There is a growing interest in context-aware applications that intelligently support user tasks by acting autonomously on behalf of users. Behavior 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 modeling 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 modeling 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 modeling and reasoning and also discuss fundamental issues in context processing and management. The goal is to identify concepts, theories and methods applicable to context modeling and context reasoning as well as system-oriented issues related to the design and implementation of context-aware systems.

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

- Context modeling techniques
- Domain-specific context models
- Ontology-based approaches to context modeling and reasoning
- Hybrid context models (integration of various modeling techniques)
- Advanced issues in context modeling, including issues of information quality and 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
- Tool support for context modeling and development of context model-based applications
- Balance of autonomy with user control

Submissions

Submitted papers will be refereed by the workshop Programme Committee. Accepted papers will appear in the PerCom’10 Workshops proceedings published by IEEE Computer Society Press.

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 via the EasyChair CoMoRea page: http://www.easychair.org/conferences/?conf=comorea10