

May 2014



IEEE Council on Electronic Design Automation

Paper Selections for CEDA Mother Societies

CEDA reaches out to its mother societies by specifically selecting certain papers that are beyond the scope of EDA. Editor Michael Orshansky has prepared small compilations of paper abstracts that target IEEE Circuits and Systems Society, Computer Society, and Solid-State Circuits Society members.

These compilations can be found on the CEDA web page:

IEEE Circuits and Systems Society http://ieee-ceda.org/publications/newsletter/papers-for-cas

IEEE Computer Society http://ieee-ceda.org/publications/newsletter/papers-for-cs

IEEE Solid-State Circuits Society http://ieee-ceda.org/publications/newsletter/papers-for-sscs

If you go to these pages and find an exciting abstract, you are just one click away from the full paper!

These selections will be updated twice a year. In the future, we plan to extend this to the other CEDA mother societies as well. Come back once in a while and check!

CEDA Awards at DAC

CEDA actively recognizes the scientific activities of the members of the EDA community by sponsoring or cosponsoring numerous awards in the field. These honors recognize a wide range of major achievements, at various stages of a person's career.

For example, IEEE Fellow is a distinction reserved for select IEEE members with extraordinary accomplishments in their fields. The 2014 IEEE Fellows nominated by CEDA are being honored at this year's Design Automation Conference (DAC):

- Zhigang (David) Pan (University of Texas at Austin) is being honored for contributions to design for manufacturability in ICs.
- Mircea Stan (University of Virginia) is being honored for contributions to power- and temperature-aware design of VLSI circuits and systems.

• Martin Vlach (Mentor Graphics) is being honored for leadership in analog and mixed-signal hardware description languages and their simulation tools.

In addition, Yervant Zorian (Virage Logic) is receiving the Outstanding Service Award for his exceptional commitment and service to the EDA community.

Other CEDA awards that are being presented at DAC include the A. Richard Newton Technical Impact Award in Electronic Design Automation and the IEEE Transactions on Computer-Aided Design Donald O. Pederson Best Paper Award.

2014 CAD Contest

The annual CAD Contest in Taiwan, sponsored by the Taiwan Ministry of Education (MOE), has been held for 14 consecutive years and has successfully boosted EDA research momentum in Taiwan.

Since 2012, the contest has garnered international interest, thanks to the joint sponsorship of CEDA and the Taiwan MOE.

In the first two years of this new contest, 56 teams from seven regions and 87 teams from nine regions have been attracted to join the respective 2012 and 2013 CAD contests. Many results of top teams have been further enhanced and converted to top international conference and journal papers.

The contest includes three problems, covering three distinct areas: logic synthesis and verification, placement, and mask optimization.

In this third year, as the CAD Contest becomes more well-known and well-organized, it is expected to bring more significant contributions to our global EDA community. You are invited to participate!

CEDA Currents is a publication of IEEE CEDA. Please send contributions to Jose L. Ayala (<u>layala@fdi.ucm.es</u>). © 2014 IEEE. All rights reserved.

This Year's Three Topics

The three topics for this year's CAD Contest are as follows:

- Simultaneous CNF (Conjunctive Normal Form) Encoder Optimization with SAT (Boolean Satisfiability) Solver Setting Selection (contributed by Taiwan Cadence Design Systems)
- 2. Incremental Timing-Driven Placement (contributed by IBM Research, Austin, Texas).
- Design for Manufacturability Flow for Advanced Semiconductor Nodes (contributed by IBM Semiconductor R&D Center, East Fishkill, New York)

Schedule

The submissions schedule is as follows:

- 1. Alpha submission: 15 June 2014
- 2. Beta submission: 1 August 2014
- 3. Submission deadline: 1 September 2014
- 4. Final announcement: November 2014

Awards

Contest winners (students only) will receive monetary awards and certificates, as described in Table 1.

Table 1. Awards for the 2014 CAD Contest

Award	Team	Advisor
1st Place One team per topic	 1. 1st-Place Certificate 2. NTD50,000/team (approx. US\$1650) 	1st-Place Certificate
2nd/3rd Place Two teams per topic	 Certificate NTD30,000/team (approx. US\$1000) 	Certificate

Additional Information

For any inquiries regarding this contest, please send your emails to <u>cad.contest.iccad@gmail.com</u>. Please add "IC-CAD2014_Contest" to the subject line.

Please see the CAD Contest website for updates on this year's contest: <u>http://cad_contest.ee.ncu.edu.tw/CAD-Contest-at-ICCAD2014</u>.

Papers in IEEE Embedded Systems Letters

The top-five accessed articles from *IEEE Embedded Systems* Letters in February 2014 were as follows:

- "<u>A Security Layer for Smartphone-to-Vehicle</u> <u>Communication over Bluetooth</u>," by A. Dardanelli et al.
- "Introducing New Localization and Positioning System for Aerial Vehicles," by E. Mazidi
- "<u>Self-Adaptive Network-on-Chip Interface</u>," by R. Dafali, J.-P. Diguet, and J.-C. Creput
- "<u>Hardware-Assisted Detection of Malicious</u> <u>Software in Embedded Systems</u>," by M. Rahmatian et al.
- "<u>Hybrid Fault Detection for Adaptive NoC</u>," by C. Killian, C. Tanougast, and A. Dandache

Upcoming Conferences (David Atienza, david.atienza@epfl.ch)		
<u>PATMOS</u>	Palma, Spain, 29 Sept 1 Oct. 2014	
<u>ESWEEK</u>	New Delhi, India, 12-17 Oct. 2014	
MEMOCODE	Lausanne, Switzerland, 19-21 Oct. 2014	
<u>FMCAD</u>	Lausanne, Switzerland, 21-24 Oct. 2014	
<u>ICCAD</u>	San Jose, CA, 3-6 Nov. 2014	

Find us online at www.ieee-ceda.org

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

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