Table of Contents

Human/Robot Multi-initiative Setups for Assembly Cells Dan Gadensgaard and David Alan Bourne	1
A Distributed E-health Model Using Mobile Agents Ali Akbar Pouyan, Sadegh Ekrami, and Momeneh Taban	7
Modular Structure of Neural Networks for Classification of Wooden Surfaces with PLC Industrial Implementation Irina Topalova and Alexander Tzokev	13
Efficient Web Based Monitoring and Control System Ahmed Mohamed and Hosny Abbas	18
A Distributed Multi-Agent Control Model for Railway Transportation System Ali Akbar Pouyan, Sadegh Ekrami, and Momeneh Taban	24
Flexible Adaptation Loop for Component-based SOA Applications Cristian Ruz, Francoise Baude, and Bastien Sauvan	29
Introduction of Self Optimization Features in a Selfbenchmarking Architecture El Hachemi Bendahmane, Bruno Dillenseger, and Patrice Moreaux	37
An Introduction to Evolving Systems: Adaptive Key Component Control Mark Balas and Susan Frost	43
Multi-agent Hierarchical System Based on ElGamal Decryption Algorithm With K+1 Access Levels Iulia Stefan, Laura Vegh, George Mois, Stelian Flonta, Szilard Enyedi, and Liviu Miclea	51
Using a Network of Untrusted Computers for Secure Computing Michal Maly	57
Reduced Order Modeling of Linear MIMO Systems Using Particle Swarm Optimization Dia Abu-Al-Nadi, Othman Alsmadi, and Zaer Abo-Hammour	62
Using Reinforcement Learning for Autonomic Resource Allocation in Clouds: Towards a Fully Automated Workflow Xavier Dutreilh, Sergey Kirgizov, Olga Melekhova, Jacques Malenfant, Nicolas Rivierre, and Isis Truck	67
Improving the Development Process for Teleo-Reactive Programming Through Advanced Composition James Hawthorne, Richard Anthony, and Miltos Petridis	75

VCE - A Versatile Cloud Environment for Scientific Applications Martin Koehler and Siegfried Benkner	81
Self-adaptive tuning of dynamic changing problem solving: a first step to endogenous control in Multi-Agents Based Problem Solvers Gael Clair, Frederic Armetta, and Salima Hassas	88
Topology Control of Mobile Robot Networks for Optimal Coverage and Connectivity using Irregular Hexagonalization Karthik Mahesh Varadarajan and Markus Vincze	94
UAV Speed Estimation With Multi-bit Quantizer in Adaptive Power Control Hyeon-Cheol Lee	100
A Simple Language for Describing Autonomous Agent Behaviors Philippe Codognet	105
Mobile Robots Path Planning using Genetic Algorithms Nouara Achour and Mohamed Chaalal	111
Utility Function-based Workload Management for DBMSs Mingyi Zhang, Baoning Niu, Patrick Martin, Wendy Powley, Paul Bird, and Keith McDonald	116
A Framework for Certifying Autonomic Computing Systems Haffiz Shuaib, Richard Anthony, and Mariusz Pelc	122
The Challenge of Validation for Autonomic and Self-Managing Systems Thaddeus Eze, Richard J. Anthony, Chris Walshaw, and Alan Soper	128
Nature-inspired Self-organization in P2P Ad hoc Grids Tariq Abdullah and Koen Bertels	134
Aspects of Innateness and Introspection in Artificial Agents Chris White, David Bell, and Weiru Liu	140
A Self-diagnosis Algorithm Based on Causal Graphs Jingxian Lu, Christophe Dousson, and Francine Krief	146
Convergence singularities: As man becomes machine and machine becomes man Carl Adams	152
An Autonomic Security Mechanism Based on Novelty Detection and Concept Drift Gesiel Rios Lopes, Andre L. V. Coelho, and Raimir Holanda Filho	158

Dynamic Model-based Management of a Service-Oriented Infrastructure Felix Cuadrado, Rodrigo Garcia-Carmona, and Juan C. Duenas	164
A Dynamic Service Composition using Semantic Ratiocination on Integrated Home Network System Junsoo Kim, Junya Nakata, Takashi Okada, Marios Sioutis, Azman Osman Lim, and Yasuo Tan	170
A Methodology for Household Appliances Behaviour Recognition in AmI Systems Ovidiu Aritoni and Viorel Negru	175
Collaboration Language for Social Information Engineering Kurt Englmeier, Josiane Mothe, Fionn Murtagh, Javier Pereira, and Duska Rosenberg	179