

JULY 2009

Currents



IEEE Council on Electronic Design Automation

From the Desk of Vice President of Technical Activities

The CEDA Technical Activities program has been busy on several fronts. We have recently added a new video presentation, prepared specifically for our membership. It is primarily based on the best papers selected at ICCAD and DAC, as well as some invited CEDA talks. Subsequent to Subhasish Mitra's talk, we now have Vladimir Stojanovic's talk: "Optimization-Based Framework for Simultaneous Circuit-and-System Design-Space Exploration of Analog/Mixed-Signal Front-Ends: A High-speed Link Example." This should be of interest to all in our community, given the increasing importance of AMS in ICs manufactured today. Please visit the CEDA Web site (<http://www.c-ceda.org>) for a complete list of lectures.

CEDA will also host a lunch meeting at DAC, with an invited lecture by Dr. Jeannette Wing (see <http://www.dac.com/events/eventdetails.aspx?id=95-350>). The lunch (open to all DAC attendees on a first-come, first-served basis) will be held Tuesday, July 28, from 12:00 p.m. to 2:00 p.m., in Rooms #303–305 at the Moscone Center in San Francisco. Dr. Wing is assistant director of the NSF Computer and Information Science and Engineering Directorate (CISE), which funds 84 percent of all academic computer science research in the United States. She will detail CISE's research and education programs, including cyber-enabled discovery and innovation, cyber-physical systems, data-intensive computing, network science and engineering, socially intelligent computing, and trustworthy computing.

Additionally, CEDA is cosponsoring a Young Faculty Workshop at DAC. The workshop jointly aims to service new and aspiring faculty. The key objective is to provide resources to help them in their quest for initiating new research programs. Faculty and students are encouraged

to apply for a grant to participate in this workshop. CEDA members Bill Joyner and Shishpal Rawat will join the workshop as participants, providing an SRC and an industry view of research. Please see the next page of this newsletter for additional details.

Interest in EDA is growing around the world. Two IEEE CEDA chapters have been formed: (1) the IEEE CEDA Benelux Embedded Systems Chapter and (2) the IEEE Tunisia Section CEDA chapter. CEDA chapters enable participants to organize events around EDA-related topics. Our plan is to support these chapters with invited talks by prominent EDA researchers from both industry and academia. You are welcome to start a chapter in your own geographical area. Valuable information regarding IEEE Council chapters is available at www.ieee.org/chapters.

We welcome your suggestions on areas you would like CEDA to be more active in. Please send suggestions to Shishpal Rawat (Shishpal.s.rawat@intel.com).

Distinguished Speaker Luncheon and Lecture

Tuesday, July 28

12:00 p.m. – 2:00 p.m.

Rooms 303–305 (DAC 2009)

Frontiers in Research and Education in Computing: A View from the National Science Foundation

Jeanette M. Wing – Assistant Director for Computer and Information Science and Engineering (National Science Foundation), President's Professor of Computer Science (Carnegie Mellon University).

Call for Participation: YOUNG FACULTY WORKSHOP at DAC 2009

The Design Automation Conference will be hosting a workshop for new and aspiring faculty in the field of electronic design automation (EDA) at DAC 2009 in San Francisco.

This one-day workshop for new faculty and individuals planning to enter academia (both senior graduate students and researchers from industry) will be on topics of relevance pertaining to surviving and succeeding as a faculty member in the current academic and research climate. The workshop will be open for all pretenure faculty and senior graduate students in CAD, electronic system-level design, and related areas.

The full-day workshop will be organized into six sessions, with each session led by one or two senior faculty members, researchers, or representatives from funding agencies. Topics covered will include establishing a research career, the art of teaching an EDA course, seeking tenure, balancing career and life components, and diversity in academia. Each of these sessions will run 1 hour, with time allocated for Q&A and open discussions.

There will be an opportunity during lunch and at the end of the day for attendees to meet with representatives of the National Science Foundation (NSF), Semiconductor Research Corporation (SRC), and industry researchers.

Funds are available, based on need and travel distance, to help defray the cost of attending the workshop for both faculty and graduate students who apply to attend. Interested persons must request funding from their faculty advisor, departmental chair, and/or dean to attend this workshop.

Please see the DAC Web page at: <http://www.dac.com/events/eventdetails.aspx?id=95-255>, and please go to <http://kona.ce.pitt.edu/yfws> for more information. You may also contact Steve Levitan (levitan@pitt.edu).

Find us online at www.c-eda.org

Top 10 Most Downloaded Articles for IEEE Transactions on CAD (TCAD) in 2008

1. "Power-Efficient RAM Mapping Algorithms for FPGA Embedded Memory Blocks," Tessier et al.
2. "DC-DC Converter-Aware Power Management for Low-Power Embedded Systems," Choi et al.
3. "CMP Fill Synthesis: A Survey of Recent Studies," Kahng et al.
4. "VHDL-AMS and Verilog-AMS as Alternative Hardware Description Languages for Efficient Modeling of Multidiscipline Systems," Pecheux et al.
5. "Asymptotic Probability Extraction for Non-normal Performance Distributions," Li et al.
6. "Systematic and Automated Multiprocessor System Design, Programming, and Implementation," Nikolov et al.
7. "A Survey of Automated Techniques for Formal Software Verification," D'Silva et al.
8. "Leakage Minimization of Digital Circuits Using Gate Sizing in the Presence of Process Variations," Bhardwaj et al.
9. "System-Level Dynamic Thermal Management for High-Performance Microprocessors," Kumar et al.
10. "Power Modeling and Characteristics of Field Programmable Gate Arrays," Li et al.

Upcoming Conferences (Bill Joyner, william.joyner@src.org)

MEMOCODE	Cambridge (USA), July 13-15, 2009
DAC	San Francisco (USA), July 26-31, 2009
MPSOC	Georgia (USA), August 2-7, 2009
PATMOS	Delft (Netherlands), Sept. 9-11, 2009
CODES+ISSS	Grenoble (France), Oct. 11-16, 2009
ICCAD	San Jose (USA), November 2-5, 2009
NANO-NET	Switzerland, October 18-20, 2009
FMCAD	Austin (USA), November 2009

IEEE Embedded Systems Letters is open for submissions. Visit: mc.manuscriptcentral.com/les-ieee

IEEE COUNCIL ON ELECTRONIC DESIGN AUTOMATION

President: JOHN DARRINGER *President-Elect:* ANDREAS KUEHLMANN

Secretary: DAVID ATIENZA *VP Finance:* DONATELLA SCIUTO *VP Technical Activities:* SHISHPAL RAWAT

VP Conferences: BILL JOYNER *VP Publications:* RAJESH K GUPTA

Administrator: BARBARA WEHNER, b.wehner@ieece.org