



CALL FOR PAPERS

The International Workshop on Cooperative Robots and Sensor Networks (RoboSense 2012)

In conjunction with ANT 2012
27-29 August, 2012, Niagara Falls, Ontario, Canada

<http://www.coins-lab.org/events/RoboSense12/>

Workshop Chairs

Anis Koubaa,
Al-Imam Mohamed bin Saud
University (Saudi Arabia)/CISTER
Research Unit, Portugal.
Abdelmajid Khelil,
TU Darmstadt, Germany

TPC Members

Adel Alimi, Tunisia
Luis Almeida, Portugal
Mário Alves, Portugal
Raul Aquino, Mexico
Adel Ben Mnaouer, Saudi Arabia
Xianghui Cao, China
J.Ramiro de Dios, Spain
Michel Devy, France
Fakir Dawood, Saudi Arabia
Bernardine Dias, Qatar
Rüdiger Dillmann, Germany
Mohamed Elarbi, Saudi Arabia
Joerg Haehner, Germany
Tian Huang, UK
Geoffrey A. Hollinger, USA
Jiong Jin, Australia
Omar Lengerke, Brazil
Xu Li, Canada
Rongxing Lu, Canada
Daniel Mosse, USA
Gian Pietro Picco, Italy
Carlos Sagues, Spain
Silvia Santini, Switzerland
Ye-Qiong Song, France
Yuuichi Teranish, Japan
Naoki Wakamiya, Japan
Andreas Willig, New Zealand
Habib Youssef, Tunisia
Andrea Zanella, Italy
Fumin Zhang, USA
Marco Zuniga, Germany

Important Dates

Paper Submission:
February 20, 2012

Notification of Acceptance:
April 20, 2012

Authors Registration Due:
May 10, 2012

Final Manuscript Due:
May 10, 2012

Overview

Mobile robots and Wireless Sensor Networks (WSNs) have enabled great potentials and a large space for ubiquitous and pervasive applications. Robotics and WSNs have mostly been considered as separate research fields and little work has investigated the marriage between these two technologies. However, these two technologies share several features, enable common cyber-physical applications and provide complementary support to each other.

The objective of this workshop is to bring together researchers from academia, and industry working in to both robotics and sensor networks areas to present and discuss recent advances and innovative ideas pertaining to these fields. Papers dealing with the coupling between robots and sensor networks are particularly sought. The workshop also seeks contributions covering cyber-physical applications based on robotics and sensor networks, such as intelligent transportation systems, healthcare monitoring, industrial automation, etc.

The workshop will provide a relaxed forum to present and discuss new ideas, new research directions and to review current trends in these areas. The workshop will be based on short presentations that should encourage discussions among the attendees. Statements which are innovative, controversial or that present new approaches are specially sought.

The International Workshop on Cooperative Robots and Sensor Networks will take place in conjunction with the 3rd International Conference on Ambient Systems, Networks and Technologies (ANT 2012), Niagara Falls, Ontario, Canada in August 27-29, 2012.

Call for Papers

The workshop is seeking original research and position papers dealing with hot topics in mobile robots and sensor networks. Innovative and/or controversial ideas are specially sought. Papers presenting integration between sensor networks and robotics fields will be particularly appreciated. The workshop welcomes papers in three main tracks:

Wireless Sensor Networks Track

Communication and Network Protocols (MAC and Network Layers issues), Wireless Technologies (IEEE 802.11, IEEE 802.15.4/ZigBee, 6LoWPAN, RPL, iMax, UWB), Localization and Tracking, Link Quality Estimation, Fundamental Theoretical Limits and Algorithms, Performance Evaluation, Simulation and Modelling Tools, Measurement and Experimental Tools, Security and Privacy, Programming Models and Languages
Operating Systems, Service-Oriented Architecture, Hardware Design and Implementation,

Mobile Robots Track,

Path Planning, Multi-Robot Task Allocation, Simultaneous Localization and Mapping (SLAM), Coordination and Cooperation, Autonomous Navigation
Robot Localization, Swarm Intelligence, Multi-robot systems, Unmanned vehicle systems, Learning for control, Bio-inspired robotic, Probabilistic Exploration and Coverage, Object Detection & Collision Avoidance, Motion estimation

Cyber-Physical Applications,

Intelligent Transportation Systems, Vehicular Networks, Health-Care Monitoring
Surveillance, Smart Home, Industrial Automation, Internet-of-Things, Case Studies.

Springer Special Issue

Selected best papers will be proposed for publication in the Springer Book "Cooperative Robots and Sensor Networks" in the Book Series Studies in Computational Intelligence <http://www.springer.com/series/7092>