WELCOME TO DCAS 2023

We are pleased to present the Proceedings of the 16th IEEE Dallas Circuits and Systems Conference. The conference was held from April 14, 2023, to April 16, 2023. The conference was hybrid this year. The first day of the conference was held virtually and the next two days of the conference were held in-person at the University of North Texas. The conference attracted professionals and researchers not only from local industry and academia but also nationally and internationally. It was jointly sponsored by the Dallas Chapters of the IEEE Circuits and Systems Society, the IEEE Solid-State Circuits Society, and the IEEE Electron Devices Society, University of North Texas, the University of Texas at Dallas (UTD), as well as the Dallas Section of the IEEE.

The conference contributions focused on several tracks including VLSI Design and Hardware Security, Sensors and Embedded Systems, Emerging Devices and Circuit Technologies, Circuits and Systems for Machine Learning, Biomedical Circuits and Systems, Analog and mixed-signal Circuits and Systems, RF Circuits and Systems, and Power Systems, Power Electronics and Power Management Integrated Circuits. The conference program featured 39 accepted papers, four special session invited presentations, and seven keynote presentations. The conference also hosted a Student Poster Competition and an in-person workshop on TinyML. The poster competition provided a great opportunity for graduate and undergraduate students to showcase their research work to the Circuits and Systems community.

We were honored to host seven highly distinguished keynote speakers: Dr. Patrick Schaumont, Dr. Erdem Topsakal, Dr. Albert Kim, Dr. Murali Varanasi, Dr. Jeong Bong (JB) Lee, Dr. Adit Singh, and Dr. Songnan Yang. Their topics, affiliations, abstracts and biographies are included in the section on keynote speakers.

We are very thankful for the excellent services of the organizing committee and student volunteers to bring a great conference this year. We would also like to express our appreciation to the Technical Program Chairs and the paper reviewers who helped in the selection of the papers that are being published here, as well in providing valuable feedback to the authors, resulting in improved publications and presentations. In addition, we are grateful to the Session Chairs and Co-Chairs for their contributions to the conference. We also thank all the authors and attendees for their support of the conference and of the Dallas Circuits and Systems Society. We believe that the comprehensive conference program including the keynote talks, special session invited talks, paper presentations, student poster competition and TinyML workshop is informative and beneficial for you, and we hope to see you again at the conference next year.

Gayatri Mehta, General Chair
Hoi Lee, General Vice Chair
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