

Paper Sessions - LARS 2013

Paper Session LARS 01 - Sensing and Robot Modeling

1. Pole and crossarm identification in distribution power line images, Pedro Castellucci, Luiz Lucca, Marcelo Santanna, Gustavo Tralalle, Victor Mustacio, José Francisco Silva, Sergio Vallin.
2. On the development of a robotic system for telepresence, Paulo Rezeck, Marcos Vieira, Luiz Chaimowicz, Mario Fernando Campos.
3. A scheme of inertial measurement unit using 3 accelerometers, Anderson Silva, Samuel Souza, Pablo Alsina.
4. Study of Robots to Pipelines, Mathematical Models and Simulation, John Archila, Marcelo Becker.
5. A multi-robot exploration approach based on distributed graph coloring, Fabricio Carvalho, Rodolfo Cavalcante, Marcos Vieira, Luiz Chaimowicz, Mario Fernando Campos.

Paper Session LARS 02 - Robotics Vision

1. Feature Transform Technique for Combining Landmark Detection and Tracking of Visual Information of Large Rain Forest Areas, Felipe Pinagé, José R. H. Carvalho, Emory R. V. Freitas, José P. Queiróz Neto.
2. Topological Mobile Robot Navigation using Artificial Landmarks, David Esparza, Jesus Savage.
3. A Visual Data Fusion to Aerial and Land Robots Odometry, Milton M. R. de Lima, José Luiz S. Pio, José R. H. Carvalho.
4. Occupancy-Elevation Grid Mapping from Stereo Vision, Anderson Souza, Rosiery Maia.
5. Development of a control platform for the mobile robot Roomba using ROS and a Kinect sensor, Elvis Ruiz, Raul Acuña, Novel Certad, Angel Terrones.
6. Real-Time Localization of Mobile robots in Indoor Environment Using a Ceiling Camera Structure, Rafaella C. A. Nascimento, Bruno M. F. Silva, Luiz M. G. Gonçalves .

Paper Session LARS 03 - Planning and Control

1. Adaptive Control System Design for Robotic Aircrafts, Viacheslav Pshikhopov, Mikhail Medvedev, Victor Krukhmalev, Roman Fedorenko, Sergey Kopylov, Artem Budko, Vladimir Chufistov.
2. Hierarchical Reinforcement Learning Approach for Motion Planning in Mobile Robotics, Andrea C. Buitrago-Martinez, Fernando De la Rosa, Fernando Lozano-Martinez.
3. Fractional Order PD and PID Position Control of an Angular Manipulator of 3DOF, Arturo Rojas-Moreno, Victor Jara-Sandoval.
4. Construction and PID Control for Stability of an Unmanned Aerial Vehicle of the Type Quadrotor, Rejane Sá, Guilherme Barreto, Andre Araujo, Antonio Varela.
5. Control System Design for Autonomous Underwater Vehicle, Viacheslav Pshikhopov, Mikhail Medvedev, Anatoly Gaiduk, Boris Gurenko.
6. Platform Proposal for Control Systems Practices with Smart Mobile Devices, Alexander Rondón, Guillermo Seminario.

Paper Session LARS 04 - Artificial Intelligence and Learning Techniques in Robotics

1. Reaching new positions using an extreme learning machine in Programming by demonstration, Jose Hoyos, Flavio Prieto, Carlos Peña, Marco Perez-Cisneros, Eduardo F. Morales.
2. From Reactive to Cognitive Agents: Extending Reinforcement Learning to Generate Symbolic Knowledge Bases, Rômulo Cerqueira, Augusto Loureiro da Costa, Stephen McGill, Daniel Lee, George Pappas.
3. Accelerating Q-learning through Kalman Filter Estimations applied in a RoboCup SSL Simulation, Gabriel Ahumada, Cristóbal Nettle, Miguel Solís.
4. Gait Cycle Modeling for an Active Orthosis Using Principal Component Analysis, Nicholas Melo, Pablo J. Alsina, Carlos E. Trabuco Dórea, Márcio Araújo.
5. Analysis of oscillators for the generation of rhythmic patterns in legged robot locomotion, Dimitar Ralev, Jose Cappelletto, Juan Grieco, Novel Certad, Maria Cabrera.
6. N-BOAT: Sailboat Autonomous Robotics, Andouglas Júnior, André Araújo, Rafael V. Aroca, Luiz M. G. Gonçalves.

Paper Session LARS 05 - Multi-Robot Systems and Robotics in Education

1. **A Path Planning Method for Multi-UAV System, Alessandro Marro, Luiz M. G. Gonçalves.**
2. **Ground Control Station for Multiple UAVs Flight Simulation, Alberto Angonese, Paulo Fernando Ferreira Rosa.**
3. **Methodology for qualification of future teachers in Physics' degree course using low cost robotics, Alessandro R. Araújo, Aquiles M. F. Burlamaqui, Rafael V. Aroca.**
4. **Interactive Robotics Education Program for Undergraduate Students, Francisco Cuellar, Eiji Onchi, Dante Arroyo Lopez, Christian Penalzoa.**
5. **The Creation and Application of a Simulator in Educational Robotics Classes, Carla Fernandes, Sarah Thomaz, Renata Barros, Luiz Gonçalves.**