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First Call for Papers

IEEE 12th International Conference on ASIC

Oct. 25-28, 2017, Hotel PULLMAN GUIYANG, Guiyang, China

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The 12th International Conference on ASIC (ASICON 2017) will be held in Guiyang, China, during Oct. 25-28, 2017. The conference is intended to provide an international forum for VLSI circuit designers, ASIC users, System Integrators, IC manufacturers, Process & Device Engineers and CAD/CAE tool developers to present their latest advances, developments and research results. The four-day event features keynote speeches and invited talks on state-of-the-art VLSI circuit, device, process design and manufacturing technologies, regular paper presentations, as well as tutorials delivered by leading experts in their fields. An award for the Excellent Student Paper will be announced at the conference. Additionally, an exhibition on EDA tools, foundry technologies, IC processing/Testing facilities, and novel ASIC products will be held during the conference.

The Scope of the Conference

Papers are solicited in, but not limited to, the following:

I. Design Techniques

- [1] VLSI Design and Circuits
 - Low power techniques, high-speed circuits
 - Embedded processors and DSP
 - Chaos/neural/fuzzy-logic circuits
 - Programmable devices (PLD, EPLD, HDPLD, FPGA, etc)
 - NoC
- [2] Analog, Mixed Signal and RF Circuits
 - Data converters (ADCs and DACs)
 - RF circuits (narrowband RF, ultra low power and millimeter-wave circuits (MMDS, 60GHz), RF/IF and power amplifiers, frequency generators, RF switches, power detectors, active antennas)
 - Power systems and power electronic circuits
- [3] Application-Specific SoCs
 - Auto-mobile electronics and Industry Control
 - Biomedical circuits and systems
 - Sensory systems
 - Graph theory and computing
 - Neural systems and Applications
 - Mobile Computing
 - IOT technologies.
- [4] Circuits and Systems for Wireless Communications
 - Receivers/transmitters technologies for wireless systems (WLAN, WPAN, WMAN, GPS, DVB/DMB,UWB, Bluetooth, GSM/EDGE/CDMA/UMTS/3G/4G base stations and handsets, TV, radio, satellite)
 - RFID
 - ISM band systems
- [5] Testing, Reliability, Fault-Tolerance
 - Digital/analog/mix-signal testing
 - Design for testability and reliability

- Test vector compression and silicon debug and diagnosis
 - Variation-aware design
 - Static and dynamic defect and fault recoverability
- [6] Advanced Memory
- DRAM & SRAM
 - Flash Memory
 - Ferroelectric Memory
 - Phase Change Memory, RRAM, MRAM
- [7] FPGA
- Tools and Design Technique for FPGA
 - FPGA Architectures
 - Device technology for FPGA
 - Application of FPGA
- II. CAD Techniques**
- [8] Circuits Simulation, Synthesis, Verification and Physical design
- Analog Circuits modeling and simulation
 - Logic synthesis, simulation and formal verification
 - Partitioning, placement and floor planning
 - Routing and detailed physical design
- [9] CAD for system, Design for Manufacturing and Testing
- Embedded systems
 - Mixed technology/domain, reliable and alternative systems
 - Design for manufacturability and testing
- III. New Techniques, New Processing, New Devices and Their Applications**
- [10] MEMS Techniques
- Piezoelectric and MEMS application
 - Pyroelectric/IR/optical application
 - Sensors, Chemical and Bio-Chips
- [11] Nanoelectronics and Gigascale systems
- Nano Devices and NEMS
- [12] New Devices: Hetrojunction Devices, Fin FET, CNT MTJ Devices,, 3-D integration, etc..
- [13] Advanced Interconnection Technology, High K/Metal gate technology and other VLSI New Processing, New technologies.
- [14] VLSI application for Energy generation, conservation and control
- [15] Processing Modeling & Simulation
- IV. Other VLSI Design and Device Related Topics**
- [16] Other Device Related Topics [17] Other VLSI Design Related Topics

Papers Submission

Prospective authors are requested to submit full-length papers in English of no more than four pages using the proceedings format, double-column, 10pt fonts including figures, tables and reference. For further information on paper format, please refer to "[template](#)". The papers are to be submitted in final form and, if accepted, will be published as submitted. All submissions must be delivered through the website. Student authors who want to compete for the Excellent Student Paper award, need to apply from the website. Detailed instructions for paper preparation and submission can be found at the website of the conference. **Tutorial proposals are also invited.**

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	(Conference Issue)	(Paper Submission)

For further information please visit our web site:

<http://www.asicon.org>

Deadline of papers submittal is June 30, 2017
Paper acceptance/rejection will be informed by Aug. 15, 2017