

CoMoRea '06

3rd Workshop on Context Modeling and Reasoning (CoMoRea)
at the 4th IEEE International Conference on Pervasive Computing and Communication
(PerCom'06), Pisa, Italy.

Workshop Scope

There is a growing interest in context-aware applications that intelligently support user tasks by acting autonomously on behalf of users. Behaviour of context-aware applications depends not only on their internal state and user interactions but also on the context sensed during their execution. Some early models of context information already exist, however many research issues related to context information modelling are still not fully addressed. Existing context models vary in types of context information they can represent. While some models take the user's current situation, e.g. "in a meeting", into account others model the physical environment, i.e. locations. A more generic approach to context modelling is needed in order to capture various features of context information including a variety of types of context information, dependencies between context information, quality of context information and context histories. In addition, to ease software engineering problems encountered in programming context-aware applications, appropriate abstractions are necessary to support discovery and reuse of context information as well as scalable methods of context processing and management.

This workshop's aim is to advance the state of the art in context modelling and reasoning and also discuss fundamental issues in context processing and management. The goal is to identify concepts, theories and methods applicable to context modelling and context reasoning as well as system-oriented issues related to the design and implementation of context-aware systems. Particular attention will be paid to hybrid approaches to context modelling, e.g. an integration of non-ontology based context models with ontology based context models. This workshop aims to accommodate and integrate the research scope of two workshops: CoMoRea05 (Hawaii, 2005) and the First International Workshop on Advanced Context Modelling, Reasoning and Management (Nottingham 2004).

CoMoRea will provide a forum for researchers to present and discuss recent research results and ongoing work. A strong emphasis will be put on experiences with context modelling and the management of the context information. The workshop will foster exchange of experiences and collaboration among researchers.

In particular, the following topics are of interest to this workshop:

- Semantics and expressiveness of context models
- Domain specific context models
- Ontology based approaches to context modelling and reasoning
- Hybrid context models (integration of various modelling techniques)
- Advanced issues in context modelling (quality, ambiguity)
- Context reasoning algorithms, their complexity and accuracy
- Discovery and reuse of context information
- Privacy of context information

- Distributed and scalable context management
- Experiences with using context models to build context-aware applications

Submitted papers will be refereed by the workshop Program Committee. Accepted papers will appear in the PerCom 06 Workshops proceedings published by IEEE Computer Society Press.

Submissions

Submitted papers should address at least one of the workshop topics. The papers should be in the IEEE format and should be no more than 5 pages in length. Research papers must be an original unpublished work and not under review elsewhere. Experience reports must be stated as such and a comprehensive discussion of the taken approach, experiences, and its assessment is expected. Papers should be submitted in PDF format to Daniela Nicklas (danickla@informatik.uni-stuttgart.de) with a subject field 'CoMoRea 2006 submission'.

Accepted papers will appear in the combined PerCom 06 workshop proceedings published by IEEE Computer Society.

Important Dates

- Submission deadline: October 1st, 2005 (new)
- Notification: November 22, 2005
- Camera ready copy: December 19, 2005
- Workshop: March 17, 2006

Organizers :

Co-chairs

Jadwiga Indulska, The University of Queensland, Australia
Daniela Nicklas, Stuttgart University, Germany

Program Committee

Christian Becker, University of Stuttgart, Germany
Michael Beigl, TeCo, Germany
Claudio Bettini, University of Milan, Italy
David De Roure, University of Southampton, UK
Hans Gellersen, University of Lancaster, UK
Karen Henriksen, Distributed Systems Technology Centre (DSTC), Australia
Jadwiga Indulska, University of Queensland, Australia
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Ghita Kouadri Mostefaoui, Fribourg/Paris, CH
Jalal Al-Muhati, University of Illinois Urbana Champaign, USA
Daniela Nicklas, University of Stuttgart, Germany
Gopal Pingali, IBM T. J. Watson Research Center, USA
Anand Ranganathan, University of Illinois, USA
Zary Segall, University of Oregon, USA
Peter Steenkiste, Carnegie Mellon University, USA
Thomas Strang, German Aerospace Center, Germany
Daqing Zhang, Institute for Infocomm Research, Singapore