Call for Papers

Second International Workshop on Agent-Oriented Software Development Methodology (AOSDM’06)
(http://cms.brookes.ac.uk/computing/AOSDM2006/)

at
SEKE 2006
Hotel Sofitel, San Francisco Bay, USA, July 5 – July 7, 2006
(http://www.ksi.edu/seke/seke06.html)

The Internet and Web have developed into the main platform of software applications in a wide range of domains. Consequently, software engineering is confronted with a number of challenges, such as to deal with service-oriented computing, dynamic integration of autonomous components, distributed and mobile computing, etc. Agent technology has long been perceived as a viable solution for large complex applications in dynamic environments. Recent years have seen a rapid growth of research in agent-oriented methodology. However, current agent-based systems are mostly developed in ad hoc methods without sound methodologies and effective language and tool supports. This has hampered the wide adoption of agent technology in large complex applications and more broadly the IT industry.

The workshop on Agent-Oriented Software Development Methodology (AOSDM) aims at providing an active interdisciplinary forum for both researchers and practitioners in agent-oriented methodologies and application development. The first AOSDM workshop (AOSDM’05) was held successfully at SEKE’2005 and attracted more than 20 participants. Extended versions of some selected papers presented at AOSDM’05 are being considered for possible publication in a special issue of Multi-Agent and Grid Systems -- An International Journal (http://www.iospress.nl/html/15741702.php).

Theme and coverage

The theme of AOSDM’06 is development of agent-oriented software methodology for Internet-based computing.

The indicative topics of the workshop will include, but not limited to the following.

- Conceptual models and meta-models
  Conceptual model is the foundation of development methodology. A large number of concepts and notions have been proposed for the analysis, design and implementation of agent-based systems, such as role, society, normative, organisation, caste, agent class, responsibility, capability, goal, etc. just to mention a few. How do these concepts relate to each other? Even the most basic concept of agent is somehow controversial. Research papers and discussions are encouraged to develop conceptual models (also called meta-model) of agent-based systems, in particular:
  - Basic concepts and their roles in developing agent-based systems and their interrelationships
  - Meta-model of multi-agent systems
  - Integration of meta-models of agent-orientation and meta-models of object-orientation

- Methods and Methodology
  It is encouraged to submit research papers and experience reports on the methods for various development and validation and verification activities in the development, maintenance and evolution of multi-agent systems, for example:
  - System analysis and modelling
  - Requirements analysis and specification
  - Domain analysis
  - Development of ontology
  - Development of communication languages and protocols
  - Programming and implementation
  - Test, validation and verification
  - Integration methods that support the collaboration, cooperation and coordination among agents
  - Design of multi-agent systems at architectural and detailed levels
  - Process models that link various activities

- Languages and Tools
  Languages and software tools may play a significant role in the development of multi-agent systems. Topics related to the language issues and tools include, but not limited to, the following:
  - Modelling languages and tools, Agent UML, etc.
  - Programming languages, facilities and environments for implementing multi-agent systems
  - Specification languages and reasoning of multi-agent systems
  - Agent-communication languages
  - Ontology description and definition languages
  - Languages for the descriptions of collaboration, cooperation and coordination between agents

- Applications, especially in Internet/Web-based computing
  - Service-oriented computing, web services, etc.
  - Grid middleware, peer-to-peer systems, etc.
  - Autonomous/adaptive computing
  - Ubiquitous computing
  - Sensor networks
Experiences and empirical studies
Researchers and practitioners are strongly encouraged to report their experiences and research results in developing various kinds of multi-agent systems in all types of applications, which include, but not limited to:
- Enterprise information systems,
- E-commerce,
- E-government,
- E-learning,
- E-sciences,
- Games and online entertainments,
- Process control and real-time systems, etc.

Submission of papers

Original papers not being submitted for formal publications, such as in journals, other conferences or book chapters, etc., will be considered. All submitted papers will be evaluated according to its originality, significance, correctness, presentation and relevance. Papers should be submitted electronically (Please see www.ksi.edu/seke/seke06.html for details). Please follow the instructions given by the web page. Manuscripts will be limited to 6 pages following IEEE conference proceedings style and guidelines. We encourage authors to present novel ideas, critique of existing work, and practical studies and experiments. Accepted papers will be published in the conference proceedings of the Eighteenth International Conference on Software Engineering and Knowledge Engineering (SEKE 2006). At least one of the authors of each accepted paper must register as a full participant of the SEKE conference to have the paper published in the proceedings. At least one of the co-authors is expected to present the paper and participate in the discussions at the workshop. It is our plan to publish a special issue at a reputed journal the expanded and revised versions of some selected top-quality papers from AOSDM ’2006.

Evaluation of papers

Each paper will be reviewed by 3 members of the PC and will be accepted based on the technical merits and relevance as recommended by the PC members.

Important dates

Deadline for submission: March 1, 2006
Notification of acceptance: April 5, 2006
Camera-ready copy of final version: May 1, 2006
Workshop date: 5~7 July (the exact date to be determined)

Workshop Chairs
Professor Hong Zhu
Department of Computing, Oxford Brookes University
Wheatley Campus, Oxford OX3 3HJ, UK
Tel: ++44 1865 484580, Fax ++44 1865 484545
Email: hzhu@brookes.ac.uk

Professor Huaglory Tianfield
School of Computing and Mathematical Sciences
Glasgow Caledonian University
70 Cowcaddens Road, Glasgow, G4 0BA, UK
Tel: +44 141 331 8025, Fax: +44 141 331 3608
E-mail: h.tianfield@qca.ac.uk

Programme Committee
- Michael Berger, Siemens Corporate Technology, Germany
- Cornelia Boldyreff, University of Lincoln, UK
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