# Proceedings of the Tenth International Workshop on Exploring Modeling Methods in Systems Analysis and Design (EMMSAD'05)

Porto, Portugal, 13-14 June, 2005 (held in conjunction with CAiSE'05)

## Background

The field of information systems analysis and design includes numerous information modeling methods and notations (e.g. ER, ORM, UML, DFDs, Petri Nets), that are typically evolving. Even with some attempts to standardize (e.g. UML for object-oriented design), new modeling methods are constantly being introduced, many of which differ only marginally from existing approaches. These ongoing changes significantly impact the way information systems are analyzed and designed in practice.

This workshop focuses on exploring, evaluating, and enhancing current information modeling methods and methodologies. Though the need for such studies is well recognized, there is a paucity of such research in the literature. The objective of EMMSAD'05 is to provide a forum for researchers and practitioners interested in modeling methods in systems analysis and design to meet, and exchange research ideas and results. EMMSAD'05 is the tenth in a very successful series of EMMSAD workshops, previously held in Crete, Barcelona, Pisa, Heidelberg, Stockholm, Interlaken, Toronto, Velden, and Riga. To mark the tenth anniversary of the workshop, this year the workshop includes an invited keynote address by Prof. Janis Bubenko Jr. that reflects on historical trends in information modeling.

EMMSAD'05 is jointly sponsored by the Conference on Advanced Information Systems Engineering (CAiSE), the International Federation for Information Processing Working Group 8.1 (IFIP WG 8.1), the International Federation for Information Processing Working Group 8.1 (IFIP WG 8.1), the Network of Excellence for Interoperability Research for Networked Enterprises Applications and Software (INTEROP), and the Association for Information Systems Special Interest Group on Systems Analysis and Design (AIS-SIGSAND).

This year we had 36 submissions from all over the globe. After an extensive review process by a distinguished international program committee, with each paper receiving three or more reviews, we accepted the 21 papers that appear, together with an abstract of the keynote address, in these proceedings. Congratulations to the successful authors!

## Acknowledgements

Apart from the contribution by paper authors, the quality of this workshop depends on no small way on the generous contribution of time and effort by the program committee. Their work is greatly appreciated. We also express our sincere thanks to the CAiSE organizing committee, especially the CAiSE Workshop organizers Jaelson Castro, (Univ. Federal de Pernambuco, Brasil) and Ernest Teniente (Univ. Politecnica de Catalunya, Spain) for overseeing the workshop programs, and providing the local support and facilities needed for the smooth running of the workshop.

Enjoy the workshop, and Porto! We look forward to your continuing support for EMMSAD.

#### Workshop Co-Chairs:

Dr. Terry Halpin	Dr. Keng Siau	Dr. John Krogstie
Northface University	University of Nebraska-	SINTEF and Norwegian
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#### Workshop Papers

- The MAIS approach to web service design. Marzia Adorni, Francesca Arcelli, Danilo Ardagna, Luciano Baresi, Carlo Batini, Cinzia Cappiello, Marco Comerio, Marco Comuzzi, Flavio De Paoli, Chiara Francalanci, Simone Grega, Paolo Losi, Andrea Maurino, Stefano Modafferi, Barbara Pernici, Claudia Raibulet, Francesco Tisat
- Classification of web-based ontology building methods: a computation framework and a case study. Sari Hakkarainen, Darijus Strasunskas, Lillian Hella, Stine Tuxen
- Methods as Action Knowledge: Exploring the Concept of Method Rationale in Method Construction, Tailoring and Use. *Pär J Ågerfalk, Brian Fitzgerald*
- Adopting open source development tools in a commercial production environment are we locked in? Anna Persson, Henrik Gustavsson, Brian Lings, Björn Lundell, Anders Mattsson, Ulf Ärlig
- Reuse of a Repository of Conceptual Schemas in a Large Scale Project. Carlo Batini, Riccardo Grosso
- Enforcing ontological rules in UML-based conceptual modeling: principles and Implementation. *Shan Lu, Jeffrey Parsons*
- Experimental comparison of sequence and collaboration diagrams in different application domains. Chanan Glezer, Mark Last, Efrat Nahmani, Peretz Shoval
- Integrating UML Activity Diagrams with Temporal Logic Expressions. João Araújo, Ana Moreira
- Towards explicit strategies for modeling. Stijn Hoppenbrouwers, Erik Proper, Theo van der Weide
- A template-based analysis of GRL. Gautier Dallons, Patrick Heymans, Isabelle Pollet
- A Rigorous Framework for Model-Driven Development. Liliana Favre
- Keynote: A Historical Perspective on Conceptual Modelling: from Information Algebra to Enterprise Modelling and Ontologies. Janis A. Bubenko jr
- Objectification. Terry Halpin
- An analytical evaluation of BPMN using a semiotic quality framework. *Terje Wahl, Guttorm Sindre*
- Assessing Business Processing Modeling Languages Using a Generic Quality Framework. Anna Gunhild Nysetvold, John Krogstie
- Contract workflow model patterns using BPMN. Vandana Kabilan
- Conceptual Model Evaluation: Towards More Epistemological Rigor. Jan Recker
- A Hybrid Approach to QoS Evaluation. Danilo Ardagna, Marco Comerio, Flavio De Paoli, Simone Grega
- Ontology-based semantic annotation of process templates for reuse. Yun Lin, Darijus Strasunskas
- Modeling, auto-generation and adaptation of multi-agent systems. Liang Xiao, Des Greer
- A Concept-Based Query Language Not Using Proper Relation Names. Vladimir Ovchinnikov
- Hecataeus: a framework for representing SQL constructs as graphs. George Papastefanatos, Kostis Kyzirakos, Panos Vassiliadis, Yannis Vassiliou