

Table of Contents

A Standardized Simulation Model with Strategic Approach for Distribution Networks: A Case Study in Mexico <i>Homero Hector Contreras Pulido, Jose Pablo Nuno de la Parra, Eric Porras Musalem, and Eduardo Zelaya de la Parra</i>	1
Hycon 2 Network Show Case: Sugar Factory <i>Alexander Rodriguez, Luis Felipe Acebes, Rogelio Mazaeda, Alejandro Merino, and Cesar de Prada</i>	7
Towards Unified Conceptual Modeling and Integrated Analysis in Joint Applications of Project Management, Business Process Management and Simulation <i>Germano de Souza Kienbaum, Alvaro Augusto Neto, Carlos Alberto M. B. dos Santos, Andrea N. P. Duran, Renato Fernandez, and Celso Israel Fornari</i>	13
Application of Lean Thinking Using Simulation Modeling in a Private Hospital <i>Ayman Tobail, Patricia Egan, Waleed Abo-Hamad, and Amr Arisha</i>	22
Simulation Model of a Bus Line in Changing Traffic Conditions <i>Marek Bauer</i>	29
A System of Pendulums on a Regular Polygon <i>Alexander P. Buslaev and Alexander G. Tatashev</i>	36
Concept for a Task-Specific Reconfigurable Driving Simulator <i>Bassem Hassan and Jurgen Gausemeier</i>	40
Simulation and Validation of a Heuristic Scheduling Algorithm for Multicore Systems <i>James Docherty, Alex Bystrov, and Alex Yakovlev</i>	47
Reasoning on Concurrency: An Approach to Modeling and Verification of Java Thread-safe Objects <i>Franco Cicirelli, Libero Nigro, and Francesco Pupo</i>	53
Monitoring and Modeling Web Server Performance: A Symbiotic Simulation Approach <i>Antonios Kogias, Mara Nikolaidou, and Dimosthenis Anagnostopoulos</i>	59
A Flexible Analytic Model for a Dynamic Task-Scheduling Unit for Heterogeneous MPSoCs <i>Oliver Arnold, Benedikt Noethen, and Gerhard Fettweis</i>	65
Practical Methodology for Adding New MANET Routing Protocols to OPNET Modeler <i>Rani Al-Maharmah, Guido Bruck, and Peter Jung</i>	73
Combining Genetic Algorithms and Simulation to Search for Failure Scenarios in System Models <i>Kevin Mills, Christopher Dabrowski, James Filliben, and Sandy Ressler</i>	81

A Matlab/Simulink Simulation Approach for Early Field-Programmable Gate Array Hardware Evaluation <i>Celso Barbante and Jose Oliveira</i>	89
Rapid Weighted Random Selection in Agent-based Models of Infectious Disease Dynamics Using Augmented B-trees <i>Roel Bakker, Tony Busker, Richard G. White, and Sunil Choenni</i>	94
Estimating Energy Efficiency of Data-Link Layer in System Level Performance Evaluation <i>Subayal Khan, Jukka Saastamoinen, Jyrki Huusko, Juha Korpi, and Jari Nurmi</i>	98
Modeling Planned and Unplanned Store Stops for the Scenario Based Simulation of Pedestrian Activity in City Centers <i>Jan Dijkstra and Joran Jessurun</i>	107
Pricing the Cloud: An Adaptive Brokerage for Cloud Computing <i>Philip Clamp and John Cartlidge</i>	113
Simulating Tree Plasticity with a Functional-structural Plant Model: Being Realistic in Behavior <i>Haoyu Wang, Jing Hua, Mengzhen Kang, Xiujuan Wang, Philippe de Reffye, and Baogang Hu</i>	122
A Non-Modular Modeling and Simulation Approach Based on DEVS for the Forest Fire Spread <i>Maamar Hamri and Youcef Dahmani</i>	130
ComCas: A Compiled Cycle Accurate Simulation for Hardware Architecture <i>Adrien Bullich, Mikael Briday, Jean-Luc Bechennec, and Yvon Trinquet</i>	137
Evaluating Options of Viennese Commuters to Use Sustainable Transport Modes <i>Gerda Hartl and Gabriel Wurzer</i>	143
Evaluation of the Northern Sardinia Forests Suitability for a Wood Biomass CHP System Installation <i>Pier Francesco Orru, Emanuela Melis, Laura Fais, Francesca Napoli, Cristina Pilo, and Michele Puxeddu</i>	147
Developing a Simulation Model for a Level of Usage <i>Andrew Greasley</i>	153
A CC2420 Transceiver Simulation Module for ns-3 and its Integration into the FERAL Simulator Framework <i>Anuschka Igel and Reinhard Gotzhein</i>	156
Physical Layer Simulation of Large Distributed Automation Systems in SPICE <i>Patrick Diekhake and Eckehard Schnieder</i>	165
A New Distributed Parallel Event-driven Timing Simulation for ECO Design Changes	169

Seiyang Yang, Doohwan Kwak, Jaehoon Han, and Namdo Kim

GRIND: An Generic Interface for Coupling Power Grid Simulators with Traffic, Communication and Application Simulation Tools 174

David Chuang, Bjoern Schuenemann, David Rieck, and Ilja Radusch

Personalizing Thermal Comfort in a Prototype Indoor Space 178

Sotirios D Kotsopoulos, Antoine Cuenin, and Federico Casalegno

The Impact of Control Setpoints on Building Energy Use 187

Stephen Treado and Xing Liu

Design and Simulation of an Energy-Positive Building 193

Catalina Tiberiu, Popescu Razvan, Soare Martha, Serban Ovidiu, and Bajenaru Nicolae