

Journal of Intelligent and Robotic Systems

Special Issue on

"Domestic Service Robots in the Real World"

This special issue focuses on a broad spectrum of domestic service robots that operate in the real-world in home environments. The robots are fully autonomous and use intuitive interfaces such as language, gestures and visual displays to communicate with people. The home environment is defined as 'any place where people live in their daily lives', which can include, for example, a living room, a kitchen or a garden. Special attention is being paid to submissions where the robot capabilities are validated in a real-world setting such as the RoboCup@Home benchmark or during long lasting experiments in the real-world. The focus will also be on different modes of natural interaction with humans, real-world high-level cognition, manipulation of domestic objects, useful applications, cost-effectiveness of the solution (computational and financial resources used by the robot), the effect of appearance on acceptance and more.



The topics are related, but not limited, to **all the aspects required for a robot to operate in a home environment with a long-term focus on applicability**, such as:

- cooperative human-robot interaction,
- cooperative human-robot task solving,
- manipulation of domestic objects such as doors, kitchen utensils, glasses, etc.,
- navigation in home environments,
- high-level cognition for robots in domestic environments,
- applications for domestic service robots,
- benchmarking domestic service robots,
- long lasting robotic experiments in domestic environments,
- acceptance of robots in households.

Submissions addressing practical applications using international benchmarks and/or in-field experimental testing are strongly encouraged.

Guest Editors:

Luca Iocchi, Università di Roma "La Sapienza"
Javier Ruiz-del-Solar, Universidad de Chile
Tijn van der Zant, Robot Cognition Laboratory, INSERM

Important dates:

19 June 2010: Call for Papers
1 September 2010: Expression of Interest
1 October 2010: Opening paper submission
1 December 2010: Closing Paper Submission
1 March 2011: Paper Acceptance Announcements
15 April 2011: Camera-ready Paper Submission
July/August 2011: Expected Publication

Related workshop

Guest editors are also organizing the SIMPAR Workshop on "Domestic Service Robots in the Real World" (<http://www.simpar.org/>) as an opportunity to present and discuss research on the above topics. The workshop will be held on November 15th, 2010, and the deadline for paper submission is October 1st, 2010. Workshop participation is not mandatory to submit articles to this special issue.

Electronic submission & review process

Letters of intent are not compulsory. However, the authors are strongly encouraged to inform Professor Javier Ruiz-del-Solar of their intention to submit a paper.