



CALL FOR PAPERS

IEEE

CUSTOM INTEGRATED CIRCUITS CONFERENCE 2002 “...Innovation, Education, Communication”

the leading technical conference for IC development

**CARIBE ROYALE
RESORT SUITES**

**ORLANDO, FL
MAY 12 - 15, 2002**

The IEEE Custom Integrated Circuits Conference is the premier conference devoted to IC development, showcasing original first published technical work and innovative circuit techniques that tackle practical problems. CICC is a forum for circuit, IC and SoC designers, CAD developers, manufacturers and ASIC users to present and discuss exciting new developments, future trends, innovative ideas and recent advancements. CICC is sponsored by the IEEE Solid-State Circuits Society and co-sponsored by the IEEE Electron Devices Society.

CONFERENCE HIGHLIGHTS

Technical Papers

Education on new, state-of-the-art developments is the core of CICC's technical program. Over 150 papers, addressing a broad range of circuits, applications, design techniques, tools, test and reliability, and system-on-a-chip, will be presented. Awards for Best Paper will be given in both the regular and student submission categories. CICC papers are also eligible for publication consideration in a special issue of the IEEE Journal of Solid State Circuits.

Panels

Key issues and controversial topics are debated by leaders from the IC industry. CICC panels are well known for their lively and thought-provoking discussion. The Q&A sessions provide the audience with the opportunity to weigh in on important issues.

Educational Sessions

A valuable opportunity to refresh key skills in traditional circuit-design methods and acquire knowledge in vital new areas such as system-on-a-chip design, broadband communications, and wireless IC design. Instruction by industry-recognized invited speakers make these in-depth, full-day tutorials among the best in the industry.

Exhibits

Displays and demonstrations by semiconductor manufacturers, software tool suppliers, silicon IP providers, design-service houses, and technical book vendors.

Conference Events

Stimulating social happenings that complement the technical character of CICC, such as an Exhibitors' Reception and conference luncheon, provide additional opportunities for discussion and peer networking in a relaxed environment.

PAPERS IN THE FOLLOWING AREAS ARE REQUESTED

**Analog Circuit Design
Custom/Low Power
DSP**

**Embedded Memory
Fabrication/Foundry
Programmable Devices**

**Simulation-Modeling
System-on-a-Chip
Test and Reliability**

Analog Circuit Design

Circuits for wired and wireless communications. Data converters, modulators, filters, high-speed analog, low-voltage techniques. Mixed analog-digital IC applications, RAMDACs, advanced read/write channel circuits. ICs and systems for data, voice, image and video transmissions. Analog, digital and mixed-signal innovations for modulation, equalization, error correction, coding, switching, auto calibration, adaptive signal processing. Circuits for SONET/SDH, xDSL, LAN/WAN/ATM, set-top receivers, cable modems, high-speed serial links and broadband applications. Receivers, transmitters, and their subcircuits for RF/IF/baseband, frequency synthesis, phase-locked loops, wireless LAN, baseband/RF power amplifiers.

Custom /Low-Power

Custom circuit designs including low-power design techniques. Innovative designs for cell-based or full custom ICs for applications such as automotive, biomedical, industrial control, and specialized consumer products. Sensor interface circuits and high-performance circuit designs, including dynamic logic, clocking circuits, and I/O circuits.

DSP

Error correction and modulation techniques to increase the speed and bandwidth of optical and wireless transmission systems. Configurable DSP architectures, including network processors. Digital video and audio, MPEG, image recognition and enhancement. Audio coding and speech recognition. Specialized processing function architectures. Digital filtering, encryption, HDTV, video conferencing, multimedia, graphics controllers, video drivers, and novel DSP algorithm implementations.

Embedded Memory

Use of SRAM, DRAM, EEPROM, ROM and CAM in ICs. Innovative memory architectures, sense amplifiers, special memory interfaces, and design of memories in new technologies such as SOI or ferroelectric material.

Fabrication / Foundry

Advanced process integration techniques for the manufacturing & prototyping of system-on-a-chip ICs using any combination of CMOS, bipolar, BiCMOS, SiGe, SOI, smart power, ferroelectrics, and MEMS technologies. New and evolving chip packaging such as BGA, flip-chip, chip-on-chip, and multi-chip modules. Package modeling, techniques, ESD protection, and fiber optic transceivers.

Programmable Devices

FPGA/PLD logic block, routing, and system block architectures and circuitry. Programmable I/O structures, configurable cores, interaction between configurable logic and processors/memories/fixed-function cores. CAD tools targeting these devices.

web address: www.ieee-cicc.org

(over for more information →)

Simulation-Modeling

System, circuit, functional, timing, and logic simulation. Device and block modeling. Analog, RF modeling and simulation. Mixed-signal simulation and modeling, or analog/digital interfaces. Signal integrity and reliability verification. Clock/power network design, synthesis and verification. R(L)C extraction, data reduction and analysis. Modeling of device/interconnect packaging and process/process variations.

System-on-a-Chip

System-on-a-chip (SoC) design, integration of diverse silicon IP and technologies (e.g., embedded DRAM or Flash, analog/mixed-signal blocks, programmable logic) on the same IC. Silicon-IP and SoC design flows including system-level design tools and techniques. Silicon-IP generation, verification and protection. IC design technical project management, estimating design and CAD support resources, global design teams.

Test and Reliability

ATE and ad-hoc test techniques, design for test and reliability for analog, digital and SoC designs. Circuit techniques to aid failure analysis for advanced CMOS processes. Testing, reliability impact, and circuit implications of radiation-induced soft errors.

SUBMISSION OF PAPERS:**Deadline for Papers is November 28, 2001**

Prospective authors must submit CAMERA READY papers and a PDF file, up to four pages in length inclusive of all illustrations, charts, tables and references. Those interested in submitting papers should contact the Conference Office or visit the CICC web page as early as possible to obtain an author's kit and detailed instructions. The address is: CICC, 16220 South Frederick Road, Suite 312, Gaithersburg, MD, 20877, Telephone: (301) 527-0900 x207, Fax: 301-527-0994, email: cicc@his.com, web page: <http://www.ieee-cicc.org>.

ACCEPTED PAPERS WILL BE PRINTED IN THE PROCEEDINGS WITHOUT OPPORTUNITY FOR FURTHER CHANGE. The paper should report original and previously unpublished work, including specific results. Circuit oriented work must include measured experimental results. Deadline for RECEIPT of technical papers is November 28, 2001. Appropriate company and government clearances MUST be obtained prior to submission. Authors of accepted papers will be notified by mail by January 31, 2002.

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 indicate this in the cover letter when submitting the paper for review.

Tutorial Papers

Tutorial papers can have a length of up to 8 pages and must be pre-approved prior to submission. Those interested in submitting a tutorial paper should contact the Technical Program Chair, Larry Starr (larry.starr@intel.com) as soon as possible as the number of tutorial slots are limited. Submission of tutorial papers in the area of telecom and datacom design is encouraged.

Presentations

Authors presenting papers at the CICC Conference will be required to use Powerpoint or PDF (IBM compatible-PC format) as the projection medium.

FURTHER INFORMATION

For complete author kit instructions, registration information, and general inquiries contact the Conference Office: IEEE Custom Integrated Circuits Conference, 16220 South Frederick Road, Suite 312, Gaithersburg, MD, 20877, Telephone: 301/527-0900 x207, Fax: 301/527-0994, email: cicc@his.com, web page: <http://www.ieee-cicc.org>.

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**CICC
Suite 312
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