

Robots in public spaces: towards multi-party, short-term, dynamic human-robot interaction

The development of robots capable of interacting with humans has made tremendous progress in the last decade, leading to an expectation that in the near future, robots will be increasingly deployed in public spaces, for example as receptionists, shop assistants, waiters, or bartenders. In these scenarios, robots must necessarily deal with situations that require socially appropriate human-robot interactions of a specific nature: interactions that are short and dynamic, and where the robot has to be able to deal with multiple persons at once. In order to do so, robots typically require specific skills, including robust video and audio processing, fast reasoning and decision making mechanisms, and natural and safe output path planning algorithms. As a result, research on public space robots is often fundamentally different from other work in social robotics and HRI that focuses on long-term, robot companions who interact with humans in one-on-one interactions. This workshop aims to bring together researchers from diverse disciplines, in order to explore this research area from different perspectives.

Invited Speakers

We are very pleased to announce that we will have two top class invited speakers at the workshop:

Dan Bohus
Microsoft Research
<http://research.microsoft.com/en-us/um/people/dbohus/>

Jon Barker
Speech and Hearing Research Group, University of Sheffield
<http://staffwww.dcs.shef.ac.uk/people/J.Barker/>

Topics

Contributions are sought in the following areas of research:

- intention recognition
- activity recognition
- person tracking
- speech recognition in noisy environments
- robust spoken language processing
- multimodal dialogue systems
- planning under uncertainty
- knowledge representation and reasoning
- cognitive robotics
- natural language generation
- design of service robots / interaction systems in public spaces

Due to the diversity of disciplines engaging in this area, related contributions in other fields are also welcome.

Format

In order to encourage the integration of various research streams from social robotics, human-robot interaction, AI, and other relevant disciplines, this full-day workshop aims to bring together a diverse and multidisciplinary group of researchers interested in multi-party, short-term human-robot interaction. The workshop will include a mix of invited talks and research presentations, as well as discussion sessions and a poster session.

Submissions

Potential participants are invited to submit either a full-length technical paper, or a short position paper or extended abstract. Technical papers must be no longer than 10 pages in length, including references and figures. Short submissions and extended abstracts can be up to 4 pages in length and describe a position on a topic of the workshop. Submissions are accepted in PDF format only, using the ICSR formatting guidelines (<http://www.icsr2013.org.uk/paper.php>) and including author names. All submissions will be peer-reviewed. Authors should send their papers to WorkshopPublicRobotsICSR2013@gmail.com.

Important Dates

16 September 2013, Full / short paper submission
23 September 2013, Notification of acceptance
27 October 2013, Workshop at ICSR 2013

Organizing Committee

Manuel Giuliani (fortiss, Munich)
Ron Petrick (University of Edinburgh)

Programme Committee

Mary Ellen Foster (Heriot Watt University Edinburgh)
Andre Gaschler (fortiss, Munich)
Robin Hill (University of Edinburgh)
Simon Keizer (Heriot Watt University Edinburgh)
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