

TuAT1	Gallieni B
Micro/Nanorobots I (Regular Sessions)	
08:40-09:00	TuAT1.1
<i>Active Sensing Based Dynamical Object Feature Extraction</i> , pp. 1-7.	
Nishide, Shun	Kyoto Univ.
Ogata, Tetsuya	Kyoto Univ.
Yokoya, Ryunosuke	Kyoto Univ.
Tani, Jun	Riken
Komatani, Kazunori	Kyoto Univ.
Okuno, Hiroshi G.	Kyoto Univ.
09:00-09:20	TuAT1.2
<i>Shaping Electrodes for Ultrahigh Precision Dielectrophoretic Manipulation of Carbon Nanotubes</i> , pp. 8-13.	
Xu, Didi	ETH, Zurich
Subramanian, Arunkumar	Swiss Federal Inst. of Tech. (ETH), Zurich
Dong, Lixin	ETH Zurich
Nelson, Bradley J.	ETH Zurich
09:20-09:40	TuAT1.3
<i>The Cyborg Fly: A Biorobotic Platform to Investigate Dynamic Coupling Effects between a Fruit Fly and a Robot</i> , pp. 14-19. (Video)	
Graetzel, Chauncey	ETH Zürich
Medici, Vasco	ETH Zürich
Rohrseitz, Nicola	ETH Zürich
Nelson, Bradley J.	ETH Zurich
Fry, Steven	ETH Zürich
09:40-10:00	TuAT1.4
<i>NEMS-On-A-Tip: Force Sensors Based on Electromechanical Coupling of Individual Multi-Walled Carbon Nanotubes</i> , pp. 20-25.	
Shou, Kaiyu	Swiss Federal Inst. of Tech. Zurich (ETH Zurich)
Dong, Lixin	ETH Zurich
Nelson, Bradley J.	ETH Zurich
10:00-10:20	TuAT1.5
<i>RoACH: An Autonomous 2.4g Crawling Hexapod Robot</i> , pp. 26-33.	
Hoover, Aaron	Univ. of California, Berkeley
Steltz, Erik	UC Berkeley
Fearing, Ron	Univ. of California at Berkeley
10:20-10:40	TuAT1.6
<i>ARRIpede: A Stick-Slip Micro Crawler/Conveyer Robot Constructed Via 2-D MEMS Assembly</i> , pp. 34-40. (Video)	
Murthy, Rakesh	Univ. of Texas at Arlington
Das, Aditya	Univ. OF TEXAS AT ARLINGTON
Popa, Dan	The Univ. of Texas at Arlington
TuAT2	Rhodes 9EG
Force and Tactile Sensing I (Regular Sessions)	
08:40-09:00	TuAT2.1
<i>Tactile Sensing Using a Novel Air Cushion Sensor: A Feasibility Study</i> , pp. 41-46.	
Zbyszewski, Dinusha	kings Coll. london
Althoefer, Kaspar	Kings Coll. London
Seneviratne, Lakmal	Kings Coll. London
Bhaumik, Arkapravo	King's Coll. London
09:00-09:20	TuAT2.2
<i>Development of High Speed and High Sensitivity Slip Sensor</i> , pp. 47-52.	
Teshigawara, Seiichi	The Univ. of Electro-Communications
Ishikawa, Masatoshi	Univ. of Tokyo
Shimojo, Makoto	Univ. of Electro-COMmunications
09:20-09:40	TuAT2.3
<i>Shape Classification in Rotation Manipulation by Universal Robot Hand</i> , pp. 53-58. (Video)	
Nakamoto, Hiroyuki	Kobe Univ.
Kobayashi, Futoshi	Kobe Univ.
Imamura, Nobuaki	HIROSHIMA INTERNATIONAL Univ.
Shirasawa, Hidenori	Advanced Materials Processing Inst. Kinki Japan
Kojima, Fumio	Kobe Univ.
09:40-10:00	TuAT2.4
<i>Difference-Based Estimation of Support Friction</i> , pp. 59-64.	
Walker, Sean	Stanford Univ.
Salisbury, Kenneth	Stanford Univ.
10:00-10:20	TuAT2.5
<i>Minimally Invasive Torque Sensor for Tendon-Driven Robotic Hands</i> , pp. 65-70.	
Pirozzi, Salvatore	Seconda Univ. degli Studi di Napoli
Natale, Ciro	Seconda Univ. degli Studi di Napoli
10:20-10:40	TuAT2.6

An Active Tactile Sensor Using Fluid for Body Tissue, pp. 71-76.

Tanaka, Yoshihiro
Sugimura, Ryohei
Sano, Akihito
Fujimoto, Hideo

Nagoya Inst. of Tech.
Nagoya Inst. of Tech.
Nagoya Inst. of Tech.
Nagoya Inst. of Tech.

TuAT3

Risso 7B

Kinematics (Regular Sessions)

08:40-09:00

TuAT3.1

An Improved Algorithm of Measuring Extravehicular Mobility Unit (EMU) Spacesuit Joint Damping Parameters for the Old Passive Robot System, pp. 77-82.

Zhao, Jingdong
Liu, Yiwei
Cai, Hegao
Liu, Hong

Harbin Inst. of Tech.
Harbin Inst. of Tech.
Harbin Inst. of Tech.
DLR

09:00-09:20

TuAT3.2

Development of a Positioning & Compensation Device for a Versatile Micro Robot, pp. 83-88.

Fuchiwaki, Ohmi
Kawai, Takashi
Oota, Akihiro
Misaki, Daigo
Aoyama, Hisayuki

Yokohama National Univ. (YNU)
Sony Corp.
National Inst. of Advanced Industrial Science
Shizuoka Inst. of Science and Tech.
Univ. of Electro-Communications

09:20-09:40

TuAT3.3

Kinematic and Dynamic Dexterity Measures for Posture Prediction, pp. 89-94.

Masih-Tehrani, Behdad
Janabi-Sharifi, Farrokh

Pennsylvania State Univ.
Ryerson Univ.

09:40-10:00

TuAT3.4

Experimental Slip Estimation for Exact Kinematics Modelling and Control of a Tracked Mobile Robot, pp. 95-100.

Moosavian, S. Ali A.
Kalantari, Arash

K. N. Toosi Univ. of Tech.
K. N. Toosi Univ. of Tech.

10:00-10:20

TuAT3.5

Optical Flow-Based Slip and Velocity Estimation Technique for Unmanned Skid-Steered Vehicles, pp. 101-106.

Song, Xiaojing
Song, Zibin
Seneviratne, Lakmal
Althoefer, Kaspar

King's Coll. London
King's Coll. London,
Kings Coll. London
Kings Coll. London

10:20-10:40

TuAT3.6

Maneuverability Performance of Tracked Vehicles on Soft Terrains, pp. 107-112.

Al-Milli, Said
Althoefer, Kaspar
Seneviratne, Lakmal

King's Coll. Univ. of London
Kings Coll. London
Kings Coll. London

TuAT4

Rhodes 9BD

Smart Actuators I (Regular Sessions)

08:40-09:00

TuAT4.1

Development of Rotary-Linear Piezoelectric Actuator for MRI Compatible Manipulator, pp. 113-118.

Mashimo, Tomoaki
Toyama, Shigeki

Carnegie Mellon Univ.
TUAT

09:00-09:20

TuAT4.2

State Space Modeling of Ionic Polymer-Metal Composite Actuators Based on Electrostress Diffusion Coupling Theory, pp. 119-124.

Osada, Takaaki
Takagi, Kentaro
Hayakawa, Yoshikazu
Luo, Zhi-Wei
Asaka, Kinji

Nagoya Univ.
Nagoya Univ.
Nagoya Univ.
The Inst. of Physical and Chemical Res. (RIKEN)
National Inst. of AIST

09:20-09:40

TuAT4.3

Modeling and Control of Spherical Ultrasonic Motor Based on Nonholonomic Mechanics, pp. 125-130.

Ishikawa, Masato
Kinouchi, Yusuke

Kyoto Univ.
Mitsubishi Heavy Industries

09:40-10:00

TuAT4.4

The Dynamic Characteristics of LIPCA and Its Application for Mimicking Insect Flapping Motion, pp. 131-136.

Truong, Quang-Tri
Park, Hoon Cheol
Goo, Nam Seo
Nguyen, Quoc-Viet

Konkuk Univ.
Konkuk Univ.
Konkuk Univ.
Konkuk Univ.

10:00-10:20

TuAT4.5

Silicone Made Contractile Dielectric Elastomer Actuators Inside 3-Tesla MRI Environment, pp. 137-142.

Carpi, Federico
Khanicheh, Azadeh

Univ. of Pisa
Northeastern Univ.

TuAT5	Risso 8
Intelligent Vehicles I (Regular Sessions)	
08:40-09:00 <i>Reactive Robot Control with Hybrid Operational Models in a Seaport Container Terminal Considering System Reliability</i> , pp. 143-148. (Video) Hoshino, Satoshi Ota, Jun	TuAT5.1 Tokyo Inst. of Tech. The Univ. of Tokyo
09:00-09:20 <i>A GPS and Laser-Based Localization for Urban and Non-Urban Outdoor Environments</i> , pp. 149-154. Hentschel, Matthias Wulf, Oliver Wagner, Bernardo	TuAT5.2 Leibniz Univ. Hannover Leibniz Univ. Hannover Leibniz Univ. Hannover
09:20-09:40 <i>A Self-Supervised Architecture for Moving Obstacles Classification</i> , pp. 155-160. Katz, Roman Douillard, Bertrand Nieto, Juan Nebot, Eduardo	TuAT5.3 The Univ. of Sydney Univ. of Sydney, Australian Centre for Field Robotics University of Sydney
09:40-10:00 <i>Probabilistic Scheme for Laser Based Motion Detection</i> , pp. 161-166. Katz, Roman Nieto, Juan Nebot, Eduardo	TuAT5.4 The Univ. of Sydney Univ. of Sydney, Australian Centre for Field Robotics University of Sydney
10:00-10:20 <i>Recognition of Human Driving Behaviors Based on Stochastic Symbolization of Time Series Signal</i> , pp. 167-172. Takano, Wataru Nakamura, Yoshihiko	TuAT5.5 Tokyo Univ. Univ. of Tokyo
10:20-10:40 <i>Pedestrian Detection Method Using a Multilayer Laserscanner: Application in Urban Environment</i> , pp. 173-178. Gidel, Samuel Checchin, Paul Blanc, Christophe Chateau, Thierry Trassoudaine, Laurent	TuAT5.6 LASMEA LASMEA LASMEA Blaise Pascal Univ. Univ. Blaise Pascal
TuAT6	Rhodes 10
Humanoids, Motion Control (Regular Sessions)	
08:40-09:00 <i>Active Knee-Release Mechanism for Passive-Dynamic Walking Machines and Walking Cycle Research</i> , pp. 179-184. Trifonov, Kalin Boykov Hashimoto, Shuji	TuAT6.1 Waseda Univ. Waseda Univ.
09:00-09:20 <i>Online ZMP Sampling Search for Biped Walking Planning</i> , pp. 185-190. (Video) Liu, Jinsu Veloso, Manuela	TuAT6.2 Univ. of Science and Tech. of China Carnegie Mellon Univ.
09:20-09:40 <i>Online and Markerless Motion Retargeting with Kinematic Constraints</i> , pp. 191-198. (Video) Dariush, Behzad Gienger, Michael Arumbakkam, Arjun Goerick, Christian Zhu, Youding Fujimura, Kikuo	TuAT6.3 Honda Res. Inst. USA Honda Res. Inst. Europe Honda Res. Inst. USA, Inc. Honda Res. Inst. Europe GmbH The Ohio State Univ. Honda Res. Inst.
09:40-10:00 <i>Stable and Quick Standing-Sitting Motion of I-PENTAR by Whole-Body Motion with Force Control</i> , pp. 199-204. Jeong, Seonghee Takahashi, Takayuki	TuAT6.4 Fukushima Univ. Fukushima Univ.
10:00-10:20 <i>Realization of Large Joint Movement While Standing by a Musculoskeletal Humanoid Using Its Spine and Legs Coordinately</i> , pp. 205-210. (Video) Nakanishi, Yuto Namiki, Yuta Hongo, Kazuo Urata, Junichi Mizuuchi, Ikuo Inaba, Masayuki	TuAT6.5 The Univ. of Tokyo The Univ. of Tokyo Mechano-informatics The Univ. of Tokyo The Univ. of Tokyo The Univ. of Tokyo
10:20-10:40	TuAT6.6

Compliant Motion Control for a Humanoid Robot in Contact with the Environment and Humans, pp. 211-218.

Yoshikawa, Taizo
Khatib, Oussama

Honda Res. Inst. USA, Inc.
Stanford Univ.

TuAT7		Gallieni 5
Navigation I (Regular Sessions)		
08:40-09:00		TuAT7.1
<i>1Km Autonomous Robot Navigation on Outdoor Pedestrian Paths "Running the Tsukuba Challenge 2007", pp. 219-225.</i>		
Morales Saiki, Luis Yoichi		U of Tsukuba, Intelligent Robot Lab.
Takeuchi, Eijiro		Univ. of Tsukuba
Carballo, Alexander		Graduate School of Systems and Information Engineering, Univ.
Takashi, Tsubouchi		Sys. and Info. Eng., U of Tsukuba
Tokunaga, Wataru		Univ. of Tsukuba
Aburadani, Atsushi		Univ. of Tsukuba
Nagasaka, Yoshisada		Nat. Agri. & Food Res. Org.
Hirosawa, Atsushi		Tsukuba Univ.
Kuniyoshi, Hiroyasu		Univ. of Tsukuba
Suzuki, Yusuke		Intelligent robot Lab.
09:00-09:20		TuAT7.2
<i>Navigating Dynamic Environments Using Trajectory Deformation, pp. 226-233. (Video)</i>		
Delsart, Vivien		UMR LIG - Lab. d'Informatique de Grenoble
Fraichard, Thierry		Inria
09:20-09:40		TuAT7.3
<i>An Efficient and Generic 2D Inevitable Collision State-Checker, pp. 234-241. (Video)</i>		
Luis Alfredo, Martinez Gomez		INRIA Rhône-Alpes
Fraichard, Thierry		Inria
09:40-10:00		TuAT7.4
<i>Mobile Robot Path Tracking of Aggressive Maneuvers on Sloped Terrain, pp. 242-247.</i>		
Peters, Steven		Massachusetts Inst. of Tech.
Iagnemma, Karl		MIT
10:00-10:20		TuAT7.5
<i>Interactive Learning of Visual Topological Navigation, pp. 248-254. (Video)</i>		
Filliat, David		ENSTA
10:20-10:40		TuAT7.6
<i>Forward Passageway Based Collision-Free Target Tracking for Mobile Robot with Local Sensing, pp. 255-259.</i>		
Yuan, Yuan		Inst. of Automation Chinese Acad. of Science
Cao, Zhiqiang		Inst. of Automation, Chinese Acad. of Sciences
Hou, Zeng-Guang		Inst. of Automation, Chinese Acad. of Science
Tan, Min		Inst. of Automation, Chinese Acad. of Sciences
TuAT8		Gallieni 2
Rehabilitation Robotics I (Regular Sessions)		
08:40-09:00		TuAT8.1
<i>A Rehabilitation Walker with Standing and Walking Assistance, pp. 260-265.</i>		
Chugo, Daisuke		Univ. of Electro-Communications
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
09:00-09:20		TuAT8.2
<i>Step Climbing Capability of a 4WD Omnidirectional Wheelchair, pp. 266-272.</i>		
Wada, Masayoshi		Saitama Inst. of Tech.
09:20-09:40		TuAT8.3
<i>Motion Control of Omni-Directional Type Cane Robot Based on Human Intention, pp. 273-278.</i>		
Huang, Jian		Nagoya Univ.
Di, Pei		Nagoya Univ.
Fukuda, Toshio		Nagoya Univ.
Matsuno, Takayuki		Toyama Prefectural Univ.
09:40-10:00		TuAT8.4
<i>Estimating Arm Motion and Force Using EMG Signals: On the Control of Exoskeletons, pp. 279-284.</i>		
Artemiadis, Panagiotis		National Tech. Univ. of Athens
Kyriakopoulos, Kostas		National Tech. Univ. of Athens
10:00-10:20		TuAT8.5
<i>Online User Modeling with Gaussian Processes for Bayesian Plan Recognition During Power-Wheelchair Steering, pp. 285-292.</i>		
Huntemann, Alexander		K.U.Leuven
Demeester, Eric		Katholieke Univ. Leuven
Nuttin, Marnix		K.U.Leuven
Van Brussel, Hendrik		Katholieke Univ. Leuven
10:20-10:40		TuAT8.6

A New Mobility-Aid Vehicle with a Unique Turning System, pp. 293-300.

Nihei, Misato
Ando, Takeshi
Kaneshige, Yuzo
Inoue, Takenobu
Fujie, Masakatsu G.

the Univ. of Tokyo
Waseda Univ.
Toyota motor Corp.
The National Rehabilitation Center for
Waseda Univ.

TuAT9		Rhodes 9AC
Cognitive Human-Robot Interaction (Regular Sessions)		
08:40-09:00		TuAT9.1
<i>Object and Space-Based Visual Attention: An Integrated Framework for Autonomous Robots</i> , pp. 301-306. (Video)		
Begum, Momotaz		Univ. of Waterloo
Mann, George K. I.		Memorial Univ. of Newfoundland
Gosine, Raymond G.		Memorial Univ. of Newfoundland
Karray, Fakhri		Univ. of Waterloo
09:00-09:20		TuAT9.2
<i>3D Head Tracking and Pose-Robust 2D Texture Map-Based Face Recognition Using a Simple Ellipsoid Model</i> , pp. 307-312.		
An, Kwang Ho		Korea Advanced Inst. of Science and Tech.
Chung, Myung Jin		KAIST
09:20-09:40		TuAT9.3
<i>Development of a Real-Time Instrument Tracking System for Enabling the Musical Interaction with the Waseda Flutist Robot</i> , pp. 313-318.		
Petersen, Klaus		Waseda Univ.
Solis, Jorge		Waseda Univ.
Takanishi, Atsuo		Waseda Univ.
09:40-10:00		TuAT9.4
<i>Robot Learning by Observation Based on Bayesian Networks and Game Pattern Graphs for Human-Robot Game Interactions</i> , pp. 319-325. (Video)		
Lee, Hyunglae		Korea Inst. of Science and Tech.
Kim, Hyoungnyoun		Korea Inst. of Science and Tech.
Park, Kyung-hwa		Korea Inst. of Science and Tech.
Park, Ji-Hyung		Korea Inst. of Science and Tech.
10:00-10:20		TuAT9.5
<i>Development of an Android System Integrated with Sensor Networks</i> , pp. 326-333.		
Chikaraishi, Takenobu		Osaka Univ.
Minato, Takashi		ERATO, Japan Sci. and Tech. Agency
Ishiguro, Hiroshi		Osaka Univ.
10:20-10:40		TuAT9.6
<i>Geometric Proto-Symbol Manipulation towards Language-Based Motion Pattern Synthesis and Recognition</i> , pp. 334-339.		
Inamura, Tetsunari		National Inst. of Informatics
Shibata, Tomohiro		Nara Inst. of Science and Tech.
TuAT10		Risso 6AB
Aerial Robotics, Control (Regular Sessions)		
08:40-09:00		TuAT10.1
<i>A Complementary Filter for Attitude Estimation of a Fixed-Wing UAV</i> , pp. 340-345.		
Euston, Mark		Australian National Univ.
Coote, Paul William		Australian National Univ.
Mahony, Robert		Australian National Univ.
Kim, Jonghyuk (Jon)		Australian National Univ.
Hamel, Tarek		UNSA-CNRS
09:00-09:20		TuAT10.2
<i>A Robust Top-Down Approach for Rotation Estimation and Vanishing Points Extraction by Catadioptric Vision in Urban Environment</i> , pp. 346-353.		
Bazin, Jean-Charles		RCV Lab. KAIST
Kweon, In So		KAIST
Demonceaux, Cedric		Univ. of Picardie - Jules Verne
Vasseur, Pascal		Univ. of Picardie - Jules Verne
09:20-09:40		TuAT10.3
<i>Robust Nonlinear Control and Stability Analysis of a 7DOF Model-Scale Helicopter under Vertical Wind Gust</i> , pp. 354-359.		
Martini, Adnan		Metz Univ.
Leonard, Francois		Metz Univ.
Abba, Gabriel		Metz Univ.
09:40-10:00		TuAT10.4
<i>Stability Analysis of a Dynamic Inversion Based Pitch Rate Controller for an Unmanned Aircraft</i> , pp. 360-366.		
Ducard, Guillaume Jacques Joseph		ETH Zurich
Geering, Hans P.		ETH Zurich
TuAT11		Gallieni 3
Learning and Control I (Regular Sessions)		

08:40-09:00		TuAT11.1
<i>A Probabilistic Programming by Demonstration Framework Handling Constraints in Joint Space and Task Space</i> , pp. 367-372.		
Calinon, Sylvain		EPFL
Billard, Aude		EPFL
09:00-09:20		TuAT11.2
<i>Learning of Object Manipulation with Stick/Slip Mode Switching</i> , pp. 373-379.		
Kobayashi, Yuichi	Tokyo Univ. of Agriculture and Tech.	
Shibata, Masashi	Nagoya Univ.	
Hosoe, Shigeyuki	RIKEN	
Uno, Yoji	Nagoya Univ.	
09:20-09:40		TuAT11.3
<i>Local Gaussian Processes Regression for Real-Time Model-Based Robot Control</i> , pp. 380-385.		
Nguyen-Tuong, Duy	Max Planck Inst.	
Peters, Jan	Max-Planck Inst. for Bio. Cybernetics	
09:40-10:00		TuAT11.4
<i>Mutual Development of Behavior Acquisition and Recognition Based on Value System</i> , pp. 386-392.		
Takahashi, Yasutake	Osaka Univ.	
Tamura, Yoshihiro	Osaka Univ.	
Asada, Minoru	Osaka Univ.	
10:00-10:20		TuAT11.5
<i>Inaccuracy of Internal Models in Force Fields and Complementary Use of Impedance Control</i> , pp. 393-398.		
Tomi, Naoki	Tokyo Inst. of Tech.	
Gouko, Manabu	Tokyo Inst. of Tech.	
Ito, Koji	Tokyo Inst. of Tech.	
10:20-10:40		TuAT11.6
<i>Learning Robot Motion Control with Demonstration and Advice-Operators</i> , pp. 399-404.		
Argall, Brenna	Carnegie Mellon Univ.	
Browning, Brett	Carnegie Mellon Univ.	
Veloso, Manuela	Carnegie Mellon Univ.	

TuAT12		Rhodes 9FC
Telerobotics (Regular Sessions)		

08:40-09:00		TuAT12.1
<i>Intercontinental Multimodal Tele-Cooperation Using a Humanoid Robot</i> , pp. 405-411.		
Peer, Angelika	Tech. Univ. München	
Hirche, Sandra	Tech. Univ. Muenchen	
Weber, Carolina	Univ. München	
Krause, Inga	Tech. Univ. München	
Buss, Martin	Tech. Univ. Muenchen	
Miossec, Sylvain	National Inst. of Advance Industrial Science and	
Evrard, Paul	CNRS/AIST	
Stasse, Olivier	CNRS/AIST	
Neo, Ee Sian	National Inst. of Advanced Industrial Science and	
Kheddar, Abderrahmane	JRL CNRS	
Yokoi, Kazuhito	National Inst. of AIST	
09:00-09:20		TuAT12.2
<i>Fault Tolerant Control of a Bilateral Teleoperated Micromanipulation System</i> , pp. 412-417.		
Boukhnifer, Moussa	ENSI Bourges - Univ. d'Orléans	
Ferreira, Antoine	Univ. of Orléans	
09:20-09:40		TuAT12.3
<i>User Adapted Control of Force Feedback Teleoperators: Evaluation and Robustness Analysis</i> , pp. 418-423.		
Barbé, Laurent	Univ. of Strasbourg, LSIIT UMR CNRS	
Bayle, Bernard	Univ. of Strasbourg	
Laroche, Edouard	LSIIT	
de Mathelin, Michel	Univ. of Strasbourg	
09:40-10:00		TuAT12.4
<i>Bilateral Teleoperation with Time Delay Using Modified Wave Variables</i> , pp. 424-429.		
Kawashima, Kenji	Tokyo Inst. of Tech.	
Tadano, Kotaro	Tokyo Inst. of Tech.	
Sankaranarayanan, Ganesh	Rensselaer Pol. Inst.	
Hannaford, Blake	Univ. of Washington	
10:00-10:20		TuAT12.5
<i>Making Hydraulic Manipulators Cleaner and Safer: From Oil to Demineralized Water Hydraulics</i> , pp. 430-437.		
Dubus, Gregory	CEA List	
David, Olivier	CEA List	
Measson, Yvan	CEA LIST	
Friconneau, Jean-Pierre	CEA	
Palmer, Jim	EFDA	
10:20-10:40		TuAT12.6

Delay-Robust Transparent Bilateral Teleoperation Control Design, pp. 438-444.

Haddadi, Amir
Hashtrudi-Zaad, Keyvan

Queen's Univ.
Queen's Univ.

TuBT1

Gallieni B

Micro/Nanorobots II (Regular Sessions)

14:10-14:30

TuBT1.1

Micro Rubber Structure Realizing Multi-Legged Passive Walking, pp. 445-450. [\(Video\)](#)

Suzumori, Koichi
Saito, Fumitaka

Okayama Univ.
Okayama Univ.

14:30-14:50

TuBT1.2

Vibrating Wing Analysis with Passive Torsion for Micro Flying Robot, pp. 451-457.

Dargent, Thomas
Grondel, Sébastien
Paquet, Jean-Bernard
Cattan, Eric
Soyer, Caroline

USTL
USTL
ONERA
USTL
USTL

14:50-15:10

TuBT1.3

Adhesion State Detection by Vision and Its Application to Automatic Micro Manipulation, pp. 458-463.

Watanabe, Tetsuyou
Serita, Yutaka

Graduate School of Natural Science and Tech. Kanazawa
Kanazawa Univ.

15:10-15:30

TuBT1.4

Towards Automated Handling on the Nanoscale, pp. 464-469.

Fatikow, Sergej
Wich, Thomas
Krohs, Florian
Dahmen, Christian

Univ. of Oldenburg
Univ. of Oldenburg
Univ. of Oldenburg
Univ. of Oldenburg

15:30-15:50

TuBT1.5

Design of a New Decoupled XY Flexure Parallel Kinematic Manipulator with Actuator Isolation, pp. 470-475.

Li, Yangmin
Xu, Qingsong

Univ. of Macau
Univ. of Macau

15:50-16:10

TuBT1.6

Design and Modeling of a Protein Based NanoGripper, pp. 476-481.

Sharma, Gaurav
Rege, Kaushal
Budil, David
Yarmush, Martin
Mavroidis, Constantinos

Northeastern Univ.
Massachusetts General Hospital and Harvard Medical School
Northeastern Univ.
Massachusetts General Hospital and Harvard Medical School
Northeastern Univ.

TuBT2

Rhodes 9EG

Force and Tactile Sensing II (Regular Sessions)

14:10-14:30

TuBT2.1

Recognizing Texture and Hardness by Touch, pp. 482-487.

Johansson, Magnus
Balkenius, Christian

Lund Univ.
Lund Univ.

14:30-14:50

TuBT2.2

Measurement of Force Vector Field of Robotic Finger Using Vision-Based Haptic Sensor, pp. 488-493. [\(Video\)](#)

Sato, Katsunari
Kamiyama, Kazuto
Nii, Hideaki
Kawakami, Naoki
Tachi, Susumu

The Univ. of Tokyo
The Univ. of Tokyo
Univ. of Tokyo
the Univ. of Tokyo
The Univ. of Tokyo

14:50-15:10

TuBT2.3

Electric Field Servoing for Robotic Manipulation, pp. 494-499. [\(Video\)](#)

Wistort, Ryan
Smith, Joshua R.

Intel Res.
Intel

15:10-15:30

TuBT2.4

Sensing Terrain Parameters and the Characteristics of Vehicle-Terrain Interaction Using the Multimode Locomotion System of a Robot, pp.

500-505. [\(Video\)](#)

Leppänen, Ilkka M.
Virekoski, Petri J.
Halme, Aarne J.

Helsinki Univ. of Tech.
Helsinki Univ. of Tech.
Helsinki Univ. of Tech.

15:30-15:50

TuBT2.5

Design, Fabrication and Characterization of Compact Force Sensor Using AT-Cut Quartz Crystal Resonators, pp. 506-511.

Asakura, Ayumi
Fukuda, Toshio
Arai, Fumihito

Tohoku Univ.
Nagoya Univ.
Tohoku Univ.

15:50-16:10

TuBT2.6

Reducing Influence of Robot's Motion on Tactile Sensors Based on Partially Linear Model, pp. 512-517.

Tajika, Taichi	ATR
Miyashita, Takahiro	ATR
Ishiguro, Hiroshi	Osaka Univ.
Hagita, Norihiro	ATR

TuBT3 Risso 7B
Dynamics (Regular Sessions)

14:10-14:30	TuBT3.1
<i>On the Boundary Conditions in Modeling of Human-Like Reaching Movements</i> , pp. 518-525.	
Svinin, Mikhail	RIKEN BMC
Goncharenko, Igor	3D Incorporated
Hosoe, Shigeyuki	RIKEN
14:30-14:50	TuBT3.2
<i>Stable Limit Cycle Generation for Underactuated Mechanical Systems, Application: Inertia Wheel Inverted Pendulum</i> , pp. 526-531.	
Andary, Sebastien	LIRMM - Univ. Montpellier 2
Chemori, Ahmed	LIRMM
Krut, Sebastien	LIRMM (CNRS & Univ. of Montpellier)
14:50-15:10	TuBT3.3
<i>Real-Time Path-Tracking Control of Robotic Manipulators with Bounded Torques and Torque-Derivatives</i> , pp. 532-537.	
Guarino Lo Bianco, Corrado	Univ. of Parma
Gerelli, Oscar	Univ. of Parma
15:10-15:30	TuBT3.4
<i>Passivity Based Control of Hydraulic Robot Arms Using Natural Casimir Functions: Theory and Experiments</i> , pp. 538-544.	
Sakai, Satoru	Chiba Univ.
Stramigioli, Stefano	Univ. of Twente
15:30-15:50	TuBT3.5
<i>Is There Any Analogy between Foot Stability and Dynamic Grasp?</i> , pp. 545-550.	
Akbarimajd, Adel	Univ. of Tehran
Nili Ahmadabadi, Majid	Univ. of Tehran
15:50-16:10	TuBT3.6
<i>An Energy Saving Control Method of Robot Motions Based on Adaptive Stiffness Optimization - Cases of Multi-Frequency Components -</i> , pp. 551-557.	
Uemura, Mitsunori	Ritsumeikan Univ.
Kawamura, Sadao	Ritsumeikan Univ.

TuBT4 Rhodes 9BD
Smart Actuators II (Regular Sessions)

14:10-14:30	TuBT4.1
<i>Hysteresis and Vibration Compensation in a NonLinear Unimorph Piezocantilever</i> , pp. 558-563.	
Rakotondrabe, Micky	CNRS - ENSMM
Clévy, Cédric	UFC
Lutz, Philippe	Univ. de Franche-Comté
14:30-14:50	TuBT4.2
<i>Actuation of Bistable Buckled Beams with Macro-Fiber Composites</i> , pp. 564-569.	
Cazottes, Paul	Univ. Pierre et Marie Curie
Amancio, Fernandes	Univ. Pierre et Marie Curie, CNRS-UMR 7190, Case 162
Pouget, Joël	Univ. Pierre et Marie Curie, CNRS-UMR 7190, Case 162
Hafez, Moustapha	CEA
14:50-15:10	TuBT4.3
<i>Magnetically Modified Polymeric Microsorter for On-Chip Particle Manipulations</i> , pp. 570-575.	
Yamanishi, Yoko	Tohoku Univ.
Sakuma, Shinya	Tohoku Univ.
Onda, Kazuhisa	Tohoku Univ.
Arai, Fumihito	Tohoku Univ.
15:10-15:30	TuBT4.4
<i>Mechatronic Design of a Transradial Cybernetic Hand</i> , pp. 576-581.	
Controzzi, Marco	Scuola Studi Univ. e di Perfezionamento Sant'Anna
Cipriani, Christian	Scuola Superiore Sant'Anna
Carrozza, Maria Chiara	Scuola Superiore Sant'Anna
15:30-15:50	TuBT4.5
<i>Fabrication of Bucky Gel Actuator/Sensor Devices Based on Printing Method</i> , pp. 582-587.	
Kamamichi, Norihiro	Tokyo Denki Univ.
Maeba, Toshiharu	Tokyo Inst. of Tech.
Yamakita, Masaki	Tokyo Inst. of Tech.
Mukai, Toshiharu	RIKEN
15:50-16:10	TuBT4.6
<i>Design and Evaluation of Low-Profile Micro Ultrasonic Motors Using Sector Shaped Piezoelectric Vibrators</i> , pp. 588-593.	
Ichihara, Takashi	Okayama Univ.
Kanda, Takefumi	Okayama Univ.

TuBT5	Risso 8
Intelligent Vehicles II (Regular Sessions)	
14:10-14:30	TuBT5.1
<i>IQ Evaluation Based Adaptive Wavelet Denoising and Enhancement for a VTRAN System</i> , pp. 594-599.	
Liu, Haoting	Inst. of Automation, Chinese Acad. of Sciences
Lu, Hanqing	Inst. of Automation, Chinese Acad. of Sciences
14:30-14:50	TuBT5.2
<i>Vehicle Dynamics Estimation for Camera-Based Visibility Distance Estimation</i> , pp. 600-605.	
Boussard, Clément	Ec. des Mines de Paris
Hautičre, Nicolas	LCPC
d'Andréa-Novel, Brigitte	Ec. des Mines de Paris
14:50-15:10	TuBT5.3
<i>Lane Marking Detection by Side Fisheye Camera</i> , pp. 606-611.	
Li, Shigang	Tottori Univ.
15:10-15:30	TuBT5.4
<i>Fast Feature Detection and Stochastic Parameter Estimation of Road Shape Using Multiple LIDAR</i> , pp. 612-619. (Video)	
Peterson, Kevin M	Carnegie Mellon Univ.
Ziglar, Jason	Carnegie Mellon Univ.
Rybski, Paul E.	Carnegie Mellon Univ.
15:30-15:50	TuBT5.5
<i>Learning in Dynamic Environments with Ensemble Selection for Autonomous Outdoor Robot Navigation</i> , pp. 620-627. (Video)	
Procopio, Michael	Sandia National Lab.
Mulligan, Jane	Univ. of Colorado at Boulder
Grudic, Greg	Univ. of Colorado at Boulder
15:50-16:10	TuBT5.6
<i>Deep Belief Net Learning in a Long-Range Vision System for Autonomous Off-Road Driving</i> , pp. 628-633.	
Hadsell, Raia	New York Univ.
Erkan, Ayse	New York Univ.
Sermanet, Pierre	New York Univ.
Scoffier, Marco	Courant Inst. of Mathematical Sciences, New York
Muller, Urs	Net-Scale Tech.
LeCun, Yann	New York Univ.
TuBT6	Rhodes 10
Humanoids, Kinematics, Dynamics (Regular Sessions)	
14:10-14:30	TuBT6.1
<i>Analysis and Simulation of Fully Ankle Actuated Planar Bipedal Robots</i> , pp. 634-639.	
Franken, Michel	Univ. of Twente
van Oort, Gijs	Univ. of Twente
Stramigioli, Stefano	Univ. of Twente
14:30-14:50	TuBT6.2
<i>Human-Like Motion Based on a Geometrical Inverse Kinematics and Energetic Optimization</i> , pp. 640-646. (Video)	
Almasri, Bachar	Univ. UVSQ (LISV)
Ouezdou, Fathi	Univ. de Versailles
14:50-15:10	TuBT6.3
<i>Optimization of Impact Motions for Humanoid Robots</i> , pp. 647-652. (Video)	
Konno, Atsushi	Tohoku Univ.
Myojin, Tomoya	Tohoku Univ.
Tsujita, Teppi	Tohoku Univ.
Uchiyama, Masaru	Tohoku Univ.
15:10-15:30	TuBT6.4
<i>Centroidal Momentum Matrix of a Humanoid Robot: Structure and Properties</i> , pp. 653-659.	
Orin, David	The Ohio State Univ.
Goswami, Ambarish	Honda Res. Inst.
15:30-15:50	TuBT6.5
<i>Integrating Dynamics into Motion Planning for Humanoid Robots</i> , pp. 660-667. (Video)	
Kanehiro, Fumio	National Inst. of AIST
Suleiman, Wael	LAAS - CNRS
Lamiriaux, Florent	CNRS
Yoshida, Eiichi	National Inst. of AIST
Laumond, Jean-Paul	LAAS-CNRS
15:50-16:10	TuBT6.6
<i>Dynamic Lifting by Whole Body Motion of Humanoid Robots</i> , pp. 668-675. (Video)	
Arisumi, Hitoshi	National Inst. of AIST
Miossec, Sylvain	National Inst. of Advance Industrial Science and
Chardonnet, Jean-Remy	CNRS - AIST
Yokoi, Kazuhito	National Inst. of AIST

TuBT7	Gallieni 5
Navigation II (Regular Sessions)	
14:10-14:30	TuBT7.1
<i>Autonomous Vision-Based Navigation: Goal-Oriented Action Planning by Transient States Prediction, Cognitive Map Building, and Sensory-Motor Learning.</i> , pp. 676-683.	
Giovannangeli, Christophe	CNRS UMR 8051, ENSEA, Cergy-Pontoise Univ.
Gaussier, Philippe	CNRS UMR 8051, ENSEA, Cergy-Pontoise Univ.
14:30-14:50	TuBT7.2
<i>Cost Based Planning with RRT in Outdoor Environments</i> , pp. 684-689.	
Lee, Jinhan	Georgia Inst. of Tech.
Pippin, Charles	Georgia Inst. of Tech.
Balch, Tucker	Georgia Inst. of Tech.
14:50-15:10	TuBT7.3
<i>Smooth Nearness-Diagram Navigation</i> , pp. 690-695. (Video)	
Durham, Joseph	UCSB
Bullo, Francesco	UCSB
15:10-15:30	TuBT7.4
<i>Robust Vision-Based Autonomous Navigation against Environment Changes</i> , pp. 696-701. (Video)	
Kim, Junggho	KAIST
Bok, Yunsu	KAIST
Kweon, In So	KAIST
15:30-15:50	TuBT7.5
<i>Detecting Obstacles and Drop-Offs Using Stereo and Motion Cues for Safe Local Motion</i> , pp. 702-708.	
Murarka, Aniket	The Univ. of Texas at Austin
Sridharan, Mohan	The Univ. of Texas at Austin
Kuipers, Benjamin	The Univ. of Texas at Austin
15:50-16:10	TuBT7.6
<i>Blended Local Planning for Generating Safe and Feasible Paths</i> , pp. 709-716.	
Xu, Ling	Carnegie Mellon Univ.
Stentz, Anthony	Carnegie Mellon Univ.
TuBT8	Gallieni 2
Rehabilitation Robotics II (Regular Sessions)	
14:10-14:30	TuBT8.1
<i>Underactuated Five-Finger Prosthetic Hand Inspired by Grasping Force Distribution of Humans</i> , pp. 717-722. (Video)	
Kamikawa, Yasuhisa	Keio Univ.
Maeno, Takashi	Keio Univ.
14:30-14:50	TuBT8.2
<i>Intelligent Corset to Support Rollover of Cancer Bone Metastasis Patients – Mechanism to Restrict the Trunk ROM</i> , pp. 723-728.	
Ando, Takeshi	Waseda Univ.
Okamoto, Jun	Waseda Univ.
Fujie, Masakatsu G.	Waseda Univ.
14:50-15:10	TuBT8.3
<i>2D Motion Coordination Enhancement for 'Ataxia' Impaired Users Using a Haptic Device</i> , pp. 729-734.	
Tsagarakis, Nikolaos	Italian Inst. of Tech. (IIT)
Gube, Martin	Univ. of Salford
Caldwell, Darwin G.	Italian Inst. of Tech.
15:10-15:30	TuBT8.4
<i>A Parallel Compliant Meso-Manipulator for Finger Rehabilitation Treatments: Kinematic and Dynamic Analysis.</i> , pp. 735-740.	
Amici, Cinzia	Univ. degli Studi di Brescia
Borboni, Alberto	Univ. degli Studi di Brescia
Faglia, Rodolfo	Univ. degli Studi di Brescia
Fausti, Davide	Univ. degli Studi di Brescia
Magnani, Pier Luigi	Univ. degli Studi di Brescia
15:30-15:50	TuBT8.5
<i>Wearable Handling Support System for Paralyzed Patient</i> , pp. 741-746.	
Hasegawa, Yasuhisa	Univ. of Tsukuba
Mikami, Yasuyuki	Univ. of Tsukuba
Watanabe, Kosuke	Univ. of Tsukuba
Firouzimehr, Zeinab	Univ. of Tsukuba
Sankai, Yoshiyuki	Univ. of Tsukuba
15:50-16:10	TuBT8.6
<i>Design of a Quasi-Passive Knee Exoskeleton to Assist Running</i> , pp. 747-754.	
Dollar, Aaron	MIT
Herr, Hugh	Massachusetts Inst. of Tech.
TuBT9	Rhodes 9AC
Social Human-Robot Interaction, Gesture, Posture (Regular Sessions)	

14:10-14:30		TuBT9.1
<i>Remarks on Markerless Human Motion Capture from Voxel Reconstruction with Simple Human Model</i> , pp. 755-760. Takahashi, Kazuhiko		Doshisha Univ.
14:30-14:50		TuBT9.2
<i>Laban Movement Analysis for Multi-Ocular Systems</i> , pp. 761-766. Rett, Joerg Luis, Santos Dias, Jorge		Univ. of Coimbra Univ. of Coimbra Univ. of Coimbra
14:50-15:10		TuBT9.3
<i>Studying the Influence of the Chameleon Effect on Humans Using an Android</i> , pp. 767-772. Shimada, Michihiro Yamauchi, Kazunori Minato, Takashi Ishiguro, Hiroshi Itakura, Shoji	ERATO, Japan Sci. and Tech. Agency	Osaka Univ. Osaka Univ. Osaka Univ. Osaka Univ. Kyoto Univ.
15:10-15:30		TuBT9.4
<i>Motives As Intrinsic Activation for Human-Robot Interaction</i> , pp. 773-778. Hirth, Jochen Berns, Karsten		Univ. of Kaiserslautern Univ. of Kaiserslautern
15:30-15:50		TuBT9.5
<i>The Memory Game: Creating a Human-Robot Interactive Scenario for ASIMO</i> , pp. 779-786. (Video) Ng-Thow-Hing, Victor Lim, Jongwoo Wormer, Joel Sarvadevabhatla, Ravi Kiran Rocha, Carlos Fujimura, Kikuo Sakagami, Yoshiaki		Honda Res. Inst. Honda Res. Inst. USA Honda Res. Inst. USA Honda Res. Inst. USA Honda Res. Inst. USA Honda Res. Inst. USA Honda Res. Inst. USA
15:50-16:10		TuBT9.6
<i>A Clickable World: Behavior Selection through Pointing and Context for Mobile Manipulation</i> , pp. 787-793. Nguyen, Hai Jain, Advait Anderson, Cressel Kemp, Charles		Georgia Inst. of Tech. Georgia Inst. of Tech. Georgia Tech. Georgia Inst. of Tech.

TuBT10		Risso 6AB
Aerial Robotics I (Regular Sessions)		

14:10-14:30		TuBT10.1
<i>3D Smooth Path Planning for a UAV in Cluttered Natural Environments</i> , pp. 794-800. Yang, Kwangjin Sukkarieh, Salah		Univ. of Sydney Univ. of Sydney
14:30-14:50		TuBT10.2
<i>Hovering Flight and Vertical Landing Control of a VTOL Unmanned Aerial Vehicle Using Optical Flow</i> , pp. 801-806. (Video) Herisse, Bruno Russotto, Francois-Xavier Hamel, Tarek Mahony, Robert	French Atomic Energy Commission (CEA)	CEA UNSA-CNRS Australian National Univ.
14:50-15:10		TuBT10.3
<i>3D Path Planning and Stereo-Based Obstacle Avoidance for Rotorcraft UAVs</i> , pp. 807-814. Hrabar, Stefan		CSIRO ICT Centre
15:10-15:30		TuBT10.4
<i>A Probabilistic B-Spline Motion Planning Algorithm for Unmanned Helicopters Flying in Dense 3D Environments</i> , pp. 815-821. Koyuncu, Emre Inalhan, Gokhan		Istanbul Tech. Univ. Istanbul Tech. Univ.
15:30-15:50		TuBT10.5
<i>A Visual-Servo-Based Assistant System for Unmanned Helicopter Control</i> , pp. 822-827. Watanabe, Kei Iwatani, Yasushi Nonaka, Kenichiro Hashimoto, Koichi		Tohoku Univ. Tohoku Univ. Musashi Inst. of Tech. Tohoku Univ.

TuBT11		Gallieni 3
Learning and Control II (Regular Sessions)		

14:10-14:30		TuBT11.1
<i>Self-Organizing Skill Synthesis</i> , pp. 828-833. Lin, Hsien-I Lee, C. S. George		Purdue Univ. National Science Foundation
14:30-14:50		TuBT11.2
<i>Learning Perceptual Coupling for Motor Primitives</i> , pp. 834-839. (Video)		

Kober, Jens	Max-Planck-Inst. for Biological Cybernetics
Peters, Jan	Max-Planck Inst. for Bio. Cybernetics
Mohler, Betty	Max-Planck-Inst. for Biological Cybernetics
14:50-15:10	TuBT11.3
<i>Dynamic Correlation Matrix Based Multi-Q Learning for a Multi-Robot System</i> , pp. 840-845. (Video)	
Guo, Hongliang	Stevens Inst. of Tech.
Meng, Yan	Stevens Inst. of Tech.
15:10-15:30	TuBT11.4
<i>Motivation Oriented Action Selection for Understanding Dynamics of Objects</i> , pp. 846-851.	
Suzuki, Tomoya	Univ. of Tsukuba
Yano, Sho	Univ. of Tsukuba
Suzuki, Kenji	Univ. of Tsukuba
15:30-15:50	TuBT11.5
<i>Motion Recognition and Generation by Combining Reference-Point-Dependent Probabilistic Models</i> , pp. 852-857.	
Sugiura, Komei	ATR
Iwahashi, Naoto	National Inst. of Information and Communications Technology
15:50-16:10	TuBT11.6
<i>Structure from Behavior in Autonomous Agents</i> , pp. 858-862.	
Martius, Georg	Univ. Goettingen
Fiedler, Katja	Max-Planck-Inst. for Dynamics and Self-Organization
Herrmann, J. Michael	Univ. of Edinburgh

TuBT12 Rhodes 9FC
Cellular and Modular Robots I (Regular Sessions)

14:10-14:30	TuBT12.1
<i>Graph Signature for Self-Reconfiguration Planning</i> , pp. 863-869.	
Asadpour, Masoud	Univ. of Tehran
Sproewitz, Alexander	EPFL
Billard, Aude	EPFL
Dillenbourg, Pierre	EPFL
Ijspeert, Auke	EPFL
14:30-14:50	TuBT12.2
<i>A Unified Simulator for Self-Reconfigurable Robots</i> , pp. 870-876.	
Christensen, David Johan	Univ. of Southern Denmark
Brandt, David	Univ. of Southern Denmark
Stoy, Kasper	Univ. of Southern Denmark
Schultz, Ulrik Pagh	Univ. of Southern Denmark
14:50-15:10	TuBT12.3
<i>Reconfigurable Group Robots Adaptively Transforming a Mechanical Structure - Extended Criteria for Load-Adaptive Transformations -</i> , pp. 877-882.	
Suzuki, Yosuke	Tokyo Inst. of Tech.
Inou, Norio	Tokyo Inst. of Tech.
Koseki, Michihiko	Tokyo Inst. of Tech.
Kimura, Hitoshi	Tokyo Inst. of Tech.
15:10-15:30	TuBT12.4
<i>Mechanical Design of Odin, an Extendable Heterogeneous Deformable Modular Robot</i> , pp. 883-888. (Video)	
Lyder, Andreas	Univ. of Southern Denmark
Mendoza Garcia, Ricardo Franco	Univ. of Southern Denmark
Stoy, Kasper	Univ. of Southern Denmark
15:30-15:50	TuBT12.5
<i>Modular Robot Based on 3 Rotational DoF Modules</i> , pp. 889-894. (Video)	
Yerpes, Ariadna	Univ. Pol. de Madrid
Baca, Jose	Univ. Pol. de Madrid
Escalera, Juan Antonio	Univ. Pol. de Madrid
Ferre, Manuel	Univ. Pol. de Madrid
Aracil, Rafael	Univ. Pol. de Madrid
15:50-16:10	TuBT12.6
<i>R-Cell: A Module for a Self-Reconfigurable Robotic System</i> , pp. 895-900.	
Chatzigeorgiou, Dimitris	National Tech. Univ. of Athens
Loizou, Savvas	National Tech. Univ. of Athens
Kyriakopoulos, Kostas	National Tech. Univ. of Athens

TuCT1 Gallieni B
Micro-Manipulation (Regular Sessions)

16:30-16:50	TuCT1.1
<i>In-Situ Robust Nanorobotic Resistance Spot Welding of InGaAs/GaAs Helical Nanobelts without Pretreatment</i> , pp. 901-906.	
Hwang, Gilgueng	Univ. of Tokyo
Podrżaj, Primož	Univ. of Ljubljana
Hashimoto, Hideki	Univ. of Tokyo

16:50-17:10		TuCT1.2
<i>An Adaptive Impedance Force Control Approach for Robotic Cell Microinjection</i> , pp. 907-912.		
Xie, Yu		City Univ. of Hong Kong
Sun, Dong		City Univ. of Hong Kong
Liu, Chong		City Univ. of Hong Kong
Cheng, Shuk Han		City Univ. of Hong Kong
17:10-17:30		TuCT1.3
<i>Non-Contact Mesoscale Manipulation Using Laser Induced Convection Flow</i> , pp. 913-918.		
Vela, Emir		CEA-List
Pacoret, Cécile		Univ. Paris 6
Bouchigny, Sylvain		CEA
Régnier, Stéphane		Univ. Paris 6
Rink, Klaus		OCTAX Microscience GmbH
Bergander, Arvid		Octax Microscience GmbH
17:30-17:50		TuCT1.4
<i>Experimental Study on Droplet Based Hybrid Microhandling Using High Speed Camera</i> , pp. 919-924.		
Sariola, Veikko		Helsinki Univ. of Tech.
Zhou, Quan		Helsinki Univ. of Tech.
Laass, Ralf		Helsinki Univ. of Tech.
Koivo, Heikki Niilo		Helsinki Univ. of Tech.
18:10-18:30		TuCT1.5
<i>Design and Generation of DEP Force for Assembly of CNT-Based Nano Devices</i> , pp. 925-930. (Video)		
Wejinya, Uchechukwu C.		Univ. of Arkansas
Xi, Ning		Michigan State Univ.
Lai, Wai Chiu King		Michigan State Univ.
Zhang, Jiangbo		Michigan State Univ.
Shen, Yantao		Univ. of Nevada, Reno
17:50-18:10		TuCT1.6
<i>Practical Characterisation of the Friction Force for the Positioning and Orientation of Micro-Components</i> , pp. 931-936.		
Paris, Mickael		Univ. of Franche-Comté, FEMTO-ST Inst.
Haddab, Yassine		Univ. de Franche-Comté
Lutz, Philippe		Univ. de Franche-Comté
Rougeot, Patrick		Univ. of Franche-Comté, FEMTO-ST Inst.

TuCT2		Rhodes 9EG
Force Control (Regular Sessions)		

16:30-16:50		TuCT2.1
<i>Parallel Visual-Force Control</i> , pp. 937-942.		
Staniak, Maciej		Warsaw Univ. of Tech.
Winiarski, Tomasz		Warsaw Univ. of Tech.
Zielinski, Cezary		Warsaw Univ. of Tech.
16:50-17:10		TuCT2.2
<i>Shape-Grinding by Direct Position / Force Control with On-Line Constraint Estimation</i> , pp. 943-948.		
Minami, Mamoru		Univ. of Fukui
Xu, Weiwei		Univ. of Fukui
17:10-17:30		TuCT2.3
<i>Development of Force Control Device with High Power and High Resolution</i> , pp. 949-954.		
Osumi, Hisashi		Chuo Univ.
Tomiyama, Takahiro		Chuo Univ.
17:30-17:50		TuCT2.4
<i>On the Elasticity in the Dynamic Decoupling of Hybrid Force/Velocity Control in the Contour Tracking Task</i> , pp. 955-960. (Video)		
Pedrocchi, Nicola		Univ. degli Studi di Brescia
Visioli, Antonio		Univ. of Brescia
Legnani, Giovanni		Univ. of Brescia
Ziliani, Giacomo		Univ. of Brescia
18:10-18:30		TuCT2.5
<i>Human Demonstration Data for Fast Task Teaching</i> , pp. 961-966.		
Okodi, Samuel M.		Tohoku Univ.
Jiang, Xin		Tohoku Univ.
Konno, Atsushi		Tohoku Univ.
Uchiyama, Masaru		Tohoku Univ.
17:50-18:10		TuCT2.6
<i>Force Sensor-Less Interaction Force Control in the De-Burring Task Using Dual-Arm Manipulation</i> , pp. 967-973. (Video)		
Choi, Jae Yeon		Hanyang Univ.
Choi, Youngjin		Hanyang Univ.
Yi, Byung-Ju		Hanyang Univ.

TuCT3		Rhodes 9BD
Calibration and Identification (Regular Sessions)		

16:30-16:50		TuCT3.1
<i>Online Contact Impedance Identification for Robotic Systems</i> , pp. 974-980.		
Haddadi, Amir		Queen's Univ.
Hashtrudi-Zaad, Keyvan		Queen's Univ.
16:50-17:10		TuCT3.2
<i>A New Method for Online Parameter Estimation of Hunt-Crossley Environment Dynamic Models</i> , pp. 981-986.		
Haddadi, Amir		Queen's Univ.
Hashtrudi-Zaad, Keyvan		Queen's Univ.
17:10-17:30		TuCT3.3
<i>Calibration and On-Line Data Selection of Multiple Optical Flow Sensors for Mobile Robot Localization</i> , pp. 987-992.		
Hu, Jwu-Sheng		National Chiao Tung Univ.
Chang, Yung-Jung		National Chiao Tung Univ.
Hsu, Yu-Lun		National Chiao Tung Univ.
17:30-17:50		TuCT3.4
<i>Closed-Form Calibration of the Gantry-Tau Parallel Robot</i> , pp. 993-998.		
Andreff, Nicolas		Univ. Blaise Pascal
Dressler, Isolde		LTH, Lund Univ.
18:10-18:30		TuCT3.5
<i>Estimation of Contact Forces in an Inverted Pendulum Robot</i> , pp. 999-1004.		
McClung, Arthur		Yale Univ.
Morrell, John		Yale Univ.
17:50-18:10		TuCT3.6
<i>Combined Wind Speed and Angle Control in a Virtual Environment Using a Static Observer</i> , pp. 1005-1010.		
Kulkarni, Sandip		Univ. of Utah
Minor, Mark		Univ. of Utah
Pardysak, Eric		Univ. of Utah
Hollerbach, John		Univ. of Utah

TuCT4 Galieni 3
Slam I (Regular Sessions)

16:30-16:50		TuCT4.1
<i>Visual SLAM for 3D Large-Scale Seabed Acquisition Employing Underwater Vehicles</i> , pp. 1011-1016. (Video)		
Salvi, Joaquim		Univ. of Girona
Petillot, Yvan R.		Heriot-Watt Univ.
Battle, Elisabet		Univ. of Girona
16:50-17:10		TuCT4.2
<i>Efficient Probabilistic Range-Only SLAM</i> , pp. 1017-1022.		
Blanco, Jose-Luis		Univ. of Malaga
Fernandez-Madrigal, Juan-Antonio		Univ. of Malaga
Gonzalez, Javier		Univ. of Malaga
17:10-17:30		TuCT4.3
<i>Building Local Metrical and Global Topological Maps Using Efficient Scan Matching Approaches</i> , pp. 1023-1030.		
Iser, Rene		Tech. Univ. of Braunschweig
Wahl, Friedrich M.		Tech. Univ. of Braunschweig
17:30-17:50		TuCT4.4
<i>Incremental Vision-Based Topological SLAM</i> , pp. 1031-1036.		
Angeli, Adrien		Univ. Pierre et Marie Curie
Filliat, David		ENSTA
Doncieux, Stéphane		Pierre and Marie Curie Univ.
Meyer, Jean-Arcady		UPMC CNRS
18:10-18:30		TuCT4.5
<i>A Solution for SLAM through Augmenting Vision and Range Information</i> , pp. 1037-1042.		
Aghamohammadi, Ali Akbar		K.N.Toosi Univ. of Tech.
Tamjidi, Amir Hossein		K.N. Toosi Univ. of Tech.
Taghirad, Hamid		K.N.Toosi Univ. of Tech.
17:50-18:10		TuCT4.6
<i>A Random Set Formulation for Bayesian SLAM</i> , pp. 1043-1049.		
Mullane, John		Nanyang Tech. Univ.
Adams, Martin		Nanyang Tech. Univ.

TuCT5 Risso 8
Intelligent Vehicles III (Motion Planning & Navigation) (Regular Sessions)

16:30-16:50		TuCT5.1
<i>Motion Planning for Car-Parking Using the Slice Projection Technique</i> , pp. 1050-1055.		
Kim, Dalhyung		Korea Univ.
Chung, Woojin		Korea Univ.
16:50-17:10		TuCT5.2
<i>Probabilistic Navigation in Dynamic Environment Using Rapidly-Exploring Random Trees and Gaussian Processes</i> , pp. 1056-1062.		

Fulgenzi, Chiara Tay Meng Keat, Christopher Spalanzani, Anne Laugier, Christian	INPG, INRIA Rhone Alpes INPG-INRIA-CNRS INRIA Rhône-Alpes INRIA Rhône-Alpes
17:10-17:30 <i>Motion Planning in Urban Environments: Part I</i> , pp. 1063-1069.	TuCT5.3
Ferguson, Dave Howard, Tom Likhachev, Maxim	Intel Res. Pittsburgh Carnegie Mellon Univ. Univ. of Pennsylvania
17:30-17:50 <i>Motion Planning in Urban Environments: Part II</i> , pp. 1070-1076.	TuCT5.4
Ferguson, Dave Howard, Tom Likhachev, Maxim	Intel Res. Pittsburgh Carnegie Mellon Univ. Univ. of Pennsylvania
18:10-18:30 <i>RRT-SLAM for Motion Planning with Motion and Map Uncertainty for Robot Exploration</i> , pp. 1077-1082.	TuCT5.5
Huang, Yifeng Gupta, Kamal	Simon Fraser Univ. Simon Fraser Univ.
17:50-18:10 <i>Apprenticeship Learning for Motion Planning, with Application to Parking Lot Navigation</i> , pp. 1083-1090.	TuCT5.6
Abbeel, Pieter Dolgov, Dmitri Ng, Andrew Thrun, Sebastian	Stanford Univ. Toyota Tech. Center Stanford Univ. Stanford Univ.

TuCT6	Rhodes 10
Humanoids and Legged Robots (Regular Sessions)	

16:30-16:50 <i>Optimal Reference Walking with Rotation of the Stance Feet in Single Support for a 3D Biped</i> , pp. 1091-1096.	TuCT6.1
Tlalolini, David Chevallereau, Christine Aoustin, Yannick	CNRS Univ. de Nantes CNRS
16:50-17:10 <i>3D Bipedal Robot with Tunable Leg Compliance Mechanism for Multi-Modal Locomotion</i> , pp. 1097-1102.	TuCT6.2
Takuma, Takashi Hayashi, Shinji Hosoda, Koh	Osaka Inst. of Tech. Osaka Univ. Osaka Univ.
17:10-17:30 <i>Viability and Predictive Control for Safe Locomotion</i> , pp. 1103-1108.	TuCT6.3
Wieber, Pierre-Brice	INRIA Rhône-Alpes
17:30-17:50 <i>Dynamics Simulation of Humanoid Robots with Position-Controlled Joints and Closed Kinematic Chains</i> , pp. 1109-1114.	TuCT6.4
Yamane, Katsu Nakamura, Yoshihiko Yamamoto, Kou	Univ. of Tokyo Univ. of Tokyo Univ. of Tokyo
18:10-18:30 <i>Experimental Verification of Gait Transition from Quadrupedal to Bipedal Locomotion of an Oscillator-Driven Biped Robot</i> , pp. 1115-1120. <u>(Video)</u>	TuCT6.5
Aoi, Shinya Egi, Yoshimasa Ichikawa, Akira Tsuchiya, Kazuo	Kyoto Univ. Kyoto Univ. Kyoto Univ. Kyoto Univ.
17:50-18:10 <i>Online Walking Gait Generation with Adaptive Foot Positioning through Linear Model Predictive Control</i> , pp. 1121-1126.	TuCT6.6
Diedam, Holger Dimitrov, Dimitar Nikolaev Wieber, Pierre-Brice Mombaur, Katja Diehl, Moritz	Univ. of Heidelberg Oerebro Univ. INRIA Rhône-Alpes Univ. of Heidelberg Univ. of Heidelberg

TuCT7	Gallieni 5
Localization and Navigation I (Regular Sessions)	

16:30-16:50 <i>An Optical External Localization System and Applications to Indoor Tracking</i> , pp. 1127-1132.	TuCT7.1
Linga, Srujan Roy, Binayak Asada, Harry Rus, Daniela	MIT MIT MIT MIT
16:50-17:10	TuCT7.2

<i>Robust Particle Filter Localization by Sampling from Non-Corrupted Window with Incomplete Map</i> , pp. 1133-1139.	POSTECH POSTECH
Lee, Jung-Suk Chung, Wan Kyun	
17:10-17:30	TuCT7.3
<i>Improvement of Dead Reckoning Accuracy of a Mobile Robot by Slip Detection and Compensation Using Multiple Model Approach</i> , pp. 1140-1147.	
Lee, Hyoung-Ki Choi, Kiwan Park, Jiyoung Kim, Yeon-Ho Bang, Seokwon	Samsung Advanced Inst. of Tech. Samsung Adv. Inst. of Tech. Samsung Advanced Inst. of Tech. Samsung Advanced Inst. of Tech. Samsung Advanced Inst. of Tech.
17:30-17:50	TuCT7.4
<i>Mixed-Load Transportation Scheduling in a Floor Warehouse Environment</i> , pp. 1148-1153.	
Takano, Ryunosuke Toshimitsu, Higashi Tamura, Hirofumi Cheng, Mingang Ota, Jun	The Univ. of Tokyo Logistics and Automation Div. Murata Machinery, LTD. Muratasystems, LTD. Advanced Telecommunications Res. Inst. The Univ. of Tokyo
18:10-18:30	TuCT7.5
<i>Model Based Robot Localization Using Onboard and Distributed Laser Range Finders</i> , pp. 1154-1159.	
Brsic, Drazen Hashimoto, Hideki	Univ. of Tokyo Univ. of Tokyo
17:50-18:10	TuCT7.6
<i>Coordinated Multi-Robot Exploration Using a Segmentation of the Environment</i> , pp. 1160-1165.	
Wurm, Kai M. Stachniss, Cyrill Burgard, Wolfram	Univ. of Freiburg Univ. of Freiburg Univ. of Freiburg

TuCT8	Gallieni 2
Medical Robots and Systems, Control (Regular Sessions)	

16:30-16:50	TuCT8.1
<i>Control Methods for Guidance Virtual Fixtures in Compliant Human-Machine Interfaces</i> , pp. 1166-1172. (Video)	
Marayong, Panadda Hager, Gregory Okamura, Allison M.	California State Univ. at Long Beach Johns Hopkins Univ. Johns Hopkins Univ.
16:50-17:10	TuCT8.2
<i>Compensation of Physiological Motion Using Linear Predictive Force Control</i> , pp. 1173-1178.	
Dominici, Michel Poignet, Philippe Dombre, Etienne	Univ. Montpellier II LIRMM UMR 5506 CNRS UM2 Univ. Montpellier II & CNRS
17:10-17:30	TuCT8.3
<i>Hand-Eye Self-Calibration of an Ultrasound Image-Based Robotic System</i> , pp. 1179-1185.	
Vitrani, Marie-Aude Morel, Guillaume	Univ. Pierre et Marie Curie - Paris6 Univ. Pierre et Marie Curie - Paris 6
17:30-17:50	TuCT8.4
<i>Gaze Contingent Articulated Robot Control for Robot Assisted Minimally Invasive Surgery</i> , pp. 1186-1191.	
Noonan, David Mylonas, George Darzi, Ara Yang, Guang-Zhong	Imperial Coll. London Imperial Coll. London Imperial Coll. London Imperial Coll. London
18:10-18:30	TuCT8.5
<i>In Vivo Microscope Image Stabilization through 3-D Motion Compensation Using a Contact-Type Sensor</i> , pp. 1192-1197.	
Lee, Sungon Ozaki, Takeshi Nakamura, Yoshihiko	Univ. of Tokyo Univ. of Tokyo Univ. of Tokyo
17:50-18:10	TuCT8.6
<i>Computational Aspects in Actuation and Guidance Mechanism for Wireless Active Capsule Endoscope</i> , pp. 1198-1203.	
Wang, Xiaona Meng, Max	The Chinese Univ. of Hong Kong The Chinese Univ. of Hong Kong

TuCT9	Rhodes 9AC
Social, Physical Human-Robot Interaction (Regular Sessions)	

16:50-17:10	TuCT9.2
<i>GazeRoboard: Gaze-Communicative Guide System in Daily Life on Stuffed-Toy Robot with Interactive Display Board</i> , pp. 1204-1209.	
Yonezawa, Tomoko Yamazoe, Hirotake Utsumi, Akira Abe, Shinji	ATR Intelligent Robotics and Communication Lab. ATR Intelligent Robotics and Communication Lab. ATR Intelligent Robotics and Communication Lab. ATR Intelligent Robotics and Communication Lab.
17:10-17:30	TuCT9.3

<i>Emotion Recognition for Human-Machine Communication</i> , pp. 1210-1215. Maaoui, Choubeila Pruski, Alain Abdat, Faiza	Metz Univ. Univ. Paul Verlaine - Metz LASC, Metz Univ.
17:30-17:50 <i>Learning Equivalent Action Choices from Demonstration</i> , pp. 1216-1221. Chernova, Sonia Veloso, Manuela	TuCT9.4 Carnegie Mellon Univ. Carnegie Mellon Univ.
18:10-18:30 <i>Fall Prevention Control of Passive Intelligent Walker Based on Human Model</i> , pp. 1222-1228. Hirata, Yasuhisa Komatsuda, Shinji Kosuge, Kazuhiro	TuCT9.5 Tohoku Univ. Tohoku Univ. Tohoku Univ.
17:50-18:10 <i>Spatial Scaffolding Cues for Interactive Robot Learning</i> , pp. 1229-1235. Berlin, Matt Breazeal, Cynthia Chao, Crystal	TuCT9.6 Massachusetts Inst. of Tech. MIT Massachusetts Inst. of Tech.
TuCT10	Risso 6AB
Aerial Robotics II (Regular Sessions)	
16:30-16:50 <i>New Design of the Steering Mechanism for a Mini Coaxial Helicopter</i> , pp. 1236-1241. Bermes, Christian Leutenegger, Stefan Bouabdallah, Samir Schafroth, Dario Siegwart, Roland	TuCT10.1 ETH Zurich Swiss Federal Inst. of Tech. Zurich Swiss Federal Inst. of Tech. ETH Zurich ETH Zurich
16:50-17:10 <i>Energy Management for Indoor Hovering Robots</i> , pp. 1242-1247. Roberts, James F. Zufferey, Jean-Christophe Floreano, Dario	TuCT10.2 Ec. Pol. Fédérale de Lausanne EPFL Ec. Pol. Federal, Lausanne
17:10-17:30 <i>An Automatic System for Creating Geo-Referenced Mosaics from MAV Video</i> , pp. 1248-1253. Taylor, Clark N. Andersen, Evan	TuCT10.3 Brigham Young Univ. Brigham Young Univ.
17:30-17:50 <i>A Strategy for Tracking a Ground Target with a UAV</i> , pp. 1254-1259. Theodorakopoulos, Panagiotis Lacroix, Simon	TuCT10.4 CNRS LAAS/CNRS
18:10-18:30 <i>Simulation and Analysis of a Passive Pitch Reversal Flapping Wing Mechanism for an Aerial Robotic Platform</i> , pp. 1260-1265. Arabagi, Veaceslav Sitti, Metin	TuCT10.5 Carnegie Mellon Univ. Carnegie Mellon Univ.
17:50-18:10 <i>Aerial Robot Piloted in Steep Relief by Optic Flow Sensors</i> , pp. 1266-1273. Ruffier, Frank Franceschini, Nicolas	TuCT10.6 CNRS / Univ. de la Méditerranée CNRS and Univ. of the Mediterranean
TuCT11	Risso 7B
Autonomous Agents (Regular Sessions)	
16:30-16:50 <i>Improved Predictability of Reactive Robot Control Using Control Lyapunov Functions</i> , pp. 1274-1279. Ogren, Petter	TuCT11.1 Swedish Defence Res. Agency
16:50-17:10 <i>HybridExploration: A Distributed Approach to Terrain Exploration Using Mobile and Fixed Sensor Nodes</i> , pp. 1280-1286. Ferranti, Ettore Trigoni, Niki Levene, Mark	TuCT11.2 Univ. of Oxford Univ. of Oxford Birkbeck Coll. Univ. of London
17:10-17:30 <i>Layered Understanding for Sporadic Imitation in a Multi-Robot Scenario</i> , pp. 1287-1292. Richert, Willi Niehörster, Oliver Koch, Markus	TuCT11.3 Unviersity of Paderborn Unviersity of Paderborn Univ. of Paderborn / Siemens
17:30-17:50 <i>A Performance Sensitive Hormone-Inspired System for Task Distribution Amongst Evolving Robots</i> , pp. 1293-1298. Walker, Joanne Wilson, Myra S.	TuCT11.4 Aberystwyth Univ. Aberystwyth Univ.

18:10-18:30		TuCT11.5
<i>Bayesian State Estimation and Behavior Selection for Autonomous Robotic Exploration in Dynamic Environments</i> , pp. 1299-1306.		
Lidoris, Georgios		Tech. Univ. München
Wollherr, Dirk		Tech. Univ. München
Buss, Martin		Tech. Univ. Muenchen
17:50-18:10		TuCT11.6
<i>Homing in Scale Space</i> , pp. 1307-1312.		
Churchill, David		Memorial Univ. of Newfoundland
Vardy, Andrew		Memorial Univ. of Newfoundland

TuCT12		Rhodes 9FC
Cellular and Modular Robots II (Regular Sessions)		

16:30-16:50		TuCT12.1
<i>Design of Reconfigurable Heterogeneous Modular Architecture for Service Robots</i> , pp. 1313-1318. (Video)		
Ahn, Ho Seok		Seoul National Univ.
Baek, Young Min		Seoul National Univ.
Sa, Inkyu		Samsung Electronics
Kang, Woo-Sung		Seoul National Univ.
Na, Jin Hee		Seoul National Univ.
Choi, Jin Young		Seoul National Univ.
16:50-17:10		TuCT12.2
<i>Self-Assembly through the Local Interaction between Embodied Nonlinear Oscillators with Simple Motile Function</i> , pp. 1319-1324.		
Suzuki, Kazuya		Tohoku Univ.
Tsukidate, Tsunamichi		Tohoku Univ.
Nakada, Takeshi		Tohoku Univ.
Shimizu, Masahiro		Tohoku Univ.
Ishiguro, Akio		Tohoku Univ.
17:10-17:30		TuCT12.3
<i>Peltier-Based Freeze-Thaw Connector for Waterborne Self-Assembly Systems</i> , pp. 1325-1330. (Video)		
Miyashita, Shuhei		Univ. of Zurich
Casanova, Flurin		Department of Informatics, Univ. of Zurich
Lungarella, Max		Artificial Intelligence Lab.
Pfeifer, Rolf		Univ. of Zurich
17:30-17:50		TuCT12.4
<i>Wheeled Locomotion for Payload Carrying with Modular Robot</i> , pp. 1331-1337.		
Hou, Feili		Univ. of Southern California
Ranasinghe, Nadeesha		USC Information Sci. Inst.
Salemi, Behnam		USC/ISI
Shen, Wei-Min		USC Information Science Inst.
18:10-18:30		TuCT12.5
<i>Generalizing Metamodules to Simplify Planning in Modular Robotic Systems</i> , pp. 1338-1345.		
Dewey, Daniel		Carnegie Mellon Univ.
Srinivasa, Siddhartha		Intel Res. Pittsburgh
Ashley-Rollman, Michael		Carnegie Mellon Univ.
De Rosa, Michael		Carnegie Mellon Univ.
Pillai, Padmanabhan		Intel Res. Pittsburgh
Mowry, Todd		Carnegie Mellon Univ.
Campbell, Jason		Intel Res.
Goldstein, Seth		Carnegie Mellon Univ.
17:50-18:10		TuCT12.6
<i>Optimal Distributed Planning for Self Assembly of Modular Manipulators</i> , pp. 1346-1352. (Video)		
Yun, Seung-kook		MIT
Rus, Daniela		MIT

WeAT1		Rhodes 10
Localization with RFID, Sonars (Regular Sessions)		

08:40-09:00		WeAT1.1
<i>Self-Localization with RFID Snapshots in Densely Tagged Environments</i> , pp. 1353-1358.		
Vorst, Philipp		Univ. of Tübingen
Schneegans, Sebastian		Ruhr Univ. Bochum
Yang, Bin		Univ. of Tübingen
Zell, Andreas		Univ. of Tübingen
09:00-09:20		WeAT1.2
<i>Indoor Localization System Using Multi-Modulation of Ultrasonic Sensors and Digital Compass</i> , pp. 1359-1364. (Video)		
Kim, Hong Shik		KIST (Korea Inst. of Science and Tech.
Choi, Jong Suk		Korea Inst. of Sci. and Tech.
Park, Min-Yong		Yonsei Univ.
09:20-09:40		WeAT1.3
<i>Acoustic Flow</i> , pp. 1365-1370.		

McKerrow, Phillip	Univ. of Wollongong
09:40-10:00	WeAT1.4
<i>Self-Localization with Ultrasonic Sensor Array</i> , pp. 1371-1378.	
Ono, Yukihiro	Hitachi, Ltd.
Takahashi, Ryosuke	PTP Inc.
Takahashi, Takayuki	Fukushima Univ.
Jeong, Seonghee	Fukushima Univ.
Ohno, Kazunori	Tohoku Univ.
Tadokoro, Satoshi	Tohoku Univ.
10:00-10:20	WeAT1.5
<i>Probabilistic UHF RFID Tag Pose Estimation with Multiple Antennas and a Multipath RF Propagation Model</i> , pp. 1379-1384.	
Deyle, Travis	Georgia Tech.
Kemp, Charles	Georgia Inst. of Tech.
Reynolds, Matthew	Duke Univ.
10:20-10:40	WeAT1.6
<i>Pose Estimation of a Mobile Robot on a Lattice of RFID Tags</i> , pp. 1385-1390.	
Kodaka, Kenri	WABOT-HOUSE Lab. Waseda Univ.

WeAT2 Gallieni B
Distributed Robot Systems (Regular Sessions)

08:40-09:00	WeAT2.1
<i>Communication Using Pheromone Field for Multiple Robots</i> , pp. 1391-1396. (Video)	
Fujisawa, Ryusuke	The Univ. of Electro-Communications
Imamura, Hikaru	The Univ. of Electro-Communications
Hashimoto, Takashi	Japan Advanced Inst. of Science and Tech.
Matsuno, Fumitoshi	The Univ. of Electro-Communications
09:00-09:20	WeAT2.2
<i>A Scalable and Distributed Approach for Self-Assembly and Self-Healing of a Differentiated Shape.</i> , pp. 1397-1402.	
Rubenstein, Michael	Univ. of southern california
Shen, Wei-Min	USC Information Science Inst.
09:20-09:40	WeAT2.3
<i>Self-Configurable Mobile Robot Swarms with Hole Repair Capability</i> , pp. 1403-1408.	
Lee, Geunho	Japan Advanced Inst. of Sci. & Tech.
Chong, Nak Young	Japan Advanced Inst. of Sci. and Tech.
09:40-10:00	WeAT2.4
<i>Flocking for Multi-Robot Systems Via the Null-Space-Based Behavioral Control</i> , pp. 1409-1414. (Video)	
Antonelli, Gianluca	Univ. degli Studi di Cassino
Arrichiello, Filippo	Univ. di Cassino
Chiaverini, Stefano	Univ. di Cassino
10:00-10:20	WeAT2.5
<i>Spatial Macroscopic Models of a Bio-Inspired Robotic Swarm Algorithm</i> , pp. 1415-1420.	
Hamann, Heiko	Univ. Karlsruhe (TH)
Woern, Heinz	Univ. Karlsruhe
Crailsheim, Karl	Univ. of Graz
Schmickl, Thomas	Univ. of Graz
10:20-10:40	WeAT2.6
<i>Consensus-Based Task Sequencing in Decentralized Multiple-Robot Systems Using Local Communication</i> , pp. 1421-1426.	
Parker, Chris	Univ. of Alberta
Zhang, Hong	Univ. of Alberta

WeAT3 Risso 6AB
Medical Robots and Systems I (Regular Sessions)

08:40-09:00	WeAT3.1
<i>Model-Based Passivity Control for Bilateral Teleoperation of a Surgical Robot with Time Delay</i> , pp. 1427-1432.	
Kawashima, Kenji	Tokyo Inst. of Tech.
Tadano, Kotaro	Tokyo Inst. of Tech.
Sankaranarayanan, Ganesh	Rensselaer Pol. Inst.
Hannaford, Blake	Univ. of Washington
09:00-09:20	WeAT3.2
<i>Modeling of Conditions Where a Puncture Occurs During Needle Insertion Considering Probability Distribution</i> , pp. 1433-1440.	
Kobayashi, Yo	Waseda Univ.
Onishi, Akinori	Waseda Univ.
Hoshi, Takeharu	Waseda Univ.
Kawamura, Kazuya	Waseda Univ.
Fujie, Masakatsu G.	Waseda Univ.
09:20-09:40	WeAT3.3
<i>Portable Smart Wrist Rehabilitation Device Driven by Rotational MR-Fluid Brake Actuator for Telemedicine Applications</i> , pp. 1441-1446.	
Avraam, More	ULB
Horodincu, Mihaita	ULB

Letier, Pierre	ULB
Preumont, André	ULB
09:40-10:00	WeAT3.4
<i>Modeling and Geometrical Validation of a Tele-Echography Robot</i> , pp. 1447-1452.	
Nouaille, Laurence	Univ. of Orleans
Smith-Guerin, Natalie	Univ. of Orleans
Poisson, Gérard	Univ. d'Orléans
10:00-10:20	WeAT3.5
<i>An Image-Guided Robot for Needle Insertion in Small Animal. Accurate Needle Positioning Using Visual Servoing.</i> , pp. 1453-1458.	
Ayadi, Ahmed	Univ. Louis Pasteur
Bayle, Bernard	Univ. of Strasbourg
Graebing, Pierre	Univ. Louis Pasteur - Strasbourg (ULP)
Gangloff, Jacques	Strasbourg I Univ.
10:20-10:40	WeAT3.6
<i>Acceleration Compensation for Vehicle Based Telesurgery on Earth or in Space</i> , pp. 1459-1464.	
King, H. Hawkeye	Univ. of Washington
Low, Thomas	SRI International
Hufford, Kevin	SRI International
Broderick, Timothy	Univ. of Cincinnati Medical Center

WeAT4 Risso 7B
Mechanism Design (Regular Sessions)

08:40-09:00	WeAT4.1
<i>The Designs and Motions of a Shoulder Structure with a Spherical Thorax, Scapulas and Collarbones for Humanoid "Kojiro"</i> , pp. 1465-1470. (Video)	
Sodeyama, Yoshinao	The Univ. of Tokyo
Nishino, Tamaki	The Univ. of Tokyo
Namiki, Yuta	The Univ. of Tokyo
Nakanishi, Yuto	The Univ. of Tokyo
Mizuuchi, Ikuo	The Univ. of Tokyo
Inaba, Masayuki	The Univ. of Tokyo
09:00-09:20	WeAT4.2
<i>Motion Primitives for a Tumbling Robot</i> , pp. 1471-1476. (Video)	
Hemes, Brett	CSE, UMN
Fehr, Duc	Univ. of Minnesota
Papanikolopoulos, Nikos	Univ. of Minnesota
09:20-09:40	WeAT4.3
<i>A Robotic Catapult Based on the Closed Elastica with a High Stiffness Endpoint and Its Application to Swimming Tasks</i> , pp. 1477-1482.	
Yamada, Atsushi	Nagoya Inst. of Tech.
Watari, Masamitsu	Nagoya Inst. of Tech.
Mochiyama, Hiromi	Univ. of Tsukuba
Fujimoto, Hideo	Nagoya Inst. of Tech.
09:40-10:00	WeAT4.4
<i>ABLE, an Innovative Transparent Exoskeleton for the Upper-Limb</i> , pp. 1483-1488.	
Garrec, Philippe	CEA
Friconneau, Jean-Pierre	CEA
Measson, Yvan	CEA LIST
Perrot, Yann	CEA LIST
10:00-10:20	WeAT4.5
<i>Advanced Child Unit of "Anchor Climber" Using Modified Internally-Balanced Magnet</i> , pp. 1489-1494.	
Suzuki, Masataka	Tokyo Inst. of Tech.
Kitai, Shinya	Tokyo Inst. of Tech.
Hirose, Shigeo	Tokyo Inst. of Tech.
10:20-10:40	WeAT4.6
<i>Demonstration of an ITER Relevant Remote Handling Equipment for Tokamak Close Inspection</i> , pp. 1495-1500.	
Keller, Delphine	CEA LIST Lab. Robotique et Mesorobotique
Perrot, Yann	CEA LIST

WeAT5 Gallieni 2
Legged Robots I (Regular Sessions)

08:40-09:00	WeAT5.1
<i>Velocity Control of a Hybrid Quadruped Bounding Robot</i> , pp. 1501-1506.	
Faragalli, Michele	McGill Univ.
Sharf, Inna	McGill Univ.
Trentini, Michael	Defence Res. and Development Canada
09:00-09:20	WeAT5.2
<i>Dynamic Crawl Gait Algorithm for Quadruped Robots</i> , pp. 1507-1512.	
Hwang, Heeseon	Pohang Univ. of Science and Tech.
Youn, Youngil	POSTECH

09:20-09:40		WeAT5.3
<i>Screenbot: Walking Inverted Using Distributed Inward Gripping</i> , pp. 1513-1518. (Video)		
Wile, Gregory		Case Western Res. Univ.
Daltorio, Kathryn A		Case Western Res. Univ.
Diller, Eric D.		Case Western Res. Univ.
Palmer III, Luther R.		Case Western Res. Univ.
Gorb, Stanislav N		Max-Planck-Inst. for Metals Res.
Ritzmann, Roy Earl		Case Western Res. Univ.
Quinn, Roger, D.		Case Western Res. Univ.
09:40-10:00		WeAT5.4
<i>Control Strategies for a Multi-Legged Hopping Robot</i> , pp. 1519-1524.		
Luders, Rolf Allan		Carnegie Mellon Univ.
Apostolopoulos, Dimi		Carnegie Mellon Univ.
Wettergreen, David		Carnegie Mellon Univ.
10:00-10:20		WeAT5.5
<i>The DLR-Crawler: A Testbed for Actively Compliant Hexapod Walking Based on the Fingers of DLR-Hand II</i> , pp. 1525-1531. (Video)		
Goerner, Martin		German Aerospace Center (DLR)
Wimboeck, Thomas		German Aerospace Center (DLR)
Baumann, Andreas		German Aerospace Center
Fuchs, Matthias		German Aerospace Center
Bahls, Thomas		German Aerospace Center
Grebenstein, Markus		German Aerospace Center (DLR)
Borst, Christoph		German Aerospace Center (DLR)
Butterfass, Jörg		German Aerospace Center
Hirzinger, Gerd		German Aerospace Center (DLR)
10:20-10:40		WeAT5.6
<i>Study on Roller-Walker – Adaptation of Characteristics of the Propulsion by a Leg Trajectory –</i> , pp. 1532-1537. (Video)		
Endo, Gen		Tokyo Inst. of Tech.
Hirose, Shigeo		Tokyo Inst. of Tech.

WeAT6 Gallieni 3
Humanoids I (Regular Sessions)

08:40-09:00		WeAT6.1
<i>A Robot Listens to Music and Counts Its Beats Aloud by Separating Music from Counting Voice</i> , pp. 1538-1543.		
Mizumoto, Takeshi		Kyoto Univ.
Takeda, Ryu		Kyoto Univ.
Yoshii, Kazuyoshi		National Inst. of Advanced Industrial Science and Tech.
Komatani, Kazunori		Kyoto Univ.
Ogata, Tetsuya		Kyoto Univ.
Okuno, Hiroshi G.		Kyoto Univ.
09:00-09:20		WeAT6.2
<i>Kinodynamic Gait Planning for Full-Body Humanoid Robots</i> , pp. 1544-1550.		
Harada, Kensuke		National Inst. of AIST
Morisawa, Mitsuharu		National Inst. of AIST
Miura, Kanako		National Inst. of Advanced Industrial Science and Technology
Nakaoka, Shinichiro		National Inst. of AIST
Fujiwara, Kiyoshi		Inst. of Advanced Industrial Sci.(AIST)
Kaneko, Kenji		National Inst. of AIST
Kajita, Shuuji		National Inst. of AIST
09:20-09:40		WeAT6.3
<i>Task Guided Attention Control and Visual Verification in Tea Serving by the Daily Assistive Humanoid HRP2JSK</i> , pp. 1551-1557.		
Okada, Kei		The Univ. of Tokyo
Kojima, Mitsuharu		The Univ. of Tokyo
Tokutsu, Satoru		The Univ. of Tokyo
Mori, Yuto		The Univ. of Tokyo
Maki, Toshiaki		The Univ. of Tokyo
Inaba, Masayuki		The Univ. of Tokyo
09:40-10:00		WeAT6.4
<i>Wheelchair Support by a Humanoid through Integrating Environment Recognition, Whole-Body Control and Human-Interface behind the User</i> , pp. 1558-1563.		
Nozawa, Shunichi		The Univ. of Tokyo
Maki, Toshiaki		The Univ. of Tokyo
Kojima, Mitsuharu		The Univ. of Tokyo
Kanzaki, Shigeru		The Univ. of Tokyo
Okada, Kei		The Univ. of Tokyo
Inaba, Masayuki		The Univ. of Tokyo
10:00-10:20		WeAT6.5
<i>Manipulation and Recognition of Objects Incorporating Joints by a Humanoid Robot for Daily Assistive Tasks</i> , pp. 1564-1569. (Video)		
Kojima, Mitsuharu		The Univ. of Tokyo
Okada, Kei		The Univ. of Tokyo

Inaba, Masayuki	The Univ. of Tokyo
10:20-10:40	WeAT6.6
<i>Analysis of Nailing Task Motion for a Humanoid Robot</i> , pp. 1570-1575.	
Tsujita, Tepei	Tohoku Univ.
Konno, Atsushi	Tohoku Univ.
Komizunai, Shunsuke	Tohoku Univ.
Nomura, Yuki	Tohoku Univ.
Owa, Takuya	Tohoku Univ.
Myojin, Tomoya	Tohoku Univ.
Ayaz, Yasar	Tohoku Univ.
Uchiyama, Masaru	Tohoku Univ.

WeAT7	Gallieni 5
Slam li (Regular Sessions)	
08:40-09:00	WeAT7.1
<i>A Graph Matching Technique for an Appearance-Based, Visual SLAM-Approach Using Rao-Blackwellized Particle Filters</i> , pp. 1576-1581.	
Koenig, Alexander	Ilmenau Tech. Univ.
Kessler, Jens	Ilmenau Univ. of Tech. 98684 Ilmenau, Germany/Ilmenau
Gross, Horst-Michael	Ilmenau Univ. of Tech.
09:00-09:20	WeAT7.2
<i>Iterated Unscented SLAM Algorithm for Navigation of an Autonomous Mobile Robot</i> , pp. 1582-1587.	
Shojaie, Khoshnam	Iran Univ. of Science and Tech. (IUST)
Mohammad Shahri, Alireza	Iran Univ. of Science and Tech. (IUST)
09:20-09:40	WeAT7.3
<i>Vision SLAM Using Omni-Directional Visual Scan Matching</i> , pp. 1588-1593. (Video)	
Huang, Fu-Sheng	National Chiao Tung Univ.
Song, Kai-Tai	National Chiao Tung Univ.
09:40-10:00	WeAT7.4
<i>Simultaneous Topological Map Prediction and Moving Object Trajectory Prediction in Unknown Environments</i> , pp. 1594-1599.	
Chung, Shu Yun	National Taiwan Univ.
Huang, Han-Pang	National Taiwan Univ.
10:00-10:20	WeAT7.5
<i>Building Maps of Large Environments Using Splines and Geometric Analysis</i> , pp. 1600-1605. (Video)	
Pedraza, Luis	Univ. Pol. de Madrid
Rodriguez-losada, Diego	Tech. Univ. of Madrid
San Segundo, Pablo	Tech. Univ. of Madrid
Matia, Fernando	Univ. Pol. de Madrid
10:20-10:40	WeAT7.6
<i>Using Planar Facets for Stereovision SLAM</i> , pp. 1606-1611.	
Lacroix, Simon	LAAS/CNRS
Berger, Cyrille	Univ. de Toulouse, LAAS/CNRS, Thalès

WeAT8	Rhodes 9EG
Search and Rescue Robots I (Regular Sessions)	
08:40-09:00	WeAT8.1
<i>HELIOS IX Tracked Vehicle for Urban Search and Rescue Operations: Mechanical Design and First Tests</i> , pp. 1612-1617.	
Guarnieri, Michele	Tokyo Inst. of Tech.
Inoh, Takao	E-N studio
Takita, Kensuke	HiBot Corp.
Debenest, Paulo	Tokyo Inst. of Tech.
Fukushima, Edwardo F.	Tokyo Inst. of Tech.
Hirose, Shigeo	Tokyo Inst. of Tech.
09:00-09:20	WeAT8.2
<i>Control Strategy for a Snake-Like Robot Based on Constraint Force and Verification by Experiment</i> , pp. 1618-1623. (Video)	
Watanabe, Kouki	Tokyo Denki Univ.
Iwase, Masami	Tokyo Denki Univ.
Hatakeyama, Shoshiro	Tokyo Denki Univ.
09:20-09:40	WeAT8.3
<i>Path-Tracking Control of a Snake-Like Robot Using Screw Drive Mechanism</i> , pp. 1624-1629.	
Fukushima, Hiroaki	The Univ. of Electro-Communications
Tanaka, Motoyasu	The Univ. of Electro-Communications
Kamegawa, Tetsushi	Okayama Univ.
Matsuno, Fumitoshi	The Univ. of Electro-Communications
09:40-10:00	WeAT8.4
<i>Locomotion and Turning Patterns of a Peristaltic Crawling Earthworm Robot Composed of Flexible Units</i> , pp. 1630-1635.	
Omori, Hayato	Chuo Univ.
Nakamura, Taro	Chuo Univ.
10:00-10:20	WeAT8.5
<i>The Latest Generation Whegs™ Robot Features a Passive-Compliant Body Joint</i> , pp. 1636-1641. (Video)	

Boxerbaum, Alexander	Case Western Res. Univ.
Oro, Julio	Case Western Res. Univ.
Peterson, Gilbert	Air Force Inst. of Tech.
Quinn, Roger, D.	Case Western Res. Univ.
10:20-10:40	WeAT8.6
<i>A Proposal of Flexible Mono-Tread Mobile Track – a New Mobile Mechanism Using Tracks –</i> , pp. 1642-1647. (Video)	
Kinugasa, Tetsuya	Okayama Univ. of Science
Otani, Yuta	Pacific Software Development
Haji, Takafumi	Okayama Univ. of Science
Yoshida, Koji	Okayama Univ. of Science
Osuka, Koichi	Kobe Univ.
Amano, Hisanori	National Res. Inst. of Fire and Disaster

WeAT9 Rhodes 9AC
Nonholonomic Motion Planning (Regular Sessions)

08:40-09:00	WeAT9.1
<i>A Position-Based Visual Servoing Scheme for Following Paths with Nonholonomic Mobile Robots</i> , pp. 1648-1654. (Video)	
Cherubini, Andrea	Univ. di Roma
Chaumette, Francois	INRIA
Oriolo, Giuseppe	Univ. di Roma
09:00-09:20	WeAT9.2
<i>Reliable Robust Path Planner</i> , pp. 1655-1660.	
Pepy, Romain	CNRS - SUPELEC - Univ. Paris-Sud
Kieffer, Michel	CNRS - SUPELEC - Univ. Paris-Sud
Walter, Eric	CNRS - SUPELEC - Univ. Paris-Sud
09:20-09:40	WeAT9.3
<i>Kinodynamic Motion Planning with Hardware Demonstrations</i> , pp. 1661-1666.	
Sucan, Ioan Alexandru	Rice Univ.
Kruse, Jonathan	Univ. of Pennsylvania
Yim, Mark	Univ. of Pennsylvania
Kavraki, Lydia	Rice Univ.
09:40-10:00	WeAT9.4
<i>Replanning: A Powerful Planning Strategy for Hard Kinodynamic Problemsfile: ///home/merlet/Netscape/merlet/merlet.html</i> , pp. 1667-1672. (Video)	
Tsianos, Konstantinos	Rice Univ.
Kavraki, Lydia	Rice Univ.
10:00-10:20	WeAT9.5
<i>Optimal Paths in a Constrained Image Plane for Purely Image--Based Parking</i> , pp. 1673-1680.	
Salaris, Paolo	Univ. of Pisa
Belo, Felipe	Univ. of Pisa
Fontanelli, Daniele	Univ. of Pisa
Bicchi, Antonio	Univ. of Pisa
10:20-10:40	WeAT9.6
<i>Motion Planning for Urban Driving Using RRT</i> , pp. 1681-1686.	
Kuwata, Yoshiaki	JPL
Fiore, Gaston	MIT
Teo, Justin	Massachusetts Inst. of Tech.
Frazzoli, Emilio	Massachusetts Inst. of Tech.
How, Jonathan	Massachusetts Inst. of Tech.

WeAT10 Rhodes 9FC
Audition I (Special Session)

08:40-09:00	WeAT10.1
<i>Real-Time Implementation of Blind Spatial Subtraction Array for Hands-Free Robot Spoken Dialogue System</i> , pp. 1687-1692. (Video)	
Takahashi, Yu	Nara Inst. of Science and Tech.
Saruwatari, Hiroshi	Nara Inst. of Sci. and Tech.
Kiyohiro Shikano, '	Nara Inst. of Science and Tech.
09:00-09:20	WeAT10.2
<i>Combining Acoustic Echo Cancellation and Adaptive Beamforming for Achieving Robust Speech Interface in Mobile Robot</i> , pp. 1693-1698.	
Beh, Jounghoon	Korea Univ.
Lee, Taekjin	Korea Univ.
Lee, In-Ho	Korea
Kim, Hyunsoo	Samsung
Ahn, Sungjoo	Samsung Electronics
Ko, Hanseok	Korea Univ.
09:20-09:40	WeAT10.3
<i>Listen to the Parrot: Demonstrating the Quality of Online Pitch and Formant Extraction Via Feature-Based Resynthesis</i> , pp. 1699-1704. (Video)	
Heckmann, Martin	Honda Res. Inst. Europe GmbH
Glaeser, Claudius	Honda Res. Inst. Europe GmbH

Vaz, Miguel	Univ. do Minho Guimaraes
Rodemann, Tobias	Honda Res. Inst. Europe
Joublin, Frank	Honda Res. Inst. Europe
Goerick, Christian	Honda Res. Inst. Europe GmbH
09:40-10:00	WeAT10.4
<i>Target Speech Detection and Separation for Humanoid Robots in Sparse Dialogue with Noisy Home Environments</i> , pp. 1705-1711.	
Kim, Hyun-Don	Kyoto Univ.
Kim, Jinsung	KIST
Komatani, Kazunori	Kyoto Univ.
Ogata, Tetsuya	Kyoto Univ.
Okuno, Hiroshi G.	Kyoto Univ.
10:00-10:20	WeAT10.5
<i>Segmenting Acoustic Signal with Articulatory Movement Using Recurrent Neural Network for Phoneme Acquisition</i> , pp. 1712-1717.	
Kanda, Hisashi	Informatics, Kyoto Univ.
Ogata, Tetsuya	Kyoto Univ.
Komatani, Kazunori	Kyoto Univ.
Okuno, Hiroshi G.	Kyoto Univ.
10:20-10:40	WeAT10.6
<i>Barge-In-Able Robot Audition Based on ICA and Missing Feature Theory under Semi-Blind Situation</i> , pp. 1718-1723.	
Takeda, Ryu	Kyoto Univ.
Nakadai, Kazuhiro	Honda Res. Inst. Japan Co., Ltd.
Komatani, Kazunori	Kyoto Univ.
Ogata, Tetsuya	Kyoto Univ.
Okuno, Hiroshi G.	Kyoto Univ.
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WeAT11	Gallieni A
Field Robots I (Regular Sessions)	
08:40-09:00	WeAT11.1
<i>Modularized In-Pipe Robot Capable of Selective Navigation Inside of Pipelines</i> , pp. 1724-1729.	
Roh, Se-gon	Sungkyunkwan Univ.
Choi, Hyouk Ryeol	Sungkyunkwan Univ.
Lee, Jungsub	Sungkyunkwan Univ.
Kim, Dowan	Sungkyunkwan Univ. Intelliget Robotics & Mechatronic Syste
Moon, Hyungpil	SungKyunkwan Univ.
09:00-09:20	WeAT11.2
<i>An Experiment Robot System for the Power Distribution Line Maintenance Robot - System Architecture and Bolt Insertion Experiment -</i> , pp. 1730-1736.	
He, Yingxin	Meijo Univ.
Tatsuno, Kyoichi	Meijo Univ.
09:20-09:40	WeAT11.3
<i>Sensor-Arm – Robotic Manipulator for Preventive Maintenance and Inspection of High-Voltage Transmission Lines</i> , pp. 1737-1744.	
Debenest, Paulo	Tokyo Inst. of Tech.
Guarnieri, Michele	Tokyo Inst. of Tech.
Takita, Kensuke	HiBot Corp.
Fukushima, Edwardo F.	Tokyo Inst. of Tech.
Hirose, Shigeo	Tokyo Inst. of Tech.
Tamura, Kiyoshi	Kansai Electric Power Compnay
Kimura, Akihiro	Kansai Electric Power Company
Kubokawa, Hiroshi	J-Power Systems
Iwama, Narumi	J-Power Systems
Shiga, Fuminori	J-Power Systems
09:40-10:00	WeAT11.4
<i>Energy Based Path Planning for a Novel Cabled Robotic System</i> , pp. 1745-1751. (Video)	
Borgstrom, Per Henrik	UCLA
Singh, Amarjeet	Univ. of California, Los Angeles
Jordan, Brett	UCLA, CENS
Sukhatme, Gaurav	Univ. of Southern California
Batalin, Maxim	CENS, UCLA
Kaiser, William	UCLA
10:00-10:20	WeAT11.5
<i>Traffic Interaction in the Urban Challenge: Putting Boss on Its Best Behavior</i> , pp. 1752-1758.	
Baker, Christopher R	Carnegie Mellon Univ.
Dolan, John M.	Carnegie Mellon Univ.
10:20-10:40	WeAT11.6
<i>Adaptive Control of Four-Wheel-Steering Off-Road Mobile Robots: Application to Path Tracking and Heading Control in Presence of Sliding</i> , pp. 1759-1764.	
Cariou, Christophe	Cemagref
Lenain, Roland	Cemagref
Thuilot, Benoit	Clermont-Ferrand Univ.
Martinet, Philippe	Blaise Pascal Univ.

WeAT12 Rhodes 9BD
Grasping I (Regular Sessions)

08:40-09:00		WeAT12.1
<i>Selection of Robot Pre-Grasps Using Box-Based Shape Approximation</i> , pp. 1765-1770.		
Huebner, Kai	Royal Inst. of Tech. (KTH), Stockholm	
Kragic, Danica	KTH	
09:00-09:20		WeAT12.2
<i>Synthesis of Grasps with Four Contact Points Including at Least Three Force-Closure Grasps of Three Contact Points</i> , pp. 1771-1776.		
Prado Gardini, Ricardo	Tech. Univ. of Catalonia	
Suarez, Raul	Tech. Univ. of Catalonia	
09:20-09:40		WeAT12.3
<i>Caging Convex Polygons with Three Fingers</i> , pp. 1777-1783.		
Vahedi, Mostafa	Utrecht Univ.	
van der Stappen, Frank	Utrecht Univ.	
09:40-10:00		WeAT12.4
<i>A Biomechanical Analysis of the Healthy and the Pathological Index Finger During Pinch Function</i> , pp. 1784-1789.		
Ben Sghaier, Amani	Univ. of Monastir	
Romdhane, Lotfi	Ec. Nationale d'Ingénieurs de Sousse, Univ. of	
Ben Ouezdou, Fathi	Univ. of Versailles-Saint-Quentin	
10:00-10:20		WeAT12.5
<i>Applying Viscoelastic Contact Modeling to Grasping Task: An Experimental Case Study</i> , pp. 1790-1795.		
Tsai, Chia-Hung	SUNY@Stony Brook	
Kao, Imin	SUNY at Stony Brook	
Sakamoto, Naoki	Mayekawa Mfg. Co., Ltd.	
Higashimori, Mitsuru	Osaka Univ.	
Kaneko, Makoto	Osaka Univ.	
10:20-10:40		WeAT12.6
<i>Deformations of General Parametric Shells: Computation and Robot Experiment</i> , pp. 1796-1803.		
Jia, Yan-Bin	Iowa State Univ.	
Tian, Jiang	Iowa State Univ.	

WeAT13 Risso 8
Intelligent Vehicles & Intelligent Transportation Systems (Regular Sessions)

08:40-09:00		WeAT13.1
<i>GPS Accuracy Improvement by Satellite Selection Using Omnidirectional Infrared Camera</i> , pp. 1804-1810.		
Meguro, Jun-ichi	Waseda Univ.	
Murata, Taishi	Waseda Univ.	
Yoshiharu, Amano	Waseda Univ.	
Hashizume, Takumi	Waseda Univ.	
Takiguchi, Jun-ichi	Waseda Univ.	
09:00-09:20		WeAT13.2
<i>A Relative Information Metric for Vehicle Following Systems</i> , pp. 1811-1816.		
Ng, Teck Chew	Singapore Inst. of Manufacturing Tech.	
Adams, Martin	Nanyang Tech. Univ.	
Ibanez-Guzman, Javier	Renault	
09:20-09:40		WeAT13.3
<i>Navigation of Urban Vehicle: An Efficient Visual Memory Management for Large Scale Environments</i> , pp. 1817-1822.		
Courbon, Jonathan	CEA	
Lequievre, Laurent	Blaise Pascal Univ.	
Mezouar, Youcef	Blaise Pascal Univ.	
Eck, Laurent	CEA	
09:40-10:00		WeAT13.4
<i>Multimodal Detection and Tracking of Pedestrians in Urban Environments with Explicit Ground Plane Extraction</i> , pp. 1823-1829.		
Spinello, Luciano	ETH Zurich	
Triebel, Rudolph	Swiss Federal Inst. of Tech.	
Siegwart, Roland	ETH Zurich	
10:00-10:20		WeAT13.5
<i>A Perception Mechanism for Supporting Autonomous Intersection Handling in Urban Driving</i> , pp. 1830-1835.		
Seo, Young-Woo	Carnegie Mellon Univ.	
Urmson, Chris	Carnegie Mellon Univ.	
10:20-10:40		WeAT13.6
<i>Cross-Country Obstacle Detection: Space-Variant Resolution and Outliers Removal</i> , pp. 1836-1841.		
Santana, Pedro	Univ. of Lisbon	
Santos, Paulo	IntRoSys, S.A.	
Correia, Luis	Univ. of Lisbon	
Barata, Jose	Univ. Nova de Lisboa	

WeBT1 Rhodes 9AC

Control Architectures, Programming (Regular Sessions)

13:30-13:50		WeBT1.1
<i>Promoting Interoperability: The Libdrdc Software Standards Library</i> , pp. 1842-1847.		
Erickson, David Ryan	Defence Res. and Development Canada	
Beckman, Blake	Defence Res. and Development Canada	
Peng, Tie	Scientific Inst. Ltd.	
13:50-14:10		WeBT1.2
<i>Reactive Planning As a Motivational Source in a Behavior-Based Architecture</i> , pp. 1848-1853.		
Beaudry, Eric	Univ. de Sherbrooke	
Létourneau, Dominic	Univ. de Sherbrooke	
Kabanza, Froduald	Univ. de Sherbrooke	
Michaud, Francois	Univ. de Sherbrooke	
14:10-14:30		WeBT1.3
<i>Evaluating a Reactive Semantics for Robotics</i> , pp. 1854-1859.		
Biggs, Geoffrey	The Univ. of Auckland	
MacDonald, Bruce	Univ. of Auckland	
14:30-14:50		WeBT1.4
<i>Experimental Study of Limit Cycle and Chaotic Controllers for the Locomotion of Centipede Robots</i> , pp. 1860-1865. (Video)		
Matthey, Lodc	EPFL	
Righetti, Ludovic	EPFL	
Ijspeert, Auke	EPFL	
14:50-15:10		WeBT1.5
<i>An Executive System for Cognitive Agents</i> , pp. 1866-1871.		
Kasderidis, Stathis	FORTH	
15:10-15:30		WeBT1.6
<i>OpenRDK: A Modular Framework for Robotic Software Development</i> , pp. 1872-1877.		
Calisi, Daniele	Sapienza Univ. of Rome	
Censi, Andrea	California Inst. of Tech.	
Iocchi, Luca	Sapienza Univ. of Roma	
Nardi, Daniele	Uni. Roma	

WeBT2**Distributed Robot and Multiple Robot Systems (Regular Sessions)**

		Gallieni B
13:30-13:50		WeBT2.1
<i>Merging Maps Via Hough Transform</i> , pp. 1878-1883.		
Carpin, Stefano	Univ. of California, Merced	
13:50-14:10		WeBT2.2
<i>Multi-Robot Complete Exploration Using Hill Climbing and Topological Recovery</i> , pp. 1884-1889. (Video)		
Rocha, Rui	Inst. of Systems and Robotics - Univ. of Coimbra	
Ferreira, Filipe	Univ. of Aveiro	
Dias, Jorge	Univ. of Coimbra	
14:10-14:30		WeBT2.3
<i>Online Estimation of Variance Parameters: Experimental Results with Applications to Localization</i> , pp. 1890-1895.		
Erinc, Gorkem	Univ. of California Merced	
Pillonetto, Gianluigi	U. Padova	
Carpin, Stefano	Univ. of California, Merced	
14:30-14:50		WeBT2.4
<i>A Real-Time Communication Protocol for Interconnecting Robotic Smart Devices</i> , pp. 1896-1901.		
Caltabiano, Daniele	STMicroelectronics	
Brugali, Davide	Univ. of Bergamo	
Sannino, Roberto	STMicroelectronics	
Ghezzi, Davide	Univ. of Bergamo	
Spelgatti, Luca	Univ. of Bergamo	
14:50-15:10		WeBT2.5
<i>Real-Time Motion Planning of Multiple Formations in Virtual Environments: Flexible Virtual Structures and Continuum Model</i> , pp. 1902-1907. (Video)		
Li, Yi	Simon Fraser Univ.	
Gupta, Kamal	Simon Fraser Univ.	
15:10-15:30		WeBT2.6
<i>Digital Representation of Everyday Objects in a Robot Ecology via Proxies</i> , pp. 1908-1914.		
Rashid, Md. Jayedur	AASS Res. centre, Orebro Univ.	
Broxvall, Mathias	Orebro Univ.	
Saffiotti, Alessandro	Orebro Univ.	

WeBT3**Medical Robots and Systems II (Regular Sessions)**

		Risso 6AB
13:30-13:50		WeBT3.1
<i>Experimental Investigation of Magnetic Self-Assembly for Swallowable Modular Robots</i> , pp. 1915-1920.		
Nagy, Zoltan	ETH Zurich	

Oung, Raymond	ETH Zurich
Abbott, Jake	ETH Zurich
Nelson, Bradley J.	ETH Zurich
13:50-14:10	WeBT3.2
<i>Toward Targeted Retinal Drug Delivery with Wireless Magnetic Microrobots</i> , pp. 1921-1926.	
Dogangil, Gorkem	ETH Zurich
Ergeneman, Olgaç	ETH Zurich
Abbott, Jake	ETH Zurich
Pane, Salvador	ETH Zurich
Hall, Heike	ETH Zurich
Muntwyler, Simon	ETH Zurich
Nelson, Bradley J.	ETH Zurich
14:10-14:30	WeBT3.3
<i>Control System Design and Experimental Verification of CapsuBot</i> , pp. 1927-1932. (Video)	
Lee, Nam Kon	Tokyo Denki Univ.
Kamamichi, Norihiro	Tokyo Denki Univ.
Li, Hongyi	Shenyang Inst. of Automation, CAS
Furuta, Katsuhisa	Tokyo Denki Univ.
14:30-14:50	WeBT3.4
<i>Design and Acceptability Assessment of a New Reversible Orthosis</i> , pp. 1933-1939. (Video)	
Jarrassé, Nathanaël	Univ. Pierre et Marie Curie - Paris6
Robertson, Johanna	Univ. René Descartes Paris V
Garrec, Philippe	CEA
Paik, Jamie	Univ. P. et M. Curie-Paris 6
Pasqui, Viviane	Univ. Pierre et Marie Curie, Paris 6
Perrot, Yann	CEA LIST
Roby Brami, Agnès	Univ. René Descartes Paris V
Wang, Damping	Univ. René Descartes Paris V
Morel, Guillaume	Univ. Pierre et Marie Curie - Paris 6
14:50-15:10	WeBT3.5
<i>Adaptive Object Slip Prevention for Prosthetic Hands through Proportional-Derivative Shear Force Feedback</i> , pp. 1940-1945.	
Engeberg, Erik Daniel	Univ. of Utah
Meek, Sanford	Univ. of Utah
15:10-15:30	WeBT3.6
<i>Development of a Multi-DOF Exoskeleton Based Machine for Injured Fingers</i> , pp. 1946-1951.	
Fu, Yili	Harbin Inst. of Tech.
Wang, Peng	Harbin Inst. of Tech.
Wang, Shuguo	Harbin Inst. of Tech.

WeBT4 Risso 8

Parallel Robots I (Regular Sessions)

13:30-13:50	WeBT4.1
<i>Singularity Analysis of Zero-Torsion Parallel Mechanisms</i> , pp. 1952-1957.	
Briot, Sébastien	École de Tech. supérieure (ÉTS)
Bonev, Ilian	École de Tech. supérieure
13:50-14:10	WeBT4.2
<i>Geometrical Workspace Analysis of a Cable-Driven Redundant Parallel Manipulator: KNTU CDRPM</i> , pp. 1958-1963. (Video)	
M. Aref, Mohammad	K.N. Toosi Univ. of Tech.
Taghirad, Hamid	K.N.Toosi Univ. of Tech.
14:10-14:30	WeBT4.3
<i>Quotient Kinematics Machines: Concept, Analysis and Synthesis</i> , pp. 1964-1969.	
Wu, Yuanqing	Shanghai Jiaotong Univ.
Li, Zexiang	HKUST
Ding, Han	Shanghai Jiao Tong Univ.
Lou, Yunjiang	HKUST
14:30-14:50	WeBT4.4
<i>Optimal Design of a 6-Dof Parallel Measurement Mechanism Integrated in a 3-Dof Parallel Machine-Tool</i> , pp. 1970-1976.	
Corbel, David	LIRMM - CNRS
Company, Olivier	Univ. of Montpellier 2
Pierrot, François	CNRS - LIRMM
14:50-15:10	WeBT4.5
<i>A Sequential Method for the Singularity Free Workspace Design of a Planar 3-Arm Parallel Robot</i> , pp. 1977-1982.	
Yang, Yawei	Univ. of Wyoming
O'Brien, John	Univ. of Wyoming

WeBT5 Gallieni 2

Wheeled Robots (Regular Sessions)

13:30-13:50	WeBT5.1
<i>An Alternative Model for the Evaluation of Tyre Shear Forces under Steady-State Conditions</i> , pp. 1983-1989.	

Guarino Lo Bianco, Corrado Gerelli, Oscar	Univ. of Parma Univ. of Parma
13:50-14:10 <i>Development of Wall Climbing Robotic System for Bridge Inspection</i> , pp. 1990-1995.	WeBT5.2
Song, Young Kouk Lee, ChangMin Koo, Ig Mo Tran, Duc Trong Moon, Hyungpil Choi, Hyouk Ryeol	Sungkyunkwan Univ. SungKyunKwan Univ. Sung Kyun Kwan Univ. SungKyunKwan Univ. SungKyunkwan Univ. Sungkyunkwan Univ.
14:10-14:30 <i>Control of Omni-Directional Mobile Platform with Four Driving Wheels Using Torque Redundancy</i> , pp. 1996-2002.	WeBT5.3
Amagai, Shunsuke Tsuji, Taichi Jabes, Samuel Osumi, Hisashi	Chuo Univ. Chuo Univ. Japan Chuo Univ.
14:30-14:50 <i>Traction Estimation and Control Mobile Robots Using Wheel Slip Velocity</i> , pp. 2003-2009.	WeBT5.4
Terry, Jared Minor, Mark	Univ. of Utah Univ. of Utah
14:50-15:10 <i>Study on Wheeled Forms of Lunar Robots for Traversing Soft Terrain</i> , pp. 2010-2015.	WeBT5.5
Iizuka, Kojiro Kunii, Yasuharu Kubota, Takashi	Chuo Univ. Chuo Univ. JAXA ISAS
WeBT6	Gallieni 3
Humanoids II (Regular Sessions)	
13:30-13:50 <i>Towards a Cognitive Robot That Uses Internal Rehearsal to Learn Affordance Relations</i> , pp. 2016-2021.	WeBT6.1
Erdemir, Erdem Frankel, Carl B. Kawamura, Kazuhiko Gordon, Stephen Thornton, Sean Ulutas, Baris	Vanderbilt Univ. Vanderbilt Univ. Vanderbilt Univ. Vanderbilt Univ. Vanderbilt Univ. Vanderbilt Univ.
13:50-14:10 <i>Learning Nonparametric Policies by Imitation</i> , pp. 2022-2028.	WeBT6.2
Grimes, David B. Rao, Rajesh P. N.	Univ. of Washington Univ. of Washington
14:10-14:30 <i>Behavior Recognition with Ground Reaction Force Estimation and Its Application to Imitation Learning</i> , pp. 2029-2034.	WeBT6.3
Ariki, Yuka Morimoto, Jun Hyon, Sang-Ho	Nara Inst. of science Tech. ICORP-JST/ATR-CNS JST-ICORP / ATR
14:30-14:50 <i>Weighted Action-Coupled Semantic Network (wASN) for Robot Intelligence</i> , pp. 2035-2040.	WeBT6.4
Lim, Gi Hyun Suh, Il Hong	Hanyang Univ. Hanyang Univ.
14:50-15:10 <i>Cross-Modal Body Representation Based on Visual Attention by Saliency</i> , pp. 2041-2046.	WeBT6.5
Hikita, Mai Fuke, Sawa Ogino, Masaki Asada, Minoru	Osaka Univ. Graduate School of Engineering, Osaka Univ. ERATO, Japan Science and Tech. Agency Osaka Univ.
15:10-15:30 <i>Thermal Control of Electrical Motors for High-Power Humanoid Robots</i> , pp. 2047-2052.	WeBT6.6
Urata, Junichi Hirose, Toshinori Namiki, Yuta Nakanishi, Yuto Mizuuchi, Ikuo Inaba, Masayuki	The Univ. of Tokyo The Univ. of Tokyo The Univ. of Tokyo The Univ. of Tokyo The Univ. of Tokyo The Univ. of Tokyo
WeBT7	Gallieni 5
Slam Iii (Regular Sessions)	
13:30-13:50 <i>An Image-to-map Loop Closing Method for Monocular SLAM</i> , pp. 2053-2059.	WeBT7.1
Williams, Brian Patrick	Univ. of Oxford

Cummins, Mark Joseph	Oxford Univ.
Neira, José	Univ. de Zaragoza
Newman, Paul	Oxford Univ.
Reid, Ian	Univ. of Oxford
Tardos, Juan D.	Univ. de Zaragoza
13:50-14:10	WeBT7.2
<i>The Common State Filter for SLAM</i> , pp. 2060-2065.	
Parsley, Martin Peter	Univ. Coll. London
Julier, Simon Justin	Univ. Coll. London
14:10-14:30	WeBT7.3
<i>Avoiding Negative Depth in Inverse Depth Bearing-Only SLAM</i> , pp. 2066-2071.	
Parsley, Martin Peter	Univ. Coll. London
Julier, Simon Justin	Univ. Coll. London
14:30-14:50	WeBT7.4
<i>Information-Driven 6D SLAM Based on Ranging Vision</i> , pp. 2072-2077.	
Zhou, Weizhen	Univ. of Tech. Sydney
Dissanayake, Gamini	Univ. of Tech. Sydney
Valls Miro, Jaime	Univ. of Tech. Sydney
14:50-15:10	WeBT7.5
<i>A Sensor-Independent Approach to RBPF SLAM - Map Match SLAM Applied to Visual Mapping</i> , pp. 2078-2083.	
Schroeter, Christof	Ilmenau Tech. Univ.
Gross, Horst-Michael	Ilmenau Univ. of Tech.
15:10-15:30	WeBT7.6
<i>Delayed Resampling in a Rao-Blackwellized Particle Filtering SLAM for Consistent Loop Closures</i> , pp. 2084-2090.	
Kim, Chanki	POSTECH
Chung, Wan Kyun	POSTECH
WeBT8	Rhodes 9EG
Search and Rescue Robots II (Regular Sessions)	
13:30-13:50	WeBT8.1
<i>Designing of Online Simulation Environment for Development Control Algorithms for Robots Operating in Rough Terrains</i> , pp. 2091-2096.	
Kurose, Kensuke	Tohoku Univ.
Saga, Satoshi	Tohoku Univ.
Okamoto, Shogo	Tohoku Univ.
Ohno, Kazunori	Tohoku Univ.
Tadokoro, Satoshi	Tohoku Univ.
13:50-14:10	WeBT8.2
<i>Development of On-Line Simulation System for Multi Camera Based Wide Field of View Display</i> , pp. 2097-2102.	
Midorikawa, Naoki	Tohoku Univ.
Ohno, Kazunori	Tohoku Univ.
Saga, Satoshi	Tohoku Univ.
Tadokoro, Satoshi	Tohoku Univ.
14:10-14:30	WeBT8.3
<i>Augmented Autonomy: Improving Human-Robot Team Performance in Urban Search and Rescue</i> , pp. 2103-2108.	
Nevatia, Yashodhan	Jacobs Univ. Bremen
Stoyanov, Todor	Jacobs Univ. Bremen
Rathnam, Ravi	Jacobs Univ. Bremen
Pfingsthorn, Max	Jacobs Univ.
Markov, Stefan	Jacobs Univ. Bremen
Ambrus, Rares	Jacobs Univ. Bremen
Birk, Andreas	Jacobs Univ.
14:30-14:50	WeBT8.4
<i>Tether Monitoring Techniques for Environment Monitoring, Tether Following and Localization of Autonomous Mobile Robots</i> , pp. 2109-2114.	
Thumatty Rajan, Vishnu Arun Kumar	Univ. of Manchester
Rob, Richardson	Univ. of Manchester
14:50-15:10	WeBT8.5
<i>Robot-Assisted Intelligent 3D Mapping of Unknown Cluttered Search and Rescue Environments</i> : http://home/merlet/Netscape/merlet/merlet.html , pp. 2115-2120.	
Zhang, Zhe	Autonomous Systems Lab. State Univ. of New York at S
Nejat, Goldie	SUNY at Stony Brook
15:10-15:30	WeBT8.6
<i>Scaling Effects in Multi-Robot Control</i> , pp. 2121-2126.	
Velagapudi, Prasanna	Carnegie Mellon Univ.
Scerri, Paul	Carnegie Mellon Univ.
Sycara, Katia	Carnegie Mellon Univ.
Wang, Huadong	Univ. of Pittsburgh
Lewis, Michael	Univ. of Pittsburgh
Wang, Jijun	Quantum Leap Innovations, Inc.

WeBT9	Risso 7B
Path Planning for Manipulators (Regular Sessions)	
13:30-13:50	WeBT9.1
<i>Adaptive Motion Planning for Humanoid Robots</i> , pp. 2127-2132.	
Vahrenkamp, Nikolaus	Univ. of Karlsruhe
Scheurer, Christian	Univ. of Karlsruhe
Asfour, Tamim	Univ. of Karlsruhe (TH)
Kuffner, James	Carnegie Mellon Univ.
Dillmann, Rüdiger	Univ. of Karlsruhe
13:50-14:10	WeBT9.2
<i>Predictive Model for Path Planning by Using K-Near Dynamic Bridge Builder and Inner Parzen Window</i> , pp. 2133-2138.	
Liu, Hong	Peking Univ.
Ding, Ding	Peking Univ.
Wan, Weiwei	State Key Lab. on Machine Perception
Zha, Hongbin	Peking Univ.
14:10-14:30	WeBT9.3
<i>Motion Tasks for Robot Manipulators Subject to Joint Velocity Constraints</i> , pp. 2139-2144.	
Papageorgiou, Xanthi	National Tech. Univ. of Athens
Kyriakopoulos, Kostas	National Tech. Univ. of Athens
14:30-14:50	WeBT9.4
<i>Transition-Based RRT for Path Planning in Continuous Cost Spaces</i> , pp. 2145-2150.	
Jaillet, Leonard	LAAS-CNRS
Cortes, Juan	LAAS-CNRS
Simeon, Thierry	LAAS-CNRS
14:50-15:10	WeBT9.5
<i>Occlusion-Free Path Planning with a Probabilistic Roadmap</i> , pp. 2151-2156.	
Baumann, Matthew Alexander	Univ. of British Columbia
Dupuis, Donna Chantelle	Univ. of British Columbia
Leonard, Simon	Univ. of Alberta
Croft, Elizabeth	Univ. of British Columbia
Little, James J.	UBC
15:10-15:30	WeBT9.6
<i>Sensor-Based Exploration for General Robotic Systems</i> , pp. 2157-2164. (Video)	
Freda, Luigi	Univ. di Roma La Sapienza
Oriolo, Giuseppe	Univ. di Roma
Vecchioli, Francesco	Univ. di Roma
WeBT10	Rhodes 9FC
Audition II (Special Session)	
13:30-13:50	WeBT10.1
<i>High Performance Sound Source Separation Adaptable to Environmental Changes for Robot Audition</i> , pp. 2165-2171.	
Nakajima, Hirofumi	Honda Res. Inst. Japan Co., Ltd.
Nakadai, Kazuhiro	Honda Res. Inst. Japan Co., Ltd.
Hasegawa, Yuji	Honda Res. Inst. Japan Co., Ltd.
Tsujino, Hiroshi	Honda Res. Inst. Co., Ltd.
13:50-14:10	WeBT10.2
<i>An Improved Permutation Solver for Blind Signal Separation Based Front-Ends in Robot Audition</i> , pp. 2172-2177.	
Even, Jani	Nara Inst. of Science and Tech.
Saruwatari, Hiroshi	Nara Inst. of Sci. and Tech.
Kiyohiro Shikano, '	Nara Inst. of Science and Tech.
14:10-14:30	WeBT10.3
<i>A Predefined Command Recognition System Using a Ceiling Microphone Array in Noisy Housing Environments</i> , pp. 2178-2184.	
Sasaki, Yoko	Tokyo Univ. of Science
Kagami, Satoshi	National Inst. of AIST
Mizoguchi, Hiroshi	Tokyo Univ. of Science
Enomoto, Tadashi	Kansai Electric Power Co., Inc.
14:30-14:50	WeBT10.4
<i>Using Binaural and Spectral Cues for Azimuth and Elevation Localization</i> , pp. 2185-2190.	
Rodemann, Tobias	Honda Res. Inst. Europe
Ince, Gökhan	Honda Res. Inst. EU GmbH
Joublin, Frank	Honda Res. Inst. Europe
Goerick, Christian	Honda Res. Inst. Europe GmbH
14:50-15:10	WeBT10.5
<i>Mobile Robot Broadband Sound Localisation Using a Biologically Inspired Spiking Neural Network</i> , pp. 2191-2196.	
Liu, Jindong	Univ. of Sunderland
Erwin, Harry	Univ. of Sunderland
Wermter, Stefan	Univ. of Sunderland
15:10-15:30	WeBT10.6
<i>Design and Evaluation of Two-Channel-Based Sound Source Localization Over Entire Azimuth Range for Moving Talkers</i> , pp. 2197-2203.	

Kim, Hyun-Don	Kyoto Univ.
Komatani, Kazunori	Kyoto Univ.
Ogata, Tetsuya	Kyoto Univ.
Okuno, Hiroshi G.	Kyoto Univ.

WeBT11	Gallieni A
Field Robots II (Regular Sessions)	

13:30-13:50	WeBT11.1
<i>A Combination of Vision and Vibration-Based Terrain Classification</i> , pp. 2204-2209.	
Weiss, Christian	Univ. of Tübingen
Tamimi, Hashem	Palestine Pol. Univ.
Zell, Andreas	Univ. of Tübingen
13:50-14:10	WeBT11.2
<i>Towards Environmental Monitoring with Mobile Robots</i> , pp. 2210-2215. (Video)	
Trincavelli, Marco	Örebro Univ.
Reggente, Matteo	AASS Res. Center - Learning Systems Lab. -ÖrebroUniversity
Coradeschi, Silvia	Örebro Univ.
Ishida, Hiroshi	TUAT
Loutfi, Amy	Örebro Univ.
Lilienthal, Achim, J.	Örebro Univ.
14:10-14:30	WeBT11.3
<i>WiFi Position Estimation in Industrial Environments Using Gaussian Processes</i> , pp. 2216-2221.	
Duvallet, Felix	Carnegie Mellon Univ.
Tews, Ashley Desmond	CSIRO
14:30-14:50	WeBT11.4
<i>Laser Based Intersection Detection for Reactive Navigation in an Underground Mine</i> , pp. 2222-2227.	
Larsson, Johan	Örebro Univ.
Broxvall, Mathias	Örebro Univ.
Saffiotti, Alessandro	Örebro Univ.
14:50-15:10	WeBT11.5
<i>Trafficability Analysis for Lunar/Planetary Exploration Rover Using Thrust-Cornering Characteristic Diagram</i> , pp. 2228-2233.	
Ishigami, Genya	Massachusetts Inst. of Tech.
Nagatani, Keiji	Tohoku Univ.
Yoshida, Kazuya	Tohoku Univ.
15:10-15:30	WeBT11.6
<i>A Stochastic Response Surface Approach to Statistical Prediction of Robotic Mobility</i> , pp. 2234-2239.	
Iagnemma, Karl	MIT
Kewlani, Gaurav	Massachusetts Inst. of Tech.

WeBT12	Rhodes 9BD
Grasping II (Regular Sessions)	

13:30-13:50	WeBT12.1
<i>Vision-Based Grasp Planning of 3D Objects by Extending 2D Contour Based Algorithms</i> , pp. 2240-2245. (Video)	
Speth, Johannes	Tech. Univ. MÜNCHEN
Morales, Antonio	Univ. Jaime I
Sanz, Pedro J	Jaume I
13:50-14:10	WeBT12.2
<i>Efficient Human Hand Kinematics for Manipulation Tasks</i> , pp. 2246-2251.	
Cobos Guzman, Salvador	Univ. Pol. de Madrid
Ferre, Manuel	Univ. Pol. de Madrid
Sánchez-Urán, Miguel Ángel	Univ. Pol. de Madrid
Ortego, Javier	Univ. Pol. de Madrid
Peña Cortés, César Augusto	Univ. Pol. de Madrid
14:10-14:30	WeBT12.3
<i>Efficient and Effective Grasping of Novel Objects through Learning and Adapting with a Knowledge Base</i> , pp. 2252-2257.	
Curtis, Noel	Univ. of North Carolina at Charlotte
Xiao, Jing	UNC-Charlotte
14:30-14:50	WeBT12.4
<i>Grasp Space Generation Using Sampling and Computation of Independent Regions</i> , pp. 2258-2263.	
Roa, Maximo	Tech. Univ. of Catalonia
Suarez, Raul	Tech. Univ. of Catalonia
Rosell, Jan	Tech. Univ. of Catalonia
14:50-15:10	WeBT12.5
<i>Joint Torque-Velocity Pair Based Manipulability for Grasping System</i> , pp. 2264-2270.	
Watanabe, Tetsuyou	Graduate School of Natural Science and Tech. Kanazawa
15:10-15:30	WeBT12.6
<i>Biomimetic Grasp Planning for Cortical Control of a Robotic Hand</i> , pp. 2271-2276.	
Ciocarlie, Matei	Columbia Univ.
Allen, Peter	Columbia Univ.

Clanton, Samuel
Spalding, Chance

Carnegie Mellon Univ.
Univ. of pittsburgh

WeCT1	Rhodes 9FC
Animation and Simulation (Regular Sessions)	
15:50-16:10 <i>A Modular Software Architecture for Simulating Mechanical Systems Involving Coulomb Friction Integrable by the Runge-Kutta Method</i> , pp. 2277-2282.	WeCT1.1
Kikuuwe, Ryo Yamamoto, Motoji	Kyushu Univ. Kyushu Univ.
16:10-16:30 <i>Physically-Based Simulation of the Spine in Dog Walking</i> , pp. 2283-2288. (Video)	WeCT1.2
Aleotti, Jacopo Caselli, Stefano Bracchi, Pier Giovanni Gosi, Stefano	Univ. of Parma Univ. of Parma Univ. of Parma Univ. di Parma
16:30-16:50 <i>Validating the Search and Rescue Game Environment As a Robot Simulator by Performing a Simulated Anomaly Detection Task</i> , pp. 2289-2295.	WeCT1.3
Craighead, Jeff Gutierrez, Rodrigo Burke, Jenny Murphy, Robin	Univ. of South Florida Univ. of South Florida Univ. of South Florida Univ. of South Florida
16:50-17:10 <i>Interactive Cell Injection Simulation Based on 3D Biomechanical Tensegrity Model</i> , pp. 2296-2302.	WeCT1.4
Ladjal, Hamid Hanus, Jean Luc Ferreira, Antoine	ENSI Bourges, Univ. Orleans ENSI Bourges Univ. of Orleans
17:10-17:30 <i>Motion Control of a Virtual Humanoid That Can Perform Real Physical Interactions with a Human</i> , pp. 2303-2310. (Video)	WeCT1.5
Nagasaka, Kenichiro Miyamoto, Atsushi Nagano, Masakuni Shirado, Hirokazu Fukushima, Tetsuharu Fujita, Masahiro	Sony Corp. Sony Corp. Sony Corp. Sony Corp. Sony Corp. Sony Corp.
17:30-17:50 <i>A Unified Method for Multi-Body Systems Subject to Stick-Slip Friction and Intermittent Contact</i> , pp. 2311-2316.	WeCT1.6
Perkins, Alexander Abdallah, Muhammad Mitiguy, Paul Waldron, Kenneth John	Stanford Univ. General Motors R&D Stanford Univ. Stanford Univ.
WeCT2	Gallieni B
Networked, Distributed and Teleoperated Robots (Regular Sessions)	
15:50-16:10 <i>Estimation of Group Attention for Automated Camerawork</i> , pp. 2317-2322.	WeCT2.1
Takemura, Kentaro Matsumoto, Yoshio Ogasawara, Tsukasa	Nara Inst. of Science and Tech. Osaka Univ. Nara Inst. of Science and Tech.
16:10-16:30 <i>Extracting Surveillance Graphs from Robot Maps</i> , pp. 2323-2328.	WeCT2.2
Kolling, Andreas Carpin, Stefano	Univ. of California Merced Univ. of California, Merced
16:30-16:50 <i>The PEIS Ecology Project: Vision and Results</i> , pp. 2329-2335. (Video)	WeCT2.3
Saffiotti, Alessandro Broxvall, Mathias Gritti, Marco LeBlanc, Kevin Lundh, Robert Rashid, Md. Jayedur Seo, BeomSu Cho, Young-Jo	Örebro Univ. Örebro Univ. Örebro Univ. Örebro Univ. Örebro Univ. AASS Res. centre, Örebro Univ. ETRI Elect and Telecom Res. Inst. (ETRI)
16:50-17:10 <i>Universal Web Interfaces for Robot Control Frameworks</i> , pp. 2336-2341.	WeCT2.4
Koch, Jan Berns, Karsten Reichardt, Max	Univ. of Kaiserslautern Univ. of Kaiserslautern Univ. of Kaiserslautern

17:10-17:30		WeCT2.5
<i>Scalable Bayesian Human-Robot Cooperation in Mobile Sensor Networks</i> , pp. 2342-2349.		
Bourgault, Frederic		Cornell Univ.
Chokshi, Aakash		Cornell Univ.
Wang, John		Cornell Univ.
Shah, Danelle		Cornell Univ.
Schoenberg, Jonathan R.		Cornell Univ.
Iyer, Ramnath R		Cornell Univ.
Cedano, Franco		Cornell Univ.
Campbell, Mark		Cornell Univ.
17:30-17:50		WeCT2.6
<i>Robust Stability Analysis of a Bilateral Teleoperation System Using the Parameter Space Approach</i> , pp. 2350-2356.		
Peer, Angelika		Tech. Univ. München
Buss, Martin		Tech. Univ. Muenchen

WeCT3 Risso 6AB
Assistive Robotics for Functional Therapy Application (Special Session)

15:50-16:10		WeCT3.1
<i>Adaptive Support for Patient-Cooperative Gait Rehabilitation with the Lokomat</i> , pp. 2357-2361.		
Duschau-Wicke, Alexander		ETH Zurich
Brunsch, Thomas		Hocoma AG
Luenenburger, Lars		Hocoma AG
Riener, Robert		ETH Zurich
16:10-16:30		WeCT3.2
<i>Pelvic Motion Measurement During Over Ground Walking, Analysis and Implementation on the WalkTrainer Reeducation Device</i> , pp. 2362-2367.		
Stauffer, Yves		EPFL, Switzerland
Allemand, Yves		EPFL
Bouri, Mohamed		EPFL
Fournier, Jacques		EPFL
Clavel, Raymond		Ec. Pol. Fédérale de Lausanne (EPFL)
Metrailler, Patrick		Fondation Suisse pour les Cybertheses
Brodard, Roland		Fondation Suisse pour les Cyberthèses / Swiss Foundation
Reynard, Fabienne		Clinique romande de réadaptation
16:30-16:50		WeCT3.3
<i>Biologically Inspired CPG Based above Knee Active Prosthesis</i> , pp. 2368-2373. (Video)		
Nandi, Gora Chand		Indian Inst. of Information Tech. Allahabad
Ijspeert, Auke		EPFL
Nandi, Anirban		Indian Inst. of Information Tech. Allahabad
16:50-17:10		WeCT3.4
<i>Myoelectric Based Virtual Joystick Applied to Electric Powered Wheelchair</i> , pp. 2374-2379.		
Asghari Oskoei, Mohammadreza		Univ. of Essex
Hu, Huosheng		Univ. of Essex
17:10-17:30		WeCT3.5
<i>From Neuroprosthetics to Implanted FES Control Architecture</i> , pp. 2380-2385.		
Souquet, Guillaume		MXM - LIRMM
Andreu, David		LIRMM
Guiraud, David		INRIA
17:30-17:50		WeCT3.6
<i>Optimal Functional Electrical Stimulation Patterns Synthesis for Knee Joint Control</i> , pp. 2386-2391.		
Benoussaad, Mourad		LIRMM UMR CNRS-Univ. of Montpellier2
Poignet, Philippe		LIRMM UMR 5506 CNRS UM2
Guiraud, David		INRIA

WeCT4 Risso 8
Parallel Robots II (Regular Sessions)

15:50-16:10		WeCT4.1
<i>Passivity-Based Observer/Controller Design with Desired Dynamics Compensation for 6 DOFs Parallel Manipulators</i> , pp. 2392-2397.		
Abdellatif, Housseem		Leibniz Univ. of Hannover, Germany
Heimann, Bodo		Univ. of Hannover, Germany
Kotlarski, Jens		Leibniz Univ. Hannover
16:10-16:30		WeCT4.2
<i>Control of Parallel Robots Using Passive Sensor Data</i> , pp. 2398-2403.		
Zubizarreta Pico, Asier		Univ. of the Basque Country
Cabanes Axpe, Itziar		Univ. of the Basque Country
Marcos Muñoz, Marga		The Univ. of the Basque Country
Pinto, Charles		Univ. of the Basque Country
16:30-16:50		WeCT4.3
<i>On the Control of the KNTU CDRPM: A Cable Driven Redundant Parallel Manipulator</i> , pp. 2404-2409.		

Gholami, Pooneh	K.N.Toosi Univ. of Tech.
M. Aref, Mohammad	K.N. Toosi Univ. of Tech.
Taghirad, Hamid	K.N.Toosi Univ. of Tech.
16:50-17:10	WeCT4.4
<i>First Results on the Design of High Speed Parallel Robots in Presence of Uncertainty</i> , pp. 2410-2415.	
Ramdani, Nacim	INRIA Sophia Antipolis - Méditerranée
Gouttefarde, Marc	Lirmm
Pierrot, François	CNRS - LIRMM
Merlet, Jean-Pierre	INRIA
17:10-17:30	WeCT4.5
<i>Definition of a New Static Model of Parallel Kinematic Machines: Highlighting of Overconstraint Influence</i> , pp. 2416-2421.	
Bonnemains, Thomas	Blaise Pascal Univ. IFMA
Chanal, Hélène	Univ. Blaise Pascal - IFMA
Bouzgarrou, Belhassen Chedli	Univ. Blaise Pascal - IFMA
Ray, Pascal	Univ. Blaise Pascal - IFMA

WeCT5 Gallieni 2
Locomotion Systems (Regular Sessions)

15:50-16:10	WeCT5.1
<i>Crawler Vehicle with Circular Cross-Section Unit to Realize Sideways Motion</i> , pp. 2422-2428. (Video)	
Tadakuma, Kenjiro	Massachusetts Inst. of Tech.
Tadakuma, Riichiro	Harvard Univ.
Nagatani, Keiji	Tohoku Univ.
Yoshida, Kazuya	Tohoku Univ.
Peters, Steven	Massachusetts Inst. of Tech.
Udengaard, Martin	MIT
Iagnemma, Karl	MIT
16:10-16:30	WeCT5.2
<i>Design of a Semi-Passive Heavy-Duty Mobile Robotic System for Automated Assembly Inside an Aircraft Body</i> , pp. 2429-2434.	
Menon, Manas	MIT
Asada, Harry	MIT
16:30-16:50	WeCT5.3
<i>Decoupled Control of the High Mobility Robot Hylos Based on a Dynamic Stability Margin</i> , pp. 2435-2440.	
Besseron, Guillaume	Univ. Pierre et Marie Curie - Paris 6
Grand, Christophe	Univ. Pierre et Marie Curie - Paris6
Ben Amar, Faiz	Univ. Pierre et Marie Curie, Paris 6
Bidaud, Philippe	Univ. Pierre et Marie Curie - Paris 6
16:50-17:10	WeCT5.4
<i>Development of Swing-Slip Locomotion for No-Legged Primevaloids</i> , pp. 2441-2446.	
Yonekura, Shogo	the Univ. of Tokyo
17:10-17:30	WeCT5.5
<i>Two Dimensional Dynamic Stability for Reconfigurable Robots Designed to Traverse Rough Terrain</i> , pp. 2447-2452.	
Beckman, Blake	Defence Res. and Development Canada
Pieper, Jeff	Univ. of Calgary
Mackay, David	Defence Res. and Development Canada
Trentini, Michael	Defence Res. and Development Canada
Erickson, David Ryan	Defence Res. and Development Canada
17:30-17:50	WeCT5.6
<i>Gait Transition by Tuning Muscle Tones Using Pneumatic Actuators in Quadruped Locomotion</i> , pp. 2453-2458.	
Tsujita, Katsuyoshi	Osaka Inst. of Tech.
Kobayashi, Toshiya	Osaka Inst. of Tech.
Inoura, Takashi	Osaka Inst. of Tech.
Masuda, Tatsuya	Osaka Inst. of Tech.

WeCT6 Gallieni 3
Humanoids III (Regular Sessions)

15:50-16:10	WeCT6.1
<i>A Robot Uses Its Own Microphone to Synchronize Its Steps to Musical Beats While Scatting and Singing</i> , pp. 2459-2464.	
Murata, Kazumasa	Tokyo Inst. of Tech.
Nakadai, Kazuhiro	Honda Res. Inst. Japan Co., Ltd.
Yoshii, Kazuyoshi	National Inst. of Advanced Industrial Science and Tech.
Takeda, Ryu	Kyoto Univ.
Torii, Toyotaka	Honda Res. Inst. Japan Co.,Ltd.
Okuno, Hiroshi G.	Kyoto Univ.
Hasegawa, Yuji	Honda Res. Inst. Japan Co., Ltd.
Tsujino, Hiroshi	Honda Res. Inst. Co., Ltd.
16:10-16:30	WeCT6.2
<i>An Advantage of Bipedal Humanoid Robot on the Empathy Generation: A Neuroimaging Study</i> , pp. 2465-2470.	
Miura, Naoki	Kochi-Univ. of Tech.
Sugiura, Motoaki	IDAC, Tohoku Univ.

Takahashi, Makoto	Graduate School of Engineering, Tohoku Univ.
Moridaira, Tomohisa	Sony Corp.
Miyamoto, Atsushi	Sony
Kuroki, Yoshihiro	Sony Corp.
Kawashima, Ryuta	Tohoku Univ.
16:30-16:50	WeCT6.3
<i>Humanoid Robot HRP-3</i> , pp. 2471-2478. (Video)	
Kaneko, Kenji	National Inst. of AIST
Harada, Kensuke	National Inst. of AIST
Kanehiro, Fumio	National Inst. of AIST
Miyamori, Go	Kawada Industries, Inc
Akachi, Kazuhiko	KAWADA INDUSTRIES, INC.
16:50-17:10	WeCT6.4
<i>A New Control Strategy for ROBIAN Biped Robot Inspired from Human Walking</i> , pp. 2479-2485. (Video)	
Serhan, Hayssam	Lebanese Univ. Univ. of Versailles Saint-Quentin
Nasr, Chaiban	Lebanese Univ.
Henaff, Patrick	Univ. of Versailles
Ouezdou, Fathi	Univ. de Versailles
17:10-17:30	WeCT6.5
<i>System Overview of Bipedal Robots Flame and TULip: Tailor-Made for Limit Cycle Walking</i> , pp. 2486-2491. (Video)	
Hobbelen, Daan	Delft Univ. of Tech.
de Boer, Tomas	Delft Univ. of Tech.
Wisse, Martijn	Delft Univ. of Tech.
17:30-17:50	WeCT6.6
<i>Adaptive Locomotion Controller and Reflex System for Humanoid Robots</i> , pp. 2492-2497. (Video)	
Zaier, Riadh	Fujitsu Lab. Limited
Kanda, Shinji	Fujitsu Lab. Limited

WeCT7	Gallieni 5
SLAM & Mapping (Regular Sessions)	

15:50-16:10	WeCT7.1
<i>Quaternion Representation for Similarity Transformations in Visual SLAM</i> , pp. 2498-2503.	
Kyrki, Ville	Lappeenranta Univ. of Tech.
16:10-16:30	WeCT7.2
<i>Probabilistic Mapping of Dynamic Obstacles Using Markov Chains for Replanning in Dynamic Environments</i> , pp. 2504-2510.	
Rohrmüller, Florian	Tech. Univ. München
Althoff, Matthias	Tech. Univ. München
Wollherr, Dirk	Tech. Univ. München
Buss, Martin	Tech. Univ. Muenchen
16:30-16:50	WeCT7.3
<i>Multi Sensor Map Building Based on Sparse Linear Equations Solver</i> , pp. 2511-2518.	
Takeuchi, Eijiro	Tohoku Univ.
Takashi, Tsubouchi	Sys. and Info. Eng., U of Tsukuba
16:50-17:10	WeCT7.4
<i>Efficiently Communicating Map Updates with the Pose Graph</i> , pp. 2519-2524.	
Pfingsthorn, Max	Jacobs Univ.
Birk, Andreas	Jacobs Univ.
17:10-17:30	WeCT7.5
<i>Mapping and Planning under Uncertainty in Mobile Robots with Long-Range Perception</i> , pp. 2525-2530. (Video)	
Sermanet, Pierre	New York Univ.
Hadsell, Raia	New York Univ.
Scoffier, Marco	Courant Inst. of Mathematical Sciences, New York Univ.
Muller, Urs	Net-Scale Tech.
LeCun, Yann	New York Univ.
17:30-17:50	WeCT7.6
<i>Monocular Visual Odometry in Urban Environments Using an Omnidirectional Camera</i> , pp. 2531-2538.	
Tardif, Jean-Philippe	Univ. of Pennsylvania
Pavlidis, Yanis	Univ. of Pennsylvania
Daniilidis, Kostas	Univ. of Pennsylvania

WeCT8	Risso 7B
Surveillance (Regular Sessions)	

15:50-16:10	WeCT8.1
<i>Optimal Positioning of Surveillance UGVs</i> , pp. 2539-2544.	
Nilsson, Ulrik	Swedish Defence Res. Agency, FOI
Ogren, Petter	Swedish Defence Res. Agency
Thunberg, Johan	Swedish Defence Res. Agency (FOI)
16:10-16:30	WeCT8.2
<i>Anomaly Detection Algorithm Based on Life Pattern Extraction from Accumulated Pyroelectric Sensor Data</i> , pp. 2545-2552.	

Mori, Taketoshi	The Univ. of Tokyo
Urushibata, Ryo	Univ. of Tokyo
Shimosaka, Masamichi	Univ. of Tokyo
Noguchi, Hiroshi	The Univ. of Tokyo
Sato, Tomomasa	The Univ. of Tokyo
16:30-16:50	WeCT8.3
<i>Particle Swarm Optimization Based Particle Filter for Free-Selected Object Tracking</i> , pp. 2553-2558. (Video)	
Zheng, Yuhua	Stevens Inst. of Tech.
Meng, Yan	Stevens Inst. of Tech.
16:50-17:10	WeCT8.4
<i>Approximating Information Content for Active Sensing Tasks Using the Unscented Transform</i> , pp. 2559-2564.	
Frew, Eric W.	Univ. of Colorado
17:10-17:30	WeCT8.5
<i>Influence of Zoom Selection on a Kalman Filter</i> , pp. 2565-2571.	
Sommerlade, Eric	Univ. of Oxford
Reid, Ian	Univ. of Oxford
17:30-17:50	WeCT8.6
<i>Covering Hostile Terrains with Partial and Complete Visibilities: On Minimum Distance Paths</i> , pp. 2572-2577.	
Mohan, Mahesh	IIIT Hyderabad
Sawhney, Rahul	IIIT Hyderabad
Krishna, Madhava	IIIT Hyderabad
Srinathan, Kannan	IIIT Hyderabad
Srikanth, Manohar	Massachusetts Inst. of Tech.

WeCT9 Rhodes 9EG

Motion and Task Planning (Regular Sessions)

15:50-16:10	WeCT9.1
<i>Positioning Mobile Manipulators to Perform Constrained Linear Trajectories</i> , pp. 2578-2584. (Video)	
Zacharias, Franziska	German Aerospace Center (DLR)
Borst, Christoph	German Aerospace Center (DLR)
Beetz, Michael	Tech. Univ. München
Hirzinger, Gerd	German Aerospace Center (DLR)
16:10-16:30	WeCT9.2
<i>Hierarchical Abstraction of World Elements and Behaviors for Efficient Task Planning of a Mobile Robot</i> , pp. 2585-2592.	
Park, Young-Bin	hanyang Univ.
Suh, Il Hong	Hanyang Univ.
Choi, Byung-Uk	hanyang Univ.
16:30-16:50	WeCT9.3
<i>Fault Tolerant Adaptive Mission Planning with Semantic Knowledge Representation for Autonomous Underwater Vehicles</i> , pp. 2593-2598.	
Patron, Pedro	Heriot-Watt Univ.
Miguelañez, Emilio	Heriot-Watt Univ.
Petillot, Yvan R.	Heriot-Watt Univ.
Lane, David	Heriot-Watt Univ.
16:50-17:10	WeCT9.4
<i>Learning Task Specific Plans through Sound and Visually Interpretable Demonstrations</i> , pp. 2599-2604.	
Veeraraghavan, Harini	General Electric Co Global Res.
Veloso, Manuela	Carnegie Mellon Univ.
17:10-17:30	WeCT9.5
<i>The Application of Particle Swarm Optimization and Maneuver Automats During Non-Markovian Motion Planning for Air Vehicles</i>	
<i>Performing Ground Target Search</i> , pp. 2605-2610. (Video)	
Martin, Sean	Johns Hopkins Univ. APL
Newman, Andrew	Johns Hopkins Applied Physics Lab.
17:30-17:50	WeCT9.6
<i>Differentially Constrained Motion Replanning Using State Lattices with Graduated Fidelity</i> , pp. 2611-2616.	
Pivtoraiko, Mihail	Carnegie Mellon Univ.
Kelly, Alonzo	Carnegie Mellon Univ.

WeCT10 Rhodes 9AC

Sharable Robotic Resources (Special Session)

15:50-16:10	WeCT10.1
<i>A Pattern Generator of Humanoid Robots Walking on a Rough Terrain Using a Handrail</i> , pp. 2617-2622. (Video)	
Koyanagi, Kenichi	Univ. of Tsukuba
Hirukawa, Hirohisa	National Inst. of AIST
Hattori, Shizuko	National Inst. of Advanced Industrial Science and
Morisawa, Mitsuharu	National Inst. of AIST
Nakaoka, Shinichiro	National Inst. of AIST
Harada, Kensuke	National Inst. of AIST
Kajita, Shuuji	National Inst. of AIST
16:10-16:30	WeCT10.2

<i>Modeling of Natural Human-Robot Encounters</i> , pp. 2623-2629. (Video)	Royal Inst. of Tech. ATR ATR Osaka Univ. ATR
Bergström, Niklas Kanda, Takayuki Miyashita, Takahiro Ishiguro, Hiroshi Hagita, Norihiro	
16:30-16:50	WeCT10.3
<i>Learning Affordance for Semantic Robots Using Ontology Approach</i> , pp. 2630-2636.	Univ. of Tsukuba, Japan National Inst. of Advanced Industrial Science and Tech. National Inst. of AIST
Hidayat, Sidiq S. Kim, Bong Keun Ohba, Kohtaro	
16:50-17:10	WeCT10.4
<i>Structuring Information on People and Environment for Supporting Robotic Services</i> , pp. 2637-2642. (Video)	Advanced Telecommunication Res. Inst. International ATR ATR ATR Kanazawa Inst. of Tech. ATR NICT
Nishio, Shuichi Hagita, Norihiro Miyashita, Takahiro Kanda, Takayuki Mitsunaga, Noriaki Shiomi, Masahiro Yamazaki, Tatsuya	

WeCT11	Gallieni A
Field Robots and Locomotion (Regular Sessions)	

15:50-16:10	WeCT11.1
<i>Multifunctional Mobile Units with a Same Platform for In-Pipe Inspection Robots</i> , pp. 2643-2648. (Video)	Shenyang Inst. of Automation, Chinese Acad. of Ritsumeikan Univ. Shenyang Inst. of Automation Shenyang Inst. of Automation
Li, Peng Ma, Shugen Li, Bin Wang, Yuechao	
16:10-16:30	WeCT11.2
<i>The Quadruped Locomotion Robot with the Flexible Materials</i> , pp. 2649-2654. (Video)	Univ. of Electro-Communications Univ. of Electro-Communications
Nishida, Mami Tanaka, Kazuo	
16:30-16:50	WeCT11.3
<i>Local Control Mechanisms in Six-Legged Walking</i> , pp. 2655-2660.	Univ. of Bielefeld Univ. of Bielefeld Univ. of Bielefeld Univ. of Bielefeld
Schilling, Malte Schneider, Axel Cruse, Holk Schmitz, Josef	
16:50-17:10	WeCT11.4
<i>Field Test of Autonomous Loading Operation by Wheel Loader</i> , pp. 2661-2666. (Video)	National Inst. of AIST National Inst. of Advanced Industrial Science and Tech. Hitachi Construction Machinery Co., Ltd.
Sarata, Shigeru Koyachi, Noriho Sugawara, Kazuhiro	
17:10-17:30	WeCT11.5
<i>Semi-Autonomous Traversal on Uneven Terrain for a Tracked Vehicle Using Autonomous Control of Active Flippers</i> , pp. 2667-2672. (Video)	Tohoku Univ. Tohoku Univ. Tohoku Univ. Toin Univ. of Yokohama Chiba Inst. of Tech.
Nagatani, Keiji Yamasaki, Ayato Yoshida, Kazuya Yoshida, Tomoaki Koyanagi, Eiji	
17:30-17:50	WeCT11.6
<i>Evolving Feasible Gaits for a Hexapod Robot by Reducing the Space of Possible Solutions</i> , pp. 2673-2678.	Poznan Univ. of Tech. Poznan Univ. of Tech. Poznan Univ. of Tech.
Belter, Dominik Skrzypczynski, Piotr Kasinski, Andrzej J.	

WeCT12	Rhodes 9BD
Dexterous Manipulation and Multifingered Hands (Regular Sessions)	

15:50-16:10	WeCT12.1
<i>Workspace of 3-D Multifingered Manipulation</i> , pp. 2679-2684.	South China Univ. of Tech. Univ. of Alberta South China Univ. of Tech. Hunan Inst. of Science and Tech.
Guan, Yisheng Zhang, Hong Zhang, Xianmin Guan, Zhangjie	
16:10-16:30	WeCT12.2
<i>Dynamic Object Grasping by a Triple-Fingered Robotic Hand</i> , pp. 2685-2690. (Video)	Kyushu Univ. Ritsumeikan Univ. RIKEN
Tahara, Kenji Arimoto, Suguru Yoshida, Morio	

16:30-16:50		WeCT12.3
<i>Knotted Manipulation of a Flexible Rope by a Multifingered Hand System Based on Skill Synthesis</i> , pp. 2691-2696. (Video)		
Yamakawa, Yuji		Univ. of Tokyo
Namiki, Akio		Chiba Univ.
Ishikawa, Masatoshi		Univ. of Tokyo
Shimojo, Makoto		Univ. of Electro-COMmunications
16:50-17:10		WeCT12.4
<i>3D Multifingered Caging: Basic Formulation and Planning</i> , pp. 2697-2702.		
Makita, Satoshi		Yokohama National Univ.
Maeda, Yusuke		Yokohama National Univ.
17:10-17:30		WeCT12.5
<i>Dexterous Manipulation Planning of Objects with Surface of Revolution</i> , pp. 2703-2708.		
Xue, Zhixing		FZI
Zöllner, Johann Marius		FZI Forschungszentrum Informatik
Dillmann, Rüdiger		Univ. of Karlsruhe
17:30-17:50		WeCT12.6
<i>Tweezers Type Tool Manipulation by a Multifingered Hand Using a High-Speed Visual Servoing</i> , pp. 2709-2714. (Video)		
Mizusawa, Satoru		Univ. of Tokyo
Namiki, Akio		Chiba Univ.
Ishikawa, Masatoshi		Univ. of Tokyo

WeVT15

Apollon

Videos I (Video Sessions)

08:40-08:57		WeVT15.1
<i>Intercontinental Cooperative Telemanipulation between Germany and Japan</i> , pp. 2715-2716. (Video)		
Peer, Angelika		Tech. Univ. München
Hirche, Sandra		Tech. Univ. Muenchen
Weber, Carolina		Univ. München
Krause, Inga		Tech. Univ. München
Buss, Martin		Tech. Univ. Muenchen
Miossec, Sylvain		National Inst. of Advance Industrial Science and
Evrard, Paul		CNRS/AIST
Stasse, Olivier		CNRS/AIST
Neo, Ee Sian		National Inst. of Advanced Industrial Science and
Kheddar, Abderrahmane		JRL CNRS
Yokoi, Kazuhito		National Inst. of AIST
08:57-09:14		WeVT15.2
<i>Improvement of the Operability of a Tracked Vehicle on Uneven Terrain Using Autonomous Control of Active Flippers</i> , pp. 2717-2718. (Video)		
Nagatani, Keiji		Tohoku Univ.
Yamasaki, Ayato		Tohoku Univ.
Yoshida, Kazuya		Tohoku Univ.
Yoshida, Tomoaki		Toin Univ. of Yokohama
Koyanagi, Eiji		Chiba Inst. of Tech.
09:14-09:31		WeVT15.3
<i>Agents at Play: Off-The-Shelf Software for Practical Multi-Robot Applications</i> , pp. 2719-2720. (Video)		
Cervera, Enric		Jaume-I Univ.
Sales, Jorge		Jaume-I Univ.
Nomdedeu, Leo		Jaume-I Univ.
Marin, Raul		Jaume I Univ.
Gazi, Veysel		TOBB Univ. of Ec. and Tech.
09:31-09:48		WeVT15.4
<i>Elastic Locomotion of a Steered Mobile Robot</i> , pp. 2721-2722. (Video)		
Lauria, Michel		Univ. de Sherbrooke
Legault, Marc-Antoine		Univ. de Sherbrooke
Létourneau, Dominic		Univ. de Sherbrooke
Rétornaz, Philippe		École Pol. Fédérale de Lausanne
Nadeau, Isabelle		Univ. de Sherbrooke
Lepage, Pierre		Univ. de Sherbrooke
Morin, Yan		Univ. de Sherbrooke
Gagnon, Frédéric		Univ. de Sherbrooke
Giguère, Patrick		Univ. de Sherbrooke
Frémy, Julien		Univ. de Sherbrooke
Clavien, Lionel		Univ. de Sherbrooke
Michaud, Francois		Univ. de Sherbrooke
09:48-10:05		WeVT15.5
<i>Application of Visual Odometry for Sewer Inspection Robots</i> , pp. 2723-2723. (Video)		
Saenz, Jose		Fraunhofer Inst. IFF
Althoff, H.		Emschergerossenschaft
Elkmann, Norbert		Fraunhofer IFF
Schulenburg, Erik		Fraunhofer IFF

Walter, Christoph	Fraunhofer IFF
10:05-10:22	WeVT15.6
<i>Responses to a Social Robot by Elderly Users</i> , pp. 2724-2724. (Video)	
Heerink, Marcel	Hogeschool van Amsterdam
Krose, Ben	Univ. of Amsterdam
Evers, Vanessa	Univ. of Amsterdam
Wielinga, Bob	Univ. of Amsterdam
10:22-10:39	WeVT15.7
<i>A Table Soccer Game Recorder</i> , pp. 2725-2725. (Video)	
Zhang, Dapeng	Albert-Ludwigs-Univ. Freiburg
Hornung, Armin	Albert-Ludwigs-Univ. Freiburg

ThAT1 Rhodes 9AC
Planning Tools and Robots Training (Regular Sessions)

08:40-09:00	ThAT1.1
<i>A Rollover Indicator Based on a Tire Stiffness Backstepping Observer: Application to an All-Terrain Vehicle</i> , pp. 2726-2731.	
Bouton, Nicolas	Cemagref
Lenain, Roland	Cemagref
Thuilot, Benoit	Clermont-Ferrand Univ.
Martinet, Philippe	Blaise Pascal Univ.
09:00-09:20	ThAT1.2
<i>Distance Computation for Rotational and Translational Motions</i> , pp. 2732-2737.	
Bernabeu, Enrique J	Univ. Pol. de Valencia
09:20-09:40	ThAT1.3
<i>Towards Dextrous Manipulation Using Manipulation Manifolds</i> , pp. 2738-2743. (Video)	
Steffen, Jan	Univ. of Bielefeld
Haschke, Robert	Bielefeld Univ.
Ritter, Helge Joachim	Bielefeld Univ.
09:40-10:00	ThAT1.4
<i>Synchronous Imitation Control for Biped Robot Based on Wearable Human Motion Analysis System</i> , pp. 2744-2749. (Video)	
Liu, Tao	Kochi Univ. of Tech.
Utsunomiya, Hajime	Kochi Univ. of Tech.
Inoue, Yoshio	Kochi Univ. of Tech.
Shibata, Kyoko	Kochi Univ. of Tech.
10:00-10:20	ThAT1.5
<i>Time-Optimal UAV Trajectory Planning for 3D Urban Structure Coverage</i> , pp. 2750-2757.	
Cheng, Peng	Univ. of Pennsylvania
Keller, James	Univ. of Pennsylvania
Kumar, Vijay	Univ. of Pennsylvania
10:20-10:40	ThAT1.6
<i>Task Maps in Humanoid Robot Manipulation</i> , pp. 2758-2764.	
Gienger, Michael	Honda Res. Inst. Europe
Toussaint, Marc	TU Berlin
Goerick, Christian	Honda Res. Inst. Europe GmbH

ThAT2 Rhodes 9BD
Cooperating Robots, Formation Control (Regular Sessions)

08:40-09:00	ThAT2.1
<i>A Synchronous Controller for Multiple Mobile Robots in Time-Variied Formations</i> , pp. 2765-2770.	
Wang, Can	City Univ. of Hong Kong
Sun, Dong	City Univ. of Hong Kong
09:00-09:20	ThAT2.2
<i>A Model-Predictive Approach to Formation Control of Omnidirectional Mobile Robots</i> , pp. 2771-2776.	
Kanjanawanishkul, Kiattisris	Univ. of Tübingen
Zell, Andreas	Univ. of Tübingen
09:20-09:40	ThAT2.3
<i>A Formation Control Framework Based on Lyapunov Approach</i> , pp. 2777-2782.	
Chang, Chih-Fu	National Taiwan Univ.
Fu, Li-Chen	National Taiwan Univ.
09:40-10:00	ThAT2.4
<i>Intelligent Cooperative Behavior Control of Multiple Partner Robots</i> , pp. 2783-2788.	
Kubota, Naoyuki	Tokyo Metropolitan Univ.
Aizawa, Naohide	Tokyo Metropolitan Univ.
10:00-10:20	ThAT2.5
<i>Cooperative Navigation Using Environment Compliant Robot Formations</i> , pp. 2789-2794. (Video)	
Urcola, Pablo	Inst. de Investigación en Ingeniería de Aragón, Univ. o
Riazuolo, Luis	Inst. de Investigación en Ingeniería de Aragón, Univ. o
Lázaro, María Teresa	Inst. de Investigación en Ingeniería de Aragón, Univ. of
Montano, Luis	Univ. de Zaragoza

10:20-10:40		ThAT2.6
<i>A Car Transportation System by Multiple Mobile Robots -Icart</i> , pp. 2795-2801.		
Endo, Mitsuru		Tohoku Univ.
Hirose, Kenji		Tohoku Univ.
Hirata, Yasuhisa		Tohoku Univ.
Kosuge, Kazuhiro		Tohoku Univ.
Kanbayashi, Takashi	Ishikawajima Transport Machinery Co. Ltd.	
Oomoto, Mitsukazu	Ishikawajima Transport Machinery Co. Ltd.	
Akune, Kei	Ishikawajima Transport Machinery Co. Ltd.	
Arai, Hiroyuki	Ishikawajima Transport Machinery Co. Ltd.	
Shinoduka, Hiroyuki	Ishikawajima Transport Machinery Co. Ltd.	
Suzuki, Kouki	Ishikawajima Transport Machinery Co. Ltd.	

ThAT3		Rhodes 9EG
Motion Control (Regular Sessions)		

08:40-09:00		ThAT3.1
<i>Vibration Control of a SCARA Manipulator Using Pseudo-Polynomial Motion Laws</i> , pp. 2802-2807.		
Incerti, Giovanni		Univ. of Brescia
09:00-09:20		ThAT3.2
<i>Soft Motion Trajectory Planner for Service Manipulator Robot</i> , pp. 2808-2813. (Video)		
Broquere, Xavier		Univ. de Toulouse
Sidobre, Daniel		Univ. of toulouse
Herrera Aguilar, Ignacio		Inst. Tecnológico de Orizaba
09:20-09:40		ThAT3.3
<i>A Gauge-Invariant Formulation for Constrained Robotic Systems Using Square-Root Factorization and Unitary Transformation</i> , pp. 2814-2821.		
Aghili, Farhad		Canadian Space Agency
09:40-10:00		ThAT3.4
<i>Second Order Sliding Mode Control with Disturbance Observer for Bicycle Stabilization</i> , pp. 2822-2827.		
Defoort, Michael		Ec. Centrale de Lille
Murakami, Toshiyuki		Keio Univ.
10:00-10:20		ThAT3.5
<i>Time-Optimal Manipulator Control of a Free-Floating Space Robot with Constraint on Reaction Torque</i> , pp. 2828-2833.		
Oki, Tomohisa		Tohoku Univ.
Nakanishi, Hiroki		Tohoku Univ.
Yoshida, Kazuya		Tohoku Univ.
10:20-10:40		ThAT3.6
<i>The Synthesis of Multi-Channel Adaptive Variable Structure System for the Control of AUV</i> , pp. 2834-2839.		
Lebedev, Alexander		Inst. of Automation and Control Processes
Filaretov, Vladimir		Inst. of Automation and Control Processes

ThAT4		Rhodes 10
Human and Humanoid in Aging Society (Special Session)		

08:40-09:00		ThAT4.1
<i>Attentive Object Feeding for Supporting Deskwork</i> , pp. 2840-2845.		
Tamura, Yusuke		The Univ. of Tokyo
Sugi, Masao		The Univ. of Tokyo
Ota, Jun		The Univ. of Tokyo
Arai, Tamio		Univ. of Tokyo
09:00-09:20		ThAT4.2
<i>Smart Extraction of Desired Object from Color-Distance Image with User's Tiny Scribble</i> , pp. 2846-2853.		
Shibuya, Naoki		The Univ. of Tokyo
Shimohata, Yasuyuki		The Univ. of Tokyo
Harada, Tatsuya		The Univ. of Tokyo
Kuniyoshi, Yasuo		The Univ. of Tokyo
09:20-09:40		ThAT4.3
<i>Identification of Humanoid Robots Dynamics Using Floating-Base Motion Dynamics</i> , pp. 2854-2859.		
Ayusawa, Ko		Univ. of Tokyo
Venture, Gentiane		Univ. of Tokyo
Nakamura, Yoshihiko		Univ. of Tokyo
09:40-10:00		ThAT4.4
<i>Scaffolding On-Line Segmentation of Full Body Human Motion Patterns</i> , pp. 2860-2866.		
Kulic, Dana		Univ. of Tokyo
Nakamura, Yoshihiko		Univ. of Tokyo
10:00-10:20		ThAT4.5
<i>Association of Whole Body Motion from Tool Knowledge for Humanoid Robots</i> , pp. 2867-2874.		
Lee, Dongheui		Univ. of Tokyo
Kunori, Hirotooshi		The Univ. of Tokyo
Nakamura, Yoshihiko		Univ. of Tokyo

10:20-10:40		ThAT4.6
<i>Development of a Home-Use Automated Container Storage/Retrieval System</i> , pp. 2875-2882.		
Fukui, Rui		The Univ. of Tokyo
Morishita, Hiroshi		The Univ. of Tokyo
Mori, Taketoshi		The Univ. of Tokyo
Sato, Tomomasa		The Univ. of Tokyo
ThAT5		Risso 7B
Mapping I (Regular Sessions)		
08:40-09:00		ThAT5.1
<i>A Fast and Small 3-D Obstacle Model for Autonomous Applications</i> , pp. 2883-2889.		
Andert, Franz		German Aerospace Center
Goormann, Lukas		German Aerospace Center
09:00-09:20		ThAT5.2
<i>Induction of Topological Environment Maps from Sequences of Visited Places</i> , pp. 2890-2895.		
Werner, Felix		Queensland Univ. of Tech.
Gretton, Charles		NICTA, Queensland Lab.
Maire, Frederic		Queensland Univ. of Tech.
Sitte, Joachim		Queensland Univ. of Tech.
09:20-09:40		ThAT5.3
<i>Analysis of Methods for Reducing Line Segments in Maps: Towards a General Approach</i> , pp. 2896-2901.		
Amigoni, Francesco		Pol. di Milano
Gasparini, Simone		INRIA
09:40-10:00		ThAT5.4
<i>Estimating Landmark Locations from Geo-Referenced Photographs</i> , pp. 2902-2907.		
Kretschmar, Henrik		Univ. of Freiburg
Stachniss, Cyrill		Univ. of Freiburg
Plagemann, Christian		Univ. of Freiburg
Burgard, Wolfram		Univ. of Freiburg
10:00-10:20		ThAT5.5
<i>Conflict Evaluation Method for Grid Maps Using Sonar Sensors</i> , pp. 2908-2914.		
Lee, Kyoungmin		POSTECH
Chung, Wan Kyun		POSTECH
Suh, Il Hong		Hanyang Univ.
Oh, Sang-Rok		MIC
10:20-10:40		ThAT5.6
<i>Improving Sparse Laser Scan Alignment with Virtual Scans</i> , pp. 2915-2921. (Video)		
Lakaemper, Rolf		Temple Univ.
Adluru, Nagesh		Temple Univ.
ThAT6		Risso 8
Legged Robots, Dynamics (Regular Sessions)		
08:40-09:00		ThAT6.1
<i>On Optimal Swinging of the Biped Arms</i> , pp. 2922-2927.		
Aoustin, Yannick		CNRS
Formal'skii, Alexander		Moscou Lomonosov State Univ.
09:00-09:20		ThAT6.2
<i>Efficiency and Symmetry of Ballistic Gait</i> , pp. 2928-2933.		
Asano, Fumihiko		BMC RIKEN
Luo, Zhi-Wei		The Inst. of Physical and Chemical Res. (RIKEN)
09:20-09:40		ThAT6.3
<i>Pseudo Virtual Passive Dynamic Walking and Effect of Upper Body As Counterweight</i> , pp. 2934-2939.		
Asano, Fumihiko		BMC RIKEN
Luo, Zhi-Wei		The Inst. of Physical and Chemical Res. (RIKEN)
09:40-10:00		ThAT6.4
<i>Parametric Excitation Based Gait Generation for Ornithoid Walking</i> , pp. 2940-2945.		
Harata, Yuji		Nagoya Univ.
Asano, Fumihiko		BMC RIKEN
Taji, Kouichi		Nagoya University
Uno, Yoji		Nagoya Univ.
10:00-10:20		ThAT6.5
<i>Sequential Method of Analytical Potentials an Approach for the Biped Robots Dynamic Gait Generation</i> , pp. 2946-2951.		
David, Anthony		Intelligent Systems Res. Inst. (IS), AIST
Bruneau, Olivier		UVSQ / LISV
10:20-10:40		ThAT6.6
<i>A Simple 3D Straight-Legged Passive Walker with Flat Feet and Ankle Springs</i> , pp. 2952-2957.		
Narukawa, Terumasa		Keio Univ.
Yokoyama, Kazuto		Keio Univ.
Takahashi, Masaki		Keio Univ.

ThAT7		Risso 6AB
Localization and Navigation II (Regular Sessions)		
08:40-09:00		ThAT7.1
<i>How to Recognize and Remove Qualitative Errors in Time-Of-Flight Laser Range Measurements</i> , pp. 2958-2963.		
	Skrzypczynski, Piotr	Poznan Univ. of Tech.
09:00-09:20		ThAT7.2
<i>Vision Based Global Localisation Using a 3D Environmental Model Created by a Laser Range Scanner</i> , pp. 2964-2969.		
	Ho, Nghia	Monash Univ.
	Jarvis, Raymond Austin	Monash Univ.
09:20-09:40		ThAT7.3
<i>Robust View Matching-Based Markov Localization in Outdoor Environments</i> , pp. 2970-2976.		
	Miura, Jun	Toyohashi Univ. of Tech.
	Yamamoto, Koshiro	Toyohashi Univ. of Tech.
09:40-10:00		ThAT7.4
<i>The Likelihood Field Approach to Sonar Scan Matching</i> , pp. 2977-2982.		
	Burguera, Antoni	Univ. de les Illes Balears
	Gonzalez, Yolanda	Balearic Islands Univ.
	Oliver, Gabriel A.	Univ. of the Balearic Islands
10:00-10:20		ThAT7.5
<i>Collision-Free Navigation Based on People Tracking Algorithm with Biped Walking Model</i> , pp. 2983-2989. (Video)		
	Lee, Jae Hoon	AIST
	Abe, Kenji	Univ. of Tsukuba
	Takashi, Tsubouchi	Sys. and Info. Eng., U of Tsukuba
	Ichinose, Ryoko	Hitachi, Ltd.
	Hosoda, Yuji	Hitachi, Ltd. Mechanical Eng.
	Ohba, Kohtaro	National Inst. of AIST
10:20-10:40		ThAT7.6
<i>Path Planning and Trajectory Generation Using Multi-Rate Predictive Artificial Potential Fields</i> , pp. 2990-2995. (Video)		
	Mora, Marta Covadonga	Univ. Jaume I
	Tornero, Josep	Tech. Univ. of valencia
ThAT8		Gallieni 5
Haptics and Virtual Reality (Regular Sessions)		
08:40-09:00		ThAT8.1
<i>Theoretical and Experimental Study of a Heat Transfer Model for Thermal Feedback in Virtual Environments</i> , pp. 2996-3001.		
	Mohamed, Guiatni	EMP
	Kheddar, Abderrahmane	JRL CNRS
09:00-09:20		ThAT8.2
<i>Haptic Display of Dynamic Systems Subject to Holonomic Constraints</i> , pp. 3002-3007. (Video)		
	Rodríguez Tsouroukdissian, Adolfo	Tech. Univ. of Catalonia (UPC)
	Basanez, Luis	Tech. Univ. of Catalonia
	Colgate, Edward	Northwestern Univ.
	Faulring, Eric L.	Kinea Design, LLC
09:20-09:40		ThAT8.3
<i>Hybrid Display of Realistic Tactile Sense Using Ultrasonic Vibrator and Force Display</i> , pp. 3008-3013.		
	Shiokawa, Yuta	Keio Univ.
	Tazo, Atsushi	Keio Univ.
	Konyo, Masashi	Tohoku Univ.
	Maeno, Takashi	Keio Univ.
09:40-10:00		ThAT8.4
<i>Adaptive Control for High-Fidelity Haptic Interaction with Virtual Environments</i> , pp. 3014-3020.		
	Abdossalami, Amin	McMaster Univ.
	Sirouspour, Shahin	McMaster Univ.
10:00-10:20		ThAT8.5
<i>Contact Force Estimation for Backdrivable Robotic Manipulators with Coupled Friction</i> , pp. 3021-3027.		
	Naerum, Edvard	Univ. of Oslo
	Cornella, Jordi	Rikshospitalet Univ. Hospital
	Elle, Ole Jakob	Rikshospitalet Univ. Hospital
10:20-10:40		ThAT8.6
<i>Micro Hydraulic System Using Slim Artificial Muscles for a Wearable Haptic Glove</i> , pp. 3028-3033.		
	Ryu, Dongseok	Korea Inst. of Science and Tech.
	Moon, Kyung-won	Korea Inst. of Science and Tech.
	Nam, Hyungdo	Korea Inst. of Science and Tech.
	Lee, Yongkwun	Korea Inst. of Science and Tech.
	Chun, Changmook	Korea Inst. of Science and Tech.
	Kang, Sungchul	Korea Inst. of Science & Tech.
	Song, Jae-Bok	Korea Univ.

ThAT9		Rhodes 9FC
Visual Servoing (Regular Sessions)		
08:40-09:00		ThAT9.1
<i>A Goal Oriented Just-In-Time Visual Servoing for Ball Catching Robot Arm</i> , pp. 3034-3039. (Video)		
Deguchi, Koichiro		Tohoku Univ.
Sakurai, Hironari		Tohoku Univ.
Ushida, Shun		Tohoku Univ.
09:00-09:20		ThAT9.2
<i>Visual Servoing from Two Special Compounds of Features Using a Spherical Projection Model</i> , pp. 3040-3045. (Video)		
Fomena Tatsambon, Romeo		Univ. de Rennes 1, IRISA
Chaumette, Francois		INRIA
09:20-09:40		ThAT9.3
<i>Uncalibrated Dynamic Visual Servoing Using Line Features</i> , pp. 3046-3051.		
Wang, Hesheng		The Chinese Univ. of Hong Kong
Liu, Yunhui		Chinese Univ. of Hong Kong
Wang, Zhongli		The Chinese Univ. of Hong Kong
09:40-10:00		ThAT9.4
<i>A Sensor-Based Controller Able to Treat Total Image Loss and to Guarantee Non-Collision During a Vision-Based Navigation Task</i> , pp. 3052-3057. (Video)		
Folio, David		IRISA
Cadenat, Viviane		Centre National de la Recherche Scientifique
10:00-10:20		ThAT9.5
<i>A Sliding Mode Control Law for Epipolar Visual Servoing of Differential-Drive Robots</i> , pp. 3058-3063.		
Becerra, Hector		Univ. of Zaragoza
Sagues, Carlos		Univ. de Zaragoza
10:20-10:40		ThAT9.6
<i>An Adaptive Vision System for Guidance of a Robotic Manipulator to Capture a Tumbling Satellite with Unknown Dynamics</i> , pp. 3064-3071. (Video)		
Aghili, Farhad		Canadian Space Agency
Parsa, Kourosh		ESAB Welding & Cutting Products
ThAT10		Gallieni 2
Biologically-Inspired Robots I (Regular Sessions)		
08:40-09:00		ThAT10.1
<i>The Dynamic Analysis of the Backward Swimming Mode for Biomimetic Carangiform Robotic Fish</i> , pp. 3072-3076.		
Zhou, Chao		Chinese Acad. of Sciences
Cao, Zhiqiang		Inst. of Automation, Chinese Acad. of Sciences
Wang, Shuo		Inst. of Automation, Chinese Acad. of Sciences
Tan, Min		Inst. of Automation, Chinese Acad. of Sciences
09:00-09:20		ThAT10.2
<i>Kinematic Study of the Spider Locomotor System in a Biomimetic Perspective</i> , pp. 3077-3082.		
Gasparetto, Alessandro		Univ. of Udine
Vidoni, Renato		Univ. of Udine
Seidl, Tobias		ESA-European Space Agency
09:20-09:40		ThAT10.3
<i>Bouncing Monopod with Bio-Mimetic Muscular-Skeleton System</i> , pp. 3083-3088.		
Hosoda, Koh		Osaka Univ.
Takayama, Hitoshi		Osaka Univ.
Takuma, Takashi		Osaka Inst. of Tech.
09:40-10:00		ThAT10.4
<i>Liquid Environment-Adaptive IPMC Fish-Like Robot Using Extremum Seeking Feedback</i> , pp. 3089-3094.		
Nakadoi, Hyatt		Tokyo Inst. of Tech.
Sobey, David		Tokyo Inst. of Tech.
Yamakita, Masaki		Tokyo Inst. of Tech.
Mukai, Toshiharu		RIKEN
10:00-10:20		ThAT10.5
<i>Design and Performance of Micromolded Plastic Butterfly Wings on Butterfly Ornithopter</i> , pp. 3095-3100. (Video)		
Tanaka, Hiroto		The Univ. of Tokyo
Matsumoto, Kiyoshi		The Univ. of Tokyo
Shimoyama, Isao		Univ. of Tokyo
10:20-10:40		ThAT10.6
<i>Dynamic Modeling of a Basilisk Lizard Inspired Quadruped Robot Running on Water</i> , pp. 3101-3107.		
Park, Hyun Soo		Carnegie Mellon Univ.
Floyd, Steven		Carnegie Mellon Univ.
Sitti, Metin		Carnegie Mellon Univ.
ThAT11		Gallieni 3
Computer Vision I (Regular Sessions)		

08:40-09:00		ThAT11.1
<i>Automatic Calibration of Catadioptric Cameras in Urban Environment</i> , pp. 3108-3114.		
Bazin, Jean-Charles		RCV Lab. KAIST
Kweon, In So		KAIST
Demonceaux, Cedric		Univ. of Picardie - Jules Verne
Vasseur, Pascal		Univ. of Picardie - Jules Verne
09:00-09:20		ThAT11.2
<i>Fast Autofocus of Microscopy Images Based on Depth-From-Defocus</i> , pp. 3115-3120.		
Ligo, Chen		Harbin Inst. of Tech.
Yang, Zhiliang		Harbin Inst. of Tech.
Sun, Lining		harbin Inst. of Tech.
09:20-09:40		ThAT11.3
<i>Automatic Detection of Checkerboards on Blurred and Distorted Images</i> , pp. 3121-3126.		
Ruffi, Martin		Swiss Federal Inst. of Tech. (ETH) Zurich
Scaramuzza, Davide		ETH Zurich
Siegwart, Roland		ETH Zurich
09:40-10:00		ThAT11.4
<i>Performance Evaluation of a Vertical Line Descriptor for Omnidirectional Images</i> , pp. 3127-3132.		
Scaramuzza, Davide		ETH Zurich
Pradalier, Cedric		ETH Zurich
Siegwart, Roland		ETH Zurich
10:00-10:20		ThAT11.5
<i>3D Active Appearance Model for Aligning Faces in 2D Images</i> , pp. 3133-3139. (Video)		
Chen, Chun-Wei		National Taiwan Univ.
Wang, Chieh-Chih		National Taiwan Univ.
10:20-10:40		ThAT11.6
<i>Robust Extraction of Shady Roads for Vision-Based UGV Navigation</i> , pp. 3140-3145. (Video)		
Dong-Si, Tue-Cuong		National Univ. of Singapore
Guo, Dong		DSO National Lab.
Yan, Chye Hwang		National Univ. of Singapore
Ong, Sim-Heng		National Univ. of Singapore

ThAT12 Gallieni A

Marine Robotics I (Regular Sessions)

08:40-09:00		ThAT12.1
<i>Scale-Adaptive Polygonal Formations of Submersible Vehicles and Tracking Terrain Isocontours</i> , pp. 3146-3151.		
Kalantar, Shahab		Australian National Univ.
Zimmer, Uwe		Australian National Univ.
09:00-09:20		ThAT12.2
<i>Multi-Variable Constrained Control Approach for a Three-Dimensional Eel-Like Robot</i> , pp. 3152-3157.		
El Rafei, Maher		INPG
Alamir, Mazen		LAG
Marchand, Nicolas		GIPSA-Lab. CNRS/U of Grenoble/INRIA
Porez, Mathieu		IRCCyN
Boyer, Frédéric		Ec. des mines de Nantes
09:20-09:40		ThAT12.3
<i>Coordinated Motion Control of Underwater Vehicle-Manipulator System with Minimizing Restoring Moments</i> , pp. 3158-3163.		
Han, Jonghui		Pohang Univ. of sci. and Tech.
Chung, Wan Kyun		POSTECH
09:40-10:00		ThAT12.4
<i>An Experimental Study of Station Keeping on an Underactuated ASV</i> , pp. 3164-3171. (Video)		
Arvind, Pereira		Univ. of Southern California
Das, Jnaneshwar		Univ. of Southern California
Sukhatme, Gaurav		Univ. of Southern California
10:00-10:20		ThAT12.5
<i>Reconfigurable Magnetic-Coupling Thrusters for Agile AUVs</i> , pp. 3172-3177.		
Chocron, Olivier		ENIB, Lab. Brestois de Mécanique et des Systèmes
Mangel, Herve		LIME/IUT/UBO
10:20-10:40		ThAT12.6
<i>Developing a Transient Model for Squid Inspired Thrusters, and Incorporation into Underwater Robot Control Design</i> , pp. 3178-3183.		
Krieg, Mike		Univ. of Colorado Boulder
Mohseni, Kamran		Univ. of Colorado Boulder

ThAT13 Gallieni B

Recognition and Dexterous Manipulation (Regular Sessions)

08:40-09:00		ThAT13.1
<i>Novel Mechanism of Artificial Finger Using Double Planetary Gear System</i> , pp. 3184-3191.		
Koganezawa, Koichi		Tokai Univ.
Ishizuka, Yasutaka		Tokai Univ.

09:00-09:20		ThAT13.2
<i>Visual Recognition of Grasps for Human-To-Robot Mapping</i> , pp. 3192-3199.		
Kjellstrom, Hedvig		KTH
Romero, Javier		KTH
Kragic, Danica		KTH
09:20-09:40		ThAT13.3
<i>Robust Shape Recovery for Sparse Contact Location and Normal Data from Haptic Exploration</i> , pp. 3200-3205.		
Bierbaum, Alexander		Univ. of Karlsruhe (TH)
Gubarev, Ilya		Univ. of Karlsruhe (TH)
Dillmann, Rüdiger		Univ. of Karlsruhe
09:40-10:00		ThAT13.4
<i>High-Speed Throwing Motion Based on Kinetic Chain Approach</i> , pp. 3206-3211. (Video)		
Senoo, Taku	Univ. of Tokyo, Graduate School of Information Science and	
Namiki, Akio		Chiba Univ.
Ishikawa, Masatoshi		Univ. of Tokyo
10:00-10:20		ThAT13.5
<i>Repetitive Grasping with Anthropomorphic Skin-Covered Hand Enables Robust Haptic Recognition</i> , pp. 3212-3217.		
Takamuku, Shinya	Graduate School of Engineering, Osaka Univ.	
Fukuda, Atsushi	Graduate School of Engineering, Osaka Univ.	
Hosoda, Koh		Osaka Univ.
10:20-10:40		ThAT13.6
<i>Motion Generation for Clutch Assembly by Integration of Multiple Existing Policies</i> , pp. 3218-3223.		
Yamanobe, Natsuki	Advanced Industrial Science and Tech.	
Fujii, Hiromitsu		The Univ. of Tokyo
Arai, Tamio		Univ. of Tokyo
Ueda, Ryuichi		The Univ. of Tokyo

ThBT1		Gallieni B
Domestic and Service Robots (Regular Sessions)		

13:00-13:20		ThBT1.1
<i>Museum Guide Robot with Three Communication Modes</i> , pp. 3224-3229.		
Kobayashi, Yoshinori		Saitama Univ.
Hoshi, Yosuke		Saitama Univ.
Hoshino, Goh		Saitama Univ.
Kasuya, Tomoki		Saitama Univ.
Fueki, Masato		Saitama Univ.
Kuno, Yoshinori		Saitama Univ.
13:20-13:40		ThBT1.2
<i>Robots at Home: Understanding Long-Term Human-Robot Interaction</i> , pp. 3230-3235.		
Kidd, Cory		Intuitive Automata Inc.
Breazeal, Cynthia		MIT
13:40-14:00		ThBT1.3
<i>Control Architecture Design of a Multi-Functional Service Robot Using the GSPN (Generalized-Stochastic Petri-Nets)</i> , pp. 3236-3241.		
Moon, Chang-bae		Korea Univ.
Chung, Woojin		Korea Univ.
14:00-14:20		ThBT1.4
<i>Variable Impedance Control of Meal Assistance Robot Using Potential Method</i> , pp. 3242-3247.		
Nishiwaki, Kenji		Gifu Univ.
Yano, Ken'ichi	Faculty of Engineering, Gifu Univ.	
14:20-14:40		ThBT1.5
<i>On-Line Planning of Time-Optimal, Jerk-Limited Trajectories</i> , pp. 3248-3253.		
Haschke, Robert		Bielefeld Univ.
Weitnauer, Erik		Bielefeld Univ.
Ritter, Helge Joachim		Bielefeld Univ.
14:40-15:00		ThBT1.6
<i>Sensor Integration for Person Tracking and Following with Mobile Robot</i> , pp. 3254-3259.		
Xudong, Ma		Southeast Univ.
Hu, Chunhua		Southeast Univ.
Xianzhong, Dai		Southeast Univ.
Qian, Kun		Southeast Univ.

ThBT2		Rhodes 9BD
Sensor Network (Regular Sessions)		

13:00-13:20		ThBT2.1
<i>Tracking of Transport Vehicles for Warehouse Management Using a Wireless Sensor Network</i> , pp. 3260-3265.		
Röhrig, Christof	Univ. of Applied Sciences Dortmund	
Spieker, Sarah	Fraunhofer Inst. for Material Flow and Logistics (IML)	
13:20-13:40		ThBT2.2
<i>Using Structures to Synchronize Cameras of Robots Swarms</i> , pp. 3266-3271.		

Chang, Richard Ieng, Siohoi Benosman, Ryad	Univ. Pierre et Marie Curie, Paris6 Univ. Pierre et Marie Curie, Paris6 Univ. Pierre et Marie Curie Paris 6
13:40-14:00 <i>A Spatial-Temporal Imputation Technique for Classification with Missing Data in a Wireless Sensor Network</i> , pp. 3272-3279. Li, YuanYuan Parker, Lynne	ThBT2.3 The Univ. of Tennessee, Knoxville Univ. of Tennessee
14:00-14:20 <i>Distributed Target Tracking with Energy Consideration Using Mobile Sensor Networks</i> , pp. 3280-3285. Li, Yingying Liu, Yunhui Cai, Xuanping Wang, Hesheng Zhang, Hengyang Zhou, Dongxiang	ThBT2.4 Chinese University of Hong Kong Chinese Univ. of Hong Kong The National Univ. of Defense Tech. The Chinese Univ. of Hong Kong National Univ. of Defense Tech. National Univ. of Defense Tech.
14:20-14:40 <i>Distributed Regression Over Sensor Networks: An Support Vector Machine Approach</i> , pp. 3286-3291. Gu, Dongbing Wang, Zongyao	ThBT2.5 Univ. of Essex Univ. of Essex
14:40-15:00 <i>Detecting and Monitoring Time-Related Abnormal Events Using a Wireless Sensor Network and Mobile Robot</i> , pp. 3292-3298. Li, YuanYuan Parker, Lynne	ThBT2.6 The Univ. of Tennessee, Knoxville Univ. of Tennessee

ThBT3	Rhodes 9EG
Adaptive and Motion Control (Regular Sessions)	

13:00-13:20 <i>Exploiting Robot Redundancy in Collision Detection and Reaction</i> , pp. 3299-3305. (Video) De Luca, Alessandro Ferrajoli, Lorenzo	ThBT3.1 Univ. di Roma Univ. di Roma
13:20-13:40 <i>Computationally Efficient Predictive Adaptive Control for Robot Operation in Dynamic Environments and Task Domains</i> , pp. 3306-3311. Vaidyanathan, Ravi Prince, Troy Modarreszadeh, Mohammad Lisy, Frederick J.	ThBT3.2 Naval Postgraduate School Thompson Hine Law Partners Orbital Res. Orbital Res.
13:40-14:00 <i>Computational Efficient Algorithms for Operational Space Formulation of Branching Arms on a Space Robot</i> , pp. 3312-3317. Abiko, Satoko Hirzinger, Gerd	ThBT3.3 German Aerospace Center (DLR) German Aerospace Center (DLR)
14:00-14:20 <i>A New Approach Based-On Advanced Adaptive Digital PLL for Improving the Resolution and Accuracy of Magnetic Encoders</i> , pp. 3318-3323. Hoang, Van Hung Le, Tue Hieu Jeon, Jae Wook	ThBT3.4 Sungkyunkwan Univ. Sungkyunkwan Univ. Sungkyunkwan Univ.
14:20-14:40 <i>Coordinated Kinematic Motion Control of Compliant Framed Wheeled Modular Mobile Robots</i> , pp. 3324-3329. Kim, Youngshik Minor, Mark	ThBT3.5 Univ. of Utah Univ. of Utah

ThBT4	Rhodes 10
Social Human-Robot Interaction I (Regular Sessions)	

13:00-13:20 <i>A Handshake Robot System Based on a Shake-Motion Leading Model</i> , pp. 3330-3335. Jindai, Mitsuru Watanabe, Tomio	ThBT4.1 Okayama Prefectural Univ. Okayama Prefectural Univ.
13:20-13:40 <i>What Makes People Accept a Robot in a Social Environment - Discussion from Six-Week Study in an Office -</i> , pp. 3336-3343. Mitsunaga, Noriaki Miyashita, Zenta Shinozawa, Kazuhiko Miyashita, Takahiro Ishiguro, Hiroshi Hagita, Norihiro	ThBT4.2 Kanazawa Inst. of Tech. Advanced Telecommunications Res. Inst. Advanced Telecommunications Res. Inst. ATR Osaka Univ. ATR
13:40-14:00 <i>A Robotic KANSEI Communication System Based on Emotional Synchronization</i> , pp. 3344-3349. Hashimoto, Minoru Yamano, Misaki Usui, Tatsuya	ThBT4.3 Shinshu Univ. Shinshu Univ. Shinshu Univ.

14:00-14:20		ThBT4.4
<i>Learning Meaningful Interactions from Repetitious Motion Patterns</i> , pp. 3350-3355.		
Ogawara, Koichi		Kyushu Univ.
Tanabe, Yasufumi		Kyushu Univ.
Kurazume, Ryo		Kyushu Univ.
Hasegawa, Tsutomu		Kyushu Univ.
14:20-14:40		ThBT4.5
<i>Collision Detection & Reaction: A Contribution to Safe Physical Human-Robot Interaction</i> , pp. 3356-3363. (Video)		
Haddadin, Sami	German Aerospace Center (DLR)	
Albu-Schäffer, Alin	DLR - German Aerospace Center	
De Luca, Alessandro	Univ. di Roma	
Hirzinger, Gerd	German Aerospace Center (DLR)	

ThBT5		Risso 7B
Mapping II (Regular Sessions)		

13:00-13:20		ThBT5.1
<i>An Adaptive Appearance-Based Map for Long-Term Topological Localization of Mobile Robots</i> , pp. 3364-3369.		
Dayoub, Feras		Univ. of Lincoln
Duckett, Tom		Univ. of Lincoln
13:20-13:40		ThBT5.2
<i>A Multi-Target Tracking Technique for Mobile Robots Using a Laser Range Scanner</i> , pp. 3370-3377.		
Kondaxakis, Polychronis	Foundation for Res. and Tech. – Hellas (FORTH)	
Kasderidis, Stathis	FORTH	
Trahanias, Panos	Foundation for Res. and Tech. – Hellas (FORTH)	
13:40-14:00		ThBT5.3
<i>Fast Plane Detection and Polygonalization in Noisy 3D Range Images</i> , pp. 3378-3383.		
Poppinga, Jann	International Univ. Bremen	
Vaskevicius, Narunas	Jacobs Univ.	
Birk, Andreas	Jacobs Univ.	
Pathak, Kaustubh	Jacobs Univ. Bremen	
14:00-14:20		ThBT5.4
<i>Aligning Point Cloud Views Using Persistent Feature Histograms</i> , pp. 3384-3391. (Video)		
Rusu, Radu Bogdan	Tech. Univ. Muenchen	
Blodow, Nico	Computer Science Department, Tech. Univ.	
Marton, Zoltan-Csaba	Tech. Univ. Muenchen	
Beetz, Michael	Tech. Univ. München	
14:20-14:40		ThBT5.5
<i>Heuristic Search Planning to Reduce Exploration Uncertainty</i> , pp. 3392-3399.		
Meger, David Paul	Univ. of British Columbia	
Rekleitis, Ioannis	McGill Univ.	
Dudek, Gregory	McGill Univ.	
14:40-15:00		ThBT5.6
<i>Multi-Scale Adaptive Sampling for Mapping Forest Fires</i> , pp. 3400-3407. (Video)		
Mysorewala, Muhammad	Univ. of Texas at Arlington	
Popa, Dan	The Univ. of Texas at Arlington	

ThBT6		Risso 8
Legged Robots II (Regular Sessions)		

13:00-13:20		ThBT6.1
<i>Parametric Excitation of a Biped Robot As an Inverted Pendulum</i> , pp. 3408-3413.		
Honjo, Toyoyuki		Kobe Univ.
Luo, Zhi-Wei	The Inst. of Physical and Chemical Res. (RIKEN)	
Nagano, Akinori		Kobe Univ.
13:20-13:40		ThBT6.2
<i>Stability Characteristics in Walking Behavior with Two Different Oscillatory Elements: Roles of Arc Foot and Internal Oscillator</i> , pp. 3414-3419.		
Aoi, Shinya		Kyoto Univ.
Sato, Yuuki		The Univ. of Tokyo
Tsuchiya, Kazuo		Kyoto Univ.
13:40-14:00		ThBT6.3
<i>Stability Analysis and Robust Control of a Biped Robot with Four Links and Three Actuators</i> , pp. 3420-3425.		
Fattah, Abbas	Isfahan Univ. of Tech.	
Dehghani Posht Rodi, Reza	Isfahan Univ. of Tech.	
14:00-14:20		ThBT6.4
<i>A Framework for Optimal Gait Generation Via Learning Optimal Control Using Virtual Constraint</i> , pp. 3426-3432.		
Satoh, Satoshi		Nagoya Univ.
Fujimoto, Kenji		Nagoya Univ.
Hyon, Sang-Ho		JST-ICORP / ATR
14:20-14:40		ThBT6.5
<i>Design of Convex Foot for Efficient Dynamic Bipedal Walking</i> , pp. 3433-3439.		

Sasaki, Hirotake Yamakita, Masaki Asano, Fumihiko	Tokyo Inst. of Tech. Tokyo Inst. of Tech. BMC RIKEN
14:40-15:00 <i>Dynamic Acyclic Motion from a Contact-Stance to Another</i> , pp. 3440-3445. (Video)	ThBT6.6
Arbulu, Mario Yokoi, Kazuhito Kheddar, Abderrahmane Balaguer, Carlos	Univ. Carlos III of Madrid National Inst. of AIST JRL CNRS Univ. Carlos III de Madrid
ThBT7	Risso 6AB
Localization (Regular Sessions)	
13:00-13:20 <i>Active Global Localization for Multiple Robots by Disambiguating Multiple Hypotheses</i> , pp. 3446-3451.	ThBT7.1
Bhuvanagiri, Shivudu Krishna, Madhava	IIIT Hyderabad IIIT Hyderabad
13:20-13:40 <i>Simultaneous Robot Localization and Person Tracking Using Rao-Blackwellised Particle Filters with Multi-Modal Sensors</i> , pp. 3452-3457.	ThBT7.2
Qian, Kun Xudong, Ma Xianzhong, Dai	Southeast Univ. Southeast Univ. Southeast Univ.
13:40-14:00 <i>A Quantitative Measure for the Navigability of a Mobile Robot Using Rough Maps</i> , pp. 3458-3464.	ThBT7.3
Yun, Jooseop Miura, Jun	Osaka Univ. Toyoashi Univ. of Tech.
14:00-14:20 <i>Improving Monte Carlo Localization in Sparse Environments Using Structural Environment Information</i> , pp. 3465-3470.	ThBT7.4
Prestes, Edson Ritt, Marcus Führ, Gustavo	UFRGS Inst. de Informática, Univ. Federal do Rio Inst. de Informática, Univ. Federal do Rio
14:20-14:40 <i>GP-BayesFilters: Bayesian Filtering Using Gaussian Process Prediction and Observation Models</i> , pp. 3471-3476.	ThBT7.5
Ko, Jonathan Fox, Dieter	Univ. of Washington Univ. of Washington
14:40-15:00 <i>Cooperative Localization of Multiple Robots with Constraint Propagation Technique</i> , pp. 3477-3482.	ThBT7.6
Jo, Kyoung-Hwan Lee, Jihong	Chungnam National Univ. Chungnam National Univ.
ThBT8	Gallieni 5
Haptics I (Regular Sessions)	
13:00-13:20 <i>Stability Boundary for Haptic Rendering: Influence of Human Operator</i> , pp. 3483-3488.	ThBT8.1
Hulin, Thomas Preusche, Carsten Hirzinger, Gerd	German Aerospace Center (DLR) DLR German Aerospace Center (DLR)
13:20-13:40 <i>A Physically-Based Haptic Rendering for Telemanipulation with Visual Information: Macro and Micro Applications</i> , pp. 3489-3494.	ThBT8.2
Kim, Jungsik Janabi-Sharifi, Farrokh Kim, Jung	Korea Advanced Inst. of Science and Tech. (KAIST) Ryerson Univ. KAIST
13:40-14:00 <i>An Optimal Redundancy Coordination Method for an Haptic Interface</i> , pp. 3495-3500.	ThBT8.3
Righettini, Paolo Chatterton, Steven	Univ. of Bergamo Pol. di Milano
14:00-14:20 <i>SAM : A 7-DOF Portable Arm Exoskeleton with Local Joint Control</i> , pp. 3501-3506.	ThBT8.4
Letier, Pierre Avraam, More Veillerette, Samuel Horodinca, Mihaita De Bartolomei, Maurizio Schiele, Andre Preumont, André	ULB ULB Univ. Libre de Bruxelles ULB European Space Agency European Space Agency ULB
14:20-14:40 <i>Performance Difference of Bowden Cable Relocated and Non-Relocated Master Actuators in Virtual Environment Applications</i> , pp. 3507-3512.	ThBT8.5
Schiele, Andre	European Space Agency
14:40-15:00	ThBT8.6

Redundancy Resolution of a 7 DOF Haptic Interface Considering Collision and Singularity Avoidance, pp. 3513-3518.

Komoguchi, Yuta
Yano, Ken'ichi
Peer, Angelika
Buss, Martin

Faculty of Engineering, Gifu Univ.
Faculty of Engineering, Gifu Univ.
Tech. Univ. München
Tech. Univ. Muenchen

ThBT9

Rhodes 9FC

Range Sensing (Regular Sessions)

13:00-13:20

ThBT9.1

Sub-Pixel Depth Accuracy with a Time of Flight Sensor Using Multimodal Gaussian Analysis, pp. 3519-3524.

Pathak, Kaustubh
Birk, Andreas
Poppinga, Jann

Jacobs Univ. Bremen
Jacobs Univ.
International Univ. Bremen

13:20-13:40

ThBT9.2

Functional Object Mapping of Kitchen Environments, pp. 3525-3532. [\(Video\)](#)

Rusu, Radu Bogdan
Marton, Zoltan-Csaba
Blodow, Nico
Dolha, Mihai Emanuel
Beetz, Michael

Tech. Univ. Muenchen
Tech. Univ. Muenchen
Computer Science Department, Tech. Univ.
Tech. Univ. München
Tech. Univ. München

13:40-14:00

ThBT9.3

Assessment of Laser Range Finders in Risky Environments, pp. 3533-3538.

Pascoal, José
Marques, Lino
de Almeida, Anibal

Univ. of Coimbra
Univ. of Coimbra
Univ. of Coimbra

14:00-14:20

ThBT9.4

Efficiently Learning High-Dimensional Observation Models for Monte-Carlo Localization Using Gaussian Mixtures, pp. 3539-3544.

Pfaff, Patrick
Stachniss, Cyrill
Plagemann, Christian
Burgard, Wolfram

Univ. of Freiburg
Univ. of Freiburg
Univ. of Freiburg
Univ. of Freiburg

14:20-14:40

ThBT9.5

Learning Predictive Terrain Models for Legged Robot Locomotion, pp. 3545-3552.

Plagemann, Christian
Mischke, Sebastian
Prentice, Sam
Kersting, Kristian
Roy, Nicholas
Burgard, Wolfram

Univ. of Freiburg
Univ. Freiburg
Massachusetts Inst. of Tech.
MIT
Massachusetts Inst. of Tech.
Univ. of Freiburg

14:40-15:00

ThBT9.6

Object-Oriented Registration Method for Surface Inspection of Automotive Windshields, pp. 3553-3558.

Zhang, Chi
Xi, Ning
Shi, Quan

Michigan State Univ.
Michigan State Univ.
Michigan State Univ.

ThBT10

Gallieni 2

Biologically-Inspired Robots II (Regular Sessions)

13:00-13:20

ThBT10.1

Visual Motion Integration Controls Attractiveness of Objects in Walking Flies and a Mobile Robot, pp. 3559-3564.

Mronz, Markus
Strauss, Roland

Theodor-Boveri-Inst. für Biowissenschaften
Johannes Gutenberg Univ. Mainz

13:20-13:40

ThBT10.2

A Geometrical Approach to Inverse Kinematics for Continuum Manipulators, pp. 3565-3570.

Neppalli, Srinivas
Csencsits, Matthew
Jones, Bryan
Walker, Ian

Mississippi State Univ.
Clemson Univ.
Mississippi State Univ.
Clemson Univ.

13:40-14:00

ThBT10.3

Morpho: A Self-Deformable Modular Robot Inspired by Cellular Structure, pp. 3571-3578. [\(Video\)](#)

Yu, Chih-Han
Haller, Kristina
Ingber, Donald
Nagpal, Radhika

Harvard Univ.
MIT
Harvard Medical School; Children's Hospital Boston
Harvard Univ.

14:00-14:20

ThBT10.4

Vertical Ladder Climbing Motion with Posture Control for Multi-Locomotion Robot, pp. 3579-3584.

Yoneda, Hironari
Sekiyama, Kosuke
Hasegawa, Yasuhisa
Fukuda, Toshio

Nagoya Univ.
Nagoya Univ.
Univ. of Tsukuba
Nagoya Univ.

14:20-14:40		ThBT10.5
<i>Self-Sustaining Rhythmic Arm Motion Using Neural Oscillators</i> , pp. 3585-3590.		
Yang, Woosung		Korea Inst. of Science & Tech.
Chong, Nak Young		Japan Advanced Inst. of Sci. and Tech.
Kwon, JaeSung		Korea Inst. of Science and Tech.
You, Bum Jae		KIST

ThBT11		Gallieni 3
Computer Vision II (Regular Sessions)		

13:00-13:20		ThBT11.1
<i>An Object Recognition System Based on Color Co-Occurrence Histogram and Geometric Relations of Pyramidal Image Patches</i> , pp. 3591-3596.		
Bang, Heebeom		Hanyang
Yu, Dongjin		Hanyang Univ.
Lee, Sanghoon		Hanyang Univ.
Suh, Il Hong		Hanyang Univ.
13:20-13:40		ThBT11.2
<i>Estimation of Camera Parameters from Arbitrary Parallelograms</i> , pp. 3597-3603.		
Kim, Jae-Hean		ETRI
Choi, Byung Tae		Electronics and Telecommunication Res. Inst.
13:40-14:00		ThBT11.3
<i>Autonomous Segmentation of Near-Symmetric Objects through Vision and Robotic Nudging</i> , pp. 3604-3609.		
Li, Wai Ho		Monash Univ.
Kleeman, Lindsay		Monash Univ.
14:00-14:20		ThBT11.4
<i>Frame Rate Object Extraction from Video Sequences with Self Organizing Networks and Statistical Background Detection</i> , pp. 3610-3615.		
Craesmeier Bellardi, Thiago		INRIA Rhone-Alpes
Vasquez, Alejandro		ETHZ
Laugier, Christian		INRIA Rhône-Alpes
14:20-14:40		ThBT11.5
<i>Automatically Smoothing Camera Pose Using Cross Validation for Sequential Vision-Based 3D Mapping</i> , pp. 3616-3621.		
Farenzena, Michela		Blaise Pascal Univ.
Bartoli, Adrien		CNRS
Mezouar, Youcef		Blaise Pascal Univ.
14:40-15:00		ThBT11.6
<i>Active Rough Shape Estimation of Unknown Objects</i> , pp. 3622-3627.		
Dune, Claire		IRISA-INRIA Rennes
Marchand, Eric		INRIA
Collewet, Christophe		INRIA
Leroux, Christophe		CEA LIST

ThBT12		Gallieni A
Marine Robotics II (Regular Sessions)		

13:00-13:20		ThBT12.1
<i>Enabling Autonomous Capabilities in Underwater Robotics</i> , pp. 3628-3634.		
Sattar, Junaed		McGill Univ.
Dudek, Gregory		McGill Univ.
Chiu, Olivia		McGill Univ.
Rekleitis, Ioannis		McGill Univ.
Mills, Alec		McGill Univ.
Giguere, Philippe		McGill Univ.
Plamondon, Nicolas		McGill Univ.
Prahacs, Chris		McGill Univ.
Girdhar, Yogesh		McGill Univ.
Nahon, Meyer		McGill Univ.
Lobos, John-Paul		McGill Univ.
13:20-13:40		ThBT12.2
<i>Policy Gradient Based Reinforcement Learning for Real Autonomous Underwater Cable Tracking</i> , pp. 3635-3640. (Video)		
El-Fakdi, Andres		Univ. of Girona
Carreras, Marc		Univ. de Girona
13:40-14:00		ThBT12.3
<i>Line Following Guidance Control: Application to the Charlie Autonomous Surface Vehicle</i> , pp. 3641-3646.		
Bibuli, Marco		CNR
Bruzzzone, Gabriele		C.N.R.
Caccia, Massimo		Consiglio Nazionale delle Ricerche
Indiveri, Giovanni		Univ. of Salento
Zizzari, Alessandro Antonio		Univ. del Salento - Lecce
14:00-14:20		ThBT12.4
<i>Experimental Results on Smooth Path Tracking with Application to Pipe Surveying on Inexpensive AUV</i> , pp. 3647-3653.		

Calvo, Oscar	Univ. OF THE BALEARIC ISLANDS
Rozenfeld, Alejandro	IMEDEA - UIB
Andre, Sousa	Univ. of the Balearic Islands
Valenciaga, Fernando	Univ. Nacional de la Plata
Puleston, Pablo	Univ. Nacional de la Plata
Acosta, Gerardo	Univ. Nacional del Centro de la Provincia de Bs As
14:20-14:40	ThBT12.5
<i>Deep Sea Underwater Robotic Exploration in the Ice-Covered Arctic Ocean with AUVs</i> , pp. 3654-3660.	
Kunz, Clayton	Woods Hole Oceanographic Inst. / Massachusetts
Murphy, Chris	Woods Hole Oceanographic Inst.
Camilli, Richard	Woods Hole Oceanographic Inst.
Singh, Hanumant	Woods Hole Oceanographic Inst.
Eustice, Ryan	Univ. of Michigan
Roman, Chris	Univ. of Rhode Island
Jakuba, Michael	Woods Hole Oceanographic Inst.
Willis, Claire	Woods Hole Oceanographic Inst.
Sato, Taichi	Univ. of Tokyo
Nakamura, Ko-ichi	National Inst. of Advanced Industrial Science and
Sohn, Robert	Woods Hole Oceanographic Inst.
Bailey, John	Woods Hole Oceanographic Inst.
14:40-15:00	ThBT12.6
<i>Optimal and Quasi-Optimal Navigations of an AUV in Current Disturbances</i> , pp. 3661-3667.	
Kim, Kangsoo	NTT Communication Science Lab. NTT
Ura, Tamaki	The Univ. of Tokyo

ThBT13 Rhodes 9AC
Application of Robotics and Mechatronics (Regular Sessions)

13:00-13:20	ThBT13.1
<i>Robotics in Education: Psychological Relationships with "Making-Artifacts," Computers, and Mathematics in Japan</i> , pp. 3668-3673.	
Nomura, Tatsuya	Ryukoku Univ.
Omori, Atsushi	Ryukoku Univ.
Suzuki, Yusuke	Ryukoku Univ.
Mizohata, Hiroaki	Ryukoku Univ.
Yasumura, Keigo	Ryukoku Univ.
13:20-13:40	ThBT13.2
<i>Decentralized Coordination of Autonomous AGVs in Flexible Manufacturing Systems</i> , pp. 3674-3679. (Video)	
Herrero-Perez, David	Univ. Carlos III of Madrid
Martinez-Barberá, Humberto	Univ. of Murcia
13:40-14:00	ThBT13.3
<i>Neighborhood Denoising for Learning High-Dimensional Grasping Manifolds</i> , pp. 3680-3685.	
Tsoli, Aggeliki	Brown Univ.
Jenkins, Odest Chadwicke	Brown Univ.
14:00-14:20	ThBT13.4
<i>Concept of Mechatronics Safety and Modularity Design for an Autonomous Mobile Soccer Robot</i> , pp. 3686-3691.	
Takemura, Yasunori	Kyushu Inst. of Tech.
Ogawa, Yu	Kyushu Inst. of Tech.
Forough Nassiraei, Amir Ali	Kyushu Inst. of Tech.
Sanada, Atsushi	Kyushu Inst. of Tech.
Kitazumi, Yuichi	Kyushu Inst. of Tech.
Godler, Ivan	the Univ. of Kitakyushu
Ishii, Kazuo	Kyushu Inst. of Tech.
Miyamoto, Hiroyuki	Kyushu Inst. of Tech.
Ghaderi, Ahmad	Kyushu Inst. of Tech.
14:20-14:40	ThBT13.5
<i>Multisensory Five-Finger Dexterous Hand: The DLR/HIT Hand II</i> , pp. 3692-3697.	
Liu, Hong	DLR
14:40-15:00	ThBT13.6
<i>Producing Distributed Vibration by a Single Piezoelectric Ceramics for a Small Tactile Stimulator</i> , pp. 3698-3704.	
Konyo, Masashi	Tohoku Univ.
Motoki, Yohei	Tohoku Univ.
Yamada, Hiroshi	Tohoku Univ.
Tadokoro, Satoshi	Tohoku Univ.
Maeno, Takashi	Keio Univ.

ThCT1 Gallieni B
Service Robots (Regular Sessions)

15:20-15:40	ThCT1.1
<i>An Active Helideck Testbed for Floating Structures Based on a Stewart-Gough Platform</i> , pp. 3705-3710. (Video)	
Campos, Alexandre	Univ. Pol. de Madrid
Quintero, Jacqueline	Univ. Pol. de Madrid

Saltaren, Roque	Univ. Pol. de Madrid
Ferre, Manuel	Univ. Pol. de Madrid
Aracil, Rafael	Univ. Pol. de Madrid
15:40-16:00	ThCT1.2
<i>A Foveated Passive UHF RFID System for Mobile Manipulation</i> , pp. 3711-3716.	
Deyle, Travis	Georgia Tech.
Anderson, Cressel	Georgia Tech.
Kemp, Charles	Georgia Inst. of Tech.
Reynolds, Matthew	Duke Univ.
16:00-16:20	ThCT1.3
<i>Towards an Automatic Approach for Ubiquitous Robotic Services Composition</i> , pp. 3717-3724.	
Yachir, Ali	Univ. of Paris 12
Tari, Karim	Univ. of Paris 12
Chibani, Abdelghani	Citypassenger
Amirat, Yacine	Univ. of Paris 12
16:20-16:40	ThCT1.4
<i>A Generic Architecture of Modular Embedded System for Miniature Mobile Robots</i> , pp. 3725-3730.	
Meng, Yan	Stevens Inst. of Tech.
Johnson, Kerry	Stevens Inst. of Tech.
Simms, Brian	Stevens Inst. of Tech.
Conforth, Matthew	Stevens Inst. of Tech.
16:40-17:00	ThCT1.5
<i>Control of Wearable Walking Helper on Slope Based on Integration of Acceleration and GRF Information</i> , pp. 3731-3736.	
Hirata, Yasuhisa	Tohoku Univ.
Iwano, Takuya	Tohoku Univ. Japan
Kosuge, Kazuhiro	Tohoku Univ.

ThCT2	Rhodes 9EG
Underactuated Robots (Regular Sessions)	

15:20-15:40	ThCT2.1
<i>Autonomous Dynamic Balance of an Electrical Bicycle Using Variable Structure Under-Actuated Control</i> , pp. 3737-3743.	
Hwang, Chih-Lyang	Tamkang Univ.
15:40-16:00	ThCT2.2
<i>Control of Underactuated Manipulators Using Modified Transpose Effective Jacobian</i> , pp. 3744-3749.	
Karimi, Mahmood	K. N. Toosi Univ. of Tech.
Moosavian, S. Ali A.	K. N. Toosi Univ. of Tech.
16:00-16:20	ThCT2.3
<i>An Impulse-Momentum Approach to Swing-Up Control of the Pendubot</i> , pp. 3750-3755.	
Albakhali, Thamer	Michigan State Univ.
Mukherjee, Ranjan	Michigan State Univ.
Das, Tuhin	Rochester Inst. of Tech.
16:20-16:40	ThCT2.4
<i>Underactuated Point Stabilization Using Predictive Models with Application to Marine Vehicles</i> , pp. 3756-3761.	
Greytak, Matthew	MIT
Hover, Franz	MIT
16:40-17:00	ThCT2.5
<i>High-Dimensional Underactuated Motion Planning Via Task Space Control</i> , pp. 3762-3768. (Video)	
Shkolnik, Alexander	MIT
Tedrake, Russ	Massachusetts Inst. of Tech.

ThCT3	Rhodes 9BD
Flexible Arms and Compliant Tasks (Regular Sessions)	

15:20-15:40	ThCT3.1
<i>A Method to Generate Stable, Collision Free Configurations for Tensegrity Based Robots</i> , pp. 3769-3774. (Video)	
Hernandez Juan, Sergi	CSIC-UPC (IRI)
Mirats Tur, Josep M.	CSIC-UPC
15:40-16:00	ThCT3.2
<i>Robotic Assembly of Complex Planar Parts: An Experimental Evaluation</i> , pp. 3775-3782. (Video)	
Robuffo Giordano, Paolo	DLR - German Aerospace Center
Stemmer, Andreas	DLR - German Aerospace Center
Arbter, Klaus	DLR - German Aerospace Center
Albu-Schäffer, Alin	DLR - German Aerospace Center
16:00-16:20	ThCT3.3
<i>Vibration Suppression Control of a Flexible Arm Using Image Features of Unknown Objects</i> , pp. 3783-3788.	
Jiang, Xin	Tohoku Univ.
Yabe, Yosuke	Tohoku Univ.
Konno, Atsushi	Tohoku Univ.
Uchiyama, Masaru	Tohoku Univ.
16:20-16:40	ThCT3.4

<i>Friction Observer and Compensation for Control of Robots with Joint Torque Measurement</i> , pp. 3789-3795. Le Tien, Luc Albu-Schäffer, Alin De Luca, Alessandro Hirzinger, Gerd	German Aerospace Center (DLR) DLR - German Aerospace Center Univ. di Roma German Aerospace Center (DLR)	ThCT3.5
16:40-17:00 <i>Impedance Control for Variable Stiffness Mechanisms with Nonlinear Joint Coupling</i> , pp. 3796-3803. Wimboeck, Thomas Ott, Christian Albu-Schäffer, Alin Kugi, Andreas Hirzinger, Gerd	German Aerospace Center (DLR) Univ. of Tokyo DLR - German Aerospace Center Vienna Univ. of Tech. German Aerospace Center (DLR)	
ThCT4		Rhodes 10
Social Human-Robot Interaction II (Regular Sessions)		
15:20-15:40 <i>Interacting with a Mobile Robot: Evaluating Gestural Object References</i> , pp. 3804-3809. (Video) Schmidt, Joachim Hofmann, Nils Haasch, Axel Fritsch, Jannik Sagerer, Gerhard	Univ. of Bielefeld, Faculty of Tech. Univ. of Bielefeld, Faculty of Tech. Univ. of Bielefeld, Faculty of Tech. Honda Res. Inst. Europe GmbH Univ. of Bielefeld, Faculty of Tech.	ThCT4.1
15:40-16:00 <i>A Realistic Facial Animation Suitable for Human-Robot Interfacing</i> , pp. 3810-3815. Marcos, Samuel Gomez Garcia Bermejo, Jaime Zalama, Eduardo	CARTIF Foundation Univ. of Valladolid Univ. of Valladolid	ThCT4.2
16:00-16:20 <i>What Do People Expect from Robots?</i> , pp. 3816-3821. Ray, Céline Mondada, Francesco Siegwart, Roland	ETHZ EPFL ETH Zurich	ThCT4.3
16:20-16:40 <i>Emotional Speech in the Context of Entertainment Robots. the Effect of Different Emotions on Users' Perceptions.</i> , pp. 3822-3825. Kroll-Peters, Olaf Rauterberg, Simon Surucu, Ugur Unterstein, Andreas Wilhelm, Mathias	Tech. Univ. Berlin Tech. Univ. Berlin Tech. Univ. Berlin Tech. Univ. Berlin TU Berlin	ThCT4.4
16:40-17:00 <i>Motivation and Competitive Learning in a Social Robot</i> , pp. 3826-3831. Dominguez, Salvador Zalama, Eduardo Gomez Garcia Bermejo, Jaime Pulido Fentanes, Jaime	CARTIF Univ. of Valladolid Univ. of Valladolid CARTIF	ThCT4.5
17:00-17:20 <i>Design and Assembling of a Magneto-Inertial Wearable Device for Ecological Behavioral Analysis of Infants</i> , pp. 3832-3837. Taffoni, Fabrizio Campolo, Domenico Delafield-Butt, Jonathan Keller, Flavio Guglielmelli, Eugenio	Campus Bio-Medico Univ. Campus Bio-Medico Univ. the Univ. of Edinburgh Univ. "Campus Bio-Medico" Univ. Campus Bio-Medico	ThCT4.6
ThCT5		Rhodes 9FC
Sensor Fusion (Regular Sessions)		
15:20-15:40 <i>Target Tracking Using SIR and MCMC Particle Filters by Multiple Cameras and Laser Range Finders</i> , pp. 3838-3844. (Video) Kurazume, Ryo Yamada, Hiroyuki Murakami, Kouji Iwashita, Yumi Hasegawa, Tsutomu	Kyushu Univ. Kyushu Univ. Kyushu Univ. Kyushu Univ. Kyushu Univ.	ThCT5.1
15:40-16:00 <i>On-Line Estimation of Inertial Parameters Using a Recursive Total Least-Squares Approach</i> , pp. 3845-3852. Kubus, Daniel Kroeger, Torsten Wahl, Friedrich M.	Tech. Univ. of Braunschweig Tech. Univ. of Braunschweig Tech. Univ. of Braunschweig	ThCT5.2
16:00-16:20 <i>Pattern Recognition for Loosely-Coupled GPS/odometer Fusion</i> , pp. 3853-3858. Chen, Cheng		ThCT5.3 Renault

Ibanez-Guzman, Javier Le-Marchant, Olivier	Renault Univ. of Tech. of Compiegne
16:20-16:40	ThCT5.4
<i>Multimodal Sensor Fusion for Attitude Estimation of Micromechanical Flying Insects: A Geometric Approach</i> , pp. 3859-3864.	
Campolo, Domenico Schenato, Luca Pi, Lijuan Deng, Xinyan Guglielmelli, Eugenio	Campus Bio-Medico Univ. Univ. of Padova Univ. of Delaware Univ. of Delaware Univ. Campus Bio-Medico
16:40-17:00	ThCT5.5
<i>Determining the Camera to Robot-Body Transformation from Planar Mirror Reflections</i> , pp. 3865-3871.	
Hesch, Joel Mourikis, Anastasios Roumeliotis, Stergios	Univ. of Minnesota Univ. of Minnesota Univ. of Minnesota
17:00-17:20	ThCT5.6
<i>Identifying a Moving Object with an Accelerometer in a Camera View</i> , pp. 3872-3877.	
Shigeta, Osamu Kagami, Shingo Hashimoto, Koichi	Tohoku Univ. Tohoku Univ. Tohoku Univ.
ThCT6	Risso 8
Legged Robots III (Regular Sessions)	
15:20-15:40	ThCT6.1
<i>Graph Search Joint Path Planning for Robot Center of Gravity Positioning</i> , pp. 3878-3883.	
Phipps, Cristian Johnson, David Minor, Mark	Univ. of Utah Univ. of Utah Univ. of Utah
15:40-16:00	ThCT6.2
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Tsakiris, Dimitris	FORTH
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Koku, Bugra	METU
Dolen, Melik	Middle East Tech. Univ.
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Frontoni, Emanuele	Univ. Pol. delle Marche
Mancini, Adriano	Univ. Pol. delle Marche
Zingaretti, Primo	Univ. Pol. delle Marche
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Jünger, Matthias	Humboldt-Univ. zu Berlin
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Matsumoto, Kiyoshi	The Univ. of Tokyo
Shimoyama, Isao	Univ. of Tokyo
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Zerbato, Davide	Univ. of Verona
Botturi, Debora	Univ. of Verona
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Xiao, Jing	UNC-Charlotte
Song, Aiguo	Southeast Univ.
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Iwase, Tomoki	Osaka Univ.
Hosoda, Koh	Osaka Univ.

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Panin, Giorgio	Tech. Univ. Muenchen
Wojtczyk, Martin	Tech. Univ. München, Bayer HealthCare
Lenz, Claus	Tech. Univ. München
Friedlhuber, Thomas	Tech. Univ. Muenchen

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Cianci, Christopher M.	EPFL
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Martinoli, Alcherio	EPFL
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Heger, Frederik W.	CMU Robotics Inst.
Hiatt, Laura M.	Carnegie Mellon Univ.
Melchior, Nik	Carnegie Mellon Univ.
Roderick, Stephen	Univ. of Maryland
Akin, David	Univ. of Maryland
Simmons, Reid	Carnegie Mellon Univ.
Singh, Sanjiv	Carnegie Mellon Univ.

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Vitard, Julien	Univ. Pierre et Marie Curie
Haliyo, Dogan Sinan	Univ. Paris 6
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Gauthier, Michael	FEMTO-ST Inst.
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Suzuki, Kenji	Univ. of Tsukuba
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Li, Y.F.	City Univ. of Hong Kong

Zhang, Jianwei	Univ. of Hamburg
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Ichikawa, Atsushi	Osaka Univ.
Yachida, Masahiko	Graduate School of Engineering Science , Osaka Univ.
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Bhuvanagiri, Shivudu	IIIT Hyderabad
Krishna, Madhava	IIIT Hyderabad
Jawahar, C.V.	IIIT, Hyderabad
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Agrawal, Motilal	SRI International
Konolige, Kurt	Willow Garage
Aravind, Sundaresan	SRI International
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Choi, Ouk	KAIST
Kweon, In So	KAIST
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Shimoda, Shingo	RIKEN
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Kubota, Takashi	JAXA ISAS
Otsuki, Masatsugu	Inst. of Space and Astronautical Science, JAXA
Tanaka, Satoshi	JAXA/ISAS
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Coradeschi, Silvia	Örebro Univ.
Loutfi, Amy	Örebro Univ.
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Kyriakopoulos, Kostas	National Tech. Univ. of Athens
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Mae, Yasushi	Osaka Univ.
Takubo, Tomohito	Osaka Univ.
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Beltran, Reinel	Univ. de Oriente

Sanz, Pedro J	Jaume I
Marin, Raul	Jaume I Univ.
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Peer, Angelika	Tech. Univ. München
Schauß, Thomas	Tech. Univ. München
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Unterhinninghofen, Ulrich	Tech. Univ. München
Behrendt, Stephan	Tech. Univ. München
Faerber, Georg	TU Muenchen
Leupold, Jan	Tech. Univ. München
Diepold, Klaus	Tech. Univ. München
Keyrouz, Fakheredine	Tech. Univ. München
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Létourneau, Dominic	Univ. de Sherbrooke
Michaud, Francois	Univ. de Sherbrooke
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Casanova, Flurin	Department of Informatics, Univ. of Zurich
Lungarella, Max	Artificial Intelligence Lab.
Pfeifer, Rolf	Univ. of Zurich



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Abstract:

In this work an optimal method for the solution of the inverse kinematics of a redundant haptic interface is shown. Methods that act on three different spaces are analyzed: at displacements, at velocities and at accelerations levels. For the first two levels features of different criterions for the redundancy coordination, based on kinematic performance indexes will be briefly presented. At the accelerations level it will be presented an original method based on the working frequency of the device. This algorithm automatically switches between two different approaches: at low working frequencies it is preferred a solution that optimizes the dexterity feature of the system, whereas at high frequencies a method that reduces the required motor torques.

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