

Contents

November/December 2010
Volume 27 Number 6

<http://www.computer.org/dt>

Copublished by the
IEEE Computer Society
and the IEEE Circuits and
Systems Society

Special Issue

- 4 Guest Editors' Introduction:
Managing Uncertainty
through Postfabrication
Calibration and Repair**
Swarup Bhunia and Rahul Rao
- 6 Analog Signature-Driven
Postmanufacture
Multidimensional Tuning
of RF Systems**
*Vishwanath Natarajan, Shreyas Sen,
Aritra Banerjee, Abhijit Chatterjee,
Ganesh Srinivasan, and Friedrich
Taenzler*
- 18 Self-Healing Phase-Locked
Loops in Deep-Scaled
CMOS Technologies**
Wu-Hsin Chen and Byunghoo Jung
- 26 Postsilicon Adaptation for
Low-Power SRAM under
Process Variation**
*Minki Cho, Jason Schlessman, Hamid
Mahmoodi, Marilyn Wolf, and Saibal
Mukhopadhyay*
- 36 The Dawn of Predictive Chip
Yield Design: Along and
Beyond the Memory Lane**
*Rajiv Joshi, Antonio R. Pelella, Arthur
Tuminaro, Yuen Chan, and Rouwaida
Kanj*
- 46 Built-In Method to Repair
SoC RAMs in Parallel**
*Tsu-Wei Tseng, Jin-Fu Li,
and Chih-Sheng Hou*
- 58 Runtime Thermal
Management Using
Software Agents for Multi-
and Many-Core Architectures**
*Mohammad Abdullah Al Faruque,
Janmartin Jahn, Thomas Ebi,
and Jörg Henkel*