## CONTENTS

### INVITED SPEAKERS

#### Keynote Speakers

**Human Behavior and Interactions in Web Environments**  
*Peter Géczy*  
*IS-5*

**Service Computing EIS, World Panic and Our Role Change**  
*Masao Johannes Matsumoto*  
*IS-7*

**Let's Semanticise the World!! ... or Not??**  
*Michele Missikoff*  
*IS-17*

**Design of Adaptive Web Services**  
*Barbara Pernici*  
*IS-25*

**Machine Learning in Online Advertising**  
*Jianchang Mao*  
*IS-27*

**Risk-Aware Collaborative Processes**  
*Ernesto Damiani*  
*IS-29*

**Foresight & Research Priorities for Service Oriented Computing**  
*Michael Papazoglou*  
*IS-31*

### INFORMATION SYSTEMS ANALYSIS AND SPECIFICATION

#### Short Papers

**A Petri Net Model of Process Platform-Based Production Configuration**  
*Linda L. Zhang and Brian Rodrigues*  
*IS-5*

**A Simulation Model for Managing Engineering Changes Along with New Product Development**  
*Weilin Li and Young B. Moon*  
*IS-13*

**Security Analysis of the German Electronic Health Card’s Peripheral Parts**  
*Ali Sunyaev, Alexander Kaletsch, Christian Mauro and Helmut Krcmar*  
*IS-19*

**An Approach to Model-Driven Development Process Specification**  
*Rita Suzana Pitangueira Maciel, Bruno Carreiro da Silva, Ana Patricia Fontes Magalhães and Nelson Souto Rosa*  
*IS-27*

**Ontology Mapping Based on Association Rule Mining**  
*C. Tatsiopoulos and B. Boutsinas*  
*IS-33*

**Evaluation of Case Tool Methods and Processes** - An Analysis of Eight Open-source CASE Tools  
*Stefan Biffl, Christoph Ferstl, Christian Höllwieser and Thomas Moser*  
*IS-41*

**Security and Dependability in Ambient Intelligence Scenarios** - The Communication Prototype  
*Alvaro Armenteros, Antonio Muñoz, Antonio Maña and Daniel Serrano*  
*IS-49*
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A REVISED MODELLING QUALITY FRAMEWORK</td>
<td>162</td>
</tr>
<tr>
<td>Pieter Joubert, Stefanie Louw, Carina De Villiers and Jan Kroeeze</td>
<td></td>
</tr>
<tr>
<td>LAYERED PROCESS MODELS - Analysis and Implementation (using MDA Principles)</td>
<td>168</td>
</tr>
<tr>
<td>Samia Oussena and Balbir S. Barn</td>
<td></td>
</tr>
<tr>
<td>EFFICIENT DATA STRUCTURES FOR LOCAL INCONSISTENCY DETECTION IN FIREWALL ACL UPDATES</td>
<td>176</td>
</tr>
<tr>
<td>S. Pozo, R. M. Gasca and F. de la Rosa T.</td>
<td></td>
</tr>
<tr>
<td>DERIVING CANONICAL BUSINESS OBJECT OPERATION NETS FROM PROCESS MODELS</td>
<td>182</td>
</tr>
<tr>
<td>Wang Zhaoxia, Wang Jianmin, Wen Lijie and Liu Yingbo</td>
<td></td>
</tr>
<tr>
<td>A VISION FOR AGILE MODEL-DRIVEN ENTERPRISE INFORMATION SYSTEMS</td>
<td>188</td>
</tr>
<tr>
<td>N. R. T. P. van Beest, N. B. Szirbik and J. C. Wortmann</td>
<td></td>
</tr>
<tr>
<td>SPECIFYING AND COMPILING HIGH LEVEL FINANCIAL FRAUD POLICIES INTO STREAMSQL</td>
<td>194</td>
</tr>
<tr>
<td>Michael Edward Edge, Pedro R. Falcone Sampaio, Oliver Philpott and Mohammad Choudhary</td>
<td></td>
</tr>
<tr>
<td>ROBUST APPROACH TOWARDS CONTEXT DEPENDANT INFORMATION SHARING IN DISTRIBUTED ENVIRONMENTS</td>
<td>200</td>
</tr>
<tr>
<td>Jenny Lundberg and Rune Gustavsson</td>
<td></td>
</tr>
<tr>
<td>USING BPMN AND TRACING FOR RAPID BUSINESS PROCESS PROTOTYPING ENVIRONMENTS</td>
<td>206</td>
</tr>
<tr>
<td>Alessandro Caramella, Mario G. C. A. Cimino, Beatrice Lazzarini and Francesco Marcelloni</td>
<td></td>
</tr>
<tr>
<td>INFORMATION SYSTEMS SECURITY BASED ON BUSINESS PROCESS MODELING</td>
<td>213</td>
</tr>
<tr>
<td>Joseph Barjis</td>
<td></td>
</tr>
<tr>
<td>A SERVICE ORIENTED ENGINEERING APPROACH TO ENHANCE THE DEVELOPMENT OF AUTOMATION AND CONTROL SYSTEMS</td>
<td>219</td>
</tr>
<tr>
<td>David Hästbacka and Seppo Kuikka</td>
<td></td>
</tr>
<tr>
<td>APPLYING AN EVENT-BASED APPROACH FOR DETECTING REQUIREMENTS INTERACTION</td>
<td>225</td>
</tr>
<tr>
<td>Edgar Sarmiento, Marcos R. S. Borges and Maria Luiza M. Campos</td>
<td></td>
</tr>
<tr>
<td>AN EVOLUTIONARY APPROACH FOR QUALITY MODELS INTEGRATION</td>
<td>231</td>
</tr>
<tr>
<td>Rodrigo Santos de Espindola and Jorge Luis Nicolas Audy</td>
<td></td>
</tr>
<tr>
<td>A SOCIO-SEMANTIC APPROACH TO THE CONCEPTUALISATION OF DOMAINS, PROCESSES AND TASKS IN LARGE PROJECTS</td>
<td>237</td>
</tr>
<tr>
<td>Carla Pereira, Cristóvão Sousa and António Lucas Soares</td>
<td></td>
</tr>
<tr>
<td>ENTERPRISE ONTOLOGY MANAGEMENT - An Approach based on Information Architecture</td>
<td>243</td>
</tr>
<tr>
<td>Leonardo Azevedo, Sean Siqueira, Fernanda Araujo Baidó, Jairo Souza, Mauro Lopes, Claudia Cappelli and Flavia Maria Santoro</td>
<td></td>
</tr>
<tr>
<td>FINDING REUSABLE BUSINESS PROCESS MODELS BASED ON STRUCTURAL MATCHING</td>
<td>249</td>
</tr>
<tr>
<td>Han G. Woo</td>
<td></td>
</tr>
<tr>
<td>METHOD MANUAL BASED PROCESS GENERATION AND VALIDATION</td>
<td>256</td>
</tr>
<tr>
<td>Peter Killisperger, Georg Peters, Markus Stumptner and Thomas Stückl</td>
<td></td>
</tr>
</tbody>
</table>
TOWARDS A UNIFIED DOMAIN FOR FUZZY TEMPORAL DATABASES
M. C. Garrido, N. Marin and O. Pons

PROCESS INSTITUTIONALIZATION USING SOFTWARE PROCESS LINES
Tomás Martínez-Ruiz, Félix García and Mario Piattini

A SYSTEMATIC LITERATURE REVIEW OF REQUIREMENTS ENGINEERING IN DISTRIBUTED SOFTWARE DEVELOPMENT ENVIRONMENTS
Thais Ebling, Jorge Luis Nicolas Audy and Rafael Prikladnicki

APPLICABILITY OF ISO/IEC 9126 FOR THE SELECTION OF FLOSS TOOLS
María Pérez, Kenyer Dominguez, Edurnel Méndez and Luis E. Mendoza

A WORKFLOW LANGUAGE FOR THE EXPERIMENTAL SCIENCES
Yuan Lin, Thérèse Libourel and Isabelle Mougenot

USING ONTOLOGIES WITH HIPPOCRATIC DATABASES - A Model for Protecting Personal Information Privacy
Esraa Omran, Albert Bokma and Shereef Abu Al-Maati

LINKING IT AND BUSINESS PROCESSES FOR ALIGNMENT - A Meta Model based Approach
Matthias Goeken, Jan C. Pfeiffer and Wolfgang Johanssen

MODELING WITH BPMN AND CHORDA: A TOP-DOWN, DATA-DRIVEN METHODOLOGY AND TOOL
Andrea Catalano, Matteo Magnani and Danilo Montesi

PROACTIVE INSIDER-THREAT DETECTION - Against Confidentiality in Sensitive Pervasive Applications
Joon S. Park, Jaeho Yim and Jason Hallahan

AN INTEGRATION-ORIENTED MODEL FOR APPLICATION LIFECYCLE MANAGEMENT
Guenter Pirklbauer, Rudolf Ramler and Rene Zeilinger

CHALLENGES AND PERSPECTIVES IN THE DEPLOYMENT OF DISTRIBUTED COMPONENTS-BASED Software
Mariam Dibo and Noureddine Belkhatir

DATABASE MARKETING PROCESS SUPPORTED BY ONTOLOGIES - System Architecture Proposal
Filipe Mota Pinto, Alzira Marques and Manuel Filipe Santos

ON TECHNOLOGY INNOVATION - A Community Succession Model for Software Enterprise
Qianhui Liang and Weihui Dai

MODELLING LOCATION-AWARE BEHAVIOUR IN WEB-GIS USING ASPECTS
Ana Oliveira, Matias Urbieta, João Araújo, Armanda Rodrigues, Ana Moreira, Silvia Gordillo and Gustavo Rossi

INSTRUCTIONAL DESIGN FOR JAVA ENTERPRISE COMPONENT TECHNOLOGY
Marco Marcellis, Ella Roubtsova and Bert Hoogveld

INNOVATIVE HEALTH CARE CHANNELS - Towards Declarative Electronic Decision Support Systems Focusing on Patient Security
Kerstin Adahl, Jenny Lundberg and Rune Gustavsson

AUTHOR INDEX

XIX