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## Knowledge Representation and Applied Decision Making (KREAM)

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### Abstract

The aim of this workshop is to provide a forum for discussion and debate on the application of knowledge representation and ontologies in computational science and the techniques used for the manipulation of such data. Examples of topics of interest include: the gene ontology with combined research from knowledge representation and data mining techniques; evaluation of social capital encompassing all the value-producing aspects that emerge from the application of computational techniques to networks of social ties and the dynamics of social interaction; financial computing with representations such as XBRL; etc.

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*Keywords:* Ontologies; data mining; decision making; repository design

This year we have selected six papers covering a broad range of the topics of interest. M. Munk, J. Kapusta and P. Svec, present *Data Preprocessing Evaluation for Web Log Mining: Reconstruction of Activities of a Web Visitor*. Authors highlight the importance of quality of the data to deal with user's pattern behaviour.

O. Anya, H. Tawfik, A. Nagar and S. Amin, *Context-Aware Decision Support in Knowledge-Intensive Collaborative E-Work*, present a framework for integrating workgroup in a knowledge-based model

J.F. Martín, *et al.*, *Wireless sensor networks in knowledge management*, present a case study of applying knowledge management and reasoning in the domain of wireless sensor networks.

A. Tofania, E. Castorini, P. Palazzari, A. Usov, C. Beyel, E. Rome and P. Servillo, *Using Ontologies for the Federated Simulation of Critical Infrastructures*, describe a Knowledge Base System developed to implement the federated and distributed simulation of critical systems.

A. Korobko and T. Penkova, *On-line analytical processing based on formal concept analysis*, present an approach to decision making based on On-line Analytical Processing and the Formal Concept Analysis techniques.

Finally, N. Manouselis, M.A. Sicilia and D. Rodríguez, *Exploring ontology metrics in the biomedical domain*, deal with the measurement and quality of ontologies.

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