

Lecture Notes  
in Business Information Processing

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# Enterprise, Business-Process and Information Systems Modeling

13th International Conference, BPMDS 2012  
17th International Conference, EMMSAD 2012  
and 5th EuroSymposium  
held at CAiSE 2012, Gdańsk, Poland, June 25-26, 2012  
Proceedings

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# Preface

This book contains the proceedings of two long-running events held along with the CAiSE conferences relating to the areas of enterprise, business-process and information systems modeling: the 13th International Conference on Business Process Modeling, Development and Support (BPMDS 2012), the 17th International Conference on Exploring Modeling Methods for Systems Analysis and Design (EMMSAD 2012). EMMSAD 2012 was arranged jointly with the AIS SIGSAND Europe EuroSymposium 2012. The two working conferences are introduced below.

## **BPMDS 2012**

BPMDS has been held as a series of workshops devoted to business process modeling, development and support since 1998. During this period, business process analysis and design has been recognized as a central issue in the area of information systems (IS) engineering. The continued interest in these topics on behalf of the IS community is reflected by the success of the last BPMDS events and the recent emergence of new conferences and workshops devoted to the theme. In 2011 BPMDS became a two-day working conference attached to CAiSE (Conference on Advanced Information Systems Engineering). The basic principles of the BPMDS series are:

1. BPMDS serves as a meeting place for researchers and practitioners in the areas of business development and business applications (software) development.
2. The aim of the event is mainly discussions, rather than presentations.
3. Each event has a theme that is mandatory for idea papers.
4. Each event's results are, usually, published in a special issue of an international journal.

The goals, format, and history of BPMDS can be found on the website: [www.bpmds.org](http://www.bpmds.org)

The intention of BPMDS is to solicit papers related to business process modeling, development and support (BPMDS) in general, using quality as a main selection criterion. As a working conference, we aim to attract papers describing mature research, but we still give place to industrial reports and visionary idea papers. To encourage new and emerging challenges and research directions in the area of business process modeling, development and support, we have a unique focus theme every year. Papers submitted as idea papers are required to be of relevance to the focus theme, thus providing a mass of new ideas around a relatively narrow but emerging research area. Full research papers and experience reports do not necessarily need to be directly connected to this theme (they still needed to be explicitly relevant to BPMDS though). The focus theme

for BPMDS 2012 idea papers was “Business Processes and Business Process Management in the Cloud.” Many enterprises use cloud computing for implementing their business processes. They intend to reduce cost, improve their agility or concentrate on their core competencies. Important areas of research are the mapping of business processes to cloud services and the use of cloud-enabled capabilities for business process design and redesign. Cloud computing also provides new means for collaboration in business process management. Stakeholders can thus be integrated more intensively and more frequently. Therefore, one important research question is, how and to which extent might the cloud influence the design, the operation and the management of business process lifecycles. BPMDS 2012 received a number of 48 submissions from 26 countries (Australia, Austria, Brazil, Cameroon, Colombia, Estonia, France, Germany, Greece, India, Israel, Italy, Latvia, Lebanon, The Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Tunisia, Turkey, Uganda, USA). The management of paper submission and reviews was supported by the EasyChair conference system. Selecting the papers to be accepted was a worthwhile effort. Each paper received at least three reviews. Eventually, 17 high-quality papers were selected; among them one experience reports and two idea papers. The accepted papers cover a wide spectrum of issues related to business process development, modeling, and support.

They are organized under the following section headings:

- Business Process in the Cloud;
- Advanced BPM in an Organizational Context;
- Similarity, Variations, Configuration;
- BPM and Requirements Engineering;
- Humans and Business Process Models;
- BPM Technologies Using Computational Methods.

We wish to thank all the people who submitted papers to BPMDS 2012 for having shared their work with us, as well as the members of the BPMDS 2012 Program Committee, who made a remarkable effort reviewing the large number of submissions. We also thank the organizers of CAiSE 2012 for their help with the organization of the event, and IFIP WG8.1 for the support.

April 2012

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## EMMSAD 2012/EuroSymposium 2012

The field of information systems analysis and design includes numerous information modeling methods and notations (e.g., ER, ORM, UML, Archimate, EPC, DEMO, DFDs, BPMN) that are typically evolving. Even with some attempts toward standardization (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 being analyzed and designed in practice. EMMSAD 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 the conference 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. It also gives the participants an opportunity to present their research papers and experience reports, and to take part in open discussions. EMMSAD 2012 was the 17th in a series of events, previously held in Heraklion, Barcelona, Pisa, Heidelberg, Stockholm, Interlaken, Toronto, Velden, Riga, Porto, Luxembourg, Trondheim, Montpellier, Amsterdam, Hammamet and London. This year we had 28 papers submitted with authors from 19 countries and five continents (Australia, Belgium, Brazil, Canada, Germany, Israel, Italy, Luxembourg, The Netherlands, New Zealand, Norway, Poland, Portugal, Russia, Saudi Arabia, Spain, Sweden, UK, USA). After an extensive review process by a distinguished international Program Committee, with each paper receiving at least three reviews, we accepted the 13 papers that appear in these proceedings. Congratulations to the successful authors! Apart from the contribution by paper authors, the quality of EMMSAD 2012 depended in no small way on the generous contribution of time and effort by the Program Committee and the additional reviewers. Their work is greatly appreciated. We also express our sincere thanks to the CAiSE Organizing Committee. Continuing with our very successful collaboration with IFIP WG 8.1 (<https://research.idi.ntnu.no/ifip-wg81/>) that started in 1997, this year's event was again a joint activity between CAiSE and WG 8.1 and this year also with AIS-SIGSAND (<http://sigsand.aisnet.org/>). Another co-organizer this year was the Polish chapter of AIS, European Research Centre for Information Systems, Enterprise Architecture Network, the ORM Foundation, and University of Gdansk, Poland.

For more information on the EMMSAD-series, see our website: [www.emmsad.org](http://www.emmsad.org)

The Association for Information Systems (AIS) is undertaking an initiative toward Systems Analysis and Design (SAND) international development, including the EuroSymposium on Systems Analysis and Design. Its objective is to promote and develop high-quality research on all issues related to SAND. It provides a forum for SAND researchers and practitioners in Europe and beyond

to interact, collaborate and develop their field. The EuroSymposia were initiated by Keng Siau as the SIGSAND – Europe Initiative. Previous EuroSymposia were held at:

- University of Galway, Ireland – 2006
- University of Gdansk, Poland – 2007
- University of Marburg, Germany – 2008
- University of Gdansk – 2011

The accepted submissions of EuroSymposium 2007 were published in: A.Bajaj, S.Wrycza (eds), *Systems Analysis and Design for Advanced Modeling Methods: Best Practices Information Science Reference*, IGI Global, Hershey, New York, 2009. After a three-year break, one of the former organizers, the Department of Business Informatics of the University of Gdansk, decided to re-start the EuroSymposium as a joint undertaking of two AIS units – SIGSAND and PLAIS. Therefore, the three organizers of the 4<sup>th</sup> EuroSymposium on Systems Analysis and Design were:

- SIGSAND – AIS Special Interest Group on Systems Analysis and Design
- PLAIS – The Polish Chapter of AIS
- The Department of Business Informatics of University of Gdansk, Poland

SIGSAND is one of the most active AIS SIGs with a substantial record of contributions to AIS. It provides services such as the annual North American and European SAND Symposia, research and teaching tracks at major IS conferences, a listserv and special issues in journals.

The Polish Chapter of the Association for Information Systems (PLAIS) was established in 2006 as the joint initiative of Claudia Loebbecke, former President of AIS, and Stanislaw Wrycza, University of Gdansk, Poland. PLAIS co-organizes international and domestic IS conferences.

The Department of Business Informatics of the University of Gdansk conducts intensive teaching and research activities. Some of its academic manuals are bestsellers in Poland. The department is also active internationally, organizing various conferences including the 10<sup>th</sup> European Conference on Information Systems (ECIS 2002) and the 7<sup>th</sup> International Conference on Perspectives in Business Informatics Research (BIR 2008). The department is a partner of the European Research Center for Information systems consortium.

April 2012

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