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Workshop on Location Awareness for Mixed and Dual Reality (LAMDa)

at IUI 2011

<http://www.dfki.de/LAMDa/>

Stanford University, Palo Alto, California, USA

February 13th 2011

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THEME

The LAMDa workshop aims to discuss the impact of Dual Reality and Mixed Reality on Location Awareness and other applications in Smart Environments. Virtual environments – which are an essential part of Dual and Mixed Realities – can be used to create new applications and to enhance already existing applications in the real world. On the other hand, existing sensors in the real world can be used to enhance the virtual world as well.

The Kalman-filter can be seen as an example for this type of application: Sensor measurements in the real world are brought into the virtual world in form of a model that also describes the error distribution of the sensors. The virtual world is then used to make a prediction for the next measurement in the real world and both results – the prediction and the measurement – are used to refine the virtual world and to bring more accurate sensor measurements into the real world.

The main scope of this workshop is the discussion of the following question: How can the Dual Reality paradigm be combined with location awareness to achieve improvements for location-based and socially-aware services and other applications in smart environments?

This includes positioning methods and location-based services using the Dual Reality paradigm, such as navigation services and group interaction services (location-based social signal processing). Contributions should have a strong focus on location awareness, location-based services using the Dual Reality paradigm or Mixed Reality concepts.

Suitable topics include, but are not limited to:

- Mixed Reality (MR) and Dual Reality (DR)
 - Integration of Simulators
 - Ideas for MR/DR in Location Based Services
 - Sharing data and content in DR
 - Integrating multiple identities (identity in DR)
 - Social interaction in DR
- Positioning and Location Based Services
 - Indoor / Outdoor
 - Indoor Positioning Technologies
 - Always Best Positioned Systems (Sensor Fusion)
 - Privacy Issues
 - Urban canyons
 - Seamless Positioning
 - Location Based Social Signal Processing in MR/DR
 - Group members location (mix of real world and virtual world group members)
 - Detecting other group members and their behavior
 - Sensing, processing, representation and visualization of the social context

For further information, please have a look at <http://www.dfki.de/LAMDa/topics.html>.

WORKSHOP FORMAT

Our goal is to advance the research of location awareness by exploiting the discussion between researches from several disciplines. Each session will begin with brief oral presentations of the contributions, after which we will focus on interactive discussion with an emphasis on the following research questions:

- Location: What level of accuracy is required for location-based services in smart environments?
- Mixed and Dual Reality: How can Mixed and Dual Reality paradigms be used to support location-based services?
- Location information and Mixed/Dual Reality: What requirements do Mixed and Dual Reality paradigms pose on localization technologies?
- Group interactions: What kind of information and interfaces are useful for supporting interactions between group members in location-enhanced Dual or Mixed Reality applications?

Notes of the discussions will be kept, reviewed at the end of the workshop, and published on the workshop web page.

SUBMISSION

We ask for position papers (from abstract up to 4 pages) that address one or more of the research questions mentioned above, or that describe findings that relate to these research questions based on systems the authors have built.

All submissions should be prepared according to the standard SIGCHI publications format.

- Microsoft Word document template (<http://www.iuiconf.org/chi2009pubsformat.doc>)
- LaTeX class file (http://www.iuiconf.org/chi2009_LaTeX.zip)

Please send your submissions (PDF) to LAMDa@dfki.de

For more details, please have a look at:

<http://www.dfki.de/LAMDa/cfp.html>

IMPORTANT DATES

Submission Deadline:	November 12, 2010
Author Notification:	December 12, 2010
Camera-Ready versions:	December 19, 2010
Workshop:	February 13, 2011

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