Currents

CEDA
IEEE Council on Electronic Design Automation

CEDA Awards at DAC 2015

IEEE 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.

The following awards were presented during the 2015 Design Automation Conference (DAC) Awards Ceremony on Monday, 8 June 2015.

First, the **A. Richard Newton Technical Impact Award** recognizes outstanding technical contributions to EDA, as evidenced by a paper published at least 10 years ago. This year's winners were Blaise Gassend (Google), Dwaine Clarke (University of the West Indies), Marten van Dijk (University of Connecticut), and Srinivas Devadas (Massachusetts Institute of Technology) for pioneering contributions in discovering and using silicon physical unclonable functions (PUFs) for the design and operation of secure integrated circuits and systems, as evidenced by their 2002 ACM Conference on Computer and Communications Security paper, "Silicon Physical Random Functions."

Second, the *IEEE Transactions on Computer-Aided Design* (*TCAD*) **Donald O. Pederson Best Paper Award** honors an outstanding technical contribution appearing in *TCAD* in the past two years. This year's winners were Kai Hu, Feiqiao Yu, Tsung-Yi Ho, and Krishnendu Chakrabarty for their Oct. 2014 *TCAD* paper, "Testing of Flow-Based Microfluidic Biochips: Fault Modeling, Test Generation, and Experimental Demonstration."

Third, the **Outstanding Service Award** recognizes the service provided to the community by the past general chairs of our major conferences. This year, CEDA honored Soha Hassoun (Tufts University), the 2014 DAC General Chair; and Jörg Henkel (Karlsruhe Institute of Technology), the 2013 International Conference on Computer-Aided Design (ICCAD) General Chair.

Finally, CEDA recognizes researchers who have been elevated to **IEEE Fellow** in the area of EDA. This is a distinction reserved for select IEEE members for extraordinary accomplishments in their fields.

The 2015 IEEE Fellows honored at DAC this year were Steven P. Levitan (University of Pittsburgh) for contributions to mixed-technology microsystems education, Michael Orshansky (University of Texas at Austin) for contributions to VLSI design for manufacturability, and Yuan Xie (University of California at Santa Barbara) for contributions to design automation and architecture of three-dimensional ICs.

CEDA Latin America Outreach Activities

Since September 2014, CEDA has tried to expand and make more visible our activities and technical fields of interest in related conferences in Latin America. These activities have included keynote presentations on technical topics related to CEDA, as well as introductory presentations about how to create CEDA chapters and sponsor conferences and local activities in the countries of this region.

In 2014, CEDA representatives participated in the 5th IEEE Colombian Workshop on Circuits and Systems (CWCAS 2014), held in Bogota DC, Colombia on 16 to 17 October 2014. CEDA representatives also participated in the 9th IberoAmerican Congress on Sensors, held in Bogota DC, Colombia, on 15 to 18 October 2014.

At these two events, David Atienza (EPFL, Switzerland) introduced the activities of CEDA and discussed the possible opportunities of joint activities between these two conferences and CEDA. He also provided a keynote speech at CWCAS, titled "Thermal-Aware Design of 2D/3D Many-Core System-on-Chip Architectures."

In 2015, CEDA representatives presented keynote talks at the 6th Latin American Symposium on Circuits and Systems (LASCAS 2015) and the XXI Iberchip Workshop, which took place in Montevideo, Uruguay, on 24 to 27 February 2015.

First, Sachin Sapatnekar (University of Minnesota) presented "Reliability Issues in CMOS, and Spin-Based Design beyond CMOS". Then David Atienza (EPFL, Switzerland) presented "Designing Multi-parametric Monitoring Systems for Scalable Healthcare."

Finally, at the 16th IEEE Latin American Test Symposium (LATS 2015), held in Puerto Vallarta, Mexico, on 25 to 29 March 2015, David Atienza presented "Design of Ultra-Low Power Smart Wearable Systems."

As a result of these activities, there has been a rising interest in Latin America for CEDA activities. This includes ongoing work to create several new local CEDA chapters and other CEDA-sponsored local networking activities and workshops in the near future in Mexico, Colombia, and Uruguay.

The goal of CEDA chapters is to serve the local technical community interested in design automation for electronic circuits and systems through technical seminars; workshops; and networking events for IC designers, CAD R&D engineers, faculty, and students working in the EDA and IC design areas.

If you are an IEEE member and would like a CEDA representative to visit your local events or conferences, please contact us at CEDA Admin (admin@ieee-ceda.com). Please consider formally joining CEDA as a supporter. You would be most welcome!

Papers in IEEE Embedded Systems Letters

The top-five accessed articles from *IEEE Embedded Systems Letters* in April 2015 were as follows:

- "Design and Operation of Secure Cyber-Physical Systems," by F. Pasqualetti and Q. Zhu
- "Security-Aware Modeling and Efficient Mapping for CAN-Based Real-Time Distributed Automotive Systems," by C.-W. Lin, Q. Zhu, and A. Sangiovanni-Vincentelli
- "Task-Aware Interrupt Controller: Priority Space Unification in Real-Time Systems," by T. Gomes et al.
- "NoC-Based Protection for SoC Time-Driven Attacks," by M.J. Sepulveda et al.
- "Comparison of On-Chip Communications in Zynq-7000 All Programmable Systems-on-Chip," by J. Silva, V. Sklyarov, and I. Skliarova

Upcoming Conferences (David Atienza, david.atienza@epfl.ch)	
PATMOS	Bahia, Brazil, 1-4 September 2015
MEMOCODE	Austin, Texas, 21-23 September 2015
FMCAD	Austin, Texas, 27-30 September 2015
NOCS	Vancouver, Canada, 28-30 September 2015
ESWeek	Amsterdam, Netherlands, 4-9 October 2015
VLSI-SoC	Daejeon, Korea, 5-7 October 2015
ICCAD	Austin, Texas, 2-6 November 2015

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IEEE Design & Test is open for submissions. Visit mc.manuscriptcentral.com/dandt and ieee-ceda.org/publications/d-t/paper-submission.