

Application Form / Workshop Description



Session Title: Developments and Trends in Navigation Assistance

Organiser(s): KU Leuven, TU Delft and ALU-Freiburg

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Motivation and objective:

The workshop will present different approaches to tackle systems where human and computer simultaneously control a robotic device. The computer assists the human in controlling the robotic device, by scaling or improving the human's steering actions.

Topics will include plan recognition, user modelling and shared human-robot control.

The workshop is open for submissions in these areas for **various application domains:** cars, wheelchairs, aerial, and surgical applications.

There are several **goals** of the workshop:

1. Trying to find a common ground/red thread through different application domains
2. Discussing how to evaluate such assistive techniques (how to compare different robotic assistance approaches)
3. Identify bottlenecks, unsolved problems and future perspectives

This workshop is co-organised by the FP7 project RADHAR (www.radhar.eu).

Approach: presentations of 15 minutes + panel discussion

The workshop will consist of selected presentations of 10 to 15 minutes, where we will try to cover topics 1 and 2 mentioned above as homogeneously as possible. This will be followed by a panel discussion with (some of) the key speakers in order to discuss topic 3 and eventual questions that were raised during the workshop.

Agenda of the workshop:

Assuming the workshop starts at 9:00:

- 09:00 – 09:05 Introduction by the moderators
- 09:05 – 10:40 Presentations by selected participants
- 10:40 – 11:00 Panel discussion

Speaker(s): open submission + invitation of specific speakers

People will be invited to submit a presentation through the Euron mailing list.

Furthermore, specific researchers and people from industry will be invited to present. This will allow us to select presentations from the targeted topics homogeneously. More specifically, we aim at contacting researchers on robotic wheelchairs, researchers in mobile robotics, people from car industry and possibly also researchers on surgical robotic assistance.

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How can participants contribute to, and prepare for, the workshop?

Speakers will be asked to focus on particular aspects of their research (corresponding to the targeted topics), insofar possible. Subscribers to the workshop without presentation are invited to ask critical questions and to give feedback on the presentations.

Further information:

www.radhar.eu

Homepages with links to publications:

- KU Leuven: <http://people.mech.kuleuven.be/~jdeschut/>
- KU Leuven: <http://people.mech.kuleuven.be/~u0035122/>
- KU Leuven: <http://people.mech.kuleuven.be/~edemeest/>
- TU Delft: <http://3me.tudelft.nl/index.php?id=4509&L=1>
- University of Freiburg: <http://www.informatik.uni-freiburg.de/~lau/>

Planned follow-up:

We plan to publish all presentations and a summary of the panel discussion online, either on the euRobotics 2012 site or on the RADHAR website (www.radhar.eu).