshinobu	Advanced Industrial Science And Tech. (AIST) Japan
Matsumoto, Osamu	National Inst. of Advanced Industrial Science and Technology (AIST)
Komoriya, Kiyoshi	Tokyo Metropolitan Industrial Tech. Res. Inst.
12:10-12:30	WellT4.5
<a href="#">Entropy-Based Motion Segmentation from a Moving Platform</a> , pp. 4559-4564.	
Min, Hyeun Jeong	Umn
Papanikolopoulos, Nikos	Univ. of Minnesota
<b>WellT5</b>	Grand G
<b>Algorithms for Navigation (Regular Sessions)</b>	
Chair: Chilian, Annett	DLR German Aerospace Center
Co-Chair: Alenyf, Guillem	CSIC-UPC
10:50-11:10	WellT5.1
<a href="#">A Comparison of Three Methods for Measure of Time to Contact</a> , pp. 4565-4570.	
Alenyf, Guillem	CSIC-UPC
Negre, Amaury	INRIA Rhône-Alpes
Crowley, James L.	INP Grenoble
11:10-11:30	WellT5.2
<a href="#">Stereo Camera Based Navigation of Mobile Robots on Rough Terrain</a> , pp. 4571-4576.	
Chilian, Annett	DLR German Aerospace Center
Hirschmüller, Heiko	German Aerospace Centre
11:30-11:50	WellT5.3
<a href="#">Cooperative Robot Team Navigation Strategies Based on an Environment Model</a> , pp. 4577-4583. <a href="#">Attachment</a>	
Urcola, Pablo	Inst. de Investigación en Ingeniería de Aragón, Univ. o
Montano, Luis	Univ. de Zaragoza
11:50-12:10	WellT5.4
<a href="#">Detection of Non-Flat Ground Surfaces and Roadways Using V-Disparity Images</a> , pp. 4584-4589.	
Zhao, Jun	UNSW
Whitty, Mark Albert	Univ. of New South Wales
Katupitiya, Jayantha	The Univ. of New South Wales
12:10-12:30	WellT5.5
<a href="#">Learning Efficient Policies for Vision-Based Navigation</a> , pp. 4590-4595.	
Hornung, Armin	Univ. of Freiburg
Strasdat, Hauke	Univ. of Freiburg

Bennewitz, Maren  
Burgard, Wolfram

Univ. of Freiburg  
Univ. of Freiburg

WellT6	Grand H
<b>Bilateral Teleoperation</b> (Regular Sessions)	
Chair: Ferre, Manuel Co-Chair: Sirouspour, Shahin	Univ. Pol. de Madrid McMaster Univ.
10:50-11:10 <i>Bilateral Teleoperation under Time-Varying Delay Using Wave Variables</i> , pp. 4596-4602.	WellT6.1
Satler, Massimo Avizzano, Carlo Alberto Frisoli, Antonio Tripicchio, Paolo Bergamasco, Massimo	Scuola Superiore Sant'Anna Scuola Superiore S. Anna Scuola Superiore Sant'Anna Percro Scuola Superiore S. Anna
11:10-11:30 <i>Bilateral Controller Design Based on Transparency in the State Convergence Framework</i> , pp. 4603-4608.	WellT6.2
Aracil, Rafael Ferre, Manuel Azorin, Jose M. Peña, Cesar	Univ. Pol. de Madrid Univ. Pol. de Madrid Univ. Miguel Hernandez de Elche Univ. Pol. de Madrid and Univ. de Pamplona
11:30-11:50 <i>A Time-Varying Wave Impedance Approach for Transparency Compensation in Bilateral Teleoperation</i> , pp. 4609-4615.	WellT6.3
Rodriguez-Seda, Erick J. Spong, Mark	Univ. of Illinois at Urbana-Champaign Univ. of Texas at Dallas
11:50-12:10 <i>Improved Transparency in Bilateral Teleoperation with Variable Time Delay</i> , pp. 4616-4621.	WellT6.4
Shahdi, Ali Sirouspour, Shahin	McMaster Univ. McMaster Univ.
12:10-12:30 <i>Bounded Environment Passivity of the Classical Position-Force Teleoperation Controller</i> , pp. 4622-4628.	WellT6.5
Willaert, Bert Corteville, Brecht Reynaerts, Dominiek Van Brussel, Hendrik Vander Poorten, Emmanuel B	K.U.Leuven Katholieke Univ. Leuven Div. Production Engineering, Machine Design and Automation, Katholieke Univ. Leuven Katholieke Univ. Leuven
<b>WellT7</b>	Mills 1
<b>Learning Systems</b> (Regular Sessions)	
Chair: Howard, Matthew Co-Chair: Kira, Zsolt	Univ. of Edinburgh Georgia Inst. of Tech.
10:50-11:10 <i>Robust Constraint-Consistent Learning</i> , pp. 4629-4636. <a href="#">Attachment</a>	WellT7.1
Howard, Matthew Klanke, Stefan Gienger, Michael Goerick, Christian Vijayakumar, Sethu	Univ. of Edinburgh Univ. of Edinburgh Honda Res. Inst. Europe Honda Res. Inst. Europe GmbH Univ. of Edinburgh
11:10-11:30 <i>Multiscale Sensing with Stochastic Modeling</i> , pp. 4637-4643.	WellT7.2
Budzik, Diane Singh, Amarjeet Batalin, Maxim Kaiser, William	UCLA Univ. of California, Los Angeles CENS, UCLA UCLA
11:30-11:50 <i>Structure Learning for Activity Recognition in Robot Assisted Intelligent Environments</i> , pp. 4644-4649.	WellT7.3
McIlwraith, Douglas Gavin Pansiot, Julien Ballantyne, James Valibeik, Salman Elsaify, Ahmed Yang, Guang-Zhong	Imperial Coll. London Imperial Coll. Imperial Coll. imperial Coll. Imperial Coll. London Imperial Coll. London
11:50-12:10 <i>Transferring Embodied Concepts between Perceptually Heterogeneous Robots</i> , pp. 4650-4656.	WellT7.4
Kira, Zsolt	Georgia Inst. of Tech.
12:10-12:30 <i>Preference Model Assisted Activity Recognition in a Smart Home Environment</i> , pp. 4657-4662.	WellT7.5
Chen, Yi-Han Lu, Ching-Hu Hsu, Kuo-Chung Fu, Li-Chen	National Taiwan Univ. National Taiwan Univ. National Taiwan Univ. National Taiwan Univ.

Yeh, Yu-Jung  
Kuo, Lun-Chia

Industrial Tech. Res. Inst.  
Industrial Tech. Res. Inst.

<b>WellT8</b>	Mills 2
<b>Modeling and Design of Legged Robots</b> (Regular Sessions)	
Chair: Kassahun, Yohannes Co-Chair: Endo, Ken	Univ. of Bremen MIT
10:50-11:10 <a href="#">Human Walking Model Predicts Joint Mechanics, Electromyography and Mechanical Economy</a> , pp. 4663-4668.	WellT8.1 MIT
Endo, Ken Herr, Hugh	Massachusetts Inst. of Tech.
11:10-11:30 <a href="#">Leg Mechanisms for Hydraulically Actuated Robots</a> , pp. 4669-4675.	WellT8.2
Yang, Yousheng Semini, Claudio Tsagarakis, Nikolaos Guglielmino, Emanuele Caldwell, Darwin G.	Italian Inst. of Tech. Italian Inst. of Tech. Italian Inst. of Tech. (IIT) Fondazione Istituto Italiano di Tecnologia Italian Inst. of Tech.
11:30-11:50 <a href="#">3D Limit Cycle Walking of Musculoskeletal Humanoid Robot with Flat Feet</a> , pp. 4676-4681.	WellT8.3
Narioka, Kenichi Tsugawa, Shinpei Hosoda, Koh	Osaka Univ. Osaka Univ. Osaka Univ.
11:50-12:10 <a href="#">Design of a Leg-Wheel Hybrid Mobile Platform</a> , pp. 4682-4687. <a href="#">Attachment</a>	WellT8.4
Shen, Shuan-Yu Li, Cheng Hsin Cheng, Chih-Chung Lu, Jau-ching Wang, Shao-Fan Lin, Pei-Chun	National Taiwan Univ. National Taiwan Univ. National Taiwan Univ. National Taiwan Univ. National Taiwan Univ. National Taiwan Univ.
12:10-12:30 <a href="#">Dynamic Motion Modelling for Legged Robots</a> , pp. 4688-4694.	WellT8.5
Edgington, Mark Kassahun, Yohannes Kirchner, Frank	Univ. of Bremen Univ. of Bremen Univ. of Bremen
<b>WellT9</b>	Mills 3
<b>Micro-Manipulation</b> (Regular Sessions)	
Chair: Arai, Tatsuo Co-Chair: Maruyama, Hisataka	Osaka Univ. Tohoku Univ.
10:50-11:10 <a href="#">Local Stiffness Measurements of C. Elegans by Buckling Nanoprobes Inside an Environmental SEM</a> , pp. 4695-4700.	WellT9.1
Nakajima, Masahiro Ahmad, Mohd Ridzuan Kojima, Seiji Homma, Michio Fukuda, Toshio	Nagoya Univ. Nagoya Univ. Nagoya Univ. Nagoya Univ. Nagoya Univ.
11:10-11:30 <a href="#">Penetration Force Measurement and Control in Robotic Cell Microinjection</a> , pp. 4701-4706.	WellT9.2
Xie, Yu Sun, Dong Liu, Chong	City Univ. of Hong Kong City Univ. of Hong Kong City Univ. of Hong Kong
11:30-11:50 <a href="#">Development of a Micro Mobile Robot in the Abdominal Cavity</a> , pp. 4707-4711.	WellT9.3
Ohno, Satoshi Tachikawa, Junichi Yu, Wenwei	Chiba Univ. Chiba Univ. Chiba Univ.
11:50-12:10 <a href="#">Self-Controlled Cell Selection and Loading System for Microfluidic Systems</a> , pp. 4712-4717.	WellT9.4
Uvet, Huseyin Hasegawa, Akiyuki Ohara, Kenichi Takubo, Tomohito Mae, Yasushi Arai, Tatsuo	Osaka Univ. Osaka Univ. Osaka Univ. Osaka Univ. Osaka Univ. Osaka Univ.
12:10-12:30 <a href="#">Size-Dependent Microparticle Filtration Using Magnetically Driven Microtool for Producing Gel-Microtool</a> , pp. 4718-4723.	WellT9.5
Chapurlat, Benoît Maruyama, Hisataka	Tohoku Univ. Tohoku Univ.



Yamanishi, Yoko  
Kotani, Kyosuke  
Arai, Fumihito

Tohoku Univ.  
Tohoku Univ.  
Tohoku Univ.

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**WellT10** Mills 4

**Object Shape Recognition (Regular Sessions)**

Chair: Devereux, David  
Co-Chair: Aloimonos, Yiannis

The Univ. of Manchester  
Univ. of Maryland

10:50-11:10

WellT10.1

*Novelty Detection and 3D Shape Retrieval Based on Gaussian Mixture Models for Autonomous Surveillance Robotics*, pp. 4724-4730.

Núñez Trujillo, Pedro  
Drewno, Paulo  
Rocha, Rui  
Campos, Mario F. Montenegro  
Dias, Jorge

Univ. de Extremadura  
Federal Univ. of Minas Gerais  
Inst. of Systems and Robotics - Univ. of Coimbra  
Federal Univ. of Minas Gerais  
Univ. of Coimbra

11:10-11:30

WellT10.2

*Real-Time Shape Retrieval for Robotics Using Skip Tri-Grams*, pp. 4731-4738.

Yi, Li  
Bitsakos, Konstantinos  
Aloimonos, Yiannis  
Fermüller, Cornelia

Univ. of Maryland  
Univ. of Maryland, Coll. Park  
Univ. of Maryland  
Univ. of Maryland

11:30-11:50

WellT10.3

*Robust On-Line Model-Based Object Detection from Range Images*, pp. 4739-4744.

Steder, Bastian  
Grisetti, Giorgio  
Van Loock, Mark  
Burgard, Wolfram

Univ. of Freiburg  
Universität Freiburg  
Toyota Motor Europe NV/SA  
Univ. of Freiburg

11:50-12:10

WellT10.4

*Determining an Object's Shape with a Blind Tactile Manipulator*, pp. 4745-4750.

Devereux, David  
Nutter, Paul  
Richardson, Robert

The Univ. of Manchester  
The Univ. of Manchester  
Univ. of Leeds

12:10-12:30

WellT10.5

*Interactive Learning of Visually Symmetric Objects*, pp. 4751-4756.

Li, Wai Ho  
Kleeman, Lindsay

Monash Univ.  
Monash Univ.

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**WellT11** Mills 5

**Place and Object Recognition (Regular Sessions)**

Chair: Rehg, James  
Co-Chair: Ye, Cang

Georgia Inst. of Tech.  
Univ. of Arkansas at Little Rock

10:50-11:10

WellT11.1

*Self-Location Recognition Using Azimuth Invariant Features and Wearable Sensors*, pp. 4757-4762. [Attachment](#)

Iwai, Yoshio  
Katahira, Takayuki

Osaka Univ.  
Osaka Univ.

11:10-11:30

WellT11.2

*Visual Place Categorization: Problem, Dataset, and Algorithm*, pp. 4763-4770. [Attachment](#)

Wu, Jianxin  
Christensen, Henrik Iskov  
Rehg, James

Georgia Inst. of Tech.  
Georgia Inst. of Tech.  
Georgia Inst. of Tech.

11:30-11:50

WellT11.3

*Non-Cubic Occupied Voxel Lists for Robot Maps*, pp. 4771-4776.

Ryde, Julian  
Bruenig, Michael

CSIRO  
CSIRO ICT Centre

11:50-12:10

WellT11.4

*Probabilistic Categorization of Kitchen Objects in Table Settings with a Composite Sensor*, pp. 4777-4784.

Marton, Zoltan-Csaba  
Rusu, Radu Bogdan  
Jain, Dominik  
Klank, Ulrich  
Beetz, Michael

Tech. Univ. Muenchen  
Tech. Univ. Muenchen  
TU Muenchen  
Tech. Univ. München  
Tech. Univ. München

12:10-12:30

WellT11.5

*Using Structured UKR Manifolds for Motion Classification and Segmentation*, pp. 4785-4790.

Steffen, Jan  
Pardowitz, Michael  
Ritter, Helge Joachim

Bielefeld Univ.  
Univ. Bielefeld  
Bielefeld Univ.

<b>WellT12</b>		Mills 6
<b>Distributed Robotics: Formation and Task Allocation</b> (Regular Sessions)		
Chair: Weinberg, Jerry		Southern Illinois Univ. Edwardsville
Co-Chair: Hooper, Daylond		Air Force Inst. of Tech.
10:50-11:10		WellT12.1
<a href="#">A Distributed Boundary Detection Algorithm for Multi-Robot Systems</a> , pp. 4791-4798.		
McLurkin, James		Rice Univ.
Demaine, Erik		MIT
11:10-11:30		WellT12.2
<a href="#">Dynamic Coalition Formation under Uncertainty</a> , pp. 4799-4804.		
Hooper, Daylond		Air Force Inst. of Tech.
Peterson, Gilbert		Air Force Inst. of Tech.
Borghetti, Brett		Air Force Inst. of Tech.
11:30-11:50		WellT12.3
<a href="#">Fault-Tolerant Formations of Mobile Robots</a> , pp. 4805-4810.		
Mead, Ross		Univ. of Southern California
Long, Robert		Southern Illinois Univ. at Edwardsville
Weinberg, Jerry		Southern Illinois Univ. Edwardsville
11:50-12:10		WellT12.4
<a href="#">Negotiation with Reaction Functions for Solving Complex Task Allocation Problems</a> , pp. 4811-4816.		
Zheng, Xiaoming		Univ. of Southern California
Koenig, Sven		Univ. of Southern California
12:10-12:30		WellT12.5
<a href="#">CoMutaR: A Framework for Multi-Robot Coordination and Task Allocation</a> , pp. 4817-4824.		
Shiroma, Pedro		Univ. Federal de Minas Gerais
Campos, Mario F. Montenegro		Federal Univ. of Minas Gerais
<b>WellT13</b>		Mills 7
<b>Multi-Robot Formation Control</b> (Regular Sessions)		
Chair: Mostofi, Yasamin		Univ. of New Mexico
Co-Chair: Sheng, Weihua		Oklahoma State Univ.
10:50-11:10		WellT13.1
<a href="#">Leader-Following Formation Control Based on Pursuit Strategies</a> , pp. 4825-4830.		
Ding, Wei		Zhejiang Univ.
Yan, Gangfeng		Zhejiang Univ.
Lin, Zhiyun		Zhejiang Univ.
Lan, Ying		Zhejiang Univ.
11:10-11:30		WellT13.2
<a href="#">Discrete Event Systems Based Formation Control Framework to Coordinate Multiple Nonholonomic Mobile Robots</a> , pp. 4831-4836.		
<a href="#">Attachment</a>		
Gamage, Gayan		Memorial Univ. of Newfoundland
Mann, George K. I.		Memorial Univ. of Newfoundland
Gosine, Raymond G.		Memorial Univ. of Newfoundland
11:30-11:50		WellT13.3
<a href="#">Decision-Theoretic Robot Guidance for Active Cooperative Perception</a> , pp. 4837-4842.		
Pahliani, Abdolkarim		Inst. Superior Técnico - Inst. for Systems and Robotics
Spaan, Matthijs		Inst. Superior Técnico - Inst. for Systems and Robotics
Lima, Pedro		Inst. Superior Técnico - Inst. for Systems and Robotics
11:50-12:10		WellT13.4
<a href="#">Adaptive Flocking Control for Dynamic Target Tracking in Mobile Sensor Networks</a> , pp. 4843-4848.		
La, Hung		Oklahoma State Univ.
Sheng, Weihua		Oklahoma State Univ.
12:10-12:30		WellT13.5
<a href="#">Characterization and Modeling of Wireless Channels for Networked Robotic and Control Systems -- a Comprehensive Overview</a> , pp. 4849-4854.		
Mostofi, Yasamin		Univ. of New Mexico
Gonzalez-Ruiz, Alejandro		UNM
Ghaffarkhah, Alireza		Univ. of New Mexico
Li, Ding		UNM
<b>WellT14</b>		Mills 8
<b>Robotics Mobility</b> (Invited Sessions)		
Chair: Takahashi, Satoru		Kagawa Univ.
Co-Chair: Wada, Takahiro		Kagawa Univ.
10:50-11:10		WellT14.1
<a href="#">Mechanism and Control of a 4WD Robotic Platform for Omnidirectional Wheelchairs (I)</a> , pp. 4855-4862. <a href="#">Attachment</a>		
Wada, Masayoshi		Saitama Inst. of Tech.

11:10-11:30		WellIT14.2
<i>A Stabilization Control of Two Wheels Driven Wheelchair (I)</i> , pp. 4863-4868.		
Nakamura, Akihiro		Keio Univ.
Murakami, Toshiyuki		Keio Univ.
11:30-11:50		WellIT14.3
<i>Motion Stabilization Using Laser Distance Sensor for Biped Robots with Flexible Joint (I)</i> , pp. 4869-4874.		
Oda, Naoki	Chitose Inst. of Science and Tech.	
Ito, Masanori	Chitose Inst. of Science and Tech.	
11:50-12:10		WellIT14.4
<i>Segmentation and Analysis of Console Operation Using Self-Organizing Map with Cluster Growing Method (I)</i> , pp. 4875-4880.		
Suzuki, Satoshi	Tokyo Denki Univ.	
Harashima, Fumio	Tokyo Denki Univ.	
12:10-12:30		WellIT14.5
<i>A Deceleration Control Method of Automobile for Collision Avoidance Based on Driver's Perceptual Risk (I)</i> , pp. 4881-4886.		
Wada, Takahiro	Kagawa Univ.	
Doi, Shun'ichi	Kagawa Univ.	
Hiraoka, Shoji	Kagawa Univ.	

<b>WellIT15</b>		Sterling 6
<b>Path Planning with Adaptation (Regular Sessions)</b>		
Chair: Simmons, Reid		Carnegie Mellon Univ.
Co-Chair: van den Berg, Jur		Univ. of North Carolina at Chapel Hill
10:50-11:10		WellIT15.1
<i>A Hybrid Receding Horizon Control Method for Path Planning in Uncertain Environments</i> , pp. 4887-4892.		
Xu, Bin		Virginia Tech.
Kurdila, Andrew		Virginia Tech.
Stilwell, Daniel		Virginia Tech.
11:10-11:30		WellIT15.2
<i>FAHR: Focused a* Heuristic Recomputation</i> , pp. 4893-4898.		
McNaughton, Matthew		Carnegie Mellon Univ.
Urmson, Chris		Carnegie Mellon Univ.
11:30-11:50		WellIT15.3
<i>Intelligent Pursuit &amp; Evasion in an Unknown Environment</i> , pp. 4899-4906. <a href="#">Attachment</a>		
Annas, Jonathan		Univ. of North Carolina at Charlotte
Xiao, Jing		UNC-Charlotte
11:50-12:10		WellIT15.4
<i>A Topological Approach of Path Planning for Autonomous Robot Navigation in Dynamic Environments</i> , pp. 4907-4912.		
Thomas Abraham, Aswin		National Univ. of Singapore
Ge, Shuzhi Sam		National Univ. of Singapore
Tao, Pey Yuen		National Univ. of Singapore
12:10-12:30		WellIT15.5
<i>Variable Sized Grid Cells for Rapid Replanning in Dynamic Environments</i> , pp. 4913-4918.		
Kirby, Rachel		Carnegie Mellon Univ.
Simmons, Reid		Carnegie Mellon Univ.
Forlizzi, Jodi		Carnegie Mellon Univ.

<b>WellIT16</b>		Regency D
<b>Topological SLAM and SLAM Applications (Regular Sessions)</b>		
Chair: Choset, Howie		Carnegie Mellon Univ.
Co-Chair: Andrade-Cetto, Juan		CSIC-UPC
10:50-11:10		WellIT16.1
<i>Reduced State Representation in Delayed-State SLAM</i> , pp. 4919-4924. <a href="#">Attachment</a>		
Ila, Viorela		UPC-CSIC
Porta, Josep M		UPC-CSIC
Andrade-Cetto, Juan		CSIC-UPC
11:10-11:30		WellIT16.2
<i>Trajectory-Oriented EKF-SLAM Using the Fourier-Mellin Transform Applied to Microwave Radar Images</i> , pp. 4925-4930.		
Gérossier, Franck		LASMEA
Checchin, Paul		LASMEA
Blanc, Christophe		LASMEA
Chapuis, Roland		LASMEA/FR-TIMS
Trassoudaine, Laurent		Univ. Blaise Pascal
11:30-11:50		WellIT16.3
<i>Solution to a Door Crossing Problem for an Autonomous Wheelchair</i> , pp. 4931-4936.		
Auat Cheein, Fernando		Univ. Nacional de San Juan
De La Cruz, Celso		Univ. Federal do Espírito Santo
Carelli, Ricardo		Univ. Nacional de San Juan
Bastos-Filho, Teodiano		Federal Univ. of Espírito Santo

11:50-12:10		WellIT16.4
<i>Topological SLAM Using Neighbourhood Information of Places</i> , pp. 4937-4942.		
Werner, Felix		Queensland Univ. of Tech.
Maire, Frederic		Queensland Univ. of Tech.
Sitte, Joachim		Queensland Univ. of Tech.
Choset, Howie		Carnegie Mellon Univ.
Tully, Stephen		Carnegie Mellon Univ.
Kantor, George		Carnegie Mellon Univ.
12:10-12:30		WellIT16.5
<i>A Multi-Hypothesis Topological SLAM Approach for Loop Closing on Edge-Ordered Graphs</i> , pp. 4943-4948.		
Tully, Stephen		Carnegie Mellon Univ.
Kantor, George		Carnegie Mellon Univ.
Choset, Howie		Carnegie Mellon Univ.
Werner, Felix		Queensland Univ. of Tech.

<b>WellIT1</b>		Grand A
<b>Humanoid Robot II (Regular Sessions)</b>		
Chair: Caldwell, Darwin G.		Italian Inst. of Tech.
Co-Chair: Yoshikai, Tomoaki		The Univ. of Tokyo
14:00-14:20		WellIT1.1
<i>SURALP: A New Full-Body Humanoid Robot Platform</i> , pp. 4949-4954.		
Erbatur, Kemalettin		Sabanci Univ.
Seven, Utku		Sabanci Univ.
Taskiran, Evrim		Sabanci Univ.
Koca, Ozer		Sabanci Univ.
Yilmaz, Metin		Sabanci Univ.
Unel, Mustafa		Sabanci Univ.
Kiziltas, Gullu		Sabanci Univ.
Sabanovic, Asif		Sabanci Univ.
Onat, Ahmet		Sabanci Univ.
14:20-14:40		WellIT1.2
<i>Three DOF Hybrid Mechanism for Humanoid Robotic Application: Modeling, Design and Realization</i> , pp. 4955-4961. <a href="#">Attachment</a>		
Alfayad, Samer		LISV,BIA
Ben Ouezdou, Fathi		Univ. of Versailles-Saint-Quentin
Namoun, Faycal		BIA
Bruneau, Olivier		UVSQ / LISV
Henaff, Patrick		Univ. of Versailles St Quentin
14:40-15:00		WellIT1.3
<i>The Mechanical Design of the New Lower Body for the Child Humanoid Robot 'iCub'</i> , pp. 4962-4968. <a href="#">Attachment</a>		
Tsagarakis, Nikolaos		Italian Inst. of Tech. (IIT)
Vanderborght, Bram		Vrije Univ. Brussel
Laffranchi, Matteo		Italian Inst. of Tech.
Caldwell, Darwin G.		Italian Inst. of Tech.
15:00-15:20		WellIT1.4
<i>New Three DOF Ankle Mechanism for Humanoid Robotic Application: Modeling, Design and Realization</i> , pp. 4969-4976. <a href="#">Attachment</a>		
Alfayad, Samer		LISV,BIA
Ben Ouezdou, Fathi		Univ. of Versailles-Saint-Quentin
Namoun, Faycal		BIA
15:20-15:40		WellIT1.5
<i>Design and Development of a Humanoid with Soft 3D-Deformable Sensor Flesh and Automatic Recoverable Mechanical Overload Protection Mechanism</i> , pp. 4977-4983.		
Yoshikai, Tomoaki		The Univ. of Tokyo
Hayashi, Marika		The Univ. of Tokyo
Kadowaki, Asuka		The Univ. of Tokyo
Goto, Takefumi		The Univ. of Tokyo
Inaba, Masayuki		The Univ. of Tokyo

<b>WellIT2</b>		Grand B
<b>Human Robot Interaction V (Regular Sessions)</b>		
Chair: Steil, Jochen J.		Bielefeld Univ.
Co-Chair: Mühlig, Manuel		CoR-Lab. Bielefeld, Honda Res. Inst. Europe
14:00-14:20		WellIT2.1
<i>Human Robot Interaction: Studies on Laban Human Movement Analysis and Dynamic Background Segmentation</i> , pp. 4984-4989.		
Luis, Santos		Univ. of Coimbra
Prado, José Augusto		Univ. of Coimbra
Dias, Jorge		Univ. of Coimbra
14:20-14:40		WellIT2.2
<i>Co-Creation of Human-Robot Interaction Rules through Response Prediction and Habituation/Dishabituation</i> , pp. 4990-4995.		
Kuriyama, Takatsugu		The Univ. of Tokyo
Kuniyoshi, Yasuo		The Univ. of Tokyo

14:40-15:00		WeIIIT2.3
<i>Automatic Selection of Task Spaces for Imitation Learning</i> , pp. 4996-5002.		
Mühlig, Manuel	CoR-Lab. Bielefeld, Honda Res. Inst. Europe	
Gienger, Michael	Honda Res. Inst. Europe	
Steil, Jochen J.	Bielefeld Univ.	
Goerick, Christian	Honda Res. Inst. Europe GmbH	
15:00-15:20		WeIIIT2.4
<i>Motion Modification Method to Control Affective Nuances for Robots</i> , pp. 5003-5008.		
Nakagawa, Kayako	ATR	
Shinozawa, Kazuhiko	Advanced Telecommunications Res. Inst.	
Ishiguro, Hiroshi	Osaka Univ.	
Akimoto, Takaaki	ATR	
Hagita, Norihiro	ATR	
15:20-15:40		WeIIIT2.5
<i>Expressive Facial Speech Synthesis on a Robotic Platform</i> , pp. 5009-5014.		
Li, Xingyan	Univ. of Auckland	
MacDonald, Bruce	Univ. of Auckland	
Watson, Catherine	Univ. of Auckland	
<b>WeIIIT3</b>		Grand C
<b>Biological Inspired Robotics</b> (Regular Sessions)		
Chair: Quinn, Roger, D.	Case Western Res. Univ.	
Co-Chair: Vaughan, Richard	Simon Fraser Univ.	
14:00-14:20		WeIIIT3.1
<i>Analysis of the Terrestrial Locomotion of a Salamander Robot</i> , pp. 5015-5020.		
Karakasiliotis, Konstantinos	EPFL	
Ijspeert, Auke	EPFL	
14:20-14:40		WeIIIT3.2
<i>Crawling Locomotion of Modular Climbing Caterpillar Robot with Changing Kinematic Chain</i> , pp. 5021-5026.		
Wang, Wei	Beihang Univ.	
Zhang, Houxiang	Computer Science	
Zhang, Jianwei	Univ. of Hamburg	
14:40-15:00		WeIIIT3.3
<i>Optical Flow on a Flapping Wing Robot</i> , pp. 5027-5032.		
Garcia Bermudez, Fernando	Univ. of California, Berkeley	
Fearing, Ronald	Univ. of California at Berkeley	
15:00-15:20		WeIIIT3.4
<i>Robot Task Switching under Diminishing Returns</i> , pp. 5033-5038.		
Wawerla, Jens	Simon Fraser Univ.	
Vaughan, Richard	Simon Fraser Univ.	
15:20-15:40		WeIIIT3.5
<i>An Insect-Inspired Robot for Lunar In-Situ Resource Utilization</i> , pp. 5039-5044.		
Dunker, Philip	Case Western Res. Univ.	
Lewinger, William	Case Western Res. Univ.	
Hunt, Alexander Jacob	Case Western Res. Univ.	
Quinn, Roger, D.	Case Western Res. Univ.	
<b>WeIIIT4</b>		Grand F
<b>Mobile Robot Control I</b> (Regular Sessions)		
Chair: Robuffo Giordano, Paolo	Max Planck Inst. for Biological Cybernetics	
Co-Chair: De Luca, Alessandro	Univ. di Roma La Sapienza	
14:00-14:20		WeIIIT4.1
<i>Lion and Man Game in the Presence of a Circular Obstacle</i> , pp. 5045-5050.		
Karnad, Nikhil	Univ. of Minnesota, Twin-Cities	
Isler, Volkan	Univ. of Minnesota	
14:20-14:40		WeIIIT4.2
<i>Control Design and Experimental Evaluation of the 2D CyberWalk Platform</i> , pp. 5051-5058. <a href="#">Attachment</a>		
De Luca, Alessandro	Univ. di Roma "La Sapienza"	
Mattone, Raffaella	Univ. di Roma	
Robuffo Giordano, Paolo	Max Planck Inst. for Biological Cybernetics	
Buelthoff, Heinrich H.	Max Planck Inst. for Biol. Cybernetics	
14:40-15:00		WeIIIT4.3
<i>Target Tracking Control of a Mobile Robot Using a Brain Limbic System Based Control Strategy</i> , pp. 5059-5064.		
Langari, Reza	Texas A&M Univ.	
Kim, Changwon	Texas A&M Univ.	
15:00-15:20		WeIIIT4.4
<i>Decentralized Adaptive Control of a Class of Discrete-Time Multi-Agent Systems for Hidden Leader Following Problem</i> , pp. 5065-5070.		
Ge, Shuzhi Sam	National Univ. of Singapore	
Yang, Chenguang	National Univ. of Singapore	

Li, Yanan	National Univ. of Singapore
Lee, Tong Heng	National Univ. of Singapore
15:20-15:40	WeIIIT4.5
<i>Synthesis of Output Feedback Control for Motion Planning Based on LTL Specifications</i> , pp. 5071-5075.	
Wu, Min	Zhejiang Univ.
Yan, Gangfeng	Zhejiang Univ.
Lin, Zhiyun	Zhejiang Univ.
Lan, Ying	Zhejiang Univ.
<b>WeIIIT5</b>	Grand G
<b>Sensor Path Planning</b> (Regular Sessions)	
Chair: Oriolo, Giuseppe	Univ. di Roma
Co-Chair: McLauchlan, Lifford	Texas A&M Univ.
14:00-14:20	WeIIIT5.1
<i>An Exploration Method for General Robotic Systems Equipped with Multiple Sensors</i> , pp. 5076-5082. <a href="#">Attachment</a>	
Freda, Luigi	Univ. di Roma La Sapienza
Oriolo, Giuseppe	Univ. di Roma "La Sapienza"
Vecchioli, Francesco	Univ. di Roma "La Sapienza"
14:20-14:40	WeIIIT5.2
<i>Planning Collision-Free and Occlusion-Free Paths for Industrial Manipulators with Eye-To-Hand Configuration</i> , pp. 5083-5088.	
Leonard, Simon	The Univ. of British Columbia
Croft, Elizabeth	Univ. of British Columbia
Little, James J.	UBC
14:40-15:00	WeIIIT5.3
<i>Robust Sensor Planning for a Partially Known Moving Target: Application to a Dynamic X-Ray Imaging System</i> , pp. 5089-5094.	
Yamokoski, John	Univ. of Florida
Banks, Scott A.	Univ. of Florida
15:00-15:20	WeIIIT5.4
<i>Multipath-Based Relocation Schemes Considering Balanced Assignment for Hopping Sensors</i> , pp. 5095-5100.	
Kim, Moonseong	Michigan State Univ.
Mutka, Matt	Michigan State University
15:20-15:40	WeIIIT5.5
<i>Dynamic Path Planning of Mobile Robot Mounted Range Sensors and Single CCD Camera</i> , pp. 5101-5106.	
Takahashi, Satoru	Kagawa Univ.
<b>WeIIIT6</b>	Grand H
<b>Telerobotics - Haptics</b> (Regular Sessions)	
Chair: Niemeyer, Gunter	Stanford Univ.
Co-Chair: Wahl, Friedrich M.	Tech. Univ. of Braunschweig
14:00-14:20	WeIIIT6.1
<i>1kHz Is Not Enough - How to Achieve Higher Update Rates with a Bilateral Teleoperation System Based on Commercial Hardware</i> , pp. 5107-5114.	
Kubus, Daniel	Tech. Univ. of Braunschweig
Weidauer, Ingo	Tech. Univ. Braunschweig
Wahl, Friedrich M.	Tech. Univ. of Braunschweig
14:20-14:40	WeIIIT6.2
<i>Dual-Master Teleoperation Control of Kinematically Redundant Slave Manipulators</i> , pp. 5115-5120.	
Malysz, Pawel	McMaster Univ.
Sirouspour, Shahin	McMaster Univ.
14:40-15:00	WeIIIT6.3
<i>Open-Loop Bilateral Teleoperation for Stable Force Tracking</i> , pp. 5121-5126.	
Shull, Pete	Stanford Univ.
Niemeyer, Gunter	Willow Garage and Stanford Univ.
15:00-15:20	WeIIIT6.4
<i>Experimental Studies of a Teleoperator System with Projection-Based Force Reflection Algorithms</i> , pp. 5127-5132.	
Polushin, Ilia G.	The Univ. of Western Ontario
Liu, Peter X.	Carleton Univ.
Lung, Chung-Horng	Carleton Univ.
15:20-15:40	WeIIIT6.5
<i>Scaling and Eliminating Non-Contact Forces and Torques to Improve Bilateral Teleoperation</i> , pp. 5133-5139.	
Kubus, Daniel	Tech. Univ. of Braunschweig
Wahl, Friedrich M.	Tech. Univ. of Braunschweig
<b>WeIIIT7</b>	Mills 1
<b>Design of Robotic Mechanisms I</b> (Regular Sessions)	
Chair: Naish, Michael David	Univ. of Western Ontario
Co-Chair: Yu, Yong	Kagoshima Univ.

14:00-14:20		WeIIIT7.1
	<a href="#">Spring-Clutch: A Safe Torque Limiter Based on a Spring and CAM Mechanism with the Ability to Reinitialize Its Position</a> , pp. 5140-5145.	
	<a href="#">Attachment</a>	
	Lee, Woosub	Korea Inst. of Science and Tech.
	Choi, Junho	Korea Inst. of Science & Tech.
	Kang, Sungchul	Korea Inst. of Science & Tech.
14:20-14:40		WeIIIT7.2
	<a href="#">Design of a Novel 3 Degree of Freedom Robotic Joint</a> , pp. 5146-5152.	
	Guckert, Mark Lyle	Univ. of Western Ontario
	Naish, Michael D	Univ. of Western Ontario
14:40-15:00		WeIIIT7.3
	<a href="#">Research of 3-DOF Active Rotational Ball Joint</a> , pp. 5153-5158.	
	Yu, Yong	Kagoshima Univ.
	Narida, Yoshitaka	Kagoshima Univ.
	Harada, Yoshinori	Tech. Xross Kyushi Corp.
	Nakao, Toshimi	Tech. Xross Kyushi Corp.
15:00-15:20		WeIIIT7.4
	<a href="#">Design Optimization of a Delta-Like Parallel Robot through Global Stiffness Performance Evaluation</a> , pp. 5159-5166.	
	Courteille, Eric	INSA RENNES
	Deblaise, Dominique	INSA RENNES
	Maurine, Patrick	INSA of Rennes
15:20-15:40		WeIIIT7.5
	<a href="#">Kinematic Analysis and Design of a New 3T1R 4-DOF Parallel Mechanism with Rotational Pitch Motion</a> , pp. 5167-5172. <a href="#">Attachment</a>	
	Kim, Sung Mok	Korea Univ. Korea
	Kim, Whee Kuk	Korea Univ.
	Yi, Byung-Ju	Hanayang Univ.
<b>WeIIIT8</b>		Mills 2
<b>Modeling the Environment (Regular Sessions)</b>		
	Chair: Andert, Franz	German Aerospace Center (DLR)
	Co-Chair: Nagai, Yukie	Bielefeld Univ.
14:00-14:20		WeIIIT8.1
	<a href="#">Creation of Geo-Referenced Mosaics from MAV Video and Telemetry Using Constrained Optimization and Bundle Adjustment</a> , pp. 5173-5178.	
	Heiner, Benjamin	Brigham Young Univ.
	Taylor, Clark N.	Brigham Young Univ.
14:20-14:40		WeIIIT8.2
	<a href="#">Digital Elevation Map Reconstruction for Port-Based Dynamic Simulation of Contacts on Irregular Surfaces</a> , pp. 5179-5184. <a href="#">Attachment</a>	
	Wassink, Martin	Univ. of Twente
	Carloni, Raffaella	Univ. of Twente
	Poulakis, Pantelis	European Space Agency
	Stramigioli, Stefano	Univ. of Twente
14:40-15:00		WeIIIT8.3
	<a href="#">An Inexpensive 3D Scanner for Indoor Mobile Robots</a> , pp. 5185-5190.	
	Ryde, Julian	CSIRO
15:00-15:20		WeIIIT8.4
	<a href="#">Drawing Stereo Disparity Images into Occupancy Grids: Measurement Model and Fast Implementation</a> , pp. 5191-5197.	
	Andert, Franz	German Aerospace Center (DLR)
15:20-15:40		WeIIIT8.5
	<a href="#">Stability and Sensitivity of Bottom-Up Visual Attention for Dynamic Scene Analysis</a> , pp. 5198-5203.	
	Nagai, Yukie	Bielefeld Univ.
<b>WeIIIT9</b>		Mills 3
<b>Computer Vision Algorithms (Regular Sessions)</b>		
	Chair: Mouaddib, El Mustapha	Univ. of Picardie Jules Verne
	Co-Chair: Kagami, Shingo	Tohoku Univ.
14:00-14:20		WeIIIT9.1
	<a href="#">Dynamical Models for Position Measurement with Global Shutter and Rolling Shutter Cameras</a> , pp. 5204-5209.	
	Laroche, Edouard	LSIIT
	Kagami, Shingo	Tohoku Univ.
14:20-14:40		WeIIIT9.2
	<a href="#">What Can Prediction Bring to Image-Based Visual Servoing ?</a> , pp. 5210-5215.	
	Allibert, Guillaume	Inst. PRISME
	Courtial, Estelle	Lab. of Vision and Robotic
14:40-15:00		WeIIIT9.3
	<a href="#">Self-Location from Monocular Uncalibrated Vision Using Reference Omniviews</a> , pp. 5216-5221.	
	Puig, L.	Univ. de Zaragoza
	Guerrero, J.J.	Univ. de Zaragoza

15:00-15:20		WeIIIT9.4
	<a href="#">Obstacle Classification and Location by Using a Mobile Omnidirectional Camera Based on Tracked Floor Boundary Points</a> , pp. 5222-5227.	
	Tasaki, Tsuyoshi	Toshiba Corp.
	Ozaki, Fumio	Toshiba Corp.
15:20-15:40		WeIIIT9.5
	<a href="#">3D Model Based Pose Estimation for Omnidirectional Stereovision</a> , pp. 5228-5233. <a href="#">Attachment</a>	
	Caron, Guillaume	Univ. of Picardie Jules Verne
	Marchand, Eric	Univ. de Rennes 1
	Mouaddib, El Mustapha	Univ. of Picardie Jules Verne

<b>WeIIIT10</b>		Mills 4
<b>Manipulation (Regular Sessions)</b>		
	Chair: Stilman, Mike	Georgia Tech.
	Co-Chair: Heintz, Fredrik	Linköping Univ.
14:00-14:20		WeIIIT10.1
	<a href="#">A Design and Analysis Tool for Underactuated Compliant Hands</a> , pp. 5234-5239.	
	Ciocarlie, Matei	Columbia Univ.
	Allen, Peter	Columbia Univ.
14:20-14:40		WeIIIT10.2
	<a href="#">Associating and Reshaping of Whole Body Motions for Object Manipulation</a> , pp. 5240-5247.	
	Kunori, Hirotooshi	The Univ. of Tokyo
	Lee, Dongheui	Univ. of Tokyo
	Nakamura, Yoshihiko	Univ. of Tokyo
14:40-15:00		WeIIIT10.3
	<a href="#">Robot Jenga: Autonomous and Strategic Block Extraction</a> , pp. 5248-5253. <a href="#">Attachment</a>	
	Wang, Jiuguang	Georgia Inst. of Tech.
	Rogers, Philip	Georgia Inst. of Tech.
	Parker, Lonnie	Georgia Inst. of Tech.
	Brooks, Douglas	Georgia Inst. of Tech.
	Stilman, Mike	Georgia Tech.
15:00-15:20		WeIIIT10.4
	<a href="#">A Stream-Based Hierarchical Anchoring Framework</a> , pp. 5254-5260.	
	Heintz, Fredrik	Linköping Univ.
	Kvarnström, Jonas	Linköping Univ.
	Doherty, Patrick	AIICS - Univ. of Linköpings
15:20-15:40		WeIIIT10.5
	<a href="#">Improved and Modified Geometric Formulation of POE Based Kinematic Calibration of Serial Robots</a> , pp. 5261-5266.	
	Lou, Yunjiang	Shenzhen Graduate School, Harbin Inst. of Tech.
	Chen, Tieniu	Harbin Inst. of Tech. Shenzhen Graduate School
	Wu, Yuanqing	Shanghai Jiaotong Univ.
	Li, Zhibin	Shenzhen Pol. Coll.
	Jiang, Shilong	Googol Tech. Limited

<b>WeIIIT11</b>		Mills 5
<b>Modular Robots (Regular Sessions)</b>		
	Chair: Goldstein, Seth Copen	Carnegie Mellon Univ.
	Co-Chair: Lyder, Andreas	Univ. of Southern Denmark
14:00-14:20		WeIIIT11.1
	<a href="#">A Tale of Two Planners: Modular Robotic Planning with LDP</a> , pp. 5267-5274.	
	De Rosa, Michael	Carnegie Mellon Univ.
	Goldstein, Seth Copen	Carnegie Mellon Univ.
	Lee, Peter	Carnegie Mellon Univ.
	Pillai, Padmanabhan	Intel Res. Pittsburgh
	Campbell, Jason	Intel Res.
14:20-14:40		WeIIIT11.2
	<a href="#">Representation and Shape Estimation of Odin, a Parallel Under-Actuated Modular Robot</a> , pp. 5275-5280.	
	Lyder, Andreas	Univ. of Southern Denmark
	Petersen, Henrik Gordon	Univ. of Southern Denmark
	Stoy, Kasper	Univ. of Southern Denmark
14:40-15:00		WeIIIT11.3
	<a href="#">Morphology Detection for Magnetically Self-Assembled Modular Robots</a> , pp. 5281-5286. <a href="#">Attachment</a>	
	Nagy, Zoltan	ETH Zurich
	Miyashita, Shuhei	Univ. of Zurich
	Muntwyler, Simon	ETH Zurich
	Cherukuri, Ashish K.	ETH Zurich
	Abbott, Jake	Univ. of Utah
	Pfeifer, Rolf	Univ. of Zurich
	Nelson, Bradley J.	ETH Zurich



15:00-15:20		WellIT11.4
<a href="#">Robust and Reversible Self-Reconfiguration</a> , pp. 5287-5294. <a href="#">Attachment</a>	Schultz, Ulrik Pagh Bordignon, Mirko Stoy, Kasper	Univ. of Southern Denmark Univ. of Southern Denmark Univ. of Southern Denmark
15:20-15:40		WellIT11.5
<a href="#">Graph Signature for Self-Reconfiguration Planning of Modules with Symmetry</a> , pp. 5295-5300.	Asadpour, Masoud Zokaei Ashtiani, Mohammad Hassan Sproewitz, Alexander Ijspeert, Auke	Univ. of Tehran Univ. of Tehran EPFL EPFL
<b>WellIT12</b>		Mills 6
<b>Aerial Robotics: Visual Navigation (Regular Sessions)</b>		
	Chair: Liu, Yunhui Co-Chair: Saxena, Ashutosh	Chinese Univ. of Hong Kong Stanford Univ.
14:00-14:20		WellIT12.1
<a href="#">Dynamic Visual Servoing of a Small Scale Autonomous Helicopter in Uncalibrated Environments</a> , pp. 5301-5306.	Fan, Caizhi Baoquan, Song Cai, Xuanping Liu, Yunhui	National Univ. of Defense Tech. Univ. of Toronto The National Univ. of Defense Tech. Chinese Univ. of Hong Kong
14:20-14:40		WellIT12.2
<a href="#">Autonomous Indoor Helicopter Flight Using a Single Onboard Camera</a> , pp. 5307-5314. <a href="#">Attachment</a>	Soundararaj, Sai Prashanth Sujeeth, Arvind Saxena, Ashutosh	Stanford Univ. Stanford Univ. Cornell Univ.
14:40-15:00		WellIT12.3
<a href="#">Visual Navigation of a Quadrotor Aerial Vehicle</a> , pp. 5315-5320.	Courbon, Jonathan Mezouar, Youcef Guenard, Nicolas Martinet, Philippe	CEA Blaise Pascal Univ. CEA Blaise Pascal Univ.
15:00-15:20		WellIT12.4
<a href="#">Visual Servoing of an Autonomous Micro Air Vehicle for Ground Object Tracking</a> , pp. 5321-5326. <a href="#">Attachment</a>	Syaril, Azrad Kendoul, Farid Pebrianti, Dwi Nonami, Kenzo	Chiba Univ. Chiba Univ. Chiba Univ. Chiba Univ.
15:20-15:40		WellIT12.5
<a href="#">Multiple Target Geo-Location Using SIFT and Stereo Vision on Airborne Video Sequences</a> , pp. 5327-5332.	DeSouza, Guilherme Han, Kyung min	Univ. of Missouri-Columbia U of missouri - columbia
<b>WellIT13</b>		Mills 7
<b>Multi-Robot Manipulation (Regular Sessions)</b>		
	Chair: Esposito, Joel Co-Chair: Ota, Jun	US Naval Acad. The Univ. of Tokyo
14:00-14:20		WellIT13.1
<a href="#">Decentralized Cooperative Manipulation with a Swarm of Mobile Robots</a> , pp. 5333-5338.	Esposito, Joel	US Naval Acad.
14:20-14:40		WellIT13.2
<a href="#">Development of a Direct Teaching System for a Cooperative Cell-Production Robot Considering Safety and Operability</a> , pp. 5339-5344.	Jeong, Seonghee Nakabo, Yoshihiro Ogure, Takuya Yamada, Yoji	National Inst. of Advanced Industrial Science and National Insitute of Advanced Industrial Science and Tech. (AIST) Nagoya Univ.
14:40-15:00		WellIT13.3
<a href="#">Development of a Safety Module for Robots Sharing Workspace with Humans</a> , pp. 5345-5349.	Nakabo, Yoshihiro Saito, Hajime Ogure, Takuya Jeong, Seonghee Yamada, Yoji	National Insitute of General Robotix, Inc. Advanced Industrial Science and Tech. (AIST) National Inst. of Advanced Industrial Science and Nagoya Univ.
15:00-15:20		WellIT13.4
<a href="#">Behavior Control Methodology for Circulating Robots in Flexible Batch Manufacturing Systems Experiencing Bottlenecks</a> , pp. 5350-5356. <a href="#">Attachment</a>	Hoshino, Satoshi Seki, Hiroya	Tokyo Inst. of Tech. Tokyo Inst. of Tech.

Naka, Yuji	Tokyo Inst. of Tech.
Ota, Jun	The Univ. of Tokyo
15:20-15:40	WellIT13.5
<i>Micro-To-Nano Optical Resolution in a Multirobot Nanobiocharacterization Station</i> , pp. 5357-5362.	
Otero Diaz, Jorge	Univ. of Barcelona
Puig, Manel	Univ. de Barcelona
Frigola, Manel	Tech. Univ. of Catalonia
Casals, Alicia	Tech. Univ. of Catalonia

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**WellIT14** Mills 8

**Neural and Fuzzy Control** (Regular Sessions)

Chair: Okuno, Hiroshi G.	Kyoto Univ.
Co-Chair: Lee, Ju-Jang	KAIST

14:00-14:20 WellIT14.1

*Predicting the Individual Best Saddle Height of Bicycle Based on Electromyography and Fuzzy Inference*, pp. 5363-5368.

Tokuyasu, Tatsushi	National Coll. of Tech.
Taniguchi, Hiroki	Oita National Coll. of Tech.
Matsumoto, Shimpei	Oita National Coll. of Tech.
Keichi, Ooba	Oita National Coll. of Tech.

14:20-14:40 WellIT14.2

*Fuzzy Logic Controlled Landing of a Boeing 747*, pp. 5369-5375.

McLauchlan, Lifford	Texas A&M Univ.
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14:40-15:00 WellIT14.3

*Modeling Tool-Body Assimilation Using Second-Order Recurrent Neural Network*, pp. 5376-5381.

Nishide, Shun	Kyoto Univ.
Nakagawa, Tatsuhiko	NARA Inst. of SCIENCE and Tech. -Univ.
Ogata, Tetsuya	Kyoto Univ.
Tani, Jun	Riken
Takahashi, Toru	Kyoto Univ.
Okuno, Hiroshi G.	Kyoto Univ.

15:00-15:20 WellIT14.4

*Multiple Incremental Fuzzy Neuro-Adaptive Control of Robot Manipulators*, pp. 5382-5387.

Kim, Chang-Hyun	Korea Advanced Inst. of Science and Tech.
Seok, Joon-Hong	KAIST
Choi, Byoung-Suk	KAIST
Lee, Ju-Jang	KAIST

15:20-15:40 WellIT14.5

*Phoneme Acquisition Model Based on Vowel Imitation Using Recurrent Neural Network*, pp. 5388-5393.

Kanda, Hisashi	Informatics, Kyoto Univ.
Ogata, Tetsuya	Kyoto Univ.
Takahashi, Toru	Kyoto Univ.
Komatani, Kazunori	Kyoto Univ.
Okuno, Hiroshi G.	Kyoto Univ.

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**WellIT15** Sterling 6

**Path Planning: Mobile Robots** (Regular Sessions)

Chair: Huber, Manfred	Univ. of Texas at Arlington
Co-Chair: Whitty, Mark Albert	Univ. of New South Wales

14:00-14:20 WellIT15.1

*Encoding User Motion Preferences in Harmonic Function Path Planning*, pp. 5394-5400.

D'Silva, Giles	Univ. of Texas at Arlington
Huber, Manfred	Univ. of Texas at Arlington

14:20-14:40 WellIT15.2

*Efficient Path Planning in Deformable Maps*, pp. 5401-5406.

Whitty, Mark Albert	Univ. of New South Wales
Guivant, Jose	UNSW

14:40-15:00 WellIT15.3

*A Bug-Inspired Algorithm for Efficient Anytime Path Planning*, pp. 5407-5413.

Antich, Javier	Univ. of the Balearic Islands
Ortiz, Alberto	Univ. of the Balearic Islands
Minguez, Javier	Univ. of Zaragoza

15:00-15:20 WellIT15.4

*A Coarse-To-Fine Approach for Fast Path Finding for Mobile Robots*, pp. 5414-5419.

Lee, Jae-Yeong	Electronics and Telecommunications Res. Inst. (ETRI)
Yu, Wonpil	ETRI

15:20-15:40 WellIT15.5

*Planning Motion in Point-Represented Contact Spaces Using Approximate Star-Shaped Decomposition*, pp. 5420-5425.

Lien, Jyh-Ming	George Mason Univ.
Lu, Yanyan	George Mason Univ.

<b>WeIIT16</b>		Regency D
<b>Visual Servoing I (Regular Sessions)</b>		
Chair: Chaumette, Francois	INRIA Rennes-Bretagne Atlantique	
Co-Chair: Martinet, Philippe	Blaise Pascal Univ.	
14:00-14:20		WeIIT16.1
<i>3D Pose and Velocity Visual Tracking Based on Sequential Region of Interest Acquisition</i> , pp. 5426-5431.		
Dahmouche, Redwan	Univ. Blaise Pascal	
Andreff, Nicolas	Univ. Blaise Pascal	
Mezouar, Youcef	Blaise Pascal Univ.	
Martinet, Philippe	Blaise Pascal Univ.	
14:20-14:40		WeIIT16.2
<i>Coarsely Calibrated Visual Servoing of a Mobile Robot Using a Catadioptric Vision System</i> , pp. 5432-5437. <a href="#">Attachment</a>		
Fomena Tatsambon, Romeo	Univ. de Rennes 1, IRISA	
Yoon, Han	Univ. of Illinois at Urbana-Champaign	
Cherubini, Andrea	INRIA-IRISA	
Chaumette, Francois	INRIA Rennes-Bretagne Atlantique	
Hutchinson, Seth	Univ. of Illinois	
14:40-15:00		WeIIT16.3
<i>Colorimetry-Based Visual Servoing</i> , pp. 5438-5443.		
Collewet, Christophe	INRIA	
Marchand, Eric	Univ. de Rennes 1	
15:00-15:20		WeIIT16.4
<i>Image Based Visual Servoing Using Algebraic Curves Applied to Shape Alignment</i> , pp. 5444-5449.		
Yazicioglu, Ahmet Yasin	Sabanci Univ.	
Calli, Berk	Sabanci Univ.	
Unel, Mustafa	Sabanci Univ.	
15:20-15:40		WeIIT16.5
<i>Visual Servoing from Robust Direct Color Image Registration</i> , pp. 5450-5455. <a href="#">Attachment</a>		
Silveira, Geraldo	CTI	
Malis, Ezio	INRIA	
<b>WeIVT1</b>		Grand A
<b>Humanoid Robot III (Regular Sessions)</b>		
Chair: Janssen, Herbert	Honda Res. Inst. Europe	
Co-Chair: Fukui, Kotaro	Waseda Univ.	
16:00-16:20		WeIVT1.1
<i>Three Dimensional Tongue with Liquid Sealing Mechanism for Improving Resonance on an Anthropomorphic Talking Robot</i> , pp. 5456-5462. <a href="#">Attachment</a>		
Fukui, Kotaro	Waseda Univ.	
Ishikawa, Yuma	Waseda Univ.	
Ohno, Keisuke	Waseda Univ.	
Sakakibara, Nana	Waseda Univ.	
Honda, Masaaki	Waseda Univ.	
Takanishi, Atsuo	Waseda Univ.	
16:20-16:40		WeIVT1.2
<i>Real-Time Estimation Algorithm for the Center of Mass of Bipedal Robot with Flexible Inverted Pendulum Model</i> , pp. 5463-5468.		
Kwon, SangJoo	Korea Aerospace Univ.	
16:40-17:00		WeIVT1.3
<i>Vision Based Motion Control for a Humanoid Head</i> , pp. 5469-5474. <a href="#">Attachment</a>		
Visser, Ludo C.	Univ. of Twente	
Carloni, Raffaella	Univ. of Twente	
Stramigioli, Stefano	Univ. of Twente	
17:00-17:20		WeIVT1.4
<i>Instant Prediction for Reactive Motions with Planning</i> , pp. 5475-5480.		
Sugiura, Hisashi	Honda Res. Inst. Europe	
Janssen, Herbert	Honda Res. Inst. Europe	
Goerick, Christian	Honda Res. Inst. Europe GmbH	
17:20-17:40		WeIVT1.5
<i>Experimental Study on Dynamic Reactionless Motions with DLR's Humanoid Robot Justin</i> , pp. 5481-5486. <a href="#">Attachment</a>		
Wimboeck, Thomas	German Aerospace Center (DLR)	
Nenchev, Dragomir	Tokyo City Univ.	
Albu-Schäffer, Alin	DLR - German Aerospace Center	
Hirzinger, Gerd	German Aerospace Center (DLR)	
<b>WeIVT2</b>		Grand B
<b>Human Robot Interaction VI (Regular Sessions)</b>		
Chair: Pantofaru, Caroline	Willow Garage, Inc.	
Co-Chair: Suzuki, Tatsuya	Nagoya Univ.	

16:00-16:20		WeIVT2.1
	<i>Nonlinear Decoupled Motion-Stiffness Control and Collision Detection/Reaction for the VSA-II Variable Stiffness Device</i> , pp. 5487-5494.	
	De Luca, Alessandro	Univ. di Roma "La Sapienza"
	Flacco, Fabrizio	Univ. of Rome "La Sapienza"
	Bicchi, Antonio	Univ. of Pisa
	Schiavi, Riccardo	Univ. of Pisa
16:20-16:40		WeIVT2.2
	<i>Influences on Proxemic Behaviors in Human-Robot Interaction</i> , pp. 5495-5502.	
	Takayama, Lella	Willow Garage
	Pantofaru, Caroline	Willow Garage, Inc.
16:40-17:00		WeIVT2.3
	<i>A DCT-Gaussian Classification Scheme for Human-Robot Interface</i> , pp. 5503-5508.	
	Kota, Srinivas	Southern Illinois Univ.
	Mace, Michael	Univ. of Bristol
	Gupta, Lalit	Southern Illinois Univ.
	Vaidyanathan, Ravi	Naval Postgraduate School
17:00-17:20		WeIVT2.4
	<i>Wiimote Robot Control Using Human Motion Models</i> , pp. 5509-5515. <a href="#">Attachment</a>	
	Smith, Claes Christian	Royal Inst. of Tech.
	Christensen, Henrik Iskov	Georgia Inst. of Tech.
17:20-17:40		WeIVT2.5
	<i>Symbolic Modeling of Driving Behavior Based on Hierarchical Segmentation and Formal Grammar (I)</i> , pp. 5516-5521.	
	Nakano, Ato	Nagoya Univ.
	Okuda, Hiroyuki	Nagoya Univ.
	Suzuki, Tatsuya	Nagoya Univ.
	Inagaki, Shinkichi	Nagoya Univ.
	Hayakawa, Soichiro	Toyota Tech. Institute
<b>WeIVT3</b>		Grand C
<b>Surgery Robots (Regular Sessions)</b>		
	Chair: Lehman, Amy C.	Univ. of Nebraska-Lincoln
	Co-Chair: Fujie, Masakatsu G.	Waseda Univ.
16:00-16:20		WeIVT3.1
	<i>Minimally Invasive Surgery Maneuver Recognition Based on Surgeon's Model</i> , pp. 5522-5527.	
	Estebanez, Belen	Univ. de Málaga
	Jimenez Ruiz, Gema	Univ. of Malaga
	Muñoz, Victor	Univ. of Malaga
	Garcia-Morales, Isabel	Univ. of Malaga, Spain
	Bauzano, Enrique	Univ. of Malaga, Spain
	Molina Pérez, Jaime	Univ. of Malaga
16:20-16:40		WeIVT3.2
	<i>Assemblable Three-Fingered Nine-Degree of Freedom Hand for Laparoscopic Surgery</i> , pp. 5528-5533. <a href="#">Attachment</a>	
	Oshima, Ritsuya	Tokyo Inst. of Tech.
	Takayama, Toshio	Tokyo Inst. of Tech.
	Omata, Toru	Tokyo Inst. of Tech.
	Kojima, Kazuyuki	Tokyo Medical and Dental Univ. Graduate School Of Medicine
	Takase, Kozo	Tokyo Medical and Dental Univ.
	Tanaka, Naofumi	Tokyo Medical and Dental Univ.
16:40-17:00		WeIVT3.3
	<i>A Robotic Palpation-Based Needle Insertion Method for Diagnostic Biopsy and Treatment of Breast Cancer</i> , pp. 5534-5539.	
	Kobayashi, Yo	Waseda Univ.
	Suzuki, Makiko	Waseda Univ.
	Kato, Atsushi	Waseda Univ.
	Konishi, Kozo	Kyushu Univ.
	Hashizume, Makoto	Kyushu Univ.
	Fujie, Masakatsu G.	Waseda Univ.
17:00-17:20		WeIVT3.4
	<i>Cooperative Robotic Assistant for Laparoscopic Surgery: CoBRASurge</i> , pp. 5540-5545.	
	Zhang, Xiaoli	Univ. of Nebraska Lincoln
	Lehman, Amy C.	Univ. of Nebraska-Lincoln
	Nelson, Carl	Univ. of Nebraska-Lincoln
	Farritor, Shane	Univ. of Nebraska Lincoln
	Oleynikov, Dmitry	Univ. of Nebraska Medical Center
17:20-17:40		WeIVT3.5
	<i>System Design of an Insertable Robotic Effector Platform for Single Port Access (SPA) Surgery</i> , pp. 5546-5552. <a href="#">Attachment</a>	
	Xu, Kai	Columbia Univ.
	Goldman, Roger E.	Columbia Univ.
	Ding, Jienan	Columbia Univ.
	Allen, Peter	Columbia Univ.
	Fowler, Dennis	Columbia Univ.

<b>WeIVT4</b>		Grand F
<b>Mobile Robot Control II (Regular Sessions)</b>		
Chair: Minor, Mark		Univ. of Utah
Co-Chair: Kemp, Charlie		Georgia Inst. of Tech.
16:00-16:20		WeIVT4.1
<i>RF Vision: RFID Receive Signal Strength Indicator (RSSI) Images for Sensor Fusion and Mobile Manipulation</i> , pp. 5553-5560.		
Deyle, Travis		Georgia Inst. of Tech.
Nguyen, Hai		Georgia Inst. of Tech.
Reynolds, Matthew		Duke Univ.
Kemp, Charlie		Georgia Inst. of Tech.
16:20-16:40		WeIVT4.2
<i>A Fuzzy Logic Approach to Passive RFID for Mobile Robot Applications</i> , pp. 5561-5566.		
Milella, Annalisa		Italian National Res. Council (CNR)
Di Paola, Donato		Italian National Res. Council (CNR)
Cicirelli, Grazia		Italian National Res. Council (CNR)
Distante, Arcangelo		Italian National Res. Council (CNR)
16:40-17:00		WeIVT4.3
<i>Localization for Multi-Axle Train Configured CFMMRs</i> , pp. 5567-5572.		
Vogt, Andrew Peter		Univ. of Utah
Minor, Mark		Univ. of Utah
17:00-17:20		WeIVT4.4
<i>Generalized Velocity Obstacles</i> , pp. 5573-5578. <a href="#">Attachment</a>		
Wilkie, David		Univ. of North Carolina
van den Berg, Jur		Univ. of North Carolina at Chapel Hill
Manocha, Dinesh		UNC at Chapel Hill
17:20-17:40		WeIVT4.5
<i>Competition of Two-Wheel Inverted Pendulum Type Robot Vehicle on MCR Course</i> , pp. 5579-5584. <a href="#">Attachment</a>		
Takita, Yoshihiro		National Defense Acad.
Date, Hisashi		National Defense Acad.
Shimazu, Haruo		Renesas Tech. Corp.
<b>WeIVT5</b>		Grand G
<b>Sensor Fusion III (Regular Sessions)</b>		
Chair: Solf, Joan		LAAS-CNRS, Univ. of Toulouse
Co-Chair: Lyons, Damian		Fordham Univ.
16:00-16:20		WeIVT5.1
<i>Head-Mounted 3D Multi Sensor System for Modeling in Daily-Life Environment</i> , pp. 5585-5590.		
Yaguchi, Hiroaki		The Univ. of Tokyo
Okada, Kei		The Univ. of Tokyo
Inaba, Masayuki		The Univ. of Tokyo
16:20-16:40		WeIVT5.2
<i>Vision and RFID-Based Person Tracking in Crowds from a Mobile Robot</i> , pp. 5591-5596.		
Germa, Thierry		LAAS - CNRS
Lerasle, Frederic		LAAS - CNRS
Ouadah, Noureddine		Centre de Développement des Tech. Avancées (CDTA)
Cadenat, Viviane		Centre National de la Recherche Scientifique
Devy, Michel		LAAS-CNRS
16:40-17:00		WeIVT5.3
<i>Cross-Modal Localization through Mutual Information</i> , pp. 5597-5602.		
Alempijevic, Alen		Univ. of Tech. Sydney
Kodagoda, Sarath		Univ. of Tech. Sydney
Dissanayake, Gamini		Univ. of Tech. Sydney
17:00-17:20		WeIVT5.4
<i>Sharing Landmark Information Using Mixture of Gaussian Terrain Spatiograms</i> , pp. 5603-5608.		
Lyons, Damian		Fordham Univ.
17:20-17:40		WeIVT5.5
<i>Human Augmented Mapping for Indoor Environments Using a Stereo Camera</i> , pp. 5609-5614.		
Kim, Soohwan		Korea Inst. of Science and Tech.
Cheong, Howon		KIST/Yonsei Univ.
Park, Ju-Hong		MtekVision Co, Ltd.
Park, Sung-Kee		Korea Inst. of Science and Tech.
<b>WeIVT6</b>		Grand H
<b>Teleoperation with Time Delay (Regular Sessions)</b>		
Chair: Lee, Dongjun		Univ. of Tennessee-Knoxville
Co-Chair: Burrige, Robert R.		TRAC Labs, Inc.

16:00-16:20		WeIVT6.1
<i>Implementation and Experiments of Passive Set-Position Modulation for Internet Teleoperation and Slow/Varying-Rate Haptics</i> , pp.		
5615-5620.		
Huang, Ke		Univ. of Tennessee
Lee, Dongjun		Univ. of Tennessee-Knoxville
16:20-16:40		WeIVT6.2
<i>A Minimum Jerk Predictor for Teleoperation with Variable Time Delay</i> , pp. 5621-5627.		
Smith, Claes Christian		Royal Inst. of Tech.
Christensen, Henrik Iskov		Georgia Inst. of Tech.
16:40-17:00		WeIVT6.3
<i>Using Prediction to Enhance Robot Supervision across Time Delay</i> , pp. 5628-5634.		
Burridge, Robert R.		TRACLabs, Inc.
Hambuchen, Kimberly		NASA Johnson Space Center
17:00-17:20		WeIVT6.4
<i>Intercontinental, Multimodal, Wide-Range Tele-Cooperation Using a Humanoid Robot</i> , pp. 5635-5640. <a href="#">Attachment</a>		
Evrard, Paul		CNRS
Mansard, Nicolas		AIST/CNRS JRL-Japan
Stasse, Olivier		CNRS/AIST
Kheddar, Abderrahmane		CNRS
Schauß, Thomas		Tech. Univ. München
Weber, Carolina		Univ. München
Peer, Angelika		Tech. Univ. München
Buss, Martin		Tech. Univ. München
17:20-17:40		WeIVT6.5
<i>Improving Unmanned Aerial Vehicle Pilot Training and Operation for Flying in Cluttered Environments</i> , pp. 5641-5646.		
Hing, James		Drexel Univ.
Sevcik, Keith		Drexel Univ.
Oh, Paul Y.		Drexel Univ.

<b>WeIVT7</b>		Mills 1
<b>Design of Robotic Mechanisms II (Regular Sessions)</b>		
Chair: Transeth, Aksel Andreas		SINTEF ICT
Co-Chair: Papanikolopoulos, Nikos		Univ. of Minnesota
16:00-16:20		WeIVT7.1
<i>Drive Train Design Enabling Locomotion Transition of a Small Hybrid Air-Land Vehicle</i> , pp. 5647-5652. <a href="#">Attachment</a>		
Bachmann, Richard J.		BioRobots, LLC
Vaidyanathan, Ravi		Univ. of Bristol
Quinn, Roger, D.		Case Western Res. Univ.
16:20-16:40		WeIVT7.2
<i>More Than Meets the Eye: A Hybrid-Locomotion Robot with Rotary Flight and Wheel Modes</i> , pp. 5653-5658.		
Kossett, Alex		Univ. of Minnesota
Purvey, Jesse		Univ. of Minnesota
Papanikolopoulos, Nikos		Univ. of Minnesota
16:40-17:00		WeIVT7.3
<i>A New Modular Schema for the Control of Tumbling Robots</i> , pp. 5659-5664.		
Hemes, Brett		CSE, UMN
Papanikolopoulos, Nikos		Univ. of Minnesota
17:00-17:20		WeIVT7.4
<i>A Snake-Like Robot for Internal Inspection of Complex Pipe Structures (PIKo)</i> , pp. 5665-5671.		
Fjerdingen, Sigurd Aksnes		SINTEF ICT
Liljebäck, Pål		SINTEF IKT
Transeth, Aksel Andreas		SINTEF ICT
17:20-17:40		WeIVT7.5
<i>JSEL: Jamming Skin Enabled Locomotion</i> , pp. 5672-5677.		
Steltz, Erik		iRobot
Mozeika, Annan		iRobot Corp.
Jaeger, Heinrich		Univ. of Chicago
Rodenberg, Nick		Univ. of Chicago
Brown, Eric		Univ. of Chicago

<b>WeIVT8</b>		Mills 2
<b>Robots with Flexible Structures (Regular Sessions)</b>		
Chair: Filipovic, Mirjana		Mihajlo Pupin Inst.
Co-Chair: Lee, Ju-Jang		KAIST
16:00-16:20		WeIVT8.1
<i>Antagonistic and Series Elastic Actuators: A Comparative Analysis on the Energy Consumption</i> , pp. 5678-5684.		
Laffranchi, Matteo		Italian Inst. of Tech.
Tsagarakis, Nikolaos		Italian Inst. of Tech. (IIT)
Canella, Ferdinando		Italian Inst. of Tech.

Caldwell, Darwin G.	Italian Inst. of Tech.
16:20-16:40	WeIVT8.2
<a href="#">Stochastic Static Analysis of Link Driven by Actuator Bundles</a> , pp. 5685-5690.	
Yoshimura, Takahiro	Ritsumeikan Univ.
Shibata, Mizuho	Ritsumeikan Univ.
Hirai, Shinichi	Ritsumeikan Univ.
16:40-17:00	WeIVT8.3
<a href="#">Euler-Bernoulli Equation Today</a> , pp. 5691-5696.	
Fillipovic, Mirjana	Mihajlo Pupin Inst.
17:00-17:20	WeIVT8.4
<a href="#">Vibration Control of a Flexible Arm for the ITER Maintenance Using Unknown Visual Features from Inside the Vessel</a> , pp. 5697-5704.	
<a href="#">Attachment</a>	
Dubus, Gregory	CEA List
David, Olivier	CEA List
Measson, Yvan	CEA LIST
17:20-17:40	WeIVT8.5
<a href="#">Enhanced Manipulator's Safety with Artificial Pneumatic Muscle</a> , pp. 5705-5710.	
Choi, Tae-Yong	KAIST
Choi, Byoung-Suk	KAIST
Sugisaka, Masanori	ALife Robotics Corp. Ltd.
Lee, Ju-Jang	KAIST
<b>WeIVT9</b>	Mills 3
<b>Computer Vision Methodologies</b> (Regular Sessions)	
Chair: Zhang, Jianwei	Univ. of Hamburg
Co-Chair: Meng, Max	The Chinese Univ. of Hong Kong
16:00-16:20	WeIVT9.1
<a href="#">Selecting Good Corners for Structure and Motion Recovery Using a Time-Of-Flight Camera</a> , pp. 5711-5716.	
Gemeiner, Peter	Vienna Univ. of Tech.
Joic, Peter	Vienna Univ. of Tech.
Vincze, Markus	Vienna Univ. of Tech.
16:20-16:40	WeIVT9.2
<a href="#">Fast Detection of Arbitrary Planar Surfaces from Unreliable 3D Data</a> , pp. 5717-5724.	
Heracles, Martin	Honda Res. Inst. Europe
Bolder, Bram	Honda Res. Inst. Europe
Goerick, Christian	Honda Res. Inst. Europe GmbH
16:40-17:00	WeIVT9.3
<a href="#">A Vision Based System for Attitude Estimation of UAVs</a> , pp. 5725-5730. <a href="#">Attachment</a>	
Thurrowgood, Saul	Univ. of Queensland
Soccol, Dean	Univ. of Queensland
Moore, Richard James Donald	Univ. of Queensland
Bland, Daniel Peter	Univ. of Queensland
Srinivasan, Mandyam	The Univ. of Queensland
17:00-17:20	WeIVT9.4
<a href="#">Probabilistic Cluster Signature for Modeling Motion Classes</a> , pp. 5731-5736.	
Wu, Shandong	City Univ. of Hong Kong
Li, Y.F.	City Univ. of Hong Kong
Zhang, Jianwei	Univ. of Hamburg
17:20-17:40	WeIVT9.5
<a href="#">In Situ Analysis of Capsule Endoscopy Images and Preliminary Results</a> , pp. 5737-5742.	
Wang, Xiaona	The Chinese Univ. of Hong Kong
Meng, Max	The Chinese Univ. of Hong Kong
<b>WeIVT10</b>	Mills 4
<b>Control of Robot Manipulation</b> (Regular Sessions)	
Chair: Aghili, Farhad	Canadian Space Agency
Co-Chair: Seto, Fumi	Chiba Inst. of Tech.
16:00-16:20	WeIVT10.1
<a href="#">Online Reference Shaping with End-Point Position Feedback for Large Acceleration Avoidance on Manipulator Control</a> , pp. 5743-5748.	
Seto, Fumi	Chiba Inst. of Tech.
Sugihara, Tomomichi	Kyushu Univ.
16:20-16:40	WeIVT10.2
<a href="#">Trajectory Scaling for a Manipulator Inverse Dynamics Control Subject to Generalized Force Derivative Constraints</a> , pp. 5749-5754.	
Guarino Lo Bianco, Corrado	Univ. of Parma
Gerelli, Oscar	Univ. of Parma
16:40-17:00	WeIVT10.3
<a href="#">Prioritized Optimization for Task-Space Control</a> , pp. 5755-5762. <a href="#">Attachment</a>	
de Lasa, Martin	Univ. of Toronto
Hertzmann, Aaron	Univ. of Toronto

17:00-17:20 WeIVT10.4  
*Projection-Based Control of Parallel Mechanisms*, pp. 5763-5769.  
 Aghili, Farhad Canadian Space Agency

17:20-17:40 WeIVT10.5  
*Optimal Path Planning in the Workspace for Articulated Robots Using Mixed Integer Programming*, pp. 5770-5775.  
 Ding, Hao Univ. of Kassel  
 Zhou, Mingxiang Tech. Univ. Munich  
 Stursberg, Olaf Univ. of Kassel

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**WeIVT11** Mills 5  
**Planning (Regular Sessions)**

Chair: Miura, Jun Toyohashi Univ. of Tech.  
 Co-Chair: Oh, Se-Young POSTECH

16:00-16:20 WeIVT11.1  
*Cell-RRT: Decomposing the Environment for Better Plan*, pp. 5776-5781.  
 Guitton, Julien ONERA  
 Farges, Jean-Loup ONERA  
 Chatila, Raja LAAS-CNRS

16:20-16:40 WeIVT11.2  
*Motion Planner and Lateral-Longitudinal Controllers for Autonomous Maneuvers of a Farm Vehicle in Headland*, pp. 5782-5787.  
 Cariou, Christophe Cemagref  
 Lenain, Roland Cemagref  
 Thuilot, Benoit Clermont-Ferrand Univ.  
 Martinet, Philippe Blaise Pascal Univ.

16:40-17:00 WeIVT11.3  
*Online Complete Coverage Path Planning for Mobile Robots Based on Linked Spiral Paths Using Constrained Inverse Distance Transform*,  
 pp. 5788-5793. [Attachment](#)  
 Choi, Young-ho Pohang Inst. of Intelligent Robotics (PIRO)  
 Lee, Tae-kyeong Pohang Univ. of Science and Tech.  
 Baek, Sanghoon POSTECH  
 Oh, Se-Young POSTECH

17:00-17:20 WeIVT11.4  
*Observation Planning for Efficient Environment Information Summarization*, pp. 5794-5800.  
 Masuzawa, Hiroaki Toyohashi Univ. of Tech.  
 Miura, Jun Toyohashi Univ. of Tech.

17:20-17:40 WeIVT11.5  
*Development of Wearable-Agri-Robot - Mechanism for Agricultural Work -*, pp. 5801-5806.  
 Yamamoto, Gohei Tokyo Univ. of Agriculture and Tech.  
 Toyama, Shigeki TUAT

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**WeIVT12** Mills 6  
**Distributed Robotics: Sensing (Regular Sessions)**

Chair: Carpin, Stefano Univ. of California, Merced  
 Co-Chair: Fierro, Rafael Univ. of New Mexico

16:00-16:20 WeIVT12.1  
*Image-Based Mapping and Navigation with Heterogeneous Robots*, pp. 5807-5814.  
 Erinc, Gorkem Univ. of California Merced  
 Carpin, Stefano Univ. of California, Merced

16:20-16:40 WeIVT12.2  
*Prioritized Sensor Detection Via Dynamic Voronoi-Based Navigation*, pp. 5815-5820.  
 Cortez, Andres Univ. of New Mexico  
 Fierro, Rafael Univ. of New Mexico  
 Wood, John Univ. of New Mexico

16:40-17:00 WeIVT12.3  
*Surveillance Strategies for Target Detection with Sweep Lines*, pp. 5821-5827. [Attachment](#)  
 Kolling, Andreas Univ. of California Merced  
 Carpin, Stefano Univ. of California, Merced

17:00-17:20 WeIVT12.4  
*A Unified Methodology for Multi-Robot Passive & Active Sensing*, pp. 5828-5833.  
 Kosmatopoulos, Elias Tech. Univ. of Crete  
 Doitsidis, Lefteris Tech. Univ. of Crete  
 Aboudolas, Konstantinos Tech. Univ. of Crete

17:20-17:40 WeIVT12.5  
*Collective Transport of Robots: Coherent, Minimalist Multi-Robot Leader-Following*, pp. 5834-5840. [Attachment](#)  
 Gupta, Megha Univ. of Southern California  
 Das, Jnaneshwar Univ. of Southern California  
 Vieira, Marcos Univ. of Southern California  
 Heidarsson, Hordur Kristinn Univ. of Southern California  
 Vathsangam, Harshvardhan Univ. of Southern California



<b>WeIVT13</b>	Mills 7
<b>Multi-Robot Cooperation (Regular Sessions)</b>	
Chair: Clark, C. M.	California Pol. State Univ.
Co-Chair: Barnes, Laura	Univ. of Texas at Arlington
16:00-16:20	WeIVT13.1
<i>Multi-Robot Team Coordination through Roles, Positionings and Coordinated Procedures</i> , pp. 5841-5848.	
Lau, Nuno	Aveiro Univ.
Seabra Lopes, Luís	Univ. de Aveiro
Corrente, Gustavo	Univ. de Aveiro
Filipe, Nelson	Univ. de Aveiro
16:20-16:40	WeIVT13.2
<i>Altruistic Task Allocation Despite Unbalanced Relationships within Multi-Robot Communities</i> , pp. 5849-5854.	
Morton, Ryan	Cal Pol. - San Luis Obispo
Bekey, George	Univ. of Southern California
Clark, C. M.	California Pol. State Univ.
16:40-17:00	WeIVT13.3
<i>Entrapment/Escorting and Patrolling Missions in Multi-Robot Cluster Space Control</i> , pp. 5855-5861.	
Mas, Ignacio	Santa Clara Univ.
Li, Steven	Santa Clara Univ.
Acain, Jose	Santa Clara Univ.
Kitts, Christopher	Santa Clara Univ.
17:00-17:20	WeIVT13.4
<i>Effective Robot Team Control Methodologies for Battlefield Applications</i> , pp. 5862-5867.	
Fields, MaryAnne	Army Res. Lab.
Ellen, Haas	Army Res. Lab.
Hill, Susan	Us Army Res. Lab.
Stachowiak, Chris	Army Res. Lab.
Barnes, Laura	Univ. of Texas at Arlington
17:20-17:40	WeIVT13.5
<i>Negotiation of Target Points for Teams of Heterogeneous Robots: An Application to Exploration</i> , pp. 5868-5873.	
Rossi, Claudio	Univ. Pol. de Madrid
Aldama, Leyre	Univ. Pol. de Madrid
Barrientos, Antonio	UPM
Valero, Alberto	Univ. Pol. de Madrid
Sánchez, Carlos	Univ. Pol. de Madrid
17:20-17:40	WeIVT13.6
<i>Scaling Effects for Streaming Video vs. Static Panorama in Multirobot Search</i> , pp. 5874-5879.	
Velagapudi, Prasanna	Carnegie Mellon Univ.
Wang, Huadong	Univ. of Pittsburgh
Scerri, Paul	Carnegie Mellon Univ.
Lewis, Michael	Univ. of Pittsburgh
Sycara, Katia	Carnegie Mellon Univ.
<b>WeIVT14</b>	Mills 8
<b>Redundant Robots (Regular Sessions)</b>	
Chair: Yim, Mark	Univ. of Pennsylvania
Co-Chair: Liu, Zhengyong	Ritsumeikan Univ.
16:00-16:20	WeIVT14.1
<i>A DOF State Controllable &amp; Driving Shared Solution for Building a Hyper-Redundant Chain Robot</i> , pp. 5880-5885.	
Ning, KeJun	Univ. of Goettingen
Woergoetter, Florentin	Univ. of Goettingen
16:20-16:40	WeIVT14.2
<i>A Task-Priority Based Framework for Multiple Tasks in Highly Redundant Robots</i> , pp. 5886-5891.	
Jeong, Jae Won	Korea Advanced Inst. of Science and Tech. (KAIST)
Chang, Pyung Hun	KAIST
16:40-17:00	WeIVT14.3
<i>Prioritized Closed-Loop Inverse Kinematic Algorithms for Redundant Robotic Systems with Velocity Saturations</i> , pp. 5892-5897.	
Antonelli, Gianluca	Univ. degli Studi di Cassino
Indiveri, Giovanni	Univ. of Salento
Chiaverini, Stefano	Univ. di Cassino
17:00-17:20	WeIVT14.4
<i>Re-Design of Force Redundant Parallel Mechanisms by Introducing Kinematical Redundancy</i> , pp. 5898-5904.	
Nagai, Kiyoshi	Ritsumeikan Univ.
Liu, Zhengyong	Ritsumeikan Univ.
17:20-17:40	WeIVT14.5
<i>Modular Configuration Design for a Controlled Fall</i> , pp. 5905-5910. <a href="#">Attachment</a>	
Mather, Thomas, W	Univ. of Pennsylvania

<b>WeIVT15</b>		Sterling 6
<b>Path Planning: Multiple Mobile Robots (Regular Sessions)</b>		
Chair: Wang, Zhidong		Chiba Inst. of Tech.
Co-Chair: Xiao, Jizhong		City Coll. of New York
16:00-16:20		WeIVT15.1
<i>The Null-Space Based Behavioral Control for a Team of Cooperative Mobile Robots with Actuator Saturations</i> , pp. 5911-5916. <a href="#">Attachment</a>		
Arrichiello, Filippo		Univ. di Cassino
Chiaverini, Stefano		Univ. di Cassino
Indiveri, Giovanni		Univ. of Salento
Pedone, Paola		Univ. del Salento
16:20-16:40		WeIVT15.2
<i>Independent Navigation of Multiple Mobile Robots with Hybrid Reciprocal Velocity Obstacles</i> , pp. 5917-5922. <a href="#">Attachment</a>		
Snape, Jamie		Univ. of North Carolina at Chapel Hill
van den Berg, Jur		Univ. of North Carolina at Chapel Hill
Guy, Stephen J.		Univ. of North Carolina at Chapel Hill
Manocha, Dinesh		UNC at Chapel Hill
16:40-17:00		WeIVT15.3
<i>A Path Planning Method for Dynamic Object Closure by Using Random Caging Formation Testing</i> , pp. 5923-5929.		
Wang, Zhidong		Chiba Inst. of Tech.
Matsumoto, Hidenori		Chiba Inst. of Tech.
Hirata, Yasuhisa		Tohoku Univ.
Kosuge, Kazuhiro		Tohoku Univ.
17:00-17:20		WeIVT15.4
<i>A Dynamic Path Planning Approach for Multi-Robot Sensor-Based Coverage Considering Energy Constraints</i> , pp. 5930-5935.		
Yazici, Ahmet		Eskisehir Osmangazi Univ.
Kirlik, Gokhan		Eskisehir Osmangazi Univ.
Parlaktuna, Osman		OSMANGAZI Univ.
Sipahioglu, Aydin		Eskisehir Osmangazi Univ.
17:20-17:40		WeIVT15.5
<i>Solvability of Multi Robot Motion Planning Problems on Trees</i> , pp. 5936-5941.		
Masehian, Ellips		Tarbiat Modares Univ.
Hassan Nejad, Azadeh		Tarbiat Modares Univ.
<b>WeIVT16</b>		Regency D
<b>Visual Servoing II (Regular Sessions)</b>		
Chair: Fan, Zhun		Tech. Univ. of Denmark
Co-Chair: Chaumette, Francois		INRIA Rennes-Bretagne Atlantique
16:00-16:20		WeIVT16.1
<i>Pose-Estimation-Based Visual Servoing for Differential-Drive Robots Using the 1D Trifocal Tensor</i> , pp. 5942-5947.		
Becerra, Hector		Univ. de Zaragoza
Sagues, Carlos		Univ. de Zaragoza
16:20-16:40		WeIVT16.2
<i>Using Active Contour Models for Feature Extraction in Camera-Based Seam Tracking of Arc Welding</i> , pp. 5948-5955.		
Liu, Jinchao		Tech. Univ. of Denmark
Fan, Zhun		Tech. Univ. of Denmark
Soeren, Olsen		Univ. of Copenhagen
Kim, Christensen		FORCE Tech.
Jens, Kristensen		FORCE Tech.
16:40-17:00		WeIVT16.3
<i>Task Selection for Control of Active Vision Systems</i> , pp. 5956-5961.		
Iwatani, Yasushi		Tohoku Univ.
17:00-17:20		WeIVT16.4
<i>Visual Servo in Polar Coordinates: IBVS-P</i> , pp. 5962-5967.		
Corke, Peter		CSIRO
Spindler, Fabien		INRIA
Chaumette, Francois		INRIA Rennes-Bretagne Atlantique
17:20-17:40		WeIVT16.5
<i>Visual Navigation with a Time-Independent Varying Reference</i> , pp. 5968-5973. <a href="#">Attachment</a>		
Cherubini, Andrea		INRIA Rennes - Bretagne Atlantique
Chaumette, Francois		INRIA Rennes-Bretagne Atlantique