



FIRST ANNOUNCEMENT AND CALL FOR PAPERS

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

2010 SYMPOSIUM ON VLSI CIRCUITS

Hilton Hawaiian Village, Honolulu, Hawaii
June 16 - 18, 2010

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Short Course Organizers:

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The three day 2010 Symposium on VLSI Circuits will continue to provide the designers of integrated circuits an opportunity to meet and present important new work on all aspects of VLSI circuits in the successful atmosphere established at previous meetings. This year the **VLSI Circuits Symposium** and the **VLSI Technology Symposium** will overlap for two days to allow more *opportunity for participants to interact and synergize on topics of mutual interest related to technology scaling, embedded memories, power reduction, and design-for-manufacturing (DFM)*.

The scope of the Symposium includes innovative techniques in the following areas:

- Circuit design to address challenges of deeply scaled technologies - e.g. DFM, variability, reliability.
- Digital circuit techniques
- Analog and mixed signal circuits such as data converters and amplifiers to address performance, power, technology scaling, and variability.
- Complex SOC systems describing new architectures and implementations.
- Circuit approaches for clock generation and distribution.
- Advances in memory circuits; especially for embedded memories in scaled technologies.
- Power minimization techniques for analog and digital circuits, including novel energy harvesting, battery management and renewable energy topics.
- Power management circuits, including linear and switching voltage regulators and voltage references.
- Techniques for digitally-assisted analog and analog-assisted digital including digital implementation of previously analog functions.
- Architectures and circuits for RF and wireless communications.
- Circuits for sensors and displays.
- Wireline transceiver and I/O design optimized for high bandwidth and low-power spanning from chip-to-chip through long-reach applications.
- Fundamentals related to the above, including innovative transistor-level circuit design and circuits for characterizing technology changes and variations.

Papers will be considered on the basis of originality, innovation, and advancing the field. Prototype implementation and measured results will be considered favorably in the ratings. It is understood that papers in new areas are likely to contain less quantitative evaluations than those in more established areas.

SUBMISSION OF PAPERS

Prospective authors must submit papers in the format of two pages of camera-ready copy to the web page:

<http://www.vlssymposium.org>

Please note that hard copy submission will NOT be accepted

The papers are to 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.

Submissions from universities are encouraged. Partial travel expense support for students who are presenting papers is available upon request.

BEST STUDENT PAPER AWARD

The selection will be based upon the quality of the written 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 2011 Symposium. The student must be enrolled as a full-time student at the time of submission, be 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.

Paper Submission Deadline is January 25, 2010, 5:00 P.M. PST

INFORMATION AND REGISTRATION

Prospective attendees can obtain further information and forms for registration and hotel reservations from the Symposium website by visiting www.vlssymposium.org or from the closest secretariat.

VLSI CIRCUITS SHORT COURSES

The Symposium offers a choice of two one-day short courses on **major topics of current interest, instructed by selected experts from across the world**. The short course will be held on June 15, 2010. Details will be given in the VLSI Circuits Symposium Advance Program, which will be posted on the web by the middle of April, 2010.

Preceding the first day of this Symposium, the 2010 Symposium on VLSI Technology will be held at the same location with two days of overlap between the two symposia. See the reverse side.

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