## **Table of Contents**

Rifidi Toolkit: Virtuality for Testing RFID  Andreas Huebner, Christian Facchi, and Helge Janicke	1
Address Resolution in Mobile Ad Hoc Networks Using Adaptive Routing Thomas Finke, Juergen Schroeder, Sebastian Schellenberg, Markus Hager, and Jochen Seitz	7
A Middleware Architecture for Autonomic Software Deployment  Mohammed El Amine Matougui and Sebastien Leriche	13
Improvements to Tree-based GA Applications for QoS Routing Vincenzo Maniscalco, Silvana Greco Polito, and Antonio Intagliata	21
A Distributed Protocol for Wireless Sensor Networks Based on Multiple-Leader Stackelberg Network Games Volkan Rodoplu and Gautam Raj	27
When Wireless Sensor Networks Meet Robots Giuseppe Amato, Mathias Broxvallx, Stefano Chessa, Mauro Dragone, Claudio Gennaro, and Claudio Vairo	35
A Communication and Localization Framework Suited for Nomadic Wireless Sensor Networks  Luca Bencini and Stefano Maddio	41
JAFSPOT: Java Agent-Based Framework for Sun SPOT Wireless Sensor Networks  Hakan Cam, Ozgur Koray Sahingoz, and Ahmet Coskun Sonmez	47
Finding Diverse Shortest Paths for the Routing Task in Wireless Sensor Networks Wilton Armando Henao Mazo and Angel Maria Bravo Santos	53
Potential-Based Downstream Routing for Wireless Sensor Networks Shinya Toyonaga, Daichi Kominami, Masashi Sugano, and Masayuki Murata	59
Link Design for Multi-hop Underwater Optical Wireless Sensor Network  Zahir Ahmad and Roger Green	65
Multipath route construction using cumulative residual energy for wireless sensor networks  Saad Rizvi and Ken Ferens	71
Multi-dimensional Key Assignment for Hierarchical Media Access Control with Collusion Resilience Shoko Imaizumi, Naokazu Aoki, Hiroyuki Kobayashi, and Hitoshi Kiya	77
Group Key Establishment Scheme Using Wireless Channel Status	83

Seon Yeob Baek and Jongwook Park				
Design of IT Keys and Its Real Practice Specialist Program to Promote Key Engineers as Security Specialists Atsuo Inomata, Satoshi Matsuura, Kenji Ohira, Youki Kadobayashi, Kazutoshi Fujikawa, Hideki Sunahara, and Suguru Yamaguchi				
Methodologies for detecting DoS/DDoS attacks against network servers  Mohammed Alenezi and Martin Reed				
An In-Depth Analysis of the Security of the Connected Repair Shop Pierre Kleberger, Tomas Olovsson, and Erland Jonsson	99			
Combined Histogram-based Features of DCT Coefficients in Low-frequency Domains for Face Recognition Qiu Chen, Koji Kotani, Feifei Lee, and Tadahiro Ohmi	108			
Face Recognition Algorithm Using Muti-direction Markov Stationary Features and Adjacent Pixel Intensity Difference Quantization Histogram Feifei Lee, Koji Kotani, Qiu Chen, and Tadahiro Ohmi	113			
An ABAC-based Policy Framework for Dynamic Firewalling Soren Berger, Alexander Vensmer, and Sebastian Kiesel	118			
Formal Characterization and Automatic Detection of Security Policies Conflicts  Hedi Hamdi	124			
Low-Complexity Lossless Compression on High Speed Networks  Sergio De Agostino	130			
1 Gbps Ethernet TCP/IP and UDP/IP Header Compression in FPGA Milan Stohanzl, Marek Bobula, and Zbynek Fedra	136			
Best Shortest Lightpath Routing for Translucent Optical Networks  Gilvan Duraes, Andre Soares, William Giozza, and Jose Augusto Monteiro	143			
Performance Analysis of Hybrid Optical Networks (OCS/OBS) Considering the Time Period to Successfully Deliver a Data Flow Felipe Mazullo, Igo Moura, Andre Soares, and Jose Maranhao Carneiro	151			
The Impact of Geography and Demography on the Economics of Fibre Optic Access Networks Raquel Castro Madureira, A. Manuel Oliveira Duarte, Raquel Matias-Fonseca, Carina Pais, and Jorge Carvalho	157			
Asynchronous Sequential Symbol Synchronizers Based on Pulse Comparison by Positive Transitions at Bit Rate Antonio Reis, Jose Rocha, Atilio Gameiro, and Jose Carvalho	163			

Prefilter Bandwidth Effects in Asynchronous Sequential Symbol Synchronizers Based on Pulse Comparison by Positive Transitions at Bit Rate  Antonio Reis, Jose Rocha, Atilio Gameiro, and Jose Pacheco	167
Connecting Communities: Stories of Digital Adventures in a Third Sector Organization  Maria Burke	171
Distance-Adaptive Routing and Spectrum Assignment of Deadline-Driven Requests in Reconfigurable Elastic Optical Networks  Jared Morell and Gokhan Sahin	175
QoS Aware Multi-homing in Integrated 3GPP and non-3GPP Future Networks Umar Toseef, Yasir Zaki, Liang Zhao, Andreas Timm-Giel, and Carmelita Gorg	180
Enhanced Positioning Method Using WLAN RSSI Measurements Considering Dilution of Precision of AP Configuration  Cong Zou, A Sol Kim, Jun Gyu Hwang, and Joon Goo Park	186
TCP, UDP and FTP Performance Measurements of IEEE 802.11 a, g Laboratory WEP and WPA Point-to-Point Links  Jose Pacheco de Carvalho, Claudia Ribeiro Pacheco, Hugo Veiga, and Antonio Reis	191
Real Time FPGA Based Testbed for OFDM Development With ML Synchronization Tiago Pereira, Manuel Violas, Atilio Gameiro, Carlos Ribeiro, and Joao Lourenco	197
Uplink Throughput Improvement at Cell Edge Using Multipath TCP in Overlaid Mobile WiMAX/WiFi Networks Miguel Angel Patino Gonzalez, Takeshi Higashino, and Minoru Okada	201
PRIPAY: A Privacy Preserving Architecture for Secure Micropayments Christoforos Ntantogian, Dimitris Gkikakis, and Christos Xenakis	207
Ambient Intelligence for Outdoor Activities Support: Possibilities for Large-Scale Wireless Sensor Networks Applications Peter Mikulecky and Petr Tucnik	213
Optimized Flow Management using Linear Programming in Integrated Heterogeneous Networks  Umar Toseef, Yasir Zaki, Andreas Timm-Giel, and Carmelita Gorg	218
Optimal Network Selection for Mobile Multicast Groups Svetlana Boudko, Wolfgang Leister, and Stein Gjessing	224
CobCel: Distributed and Collaborative Sensing of Cellular Phone Coverage Using Google Android Jonathan Pino and Jorge E. Pezoa	228