**Call for Papers Announced for the
 2014 Symposia on VLSI Technology and Circuits**

HONOLULU, HAWAII – November 5, 2013 – The official Call for Papers have been issued for the 2014 Symposia on VLSI Technology and Circuits to be held at the Hilton Hawaiian Village June 9-12, 2014 (Technology) and June 10-13, 2014 (Circuits). The deadline for paper submissions to both conferences is January 27, 2014. Late-news paper submissions deadline for the Symposium on VLSI Technologyis March 27, 2014; there is no late-news submission for the Symposium on VLSI Circuits. Complete details for paper submission can be found online at: <http://www.vlsisymposium.org/authors/>

Linked for the past 26 years, the annual Symposia on VLSI Technology and Circuits provide the opportunity for the world’s top device technologists, circuit and system designers to engage in an open exchange of leading edge ideas at the world’s premier mid-year conference for microelectronics technology. Since 1987, the Symposia on VLSI Technology and Circuits have been held together, alternating each year between sites in the US and Japan, making it possible for attendees to learn about new directions in the development of VLSI technology & circuit design through some of the industry’s leading research and development presentations.

The comprehensive technical programs at the two Symposia are augmented with short courses, invited speakers and several evening rump sessions. As a new highlight, the Symposia have introduced joint technology and circuit focus sessions in 2012, consisting of invited and contributed papers on topics of mutual interest to attendees.

The **Symposium on VLSI Technology** seeks breakthroughs in devices and processes including:

* Memory, logic, RF, analog, mixed-signal, I/O, high-voltage, imaging, MEMS, integrated sensors, and SOC (system-on-chip)
* Advanced gate stacks, channels, junctions, and contacts
* Interconnect scaling and Cu alternatives; chip-to-chip including optical interconnects
* Heterogeneous integration of non-Si materials/substrates on Si substrates
* Advanced lithography and high-density VLSI patterning technologies
* Beyond-CMOS functional devices with a path for VLSI implementation
* Packaging technologies, through-silicon-vias (TSVs) and 3D-system integration
* Advanced materials, device analysis, and modeling
* Theoretical understanding, operation fundamentals and reliability issues related to the above devices
* VLSI manufacturing concepts and technologies and yield optimization

The **Symposium on VLSI Circuits** seeks papers showcasing innovations and advances in the following areas:

* Digital circuits and processor techniques, including circuits and techniques for standalone and embedded processors
* Memory circuits, architectures, and interfaces for volatile and non-volatile memories, including emerging memories
* Clock generation and distribution for high-frequency digital and mixed-signal applications
* Analog and mixed-signal circuits, including data converters, sensor interface circuits, and amplifiers
* Wireline receivers and transmitters, including circuits for inter-chip and long-reach applications
* Wireless receivers and transmitters, including circuits for WAN, LAN, PAN, BAN, and inter-chip applications
* Power management circuits, including battery management circuits, voltage regulators, energy harvesting circuits, and circuits for renewable energy applications
* Application-oriented circuits and VLSI systems, including biomedical applications, and including SoC and SiP architectures and implementations

**Joint technology and circuits focus sessions** with invited and contributed papers highlighting major innovations and advances in materials, processes, devices, integration, reliability and modeling in the areas of advanced memories, 3D TSV integration, impact of technology scaling on advanced circuit design. Submissions are strongly encouraged in the following areas of joint interest:

* Design in scaled technologies: Impact of advanced devices, structures, materials and interconnects on digital circuitperformance, power, density; device design & process/technology optimization for analog/mixed-signal circuits
* Design enablement: Technology and design co-optimization for improved performance, yield, reliability, ultra-low voltage/power operation, density, and cost
* Memory technologies: Discrete and embedded SRAM, DRAM and NVRAM technology/design co-optimization
* 3D-integration (TSV): 3D-technologies and system co-optimization; power delivery and management; thermal management; inter-chip communications

**Best Student Paper Award**

Based on the quality of the papers and presentations, an award for best student paper at the Symposia will be chosen, and the recipient will receive a financial prize, travel cost support and a certificate at the opening session of the 2015 Symposium. For a paper to be reviewed for this award, the author must be enrolled as a full-time student at the time of submission, must be the lead author and presenter of the paper, and must indicate on the web submission form that the paper is a student paper.

**Sponsoring Organizations**

The Symposium on VLSI Technology is sponsored by the IEEE Electron Devices Society and the Japan Society of Applied Physics, in cooperation with the IEEE Solid State Circuits Society.

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**Further Information, Registration and Official Call for Papers**

Visit: <http://ww.vlsisymposium.org>.

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