

Table of Contents

Evaluating Heterogeneous Architectures based on Zynq AP SOC for Real-Time Video Processing <i>Fanny Spagnolo, Stefania Perri, and Pasquale Corsonello</i>	1
Table Reference-Based Acceleration of a Lithography Hotspot Detection Method Based on Approximate String Search <i>Shuma Tamagawa, Masato Inagi, Shinobu Nagayama, and Shin'ichi Wakabayashi</i>	8
Energy-Efficient Real-Time Operating Systems: An Approach using Dynamic Frequency Scaling and Worst-Case Execution Time Aware Scheduling <i>Thomas Jerabek, Benjamin Aigner, Florian Gerstmayer, and Jurgen Hausladen</i>	15
Low Power Charge Recycling D-FF <i>Karol Niewiadomski and Dietmar Tutsch</i>	21
A Watt-Level 4G LTE CMOS Reconfigurable Power Amplifier with Efficiency Enhancement in Power Back-Off <i>Giap Luong, Jean-Marie Pham, Pierre Medrel, and Eric Kerherve</i>	28
Virtualizing Reconfigurable Hardware to Provide Scalability in Cloud Architectures <i>Oliver Knodel, Paul R. Genssler, and Rainer G. Spallek</i>	33
Local Alignment Search in Genetic Sequences on a Low-Cost FPGA <i>Timm Bostelmann, Thomas Fabian Starke, and Sergei Sawitzki</i>	39
A Synthesizable VHDL Export for the Custom Architecture Design Tool CustArD <i>Thomas Fabian Starke, Timm Bostelmann, Helga Karafiat, and Sergei Sawitzki</i>	44
Custom Hardware Integration into DBT-based Processor Simulation <i>Steffen Kohler and Rainer Spallek</i>	49
Towards an Implementation of Data Analytics for Smart Grid Security <i>Jacobo Blanco, Silvio La Porta, Niamh O Mahony, Rohan Chabukswar, Alie El-Din Mady, and Menouer Boubekeur</i>	55
Towards Secure Building Management System based on Internet of Things <i>Alie El-din Mady, Ruben Trapero, Antonio Skarmeta, and Stefano Bianchi</i>	61
Anomaly-Based Intrusion Detection System for Embedded Devices on Internet <i>Deepak Mehta, Alie El-Din Mady, Menouer Boubekeur, and Devu Manikantan Shila</i>	65
Physics-Based Methods for Distinguishing Attacks from Faults <i>Gregory Provan and Riccardo Orizio</i>	70

