INTEGRATION
the VLSI Journal

AUTHOR INFORMATION PACK

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DESCRIPTION

Integration's aim is to cover every aspect of the VLSI area, with an emphasis on cross-fertilization between various fields of science, and the design, verification, test and applications of integrated circuits and systems, as well as closely related topics in process and device technologies. Individual issues will feature peer-reviewed tutorials and articles as well as reviews of recent publications. The intended coverage of the journal can be assessed by examining the following (non-exclusive) list of topics:

Specification methods and languages; Analog/Digital Integrated Circuits and Systems; VLSI architectures; Algorithms, methods and tools for modeling, simulation, synthesis and verification of integrated circuits and systems of any complexity; Embedded systems; High-level synthesis for VLSI systems; Logic synthesis and finite automata; Testing, design-for-test and test generation algorithms; Physical design; Formal verification; Algorithms implemented in VLSI systems; Systems engineering; Heterogeneous systems.

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B. Carrion Schafer, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong

High-Level Synthesis, Hardware Security, Design Space Exploration, Reconfigurable Computing, FPGA (Field Programmable Gate Arrays)

L. Cassano, Politecnico di Milano, Milano, Italy

Fault diagnosis and tolerance, Reconfigurable computing, Fault testing and simulation, Hardware security, Formal verification

R. Castro-Lopez, Instituto de Microelectronicas de Sevilla, Sevilla, Spain

Analog/RF/Mixed-Signal design automation, Analog/Mixed-Signal Modeling, Analog/RF Physical Design and Synthesis

H. Chen, Wright State University, Dayton, Ohio, USA

Digital wideband receiver, Tunable band pass filter, Active inductor, VLSI testing.

H. Chen, Shanghai Jiao Tong University, Shanghai, China

VLSI reliability; Machine learning and neuromorphic computing; Numerical analysis and modeling for VLSIs; Integrated circuit for signal and control systems.

G. Dündar, Bogazici University, Bebek, Turkey

Analog Integrated Circuit Design, Design Automation for Analog Circuits

A. Fish, Bar-Ilan University, Ramat, Israel

Energy efficient digital ICs, Hardware security, Embedded memories, Alternative logic families

Q.J. Gu, University of California Davis, California, USA


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Embedded systems, Reconfigurable systems, Signal processing, Image recognition neural networks

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N. Horta, University of Lisbon, Lisboa, Portugal


T. Ishihara, Kyoto University, Kyoto, Japan

Low power digital design, Optical circuit design and computing

Y. Jin, University of Central Florida, Orlando, Florida, USA

Hardware security, Trusted IC design, Secure supply chain, Hardware-oriented cybersecurity, IoT security.

T. Kim, University of California at Riverside, Riverside, California, USA


T. Kim, Seoul National University (SNU), Seoul, The Republic of Korea

Logic and physical synthesis, Low power design, Clock networks

C.-K. Koh, Purdue University, West Lafayette, Indiana, USA

Physical design and circuit modeling

M. Lanuzza, University of Calabria, Arcavacata di Rende, Italy

Ultra low-voltage circuit design, Hardware security, Arithmetic circuits, Digital/analog design in emerging technologies (spintronics, TunnelFet)

B. Li, Technical University of Munich, München, Germany

Timing Analysis and Optimization; Statistical Modeling and Optimization; Design and Test for Microfluidic Biochips; Asynchronous Circuits; Physical Design; Hardware Security; FPGA Design and Reconfigurable Computing; Network-on-Chips

S.P. Mohanty, University of North Texas, Denton, Texas, USA


F. Moradi, Aarhus University, Aarhus, Denmark

Low power IC design, Nano-scale Memory Design (CMOS, FinFET and spintronics), Biomedical IC Design, Nano-scale IC design, Analog Mixed-Signal IC Design

S. Nakatake, University of Kitakyushu, Kitakyushu, Japan
• Physical design, Combinatorial algorithm, Analog layout, Analog circuit design, A/D converter, Sensor system

N. Nedjah, Universidade do Estado do Rio de Janeiro, Maracanã, Rio de Janeiro, Brazil

• Network-on-chip, Reconfigurable hardware, Bio-inspired architectures

V.F. Pavlidis, University of Manchester, Manchester, England, UK

• On-chip interconnects, 3-D ICs, Clock distribution networks, Power distribution networks

G. Qu, University of Maryland, College Park, Maryland, USA

• Hardware security, Trusted IC, Intellectual property protection, Low power

S. Reda, Brown University, Providence, Rhode Island, USA

• Energy-efficient computing systems, Low power, Thermal management, CAD

F. Rodríguez Henríquez, CINVESTAV-IPN, Mexico City, Mexico

• Security, Cryptography and Computer architecture, Reconfigurable computing

G. Shi, Shanghai Jiao Tong University, Shanghai, China

• Analog/mixed-signal IC design, Design automation tools, Emerging devices and systems, Low-power analog/mixed-signal design, VLSI synthesis tools

Y. Shi, University of Notre Dame, Notre Dame, Indiana, USA

• Low power design, Power integrity, Three-dimensional integration, Computer-aided design

G.C. Sirakoulis, Democritus University of Thrace, XANTHI, Greece

• VLSI architecture, FPGA, Non-conventional computing, Emerging circuits and systems (memristive and quantum computing)

L. Sterpone, Technical University of Turin, Torino, Italy

• Fault tolerance, Reconfigurable computing, FPGAs, VLSI designs, Radiation testing

A.G.M. Strollo, University of Naples Federico II, Napoli, Italy

• Arithmetic circuits, Approximate computing, Flip-flops

M. Tahoori, Karlsruhe Institute of Technology (KIT), Germany

• VLSI Test, Nano computing, VLSI reliability, Fault tolerant computing, Reconfigurable computing

S. A. Tajalli, Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland

• Ultra low power CMOS, Analog IC, Wireless transceivers, Serial links, Wide band PLL, Data converters

Y. Takashima, University of Kitakyushu, Kitakyushu, Japan

• Physical layout algorithm, Floorplan, Placement, routing algorithm, Scheduling and timing

E. Tlelo-Cuautle, Instituto Nacional de Astrofísica, Óptica y Electrónica, Puebla, Mexico

• Algorithms, Methods and tools for modeling, Simulation, Synthesis and verification of integrated circuits and systems of any complexity, Circuit optimization

C.-Y. Tsui, Hong Kong University of Science and Technology, Clear Water Bay, Hong Kong


Y. Wang, Syracuse University, Syracuse, New York, USA

• Low-power electronics design; CAD for low-power and high performance systems; Neuromorphic computing; Energy harvesting and storage.

R. Wille, University of Linz, Linz, Austria

• Reversible circuits, Quantum computation, Microfluidics, Optical circuits, Quantum-dot cellular automata, Design automation, Synthesis, Verification, Testing, SAT solving

D. Wong, University of California at Riverside, Riverside, California, USA

• Energy Efficiency, Approximate Computing, Computer Architecture, Reconfigurable Computing, GPUs

Q. Xu, The Chinese University of Hong Kong, Hong Kong, China

• Fault-tolerant computing, Trusted computing, Sensor-based interactive systems, VLSI Testing

J. Yin, University of Macau, Taipa, Macau, China

• Analog/radio frequency design, PLLs and frequency synthesizers, Oscillators, Ultra-low-power radios

S. Yin, Tsinghua University, Beijing, China

• Reconfigurable computing, high level synthesis, Neural network processor, Energy efficient VLSI design

F.Y. Young, The Chinese University of Hong Kong, Hong Kong, China

• EDA, Physical Design, Placement, Routing, DFM

B. Yu, The Chinese University of Hong Kong

• Cyber physical system, Design for Manufacturing and Combinatorial Algorithm

H. Yu, Southern University of Science and Technology, Shenzhen, China

• Low power IoT sensor design, Analog modeling and simulation, 3D-IC and emerging technology

Q. Yu, University of New Hampshire, Durham, New Hampshire, USA

• Hardware security, Fault tolerance, Networks-on-Chip

C. Zhuo, Zhejiang University, Hangzhou, China
• Low power, Power and signal integrity, 3D IC, Cross-layer design and optimization, Design for reliability
GUIDE FOR AUTHORS

Types of contributions
Integration's aim is to cover every aspect of the VLSI area, with an emphasis on cross-fertilization between various fields of science, and the design, verification, test and applications of integrated circuits and systems, as well as closely related topics in process and device technologies. Individual issues will feature peer-reviewed tutorials and articles as well as reviews of recent publications. The intended coverage of the journal can be assessed by examining the following (non-exclusive) list of topics:

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