

## Call for Workshop Contributions „Semantically-Enabled Systems Engineering (SENSE-2010)“

Co-located with “The 4th International Conference on Complex, Intelligent and Software Intensive Systems (CISIS-2010)”

<http://www.ifs.tuwien.ac.at/SENSE-2010>

February, 15th – 18th 2010, Andrzej Frycz Modrzewski Cracow College, Krakow, Poland

### Theme and Goals

Networks and systems of today are going through a rapid evolution. Different kinds of systems with different characteristics are emerging and they are integrating in heterogeneous networks. There exist different kinds of complexity in the development of software. Software systems grew larger, the focus shifted from the complexity of developing algorithms to the complexity structuring large systems, and then to the additional complexities in building distributed, concurrent systems. An example for these complexity issues is the production automation domain. Roles from different background (e.g. production planning, electrical engineers, and software engineers) need to coordinate themselves in order to achieve a common goal like an efficient and effective production system. Their systems typically consist of different per se complex system, which need to be integrated in order to work together efficiently. In addition, every role wants to keep its well known notations and tools.

Thus it is important to provide methods and tool support for efficiently and effectively supporting roles in their design, simulation, test and runtime tasks of a typical production automation system, without the need to a) agree on a common data model and b) change the currently well known tools and notations of the involved roles. Ontologies provide good methods for these tasks and seem especially promising for software engineers.

Goals of the SENSE-2010 workshop are in the scope of the CISIS conference to discuss the ways how the engineering of complex software intensive system can be supported by semantic technologies like e.g. ontologies.

Topics of interest in the workshop include, but are not restricted to:

#### (a) Semantic Integration of heterogeneous systems

- Integration of Safety-critical systems
- Ontology Alignment
- Comparison with traditional integration approaches
- Tool-Support for Semantic Integration
- Semantic Heterogeneities

#### (b) Ontologies and MDA

- Model Driven Architecture/Development with Ontologies
- Comparison of traditional Data Modeling using UML with Data Modeling using Ontologies
- Performance Issues, Scalability, Maintainability
- Concurrency Support for Data Modeling
- Tool-Support for Data Modeling using Ontologies

#### (c) Ontologies and Project Management

- Project/risk management of ontology-based software systems
- Traceability of software artifacts with ontologies

- Ontology-driven guidance of software processes
- Ontology-supported Metrics and Analyses
- Ontology-based notification

### **Submission Guidelines**

Submit a full paper of at most 8 pages (IEEE Computer Society Proceedings Manuscripts style: two columns, single-spaced), including figures and references, using 10 fonts, and number each page. You can confirm the IEEE Computer Society Proceedings Author Guidelines at the following web page:

<http://www.ieee.org/portal/pages/pubs/transactions/stylesheets.html>

Contact author must provide the following information to the workshop chairs: paper title, authors' names, affiliations, postal address, phone, fax, and e-mail address of the author(s), about 200-250 word abstract, and about five keywords. Prepare your paper in PDF file and submit it using the CISIS conference paper management system:

<https://TBD>

Submission of a paper implies that should the paper be accepted, at least one of the authors will register and present the paper in the conference. Accepted papers will be given guidelines in preparing and submitting the final manuscript(s) together with the notification of acceptance.

### **Important Dates**

- Submission Deadline: October, 1<sup>st</sup> 2009
- Author Notification: November, 1<sup>st</sup> 2009
- Camera-ready Version: November, 14<sup>th</sup> 2009
- Author Registration: November, 14<sup>th</sup> 2009

Papers must describe original work, and must not have been accepted or submitted for publication elsewhere. Proceedings of the CISIS 2010 workshops will be published by IEEE Computer Society Press.

### **Workshop Organizer**

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### **Program Committee**

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