



# IEEE

# Custom Integrated Circuits Conference

# CICC

## CICC 2011 CALL FOR PAPERS



**September 18 - 21, 2011**  
**San Jose, CA USA**  
**DoubleTree Hotel**

**Paper Submission Deadline:**  
**April 18, 2011**  
For author instructions and  
electronic submission visit  
our web site at  
<http://www.ieee-cicc.org>

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CICC showcases first-published innovative analog and digital circuit techniques covering a broad spectrum of technical topics, including:

### Analog Design

**Biomedical, Actuators, MEMS and Sensors**

**Systems on Chip and 3D**

**Memory**

**IC Manufacturing**

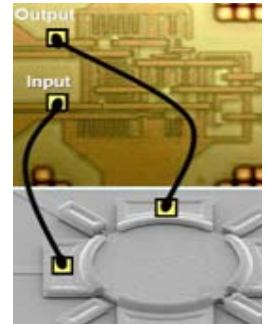
**Power Management.**

**Test, Debug, and Reliability**

**Simulation and Modeling**

**Wireless Designs**

**Wired Communications**



**Technical Education** on new, state-of-the-art developments is the core of CICC. Over 160 papers, addressing a broad range of circuits, applications, design techniques, tools, test, reliability, and system-on-a-chip. Awards for Best Paper will be given for regular, invited, student, and poster submission categories. Top-rated CICC papers are eligible to be considered for the IEEE Journal of Solid State Circuits and TCAS.

**Educational Sessions (September 18):** three in-depth, full-day tutorials instructed by recognized invited speakers.

**An opening Keynote address, Exhibits, interactive Poster-papers and Demonstrations, lively and controversial Panel Discussions, and a Luncheon** with guest speaker rounds out the program.

**The DoubleTree Hotel Conference Center** is minutes from SJC airport. San Jose offers easy access to many California destinations such as San Francisco,



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## CICC is soliciting papers in the following areas:

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**Analog Circuit Design:** Data Converters – Nyquist and oversampled, mixed signal analog/digital applications, analog sensor processing applications, low voltage and low power analog, deep submicron issues in analog design. Blocks for analog systems – amplifiers, sample-holds, voltage references and regulators, filters continuous and discrete, non linear analog blocks, novel clock generation.

**Systems on Chip and 3D:** Innovative SoC, ASIC and 3D designs, methodologies and infrastructure, including high performance and/or energy efficient architecture, implementation and assembly techniques.

**Memory:** Circuits and architectures addressing power-performance-density trade-offs,  $V_{min}$ , resilient design (e.g., for example, redundancy, ECC), endurance, data retention, variations tolerant design, low-leakage and reliability for volatile, non-volatile and emerging memory technologies including, but not limited to, SRAM, (e)DRAM, CAM, ROM, OTP, MRAM, RRAM, PCM and application specific memory design..

**Power Management:** Circuit and system architectures for power management and power consumption optimization. Advanced circuit topologies and innovations in switching / linear regulators, leakage management, energy scavenging, wireless power transmission, battery charging and metering, digital control, dynamic power control, and other topical areas related to the challenges of efficient power generation, distribution, and utilization.

**simulation and Modeling:** Compact models for active and passive devices, mixed discipline and behavioral modeling, signal-integrity modeling and simulation. System and circuit simulation, parasitic extraction and reduction, simulation techniques for analog, RF, and mixed-signal circuits, package modeling, process variation, statistical, and reliability modeling, compact models for extreme environment operation, SOI and multiple gate device modeling, novel design tools.

**Wireless Designs:** Integrated wireless transceiver architectures and sub-circuits for cellular, connectivity, broadband and low-power communication, millimeter-waves, and beyond, biomedical, smart antennas, MIMO, RF MEMS, software-defined and cognitive radio. Papers on RF circuit solutions targeting emerging wireless applications and techniques are particularly encouraged.

**Biomedical, Actuators, MEMS, and Sensors:** Advanced ICs for biomedical, aerospace, automotive, energy, environment, and security applications. Interface circuits for emerging technologies in medicine, actuators, MEMS, and sensors are of particular interest. Examples include biosensors and devices, nanotechnology, microchemical sensors, image sensors, OLED's, DNA microarrays, micro- and nanofluidic chips, novel display technologies and organic circuitry.

**IC Manufacturing:** Special focus on challenges of and alternatives to CMOS scaling, Design for Manufacturability, specialty manufacturing techniques, and design / technology interaction. Advanced manufacturing techniques using any combination of bulk/SOI CMOS, bipolar, non-silicon, and photonic technologies. Evolving chip packaging such as chip stacking, lead-free, flip-chip, and System-in-Package. Tutorial papers are encouraged.

**Test, Debug, and Reliability:** Debug techniques. DFT (design for test) for analog/mixed signal circuits, equalizers, CDR, and high speed I/O. Design techniques for high reliability applications. Reliability concerns in leading edge technologies, such as soft errors. Innovations in ESD protection. Issues of testability and constraints due to protection of intellectual property or system security.

**Wired Communications:** Circuits and systems for electrical and optical networks, including: peripheral I/O buses, Ethernet, SONET, SATA, HDMI, PCIe, USB, serial links, backplane, high-speed memory and graphics interfaces, intra-chip and chip-to-chip interconnects, clocking and high-speed low-power blocks for broadband applications; circuit blocks including serializers, deserializers, equalizers, PLLs, DLLs, CDRs, oscillators and integrated photonic transceivers; solutions for variability.

For complete instructions on submitting a paper, registration information and general inquiries:

**Visit our website at [www.ieee-cicc.org](http://www.ieee-cicc.org)**

Or you can contact the Conference Office: IEEE Custom Integrated Circuits Conference, 19803 Laurel Valley Place, Montgomery Village, MD, 20886, Telephone: 301/527-0900 x1, Fax: 301/527-0994, Email: [melissaw@widerkehr.com](mailto:melissaw@widerkehr.com),

**IEEE CUSTOM INTEGRATED CIRCUITS CONFERENCE**

*"Showcase for Circuit Design in the heart of Silicon Valley"*

**[www.ieee-cicc.org](http://www.ieee-cicc.org)**

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## Submission of Papers

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*Paper Submission Deadline is April 18, 2011*

**Papers must report original and previously unpublished work, including specific results.** Papers may be up to 4 pages in length including illustrations, charts, tables and references. Successful submissions concisely explain how the work advances the state-of-the-art and includes schematics, measured results, and sufficient detail to convey key concepts. **Circuit-design papers intended for traditional lecture presentation must include measured experimental results that substantiate performance claims.** Circuit-design papers using only simulation to substantiate performance claims are usually rejected for traditional lecture presentation, but may be considered for poster presentation.

Papers are submitted electronically. **Prior** to preparing your paper for electronic submission, please read the paper preparation and submission guidelines on the CICC website ([www.ieee-cicc.org](http://www.ieee-cicc.org)). The submission instructions will be available by March 5. The submission page will be active beginning March 5.

When submitting a paper, please indicate a preference for **traditional lecture** or **poster presentation**, although CICC may assign presentations to either category.

Appropriate company and government clearances **MUST** be obtained prior to submission. **IF A SIGNED COPYRIGHT FORM IS NOT RECEIVED WITH THE SUBMISSION, THE SUBMISSION WILL NOT BE REVIEWED.** Authors of accepted papers will be notified by email by June 25, 2011

ACCEPTED PAPERS WILL BE PRINTED IN THE PROCEEDINGS WITHOUT OPPORTUNITY FOR FURTHER CHANGE.

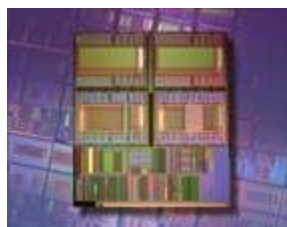
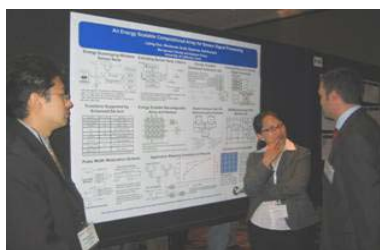
Accepted papers will be used for publicity purposes and portions of these papers may be quoted in pre-conference magazine articles and also via the Web. If this is not acceptable, authors must email CICC at [melissaw@widerkehr.com](mailto:melissaw@widerkehr.com) to decline publicity.

### ***Papers for Poster Presentation***

Poster presentations encourage in-depth discussions with the audience and are ideal for the presentation of ongoing research. The Poster Sessions are held during the conference receptions and exhibits, providing an exciting atmosphere and lively discussions between authors and attendees. The acceptance criteria for papers for poster presentation are identical to those for traditional lecture presentation except that the requirement for measured experimental results may be relaxed for papers intended for poster presentation.

### ***Poster Session Demonstrations***

Lecture or poster presenters may apply to present a demonstration of their research. Visit the CICC website for additional details.



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The IEEE Custom Integrated Circuits Conference is sponsored by:



The Institute of Electrical  
and Electronic Engineers,  
Inc.



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