

PROGRAM

8:30 – 9:10

Registration

9:15 – 9:30

Opening Session

9:30 – 10:30

Invited Speaker

Chair: Vítor Santos, University of Aveiro

Playware - Creating Playful Interaction with Modular Technology

Henrik Hautop Lund, Head of the Center for Playware at Technical University of Denmark (DTU Elektro)

10:30 – 10:45

Coffee-break

Session I - Multi-Robot Systems and Edutainment Robotics

Chair: Hugo Costelhas, Polytechnic Institute of Leiria

BENDER: An open, low-cost robot architecture for educational and research purposes

10:45 – 11:05

Nieves Pavón Pulido, Claudia Falcón Borrero, Joaquín Ferruz Melero, University of Huelva, Spain

11:05 – 11:25

Sensor and actuator stochastic modeling of the Lego Mindstorms NXT educational Kit

José Gonçalves (IPB), José Lima (IPB), Paulo Malheiros (FEUP), Paulo Costa (FEUP), Portugal

11:25 – 11:45

Towards an open testbed for the cooperation of robots and wireless sensor networks

Adrian Jimenez, Jose Ramiro Martinez-de Dios, Jose Manuel Sanchez-Matamoras, Anibal Ollero, University of Sevilla, Spain

11:45 – 12:05

Multi-Robot Coordination using Setplays in the Simulation League

Luis Mota (ISCTE), Luís Paulo Reis (FEUP), Nuno Lau (Uaveiro), Portugal

12:05 – 14:00

Lunch

Session II - Robotic Competitions and Intelligent Systems

Chair: Carlos Neves, Polytechnic Institute of Leiria

**Classification of FC Portugal Robotic Soccer Formations:
A Comparative Study of Machine Learning Algorithms**

14:00 – 14:20

Brígida Mónica Faria (ESTSP/IPP), Gladys Castillo (DMAT/UA), Nuno Lau (DETI/UA), Luís Paulo Reis (FEUP), Portugal

14:20 – 14:40

Brain: A Deliberative CiberMouse Agent

Luis Rei, Luís Paulo Reis, FEUP, Portugal

14:40 – 15:00

Compensation of Azimuthal Distortions on a Free Spinning 2D Laser Range Finder for 3D Data Set Generation

Ricardo J.S Pascoal, Vitor Santos, University of Aveiro, Portugal

15:00 – 15:20	<p>Humanoid Robot Gait Planning Resorting to an Adaptive Simulated Annealing Algorithm <u>Jose Lima</u> (IPB), José Gonçalves (IPB), Paulo Costa (FEUP), Antonio Paulo Moreira (FEUP), Portugal</p>
15:20 – 15:40	<p>Vestibular Calibration of a Humanoid Robot's Head <u>José Santos</u>, Alexandre Bernardino, ISR/IST, Portugal</p>
15:40 – 17:00	<p>Coffee-break and Poster Session The poster session includes posters of all papers, including those presented orally.</p> <p>Experiments with navigation based on the RSS of wireless communication <u>Luís Oliveira</u> (INESC, Portugal), Hongbin Li (Zhejiang University, China), Luis Almeida (FEUP, Portugal)</p> <p>Robotic Manipulator and Artificial Vision System for Picking Cork Pieces in a Conveyor Belt <u>Miguel Pinto</u>, António Paulo Moreira, Paulo Costa, Marcos Ferreira, Paulo Malheiros, FEUP, Portugal</p> <p>Rehabilitating a Nomad SuperScout Robot <u>Edgar Andrade</u>, Filipe Caetano, Jose Quaresma, Luis Perdigoto, Luis Conde Bento, Polytechnic Institute of Leiria, Portugal</p> <p>Flexible Movement Planning in Humanoid Soccer <u>Buno Pimentel</u> (Uaveiro), Nuno Lau (Uaveiro), Luís Paulo Reis (FEUP), Portugal</p> <p>Session III - Field and Application Robotics Chair: Luís Paulo Reis, FEUP</p>
17:00 – 17:20	<p>Nessie IV Autonomous Underwater Vehicle wins the SAUC-E Competition <u>Francesco Maurell</u>, Joel Cartwright, Nick Johnson Yvan Petillot, Heriot-Watt University, United Kingdom</p>
17:20 – 17:40	<p>An Extension to Rough Terrains of the MPC/CLF Mobile Vehicle Navigation Approach <u>Adnan Tahirovic</u>, Gianantonio Magnani, Politecnico di Milano, Italy</p>
17:40 – 18:00	<p>Low cost self-localization system with two beacons <u>Heber Sobreira</u> (FEUP), A. Paulo Moreira (FEUP), João Sena, Portugal</p>
18:00 – 18:20	<p>Robotized Painting with Automatic Reconfiguration <u>Marcos Ferreira</u> (FEUP), Paulo Malheiros (FEUP), António Paulo Moreira (FEUP), Norberto Pires (University of Coimbra), Portugal</p>
18:20 – 18:30 20:30	<p>Prizes and Closing Session Gala Dinner</p>