Enterprise, Business-Process and Information Systems Modeling

14th International Conference, BPMDS 2013
18th International Conference, EMMSAD 2013
Held at CAiSE 2013, Valencia, Spain, June 17-18, 2013
Proceedings
# Table of Contents

BPMDS and EMMSAD Session 1: Joint Keynote

Multi-level Modelling: Time for a 'Copernican' (R)Evolution?:
(Keynote) ................................................................. 1

*Brian Henderson-Sellers*

BPMDS Session 2: Innovative Representations for Knowledge-Intensive Processes


*Cornelia Haisjackl, Stefan Zugal, Pnina Soffer, Irit Hadar, Manfred Reichert, Jakob Pinggera, and Barbara Weber*

Blending BPMS with Social Software for Knowledge-Intense Work:
Research Issues .......................................................... 18

*Nancy Alexopoulou, Mara Nikolaidou, and Christian Stary*


*Irina Rychkova, Manuele Kirsch-Pinheiro, and Bénédicte Le Grand*

BPMDS Session 3: BPM in Practice


*Nesi Outmazgin and Pnina Soffer*

Using Data-Centric Business Process Modeling for Discovering Requirements for Business Process Support Systems:
Experience Report .......................................................... 63

*Ilia Bider, Erik Perjons, and Zakria Riaz Dar*

A Methodological Framework with Lessons Learned for Introducing Business Process Management ................ 78

*Sebastian Adam, Norman Riegel, and Matthias Koch*

BPMDS Session 4: Analysis of Business Process Models

Repairing Business Process Models as Retrieved from Source Code .................................................. 94

*María Fernández-Ropero, Hajo A. Reijers, Ricardo Pérez-Castillo, and Mario Piattini*
Bridging Abstraction Layers in Process Mining: Event to Activity Mapping .......................................................... 109
  Thomas Baier and Jan Mendling

Improving Business Process Models with Agent-Based Simulation and Process Mining ........................................... 124
  Fernando Szimanski, Célia G. Ralha, Gerd Wagner, and Diogo R. Ferreira

BPMDS Session 5: Model-Based Business Process Analysis

Towards a Framework for Modeling Business Compensation Processes .......................................................... 139
  Anis Boubaker, Hafedh Mili, Yasmine Charif, and Abderrahmane Leshob

An Effort Prediction Model Based on BPM Measures for Process Automation ...................................................... 154
  Banu Aysolmaz, Deniz İren, and Onur Demirors

On the Use of Goal Models and Business Process Models for Elicitation of System Requirements ....................... 168
  Jose Luis de la Vara, Juan Sánchez, and Oscar Pastor

BPMDS Session 6: Flexible BPM

Multi-level Autonomic Business Process Management ............................................. 184
  Karolyne Oliveira, Jaelson Castro, Sergio España, and Oscar Pastor

Multi-perspective Business Process Monitoring ...................................................... 199
  Amin Jalali and Paul Johannesson

Corrective Evolution of Adaptable Process Models ...................................................... 214
  Luciano Baresi, Annapaola Marconi, Marco Pistore, and Adina Sirbu

BPMDS Session 7: Improvement and Change Patterns

Demonstrating the Effectiveness of Process Improvement Patterns ............................................. 230
  Matthias Lohrmann and Manfred Reichert

Enhancing Modeling and Change Support for Process Families through Change Patterns ................................... 246
  Clara Ayora, Victoria Torres, Barbara Weber, Manfred Reichert, and Vicente Pelechano
Change Patterns in Use: A Critical Evaluation
Barbara Weber, Jakob Pinggera, Victoria Torres, and Manfred Reichert

BPMDS Session 8: Process Model Repositories
Synthesizing a Library of Process Templates through Partial-Order Planning Algorithms
Andrea Marrella and Yves Lespérance

Spotting Terminology Deficiencies in Process Model Repositories
Fabian Pittke, Henrik Leopold, and Jan Mendling

EMMSAD Session 2: Advanced Modelling
Modeling of Reference Schemes
Terry Halpin

Visually Capturing Usage Context in BPMN by Small Adaptations of Diagram Notation
Guttorm Sindre, John Krogstie, and Sundar Gopalakrishnan

EMMSAD Session 3: Capturing Design Knowledge
Capturing Decision Making Strategies in Enterprise Architecture – A Viewpoint
Georgios Plataniotis, Sybren de Kinderen, and Henderik A. Proper

Constructing Domain Knowledge through Cross Product Line Analysis
Ora Wulf-Hadash and Iris Reinhartz-Berger

EMMSAD Session 4: Method Engineering
Incremental Method Enactment for Computer Aided Software Engineering Tools
Kevin Vlaanderen, Geurt van Tuijl, Sjaak Brinkkemper, and Slinger Jansen

Gamification to Support the Run Time Planning Process in Adaptive Case Management
Danny Oldenhave, Stijn Hoppenbrouwers, Theo van der Weide, and Remco Lagarde
## EMMSAD Session 5: Modelling Process

A Semiotic Approach to Data Quality ................................. 395  
*John Krogstie*

Feedback-Enabled MDA-Prototyping Effects on Modeling Knowledge ... 411  
*Gayane Sedrakyan and Monique Snoeck*

## EMMSAD Session 6: Specialized Modelling

A Rigorous Reasoning about Model Transformations Using the B Method ........................................................................ 426  
*Akram Idani, Yves Ledru, and Adil Anwar*

Managing Run-Time Variability in Robotics Software by Modeling Functional and Non-functional Behavior ................................. 441  
*Alex Lotz, Juan F. Inglés-Romero, Cristina Vicente-Chicote, and Christian Schlegel*

## EMMSAD Session 7: Modelling Experiences

The World Out There: From Systems Modelling to Enterprise Modelling ................................................................. 456  
*Sobah Abbas Petersen and John Krogstie*

Process Mining Versus Intention Mining ........................................ 466  
*Ghazaleh Khodabandelou, Charlotte Hug, Rebecca Deneckère, and Camille Salinesi*

## Author Index

481