

ISER 2006 Preliminary Schedule

Thursday, July 6			
17:00-19:00	Registration		
18:00-20:00	Welcome Cocktail Reception at Hotel Catering		
Friday, July 7			
8:00-8:30	Registration		
8:30-8:35	Welcome		
8:35-10:15	Session 1	Manipulation	
	Paper no. 112	Contact State Segmentation Using Particle Filters for Programming by Human Demonstration in Compliant Motion Tasks	Wim Meeussen, Johan Rutgeerts, Klaas Gadeyne, Herman Bruyninckx and Joris De Schutter
	Paper no. 128	Experimental Investigation of Mechanics in Soft-fingered Grasping and Manipulation	Takaniro Inoue and Shinichi Hirai
	Paper no. 147	Motion Planning for Robotic Manipulation of Deformable Linear Objects	Mitul Saha, Pekka Isto and Jean-Claude Latombe
	Paper no. 148	Learning to Grasp Novel Objects using Vision	Ashutosh Saxena, Justin Driemeyer, Justin Kearns, Chioma Osondu and Andrew Y. Ng
	Paper no. 141	Stable Grasp and Manipulation in 3D Space with 2-Soft-Fingered Robot Hand	Tsuneo Yoshikawa, Masanao Koeda, Haruki Fukuchi and Atsushi Hirakawa
10:15-10:30	Coffee Break		
10:30-11:50	Session 2	Vision	
	Paper no. 110	Combining Object Recognition and SLAM for Extended Map Representations	Fabio Ramos, Juan Nieto and Hugh Duran-Whyte
	Paper no. 167	Long-term motion estimation from images	Dennis Strelow and Sanjiv Singh
	Paper no. 133	Real-time Time-To-Collision from variation of Intrinsic Scale	Amaury N'egre, Christophe Brailion, James L. Crowley and Christian Lauer
	Paper no. 164	Using Scene Similarity for Place Labeling	I. Posner, D. Schroeter, and P. Newman
11:50-12:00	Coffee Break		
12:00-13:00	Session 3	Navigation	
	Paper no. 119	Robust GPS/INS-aided localization and mapping via GPS bias estimation	Paul Vernaza and Daniel D. Lee
	Paper no. 123	Vision Assisted Laser Scanner Navigation for Autonomous Robots	Jens Christian Andersen, Nils A. Andersen and Ole Ravn
	Paper no. 170	Selection and Monitoring of Navigation modes for an Autonomous Rover	Thierry Peynot and Simon Lacroix
13:00-14:00	Lunch		
14:00-18:00	Sugar loaf and panoramic city tour		
18:30-20:00	Panel: 20 years of Experimental Robotics (Vila Riso)		
20:00-22:00	Banquet (Vila Riso)		
Saturday July 8			
8:00-8:30	Registration		
8:30-10:10	Session 4	Medical and bio-robotics	
	Paper no. 101	Automatic Determination of the Actions and Force Feedback Augmentation in the Minimal Invasive Surgical System	Phongsan Pitakwatchara, Shin-ichi Warisawa, and Mamoru Mitsuishi
	Paper no. 104	Control of Muscle Force during Exercise using a Musculoskeletal-Exoskeletal Integrated Human Model	Jun Ueda, Masayuki Matsugashita, Reishi Oya and Tsukasa Ogasawara
	Paper no. 131	3D Robot Assisted Fracture Reduction	Ralf Westphal, Thomas Gösling, Markus Oszwald, Jan Bredow, Daniel Klepzig, Simon Winkelbach, Tobias Häufner, Christian Krettek and Friedrich Wahl
	Paper no. 143	Micro Robotic Gripper for Cell Manipulation	Anand Pillarsetti, Edward Steager, Maxim Pekarev, Ari D. Brooks and Jaydev P. Desai
	Paper no. 108	User Personality Matching with Hands-Off Robot for Post-Stroke Rehabilitation Therapy	Adriana Tapus and Maja J. Matarić
10:10-10:25	Coffee Break		
10:25-11:45	Session 5	Estimation and mapping	
	Paper no. 152	Outdoor Mapping and Navigation using Stereo Vision	Kurt Konolige, Motilal Agrawal, Robert C. Bolles, Cregg Cowan, Martin Fischler and Brian Gerkey
	Paper no. 154	Control for Localization of Targets Using Range-Only Sensors	Ben Grocholsky, Ethan Stump, Pedro M. Shiroma and Vijay Kumar
	Paper no. 169	Experiments with Simultaneous Environment Mapping And Mobile Target Tracking	Abdellatif Baba and Raja Chatila
	Paper no. 162	Rao-Blackwellized Particle Filters for Recognizing Activities and Spatial Context from Wearable Sensors	Alvin Raj, Amarnag Subramanya, Dieter Fox, and Jeff Biles
11:45-12:00	Coffee Break		
12:00-13:00	Session 6	Field robotics	
	Paper no. 157	Development of Teleoperated Landmine Detection Buggy GRYPHON for Practical Humanitarian Demining Tasks	Edwardo F. Fukushima, Paulo Debenest, Marc Freese, Kensuke Takita, Yasuhiro Oishi and Shigeo Hirose
	Paper no. 115	Long-Range Autonomous Instrument Placement	John-David Yoder and Michael Seelinger
	Paper no. 116	Four Wheel Drive Boom Lift Robot For Bush Fire Fighting	Ray Jarvis
13:30-14:30	Lunch followed by free time at the beach		
16:00-18:00	Special Session	Motion planning and control of multiple autonomous soccer players	

18:00-19:40	Session 7	Estimation and control	
	Paper no. 129	Mobile Robot Simultaneous Localization and Mapping Using Low Cost Vision Sensors	Vivek A. Sujan, Marco A. Meggiolaro, and Felipe A.W. Belo
	Paper no. 159	Sensor-Based Behavior Control for an Autonomous Underwater Vehicle	Gregory Dudek and Philippe Giguere and Junaed Sattar
	Paper no. 134	Visual Servoing on Image Maps	Antonio Danesi, Daniele Fontanelli and Antonio Bicchi
	Paper no. 120	Context Sensitive Driver Assistance based on Gaze-Road Scene Correlation	Luke Fletcher and Alexander Zelinsky
	Paper no. 106	Small-Scale Robot Formation Movement Using a Simple On-Board Relative Positioning System	Jim Pugh and Alcherio Martinoli

20:00-24:00 *Dinner (cash) at Rio Scenarium*

Sunday, July 9

8:20-8:50 Registration

8:50-10:10 **Session 8** **Navigation**

	Paper no. 109	Learning Informative Features for Indoor Traversability	Alex Brooks, Alexei Makarenko, Ben Upcroft and Hugh Durrant-Whyte
	Paper no. 140	Activity-based Semantic Mapping of an Urban Environment	Denis F. Wolf and Gaurav S. Sukhatme
	Paper no. 137	Robot navigation in multi-terrain outdoor environments	Guilherme A. S. Pereira, Luciano C. A. Pimenta, Luiz Chaimowicz, Alexandre R. Fonseca, Daniel S.
	Paper no. 145	Constrained Optimization Path Following of Wheeled Robots in Natural Terrain	Thomas M. Howard, Ross A. Knepper and Alonzo Kelly

10:15-10:35 *Coffee Break*

10:35-12:15 **Session 9** **Estimation and Localization**

	Paper no. 118	Multi-level State Estimation in an Outdoor Decentralised Sensor Network	B. Upcroft, M. Ridley, L.L. Ong, B. Douillard, T. Kaupp, S. Kumar, T. Bailey, F. Ramos, A. Makarenko, A. Brooks, S. Sukkarieh and H.F. Durrant-Whyte
	Paper no. 146	Occupancy grids from stereo and optical flow data	C. Brailion, C. Pradalier, K. Usher, J.L. Crowley, and C. Laugier
	Paper no. 121	MLS-based, Distributed Bearing, Range, and Posture Estimation for Schools of Submersibles	Navinda Kottege and Uwe R. Zimmer
	Paper no. 172	Cooperative Localization for Autonomous Underwater Vehicles	Alexander Bahr and John J. Leonard
	Paper no. 151	Vision-based Localization Using a Central Catadioptric Vision System	Mana Saedan, Chee Wang Lim, and Marcelo H. Ang, Jr

12:20-13:30 *Lunch*

15:00-17:15 **Special session** Motion planning and control of multiple autonomous soccer players

17:30-19:00 **Session 10** **Design**

	Paper no. 103	On the Design of a Fast Parallel Robot based on its Dynamic Model	V. Nabat, S. Krut, O. Company, P. Poignet and F. Pierrot
	Paper no. 160	Dynamic Rolling for a Modular Loop Robot	Jimmy Sastra, Sachin Chitta, and Mark Yim
	Paper no. 168	Shady: Robust Truss Climbing With Mechanical Compliances	Marsette Vona, Carrick Detweiler, and Daniela Rus
	Paper no. 171	A New Actuation Approach For Haptic Interface Design	François Conti and Oussama Khatib
	Paper no. 132	Real-time Microforce Sensors and High Speed Vision System for Insect Flight Control Analysis	Chauncey F. Graetzel, Steven N. Fry, Felix Beyeler, Yu Sun, and Bradley J. Nelson

Monday, July 10

8:30-10:10 **Session 11** **Cooperative Control**

	Paper no. 130	Experiments with Cooperative Networked Control of Underwater Robots	Matthew Dunbabin, Iuliu Vasilescu, Peter Corke and Daniela Rus
	Paper no. 124	Comparing Coordination Schemes for Miniature Robotic Swarms: A Case Study in Boundary Coverage of Regular Structures	Nikolaus Correll, Samuel Rutishauser, and Alcherio Martinoli
	Paper no. 165	Broadcast Feedback Control of Stochastic Cellular Actuators	Lael Odhner, Jun Ueda, and H. Harry Asada
	Paper no. 163	An Optimization-based Approach to Time Critical Cooperative Surveillance and Coverage with Unmanned Aerial Vehicles	Ali Ahmadzadeh, James Keller, George J. Pappas, Ali Jadbabaie and Vijay Kumar
	Paper no. 117	The Implementation of a Cooperative Control Architecture for UAV Teams	David T. Cole, Ali Haydar Göktogan, and Salah Sukkarieh

10:15-10:35 *Coffee Break*

10:35-12:15 **Session 12** **Humanoids**

	Paper no. 111	Humanoid Robot HRP-2 with Human Supervision	Kazuhiro Yokoi, Neo Ee Sian, Takeshi Sakaguchi, Olivier Stasse, Yoshihiro Kawai and Ken-ichi Maruyama
	Paper no. 127	Can a Humanoid Robot be Used as a Guinea Pig of Human?	Hideki Kondo, Yu Ogura, Hiroyuki Aikawa, Kazushi Shimomura, Akitoshi Morishima, Hun-ok Lim and Atsuo Takanishi
	Paper no. 139	Task Autonomy for a Teleoperated Humanoid Robot	Kensuke Harada, Hitoshi Hasunuma, Katsumi Nakashima and Hirohisahirukawa
	Paper no. 156	Short Cycle Pattern Generation for Online Walking Control System of Humanoids	Koichi Nishiwaki and Satoshi Kagami
	Paper no. 138	Grasp Recognition and Manipulation with the Tango	Paul G. Kry and Dinesh K. Pai

12:20-13:20 *Lunch*

13:30-16:30 *Corcovado: Group Photograph*

18:00-19:30 *Closing reception (Cocktail: Boemia Carioca)*

Tuesday, July 11

Morning *Optional tours and check out*