CALL FOR PAPERS
ISLPED 2014
INTERNATIONAL SYMPOSIUM ON LOW POWER ELECTRONICS AND DESIGN

http://www.islped.org
La Jolla, CA, USA
Aug. 11 – Aug. 13, 2014

Sponsored (pending) by **ACM SIGDA** and **IEEE Circuits and Systems Society** with technical support (pending) from the **IEEE Solid-State Circuits Society,** the **IEEE Electron Devices Society, IPSJ Computer Science Society,** and the **IEICE Electronics Society**.

The International Symposium on Low Power Electronics and Design (ISLPED) is the premier forum for presentation of recent advances in all aspects of low power design and technologies, ranging from process and circuit technologies, simulation and synthesis tools, to system level design and optimization. Specific topics include, but are not limited to, the following two main areas, each with three sub-areas:

1. Technology, Circuits, and Architecture	2. CAD, Systems, and Software
1.1. Technologies Emerging Low-power technologies for Device, Interconnect, Logic, Memory, 2.5/3D, Cooling, Harvesting, Sensors, Optical, Printable, Biomedical, Battery, and Alternative energy storage devices.	**2.1. CAD Tools and Methodologies** CAD tools and methodologies for low-power and thermal-aware design addressing power estimation, optimization, reliability and variation impact on power, and power-down approaches at all design levels: physical, circuit, gate, RTL, behavioral, and algorithmic.
1.2. Circuits Low-power digital circuits for Logic, Memory arrays, Reliability, Clocking, Power gating, Resiliency, Near-Threshold Voltage (NTV), Sub-threshold, Variability, and Digital assist schemes; Low-power analog/mixed-signal circuits for Wireless, RF, MEMS, AD/DA Converters, I/O circuits, PLLs/DLLS, Imaging, DC-DC converters, and Analog assist schemes.	**2.2. Systems & Platform** Low-power, power-aware, and thermal-aware system design and platforms for microprocessors, DSP, embedded systems, FPGA, ASIC, SoC, heterogeneous computing, novel systems, data-center power delivery and cooling, and system level power implications due to reliability and variability.
1.3. Logic and Architecture Low-power logic and microarchitectures for SoC designs, Processor cores (compute, graphics and other special purpose cores), Register file, Cache, Memory, Arithmetic/Signal processing, Encryption, Variability, Asynchronous design, and Non-conventional computing.	**2.3. Software & Applications** Energy-efficient, energy-aware, and thermal-aware software and application design including scheduling and management, reliability and variability optimizations, and emerging low power applications like approximate and brain-inspired computing, low power distributed body-area/in-body networks, and sensor networks.

Submissions on new topics: emerging technologies, architectures/platforms, and applications are particularly encouraged.

TECHNICAL PAPER SUBMISSIONS DEADLINE: Abstract registration: **Feb 28, 2014**; Full paper: **March 7, 2014**

Submissions should be full-length papers of up to 6 pages (double-column, ACM SIG Proceedings format, available at http://www.acm.org/sigs/publications/proceedings-templates), including all illustrations, tables, references and an abstract of no more than 100 words. Papers exceeding the six-page limit will not be reviewed. **Submission must be anonymous**: papers identifying the authors and/or with explicit references to their prior work will be automatically rejected. Electronic submission in **pdf format** only via the web is required. More information on electronic submission to ISLPED'14 can be found at http://www.islped.org.

Submitted papers must describe original work that will not be announced or published prior to the Symposium and that is not being considered or under review by another conference at the same time. Accepted papers will be presented in one of two parallel tracks: one focusing on architectures, circuits and technologies, the other on design tools and systems and software design for low power. Notification of paper acceptance will be mailed by **April 28, 2014** and the camera-ready version of the paper will be due by **June 18, 2014**. Accepted papers will be published in the Symposium Proceedings and included in the ACM Digital Library. Authors of a few selected papers from the Symposium will also be given an opportunity to submit enhanced versions of their papers for publication in a special issue of a reputed journal. ISLPED'14 will present two Best Paper Awards based on the ratings of reviewers and an invited panel of judges.

INVITED TALK, PANEL, AND TUTORIAL PROPOSALS DEADLINE: Received by: **March 14, 2014**

There will be several invited talks by industry and academic thought leaders on key issues in low power electronics and design. All invited talks will be in plenary sessions. The Symposium may also include embedded tutorials to provide attendees with the necessary background to follow recent research results, as well as panel discussions on future directions and design/technology alternatives in low power electronics and design. Proposals for invited talks, embedded tutorials, and the panel should be sent to the Technical Program Co-Chairs:

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EXHIBITION REQUESTS DEADLINE: Received by: **April 28, 2014**

People from Industry or Academia interested in exhibiting at ISLPED'14 should contact the symposium General Co-Chairs.

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