

**4th International Conference on Knowledge Science,
Engineering & Management
(KSEM 2010)**

1-3 September 2010

Belfast, Northern Ireland, UK

**Special Session on
Theory and Practice of Ontology for the Semantic Web**

Semantic Web technologies provide possibility for machines to understand and integrate data and resources on the web. Ontologies, serving as the foundations of the Semantic Web, represent conceptualization knowledge of domains of interest. Other formalisms such as rules can be built upon ontologies to support more powerful reasoning tasks. Application systems using data annotated with the same ontology have the potential to communicate and cooperate with each other. Research on ontology and the Semantic Web covers a wide range of disciplines including artificial intelligence, databases, natural language processing, philosophy, as well as various domains such as life sciences. Ontology has been one of the central research topics for nearly ten years, and more and more practical tools and systems have become available.

At KSEM 2009, Prof. Ruqian Lu, one of the conference co-chairs, noticed a large proportion of papers and discussions on or related to ontology, and thus proposed that we have a session specifically for ontology in KSEM this year. Our goal is to bring together ontology researchers and practitioners discussing challenges encountered in the modeling and application of ontologies and developing solutions and demonstrations. We solicit high-quality papers on the following topics, but not limited to:

- Description logics for ontology
- Rules and inferences that beyond the capability of description logics for ontology
- Large scale ontology modeling and quality assurance
- Semantic integration for ontology alignment, merging and mapping
- Semantic Web annotation
- Database technologies for the Semantic Web
- Application of ontologies to support natural language processing, information retrieval, question-answering, information extraction, and data mining
- Biomedical ontologies
- Evaluation of and lessons learned in the modeling and application of ontologies

Important Dates

Paper submission:

30 March, 2010

Author notification: 15 May 2010
Camera-ready submission: 30 May 2010

Paper Submission

Papers will go through the normal process of KSEM 2010 submission through the EasyChair on-line submission system, where the authors need to indicate the name of the session submitted to. The session organizers will handle the review process for each session paper. Session papers should have the same format as the regular papers and no more than 12 pages. All accepted special session papers will be published in the conference proceedings by Springer-Verlag in the Lecture Notes in Artificial Intelligence (LNAI) series. Please follow the instructions for KSEM 2010 paper submission at <http://www.ulster.ac.uk/ksem2010/submission.php>.

Special Session Organizers

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