

# Reasoning in Smarthomes

Workshop at the 10th IEEE International Conference on Cyber, Physical and Social Computing

## The Future of Smarthomes

In the past years, many interesting applications for Smarthome technology have been discovered. These range von home automation, over supervision and security up to interesting topics on the horizon like remote presence and augmented and virtual reality. Further, the individual devices are becoming smarter and smarter. From simple door knobs with some user management up to “raspberry pi”s lurking in every corner of a room connecting the various devices and systems. The smarter our homes become, the more need arises to take a look at applications and use cases for the now connected processing power.

One of the stereotypical example many smart home developers still have in the back of their head are the famous computer systems present in many science-fiction movies. Here a spaceship captain can just order an “Earl Grey, hot” or an “analysis of all available data” with a digital avatar, “the computer”, encapsulating all interactions with the various devices and not requiring the user to state a precise sequence of actions to achieve the desired goal.

Herein, the vast field of AI reasoning is particularly concerned with crafting strategies, inferring interaction models and representing artificial agents to a human. With these goals in mind, it doesn't surprise that AI reasoning saw a lot of attention and research in the context of computer games, as digital agents are a primary concern in many game designs. Are there applications of reasoning or other related AI techniques in smarthomes? How would such digital agents play out in a physical environment? Which algorithms and approaches can be transferred over to the technologies commonly found in smarthomes? Are there particular applications for the different areas in which smarthome technology can be used, such as active and healthy living or accessibility? This workshop will tackle these cutting edge topics of smarthome technology.

*Make it so!*

## Important Dates

27 March 2017	Paper Submission Deadline
22 April 2017	Author Notification
15 May 2017	Camera-Ready Paper Deadline
21-23 June 2017	Workshop

## Submission

The workshop takes place at the 10th IEEE International Conference on Cyber, Physical and Social Computing. For details about the main conferences and registration please refer to [conference website](#).

Submissions can be papers about applications and experiments in the area, as well as survey papers and proposals for new ideas and use-cases. All papers need to be submitted electronically through the workshop website in PDF format. The materials presented in the papers should not be published or under submission elsewhere. Each paper is limited to 8 pages (or 10 pages with over length charge) including figures and references using IEEE Computer Society Proceedings Manuscripts style (two columns, single-spaced, 10 fonts). Please confirm the IEEE Computer Society Proceedings Author Guidelines and use the templates.

Once accepted, the paper will be included into the IEEE conference proceedings published by IEEE Computer Society Press (indexed by EI). At least one of the authors of any accepted paper is requested to register the paper at the conference and workshop.