Table of Contents

Implementation of Integrated Systems and Resources for Information and Computing 1
Claus-Peter Ruckemann

Open Access Business Model and Financial Issues 8
Malgorzata Pankowska

Study of the Growth of a New Social Network Platform 14
Ning Tang and Chunhong Zhang

The Simple Genetic Algorithm Performance: A Comparative Study on the Operators Combination 20
Delmar Broglio Carvalho, Joao Carlos Nunes Bittencourt, and Thiago D'Martin Maia

Rotation-oriented Collaborative Air Traffic Management 25
Udo Inden, Stephan Tieck, and Claus-Peter Ruckemann

Warfare Simulation and Technology Forecasting in Support of Military Decision Making 31
Eric Malmi, Ville Pettersson, Sampo Syrjanen, Niina Nissinen, Bernt Akesson, and Esa Lappi

A Flexible Suite of Software Tools for Medical Image Analysis 36
Alexander Nedzved and Valery Starovoitov

Digital identity-based multisignature scheme implementation 42
Francisco Javier Buenasmananas Dominguez, Ascension Hernandez Encinas, Luis Hernandez Encinas, and Araceli Queiruga Dios

Connected Dominating Set Problem and its Application to Wireless Sensor Networks 46
Razieh Asgarnezhad and Javad Akbari Torkestani

Score Manager Discovery in EigenTrust Using Virtual Magnetic Fields 52
Henrique Galperin, Luiz Augusto de Paula Lima Jr., and Alcides Calsavara

On-the-Fly Routing and Traffic Self-Aggregation Towards Metro-Access Integration 58
Rodolfo Enrique Alvizu Gomez, Monica Karel Huerta, Ricardo Gonzales, Roger Clotet Martinez, Laura Vanessa Rodriguez Hernandez, and Idelfonso Tafur Monroy

Implementation of Data Distribution Service Listeners on Top of FlexRay Driver 64
Rim Bouhouch, Wafa Najjar, Houda Jaouani, and Salem Hasnaoui

Security and Performance Analysis of IPsec-based VPNs in RSMAD 70
Marcin Sokol, Slawomir Gajewski, Malgorzata Gajewska, and Leszek Staszkiewicz

Using DRBL to Deploy MPICH2 and CUDA on Green Computing 75
Wu Jiun-Yu, Wang Yao-Tsung, Shiau Steven, and Wang Hui Ching

Inventory-Based Empty Container Repositioning in a Multi-Port System 80
Loo Hay Lee, Ek Peng Chew, and Yi Luo

Sample Average Approximation for Stochastic Empty Container Repositioning 86
Ek Peng Chew, Loo Hay Lee, and Yin Long

Analysis of Video Streaming Performance in Vehicular Networks 92
Sergi Rene, Carlos Ganan, Juan Caubet, Juanjo Alins, Jorge Mata-Diaz, and Jose L. Munoz

Vehicle Speed Estimation Using Wireless Sensor Network 98
Muhammad Saqib, Sultan Daud Khan, and Saleh Mohammad Basalamah

Testbed architecture for generic, energy-aware evaluations and optimisations 103
Alexander Kipp, Jia Liu, Tao Jiang, Jochen Buchholz, Lutz Schubert, Micha vor dem Berge, and Wolfgang Christmann

Mptrace: Characterizing Physical Memory Usage for Chip Multiprocessors 109
Francesc Guim, Josep Jorba, Miquel Ferrer, Ivan Rodero, and Manish Parashar

Augmented Reality for Urban Simulation Visualization 115
Vincent Heuveline, Sebastian Ritterbusch, and Staffan Ronnas

Parallel Computing of EFG Method on DRBL Cluster 120
Wu Jiun-Yu, Lan Jiun Ting, Chen Kuen Tsann, Wang Yao-Tsung, and Shiau Steven

LZW versus Sliding Window Compression on a Distributed System: Robustness and Communication 125
Sergio De Agostino

Self-Organizing the Selection of Migratable Processes on Cluster-of-Clusters Environments 131
Rodrigo Righi, Lucas Graebin, Rafael Avila, Philippe Navaux, and Laercio Pilla

Min-Sum-Min Message-Passing for Quadratic Optimization 137
Guoqiang Zhang and Richard Heusdens

Parallel Computing the Longest Common Subsequence (LCS) on GPUs: Efficiency and Language Suitability 143
Amine Dhraief, Raik Issaoui, and Abdelfettah Belghith

MPI-based Solution for Efficient Data Access in Java HPC 149
Aidan Fries, Jordi Portell, Yago Isasi, Javier Castaneda, Raul Sirvent, and Guillermo L. Taboada

Real-Time Processing and Archiving Strategies 155
Isabel Schnoor

High performance cosmological simulations on a grid of supercomputers 161
Derek Groen, Steven Rieder, and Simon Portegies Zwart

Mantle Convection in a 2D Spherical Shell 167
Ana-Catalina Plesa

Constructing Parallel Programs Based on Rule Generators 173
Kiyoshi Akama, Ekawit Nantajeewarawat, and Hidekatsu Koike

Impact of user concurrency in commonly used OGC map server implementations 179
Joan Maso-Pau, Paula Diaz-Redondo, Xavier Pons-Fernandez, Jose L. Monteagudo-Pereira, Joan Serra-Sagrista, and Francesc Auli-Llinas