

Preface

Joaquín Cañadas, Grzegorz J. Nalepa and Joachim Baumeister

Dept. of Languages and Computation. University of Almeria.
Agrifood Campus of International Excellence, ceiA3. Almeria, Spain
jjcanada@ual.es

—
AGH University of Science and Technology
Kraków, Poland
gjn@agh.edu.pl

—
Intelligent Systems (Informatik 6)
University of Würzburg
Würzburg, Germany
joba@uni-wuerzburg.de

Intelligent systems have been successfully developed in various domains based on techniques and tools from the fields of knowledge engineering and software engineering. Thus, declarative software engineering techniques have been established in many areas, such as knowledge systems, logic programming, constraint programming, and lately in the context of the Semantic Web and business rules.

The seventh workshop on Knowledge Engineering and Software Engineering (KESE7) was held at the Conference of the Spanish Association for Artificial Intelligence (CAEPIA-2011) in La Laguna (Tenerife), Spain, and brought together researchers and practitioners from both fields of software engineering and artificial intelligence. The intention was to give ample space for exchanging latest research results as well as knowledge about practical experience. Topics of interest includes but were not limited to:

- Knowledge and software engineering for the Semantic Web
- Ontologies in practical knowledge and software engineering
- Business Rules design and management
- Practical knowledge representation and discovery techniques in software engineering
- Agent-oriented software engineering
- Database and knowledge base management in AI systems
- Evaluation and verification of intelligent systems
- Practical tools for intelligent systems engineering
- Process models in AI applications
- Software requirements and design for AI applications
- AI approaches in software engineering process
- Declarative, logic-based approaches
- Constraint programming approaches

This year, we received contributions focussing on different aspects of knowledge engineering: Prieto et al. present *OntoMetaWorkflow*, a generic ontology to

represent canonical workflow terms in the domain of administrative processes. The flowchart-based language DiaFlux and a collection of anomalies that can occur when using it for knowledge base development are discussed by Hatko et al. The contribution of Kluza et al. elaborates on a hybrid and hierarchical approach to formal verification of BPMN models, using the Alvis modeling language and the XTT2 knowledge representation. Sagrado et al. define a three-layer architecture to provide a seamless integration between Knowledge Engineering and Requirement Engineering, enhancing requirement validation and requirement selection tasks in software development projects with knowledge-based techniques. Pascalau discusses a new perspective for the mashup concept introducing a new perspective on mashups as behavior in context(s). Cañadas et al. introduce a model-driven method for generating rich Web user interfaces for data-intensive Web applications from OWL domain ontologies.

This year we also encouraged to submit tool presentations, i.e., system descriptions that clearly show the interaction between knowledge engineering and software engineering research and practice. At the workshop, one presentation about current tools was given: Adrian and Nalepa present a semantic wiki called *Loki* which enables a strong rule-based reasoning with semantic annotations mapped to Prolog knowledge base.

Two of the workshop contributions, Prieto et al. and Sagrado et al., are selected for being included in the Selected Papers Volume of CAEPIA 2011 proceedings: Lozano, J.A., Gámez, J.A., Moreno, J.A. (eds) LNAI series, *Current Topics in Artificial Intelligence. 14th Conference of the Spanish Association for Artificial Intelligence, CAEPIA 2011, La Laguna, Spain, November 8-11, 2011, Selected Papers*. Here extended abstracts of both publications are provided. The rest of contributions are published in the CAEPIA 2011 conference proceedings published by the Spanish Association for Artificial Intelligence.

The organizers would like to thank all who contributed to the success of the workshop. We thank all authors for submitting papers to the workshop, and we thank the members of the program committee for reviewing and collaboratively discussing the submissions. For the submission and reviewing process we used the EasyChair system, for which the organizers would like to thank Andrei Voronkov, the developer of the system. Last but not least, we would like to thank the organizers of the CAEPIA 2011 conference for hosting the KESE7 workshop.

Joaquín Cañadas
Grzegorz J. Nalepa
Joachim Baumeister

Workshop Organization

The 7th Workshop on Knowledge Engineering and Software Engineering
(KESE7)
was held as a one-day event at the
14th Conference of the Spanish Association for Artificial Intelligence
(CAEPIA 2011)
on November 10, 2011, La Laguna, Spain.

Workshop Chairs and Organizers

Joaquín Cañadas, University of Almeria, Spain
Grzegorz J. Nalepa, AGH UST, Kraków, Poland
Joachim Baumeister, University Würzburg, Germany

Programme Committee

Isabel María del Águila, University of Almeria, Spain
Klaus-Dieter Althoff, University Hildesheim, Germany
Antonio B. Bailón, University of Granada, Spain
Joachim Baumeister, University Würzburg, Germany
Manuel Campos, University of Murcia, Spain
Joaquín Cañadas, University of Almeria, Spain
Jesualdo Tomás Fernández-Breis, University of Murcia, Spain
Adrian Giurca, BTU Cottbus, Germany
Francisco Guil, University of Almeria, Spain
José M. Juárez, University of Murcia, Spain
Jason Jung, Yeungnam University, Korea
Rainer Knauf, TU Ilmenau, Germany
Carmen Martínez-Cruz, University of Jaen, Spain
Grzegorz J. Nalepa, AGH UST, Kraków, Poland
José Palma, University of Murcia, Spain
José del Sagrado, University of Almeria, Spain
Dietmar Seipel, University Würzburg, Germany
Fernando Silva Parreiras, University of Koblenz-Landau, Germany
Ioannis Stamelos, Aristotle University of Thessaloniki, Greece
Rafael Valencia-García, University of Murcia, Spain