

Special Issue on Image Processing, Corresponding Hardware Architectures, and EDA Tools



■ **A HIGHLIGHT OF** this IEEE *Design&Test* issue is on image processing, corresponding hardware architectures, and EDA tools from the 2018 Symposium on Integrated Circuits and Systems Design (SBCCI 2018). The guest editors Michael Hübner and Jose Luis Guntzel have selected six significantly extended manuscripts for a careful review process. The presented special issue (SI) gives a good insight into the excellent research conduct in Latin America.

A tutorial titled “Hardware Obfuscation and Logic Locking: A Tutorial Introduction” is presented by Tamzidul Hoque, Rajat Subhra Chakraborty, and Swarup Bhunia. The tutorial gives an overview of hardware obfuscation techniques necessary for protection of IP of on-chip systems that are sourced from geographically distributed vendors with potentially different protection standards.

The General Interest section contains two articles: “GLU3.0: Fast GPU-Based Parallel Sparse LU Factorization for Circuit Simulation.” In scientific computing, problems depend upon efficient lower-upper (LU) decomposition of sparse matrices. Shaoyi Peng and Sheldon X.-D. Tan present a new method called GLU3.0.

The other General Interest article is titled “Automotive Virtual In-Sensor Analytics for Securing Vehicular Communication.” Georgia-Irene Trouli and George Kornaros describe new sensor analytics in vehicles

that highly rely on sensor data of hundreds of sensors in just one vehicle.

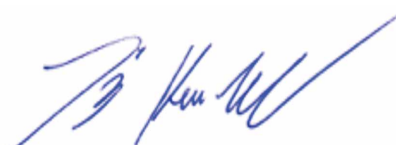
Another highlight of this issue is the Roundtable titled “Evolutionary Computing or Heuristic Forever?” that is based on a panel discussion at DAC 2019 moderated by Giovanni De Micheli and panelists Antun Domic, Massimiliano, Di Ventra, Martin Roettler, and Jason Cong.

The current pandemic situation has led to many conferences being held online. The DATE conference was one of many conferences held as an online event. The organizers report how they have organized online DATE within a short time frame of a few weeks. ASPLOS was also one of the very first to conduct its conference online. The organizers James Larus, Luis Ceze, and Karin Strauss report on their online experience which should be very helpful for other conferences who go online later this year.

Thanks to Theo Theocharides for the TTTC newsletter.

Last but not least, many thanks to Scott Davidson for The Last Byte article titled “3-D TV? We Got 6-D TV!..”

Enjoy reading! ■

A handwritten signature in blue ink, appearing to read 'Jörg Henkel'.

Jörg Henkel
Editor-in-Chief
IEEE Design&Test

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