4th May

08:30	09:20		**Registration**	
09:20	09:30		**Welcome Session**	

State of the Art on Autonomous Robot Systems and Competitions
Chair: Nuno Lau

09:30	09:50	8	Vine trunk detector for a reliable robot localization system	Jorge Mendes, Filipe Neves dos Santos, Nuno Ferraz, Pedro Couto, Raul Morais
09:50	10:10	12	The LRU Rover for Autonomous Planetary Exploration and its Success in the SpaceBotCamp Challenge	Martin J. Schuster, Christoph Brand, Sebastian G. Brunner, Peter Lehner, Josef Reill, Sebastian Riedel, Tim Bodenmüller, Kristin Bussmann, Stefan Büttner, Andreas Dömel, Werner Friedl, Iris Grixa, Matthias Hellerer, Heiko Hirschmüller, Michael Kassecker, Zoltán-Csaba Márton, Christian Nissler, Felix Ruess, Michael Suppa, Armin Wedler
10:10	10:30	45	Power Characterization of a Skid-Steered Mobile Field Robot	Sedat Dogru, Lino Marques
10:30	10:50	46	A Flexible Robotic Framework for Autonomous Manufacturing Processes: Report from the European Robotics Challenge Stage 1	Arne-Christoph Hildebrandt, Christoph Schuetz, Daniel Wahrmann, Robert Wittmann and Daniel Rixen
10:50	11:10		**Poster Short Presentations 1 (Chair:)**	
11:10	11:30		**Coffee Break and Poster session**	

Humanoid Robotics
Chair: Carlos Cardeira

11:30	11:50	2	Mechanical Design of a Biomimetic Compliant Lower Limb Exoskeleton (BioComEx)	Ozgur Baser, Hasbi Kizilhan and Ergin Kilic
11:50	12:10	6	Real-Time Gait Events Detection During Walking of Biped Model and Humanoid Robot Through Adaptive Thresholds	Joana Figueiredo, Cesar Ferreira, Cristina P. Santos, Luís P. Reis, Juan C. Moreno
12:10	12:30	56	Motion Primitives for Human-to-Humanoid Skill Transfer Under Balance Constraint	José Rosado, Filipe Silva, Vítor Santos
12:30	12:50	73	How to Select A Suitable Action Against Strong Pushes in Adult-Size Humanoid Robot: Learning From Past Experiences	S. Mohammadreza Kasaei, S. Hamidreza Kasaei, Ehsan Shahri, Ali Ahmadi, Nuno Lau, Artur Pereira
12:50	14:20		**Lunch**	

Localization and Navigation
Chair: Cristina Santos

14:20	14:40	34	A Robot Localization System based on RF Fadings using Particle Filters inside Pipes	Teresa Seco, Carlos Rizzo, Jesús Espelosín, José Luis Villarroel
14:40	15:00	35	A Scan Matching Approach to SLAM with a Dynamic Likelihood Field	Eurico Pedrosa, Artur Pereira, Nuno Lau
15:00	15:20	42	Integration of Multiple Events in a Topological Autonomous Navigation System	Clara Gomez, Alejandra Carolina Hernandez, Jonathan Crespo, Ramón Barber
15:20	15:40	65	A Validation Framework for Visible Light Positioning in Mobile Robotics	Miguel Vieira, Rui Costa, Artur Pereira, Pedro Fonseca
15:40	16:00	74	2D Cloud Template Matching - A comparison between ICP and Perfect Match	Héber Sobreira, Luis Rocha, Carlos Costa, Jose Lima, Paulo Costa, A. Paulo Moreira
16:00	16:20		**Poster Short Presentations 2 (Chair:)**	
16:20	16:40		**Coffee Break and Poster session**	

Learning, HR Interaction and Dextereus Manipulation
Chair: Fernando Ribeiro

16:40	17:00	53	A Mosaicking Approach for Visual Mapping of Large-Scale Environments	Andry Maykol Pinto, Henrique Pinto, Anibal C. Matos
17:00	17:20	55	Contextual Relative Entropy Policy Search with Covariance Matrix Adaptation	Abbas Abdolmaleki, David Simoes, Nuno Lau, Luís Reis, Gerhard Neumann
17:20	17:40	59	Contextual Task Recognition to Assist Mobile Robot Teleoperation with Introspective Estimation using Gaussian Process	Ming Gao, Thomas Schamm, J.Marius Zoellner
17:40	18:00	37	A Novel Underactuated Hand Suitable for Human-Oriented Domestic Environments	André Farinha, Pedro Lima

18:00	18:20	60	A Learning Approach for Robotic Grasp Selection in Open-ended Domains	Nima Shafii, S. Hamidreza Kasaei, Luís Seabra Lopes
18:20	19:00		**Poster review and first day closing**	

5th May

Computer Vision & Navigation
Chair: António Paulo Moreira

09:30	09:50	10	Differential Histogram of Normal Vectors for Object Recognition with Depth Sensors	Somar Boubou, Tatsuo Narikiyo, Michihiro Kawanishi
09:50	10:10	19	Fast computational processing for mobile robots' self-localization	Hélder Ribeiro, Silva Pedro, Ricardo Roriz, Tiago Maia, Rui Saraiva, Gil Lopes, A. Fernando Ribeiro
10:10	10:30	31	Histogram Based Visual Place Recognition for Improving SLAM Performance	Oguzhan Guclu, Ahmet Burak Can
10:30	10:50	14	Extendable Matrix Camera using Aerial Networks	Luis Pinto, Luis Oliveira, Luis Almeida, Anthony Rowe
10:50	11:10		**Poster Short Presentations 3 (Chair:)**	
11:10	11:30		**Coffee Break and Poster session**	

Keynote Speaker
Chair: Luís Paulo Reis

11:30	**13:00**		**Rainer Bischoff, "Designing robot competitions with a benefit for the industry"**
13:00	**14:20**		**Lunch**

Artificial Inteligence, Cooperative Robotics and Competitions I
Chair: Lino Marques

14:20	14:40	11	A Holonic Control System Design for a Human & Industrial Robot Cooperative Workcell	Ahmed Sadik, Bodo Urban
14:40	15:00	26	Towards a Unified Decentralized Swarm Management and Maintenance Coordination Based on MAVLink	Thomas Dietrich, Oleksandr Andryeyev, Armin Zimmermann, Andreas Mitschele-Thiel
15:00	15:20	32	Analytical Hierarchy Process based Multi-Objective Multiple Traveling Salesman Problem	Omar Cheikhrouhou, Anis Koubaa, Anis Zaard
15:20	15:40	33	A clustering market-based approach for multi-robot emergency response applications	Sahar Trigui, Anis Koubaa, Omar Cheikhrouhou, Basit Qureshi, Habib Youssef
15:40	16:00		**Poster Short Presentations 4 (Chair:)**	
16:00	16:20		**Coffee Break and Poster session**	

Artificial Inteligence, Cooperative Robotics and Competitions II
Chair: Luis Almeida

16:20	16:40	47	A motivational architecture to create more human-acceptable assistive robots for robotics competitions	Francisco Javier Rodríguez Lera, Vicente Matellán Olivera, Miguel Ángel Conde Gonzalez, Francisco Martín Rico
16:40	17:00	61	Improving Heuristics of Optimal Perception Planning using Visibility Maps	Tiago Pereira, António Moreira, Manuela Veloso
17:00	17:20	72	ISEP/INESC TEC Aerial Robotics Team for Search and Rescue Operations at the EuRathlon Challenge 2015	Pedro Sousa, André Ferreira, Miguel Moreira, Tiago Santos, Alfredo Martins, André Dias, José Almeida, Eduardo Silva
17:20	17:30		**Closing session**	
17:30	23:30		**Social Program**	

Poster sessions

4th May

		ID	**Chair: Bernardo Cunha**	
10:50	10:53	15	Towards Robotic Garment Folding: a Vision Approach for Fold Detection	David Estevez, Juan G Victores, Santiago Morante, Carlos Balaguer
10:53	10:56	18	A Novel Approach for Natural Landmarks Identification Using RGB-D Sensors	André L. F. Castro, Yôoh B. de Brito, Leonardo Angelo V. de Souto, Tiago P. Nascimento
10:56	10:59	22	Intelligent-based Robot to deal with Contradictions	Diana Costa, Manuel A. Martins
10:59	11:02	23	Indoor SLAM for Micro Aerial Vehicles Control using Monocular Camera and Sensor Fusion	Sergio García, M. Elena López, Rafael Barea, Luis M. Bergasa, Alejandro Gómez, Eduardo J. Molinos
11:02	11:05	27	Chess Brain and Autonomous Chess Playing Robotic System	Hafiz Muhammad Luqman, Mubeen Zaffar
11:05	11:08	43	Object Classification in Natural Environments for Mobile Robot Navigation	Alejandra C. Hernández, Clara Gómez, Jonathan Crespo, Ramón Barber
11:08	11:11	49	Segmentation of Medieval and Ancient Coins Over Complex Backgrounds	Luis Salgado, Cristina Santos

			Chair: José Lima	
16:00	16:03	51	SLAMfusion: Fusing SLAM Methods for Improved Robustness	Miguel Fernandes, Luis Alexandre
16:03	16:06	16	Recognition of Banknotes in Multiple Perspectives Using Selective Feature Matching and Shape Analysis	Carlos M. Costa, Germano Veiga, Armando Sousa
16:06	16:09	58	Development of a biofeedback approach using body tracking with Active Depth sensor in ASBGo smart walker	Inês Caetano, Joana Alves, José Gonçalves, Maria Martins and Cristina P. Santos
16:09	16:12	38	Considerations and mechanical modifications on a Smart Walker	Joana Alves, Eurico Seabra, Inês Caetano, José Gonçalves, João Serra, Maria Martins, Cristina P. Santos
16:12	16:15	63	Discussion of the state of the art of the cane's market	Tiago Pereira, Eurico Seabra, Cristina Santos
16:15	16:18	20	Multimodal interaction and serious game for assistive robotic devices in a simulated environment	Brigida Monica Faria, Daniel Dias, Luis Paulo Reis, Antonio Paulo Moreira
16:18	16:21	25	User Centered Design of an Autonomous Mobile Robot Vending Machine Concept	André Navarro, Cardeira Carlos, Carlos Monteiro

Poster sessions

		ID	Chair: Paulo Leitão	
10:50	10:53	29	Turtlebot at Office: A Service-Oriented Software Architecture for Personal Assistant Robots using ROS	Anis Koubâa, Mohamed-Foued Sriti, Yasir Javed, Maram Alajlan, Basit Qureshi, Fatma Ellouze, Abdelrahman Mahmoud
10:53	10:56	36	Improving Task Performance through High Level Shared Control of Multiple Robots with a Context Aware Human-Robot Interface	Simon O'Keeffe, Tomas E. Ward, Rudi Villing
10:56	10:59	54	Metabot: a low-cost legged robotics platform for education	Grégoire Passault, Quentin Rouxel, François Petit, Olivier Ly
10:59	11:02	62	Evolving Neural Networks for Multi Robot Odor Search	João Macedo, Lino Marques, Ernesto Costa
11:02	11:05	44	EyeLHM: Real-Time Vision-based approach for Eye localization and Head motion estimation	Djamel Eddine Benrachou, Filipe Neves dos Santos, Brahim Boulebtateche, Salah Bensaoula
11:05	11:08	70	Off-line Programming of Grinding Robots at Grohe Portugal	Manuel Silva
11:08	11:11	39	Convex Shape Generation by Robotic Swarm	Irina Vatamaniuk, Gaiane Panina, Anton Saveliev, Andrey Ronzhin

			Chair: Manuel Silva	
15:40	15:43	28	A Shared Multi-Particle Filter for Ball Position Estimation in RoboCup Small Size League Soccer Games	Toshiyuki Beppu, Shota Aoki, Tadashi Horiuchi
15:43	15:46	7	Configurable Mobile Robot Behaviors Implemented on FPGA Based Architectures	Jesus Savage, Jesus Cruz, Mauricio Matamoros, David A. Rosenblueth, Stalin Muñoz, Marco Negrete
15:46	15:49	67	From video games multiple cameras to multi-robot teleoperation in disaster scenarios	Jorge de León, Mario Garzón, David Garzón, Eduardo Narváez, Jaime del Cerro, Antonio Barrientos
15:49	15:52	69	Concurrent 3D Object Category Learning and Recognition based on Topic Modelling and Human Feedback	Seyed Hamidreza Kasaei, Luís Seabra Lopes, Ana Maria Tomé
15:52	15:55	40	Knowledge-based Framework for Human-Robots Collaborative Context Awareness in USAR Missions	Rohit Chandra, Rui P. Rocha
15:55	15:58	9	The Roasted Tomato Challenge for a Humanoid Robot	Caitlin Lagrand, Michiel van der Meer, Arnoud Visser