

# Contents

## Part I: Invited Papers

|                                                                                              |   |
|----------------------------------------------------------------------------------------------|---|
| <b>Computational Service Economies: Design and Applications</b> .....                        | 1 |
| <i>Nicholas R. Jennings, Alex Rogers</i>                                                     |   |
| <b>Challenges of Data Processing for Earth Observation in Distributed Environments</b> ..... | 9 |
| <i>Dana Petcu</i>                                                                            |   |

## Part II: Regular Papers

|                                                                                   |    |
|-----------------------------------------------------------------------------------|----|
| <b>A Protocol for Execution of Distributed Logic Programs</b> ....                | 21 |
| <i>László Aszalós, Andreas Herzig</i>                                             |    |
| <b>A Framework for Agent-Based Evaluation of Genetic Algorithms</b> .....         | 31 |
| <i>David F. Barrero, David Camacho, María D. R-Moreno</i>                         |    |
| <b>Efficient Broadcasting by Selective Forwarding</b> .....                       | 43 |
| <i>Doina Bein, Ajoy K. Datta, Balaji ashok Sathyanarayanan</i>                    |    |
| <b>The Assessment of Expertise in Social Networks</b> .....                       | 53 |
| <i>Vincenza Carchiolo, Alessandro Longheu, Michele Malgeri, Giuseppe Mangioni</i> |    |
| <b>Web Services for Search Integration</b> .....                                  | 63 |
| <i>Mirel Cosulschi, Oana Nicolae, Mihai Gabrovecanu, Nicolae Constantinescu</i>   |    |

|                                                                                                                               |            |
|-------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>Fusing Approximate Knowledge from Distributed Sources ...</b>                                                              | <b>75</b>  |
| <i>Barbara Dunin-Kępłicz, Linh Anh Nguyen, Andrzej Szalas</i>                                                                 |            |
| <b>Case-Study for TeamLog, a Theory of Teamwork .....</b>                                                                     | <b>87</b>  |
| <i>Barbara Dunin-Kępłicz, Rineke Verbrugge, Michał Śliza</i>                                                                  |            |
| <b>Hot Topic Detection Based on Opinion Analysis for Web<br/>Forums in Distributed Environment .....</b>                      | <b>101</b> |
| <i>Changjun Hu, Yu Weng, Xuechun Zhang, Chengxiu Xue</i>                                                                      |            |
| <b>A Case Study on Availability of Sensor Data in Agent<br/>Cooperation .....</b>                                             | <b>111</b> |
| <i>Christian Johansson, Fredrik Wernstedt, Paul Davidsson</i>                                                                 |            |
| <b>Interoperability, Standards and Metadata for E-Learning ....</b>                                                           | <b>121</b> |
| <i>Eugenijus Kurilovas</i>                                                                                                    |            |
| <b>Studying the Cache Size in a Gossip-Based Evolutionary<br/>Algorithm .....</b>                                             | <b>131</b> |
| <i>Juan Luis J. Laredo, Carlos Fernandes, Antonio Mora,<br/>Pedro A. Castillo, Pablo García-Sánchez, Juan Julián Merelo</i>   |            |
| <b>A Topic Map for “Subject-Centric” Learning .....</b>                                                                       | <b>141</b> |
| <i>Gabriel Mihai, Liana Stanescu, Dumitru Burdescu,<br/>Marius Brezovan, Cosmin Stoica Spahiu</i>                             |            |
| <b>Emergent Properties for Data Distribution in a Cognitive<br/>MAS .....</b>                                                 | <b>151</b> |
| <i>Andrei Olaru, Cristian Gratie, Adina Magda Florea</i>                                                                      |            |
| <b>Dynamic Process Integration Framework: Toward Efficient<br/>Information Processing in Complex Distributed Systems ....</b> | <b>161</b> |
| <i>Gregor Pavlin, Michiel Kamermans, Mihnea Scafes</i>                                                                        |            |
| <b>WELSA: An Intelligent and Adaptive Web-Based<br/>Educational System.....</b>                                               | <b>175</b> |
| <i>Elvira Popescu, Costin Bădică, Lucian Moraret</i>                                                                          |            |
| <b>Autonomous Execution of Tasks by Swarm Carrier Agents<br/>in Swarm-Array Computing .....</b>                               | <b>187</b> |
| <i>Blesson Varghese, Gerard McKee</i>                                                                                         |            |
| <br><b>Part III: Short Papers</b>                                                                                             |            |
| <b>A Privacy Preserving E-Payment Scheme.....</b>                                                                             | <b>197</b> |
| <i>Giannakis Antoniou, Lynn Batten, Shivaramakrishnan Narayan,<br/>Udaya Parampalli</i>                                       |            |

|                                                                                                                        |            |
|------------------------------------------------------------------------------------------------------------------------|------------|
| <b>Monitoring a BitTorrent Tracker for Peer-to-Peer System Analysis .....</b>                                          | <b>203</b> |
| <i>Mircea Bardac, George Milescu, Răzvan Deaconescu</i>                                                                |            |
| <b>A Memory Assistant for the Elderly .....</b>                                                                        | <b>209</b> |
| <i>Ângelo Costa, Paulo Novais, Ricardo Costa, José Machado, José Neves</i>                                             |            |
| <b>Automatic Ontology Extraction with Text Clustering .....</b>                                                        | <b>215</b> |
| <i>Beniamino Di Martino, Pasquale Cantiello</i>                                                                        |            |
| <b>Distributed Information Sharing in Mobile Environments ....</b>                                                     | <b>221</b> |
| <i>Joe Gorman, Ulrik Johansen</i>                                                                                      |            |
| <b>Cost of Cooperation for Scheduling Meetings .....</b>                                                               | <b>227</b> |
| <i>Alon Grubshtein, Amnon Meisels</i>                                                                                  |            |
| <b>Actor-Agent Communities: Design Approaches .....</b>                                                                | <b>237</b> |
| <i>S.M. Iacob, C.H.M. Nieuwenhuis, N.J.E. Wijngaards, G. Pavlin, J.B. van Veelen</i>                                   |            |
| <b>A Trusted Defeasible Reasoning Service for Brokering Agents in the Semantic Web .....</b>                           | <b>243</b> |
| <i>Kalliopi Kravari, Efstratios Kontopoulos, Nick Bassiliades</i>                                                      |            |
| <b>Self-Built Grid .....</b>                                                                                           | <b>249</b> |
| <i>Eusebiu Marcu</i>                                                                                                   |            |
| <b>Obtaining Knowledge Using Educational Data Mining .....</b>                                                         | <b>257</b> |
| <i>Cristian Mihaescu, Dumitru Dan Burdescu, Mihai Mocanu, Costel Ionaşcu</i>                                           |            |
| <b>TN4PM: A Textual Notation for Process Modelling .....</b>                                                           | <b>263</b> |
| <i>Andrei-Horia Mogos, Andreea Urzica</i>                                                                              |            |
| <b>Group-Based Interactions for Multiuser Applications .....</b>                                                       | <b>269</b> |
| <i>Carmen Morgado, José C. Cunha, Nuno Correia, Jorge Custódio</i>                                                     |            |
| <b>Blueprint: A Continuation-Based Web Framework .....</b>                                                             | <b>277</b> |
| <i>Alex Muscar, Mirel Cosulschi</i>                                                                                    |            |
| <b>Towards Reliable Trust Management in Insecure P2P Environments .....</b>                                            | <b>283</b> |
| <i>Miroslav Novotny, Filip Zavoral</i>                                                                                 |            |
| <b>Middleware Support in Unmanned Aerial Vehicles and Wireless Sensor Networks for Surveillance Applications .....</b> | <b>289</b> |
| <i>Edison Pignaton de Freitas, Armando Morado Ferreira, Carlos Eduardo Pereira, Tony Larsson</i>                       |            |

|                                                                                                            |            |
|------------------------------------------------------------------------------------------------------------|------------|
| <b>SimRad.NBC – Simulation and Information System for<br/>Rescue Units at CBRN Disasters .....</b>         | <b>297</b> |
| <i>Karin Rainer, Nadine Sturm, Stefan Schönhacker, Gerhard Chroust</i>                                     |            |
| <b>Distributed Goal-Oriented Reasoning Engine for<br/>Multi-agent Systems: Initial Implementation.....</b> | <b>305</b> |
| <i>Mihnea Scafes, Costin Bădică</i>                                                                        |            |
| <b>Global Military Conflict Simulator.....</b>                                                             | <b>313</b> |
| <i>Claudiu Tanase, Andreea Urzica</i>                                                                      |            |
| <b>Author Index .....</b>                                                                                  | <b>319</b> |