

# Contents

Dynamic Programming-Based Lifetime Reliability Optimization in Networks-on-Chip . . . . .	1
<i>Liang Wang, Xiaohang Wang, and Terrence Mak</i>	
Efficient Utilization of Test Elevators to Reduce Test Time in 3D-ICs. . . . .	21
<i>Sreenivaas S. Muthyala and Nur A. Touba</i>	
Design and Optimization of Multiple-Mesh Clock Network . . . . .	39
<i>Jinwook Jung, Dongsoo Lee, and Youngsoo Shin</i>	
Energy-Efficient Partitioning of Hybrid Caches in Multi-core Architecture . . .	58
<i>Dongwoo Lee and Kiyoungh Choi</i>	
Interval Arithmetic and Self Similarity Based Subthreshold Leakage Optimization in RTL Datapaths . . . . .	75
<i>Shilpa Pendyala and Srinivas Katkooari</i>	
8T-SRAM Cell with Improved Read and Write Margins in 65 nm CMOS Technology . . . . .	95
<i>Farshad Moradi, Mohammad Tohidi, Behzad Zeinali, and Jens K. Madsen</i>	
On the Co-simulation of SystemC with QEMU and OVP Virtual Platforms. . . . .	110
<i>Alessandro Lonardi and Graziano Pravadelli</i>	
Statistical Evaluation of Digital Techniques for $\Sigma\Delta$ ADC BIST . . . . .	129
<i>Matthieu Dubois, Haralampos-G. Stratigopoulos, Salvador Mir, and Manuel J. Barragan</i>	
A Parallel MCMC-Based MIMO Detector: VLSI Design and Algorithm . . . .	149
<i>Dominik Auras, Uwe Deidersen, Rainer Leupers, and Gerd Ascheid</i>	
Real-Time Omnidirectional Imaging System with Interconnected Network of Cameras. . . . .	170
<i>Kerem Seyid, Ömer Çoğal, Vladan Popovic, Hossein Afshari, Alexandre Schmid, and Yusuf Leblebici</i>	
Transmission Channel Noise Aware Energy Effective LDPC Decoding . . . . .	198
<i>Thomas Marconi, Christian Spagnol, Emanuel Popovici, and Sorin Cotofana</i>	

Laser-Induced Fault Effects in Security-Dedicated Circuits . . . . . 220  
*Vincent Berouille, Philippe Candelier, Stephan De Castro,  
Giorgio Di Natale, Jean-Max Dutertre, Marie-Lise Flottes, David Hély,  
Guillaume Hubert, Regis Leveugle, Feng Lu, Paolo Maistri,  
Athanasios Papadimitriou, Bruno Rouzeyre, Clement Tavernier,  
and Pierre Vanhauwaert*

**Author Index** . . . . . 241



<http://www.springer.com/978-3-319-25278-0>

VLSI-SoC: Internet of Things Foundations  
22nd IFIP WG 10.5/IEEE International Conference on  
Very Large Scale Integration, VLSI-SoC 2014, Playa del  
Carmen, Mexico, October 6-8, 2014, Revised Selected  
Papers

Claesen, L.; Sanz-Pascual, M.-T.; Reis, R.;

Sarmiento-Reyes, A. (Eds.)

2015, XIV, 241 p. 150 illus. in color., Hardcover

ISBN: 978-3-319-25278-0