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SECOND ANNOUNCEMENT AND CALL FOR PAPERS

Sponsored by Japan Society of Applied Physics and IEEE Solid-State Circuits Society
In Cooperation with Institute of Electronics, Information and Communication Engineers
and IEEE Electron Devices Society

2013 SYMPOSIUM ON VLSI CIRCUITS

Rihga Royal Hotel Kyoto, Kyoto, Japan

Tuesday - Friday, June 11 - 14, 2013

(June 11 Short Course, June 12 - 14 Technical Sessions)

The 2013 Symposium on VLSI Circuits will provide designers of integrated circuits an opportunity to meet and present important new works on all aspects of VLSI circuits. The 2013 Symposium on VLSI Technology (please see the reverse side) will be held at the same location with two days of overlap. **A single registration allows participants to attend both of the Symposia**, and offers unique opportunities to interact and synergize on topics of joint interest.

The scope of the Symposium on VLSI Circuits includes innovations and advances in following areas.

Special focus will be placed on VLSI systems and solutions for smarter society.

- **RF and wireless communication** circuits and architecture, including CMOS RF and mm-wave, and digital implementations
- **Wireline transceiver and I/O design**, spanning chip-to-chip to long-reach applications
- **Digital VLSI circuits and system techniques** for processor, memory, and complex SOC architectures and implementations
- **Clock generation and distribution** for high frequency digital and mixed-signal applications
- **Analog and mixed signal** circuits such as data converters, PLL, amplifiers, filters, and sensing FE
- **Memory circuits and architectures** for SRAM, DRAM, and non-volatile, including emerging memories
- **Power management** technologies, including circuits for voltage regulators and voltage references, VLSI systems for battery management, power saving, energy harvesting, and renewable energy
- **Application oriented circuits and VLSI systems**, including biomedical and healthcare, electric vehicles, power grids, and sensor networks

JOINT CIRCUITS AND TECHNOLOGY FOCUS SESSIONS

Joint circuit and technology focus sessions will be offered in the following special topics of joint interest. Paper submissions highlighting **major innovations and advances in circuits, designs, tools and methodologies** in these areas are strongly encouraged. The scope includes but not limited to the following area:

- **Design in scaled technologies:** scaling of analog and mixed-signal design based on novel device and interconnect materials and structures
- **Design enablement:** design for manufacturing and robustness, process-design co-optimization for ultra-low voltage and power, on-die measurement and monitoring of variability and reliability
- **Memory technology and design:** embedded and stand-alone SRAM, DRAM, Flash, PCRAM, RRAM, MRAM, etc.
- **3D (TSV) and heterogeneous integration:** power and thermal management, inter-chip communication, SiP architectures and applications.

Papers will be considered on the basis of originality, innovation and advancing the field. Implementation in silicon and measured results will be considered favorably in the ratings.

SUBMISSION OF PAPERS

Prospective authors must upload their submission of a two page-camera-ready paper and a 150 word-abstract to www.vlssymposium.org. The papers must be submitted in final form and, if accepted, will be published as submitted. The technical content beyond the abstract of the accepted paper must not be announced, published, or in any way put in the public domain prior to the Symposium. For details, please refer to the Author's Guide in the above website. Submissions from industry and universities are encouraged. Partial travel expense support for students who are presenting papers is available upon request. Extended versions of selected papers from the Symposium will be published in a **Special Issue of the IEEE Journal of Solid-State Circuits**.

Paper Submission Deadline is 11:59 P.M. JST (2:59 P.M. GMT), January 21, 2013

BEST STUDENT PAPER AWARD

The selection will be based upon the quality of the paper and the presentation. The student who receives the Best Student Paper Award will be presented a monetary award and a certificate at the opening session of the 2014 Symposium. The student must be enrolled as a full-time student at the time of submission, the leading author and the presenter of the paper, and must indicate in the web submission form that this is a student paper to be considered for this award.

VLSI CIRCUITS SHORT COURSE

The Symposium offers two one-day short courses on major topics of current interest, instructed by selected international experts. The short course will be held on June 11, 2013. Details will be posted on the web by the middle of April, 2013.

INFORMATION AND REGISTRATION

Prospective attendees can obtain further information and forms for Symposium registration and hotel reservations by contacting their respective secretariats.

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