From the EIC

Top Picks in Hardware and Embedded Security

THE IDEA TO publish a special issue on hardware and embedded security stems from a workshop with the same name where previously published conference and journal papers were presented. The papers published here present extended and adjusted versions of these works to fit under this common umbrella. My special thanks goes to Prof. Ramesh Karri from NYU who had discussed this idea with me back in 2019. Thanks to his continued efforts and ideas, this special issue became a reality. I also wish to thank the Guest Editors, Rosario Cammarota and Francesco Regazzoni, who have managed the special issue and grouped the ten papers into the five categories: "microarchitectural side- and covert-channel analysis," "end-to-end defense lines in hardware security," "security of IP protection techniques for IC and ML," "physical side-channel analysis," and "cryptographic hardware."

The General Interest section contains three articles. In "Discovering CAN Specification Using On-Board Diagnostics," Song and Kim present a method to discover controller area network (CAN) specifications that are typically hidden by car manufacturers. In "Ladder Scaling Fracmemristor: A Second Emerging Circuit Structure of Fractional-Order Memristor," Pu et al. introduce a new circuit structure of the fractional-order memristor, called the fracmemristor. An article describing a cyber–physical teaching curriculum is presented by Stankovic et al. in "A Graduate Curriculum in Cyber–Physical Systems" (more on that topic can be read in *IEEE Design&Test*, vol. 37, no. 6, Nov./Dec. 2020).

Thanks to Sheldon X.-D. Tan and Toshihiro Hattori for the ASP-DAC 2021 Conference Report and to Massimi Poncino, our Reports Editor, for acquiring it.

As always, last but not least, thanks to Scott Davidson for The Last Byte titled "Security Begins at Home."

I hope you enjoy reading this large mid-year issue with 13 technical papers.

Enjoy reading! ■

Jörg Henkel
Editor-in-Chief
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