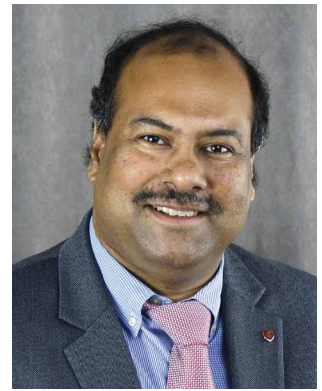


# From the EIC

## Special Issue on Near-Memory and In-Memory Processing



■ **THE ARTICLES IN** this issue are divided into three groups: 1) the first group belongs to a special issue (SI) covering selected articles from the 33rd Symposium on Integrated Circuits and Systems Design (SBCCI 2020); 2) SI on Near-Memory and In-Memory Processing; and 3) general interest articles.

SBCCI is an international forum dedicated to integrated circuits and systems design, test and electronic design automation (EDA), held annually in Brazil. The SBCCI SI consists of five articles and a guest editorial. We thank the guest editors, Fernando Gehm Moraes and Frank Sill Torres, for conducting this exciting SI.

Another highlight of this issue is the SI on Near-Memory and In-Memory Processing. Near-memory and in-memory processing are promising technologies that are believed to substantially improve the efficiency of many emerging applications such as graph analytics, neuromorphic computing, deep

learning, and so on. Enabling this new paradigm requires integrated efforts across multiple research thrusts. This SI consists of six research articles and the guest editorial. The research articles cover a wide spectrum of topics around the broad theme of near-memory and in-memory processing. Thanks to the guest editors, Hai “Helen” Li, Alaa R. Alameldeen, and Onur Mutlu, for making this SI possible.

In addition, we have, in this issue, a survey article titled “EM Side Channels in Hardware Security: Attacks and Defenses” and two general interest articles, “Design for Test With Unreliable Memories by Restoring the Beauty of Randomness” and “Bandpass NGD Time-Domain Experimental Test of Double-Li Microstrip Circuit.”

Many thanks to Scott Davidson for The Last Byte titled “The Memory Shuffle.”

I hope you enjoy reading this issue of *IEEE Design & Test*. ■

A handwritten signature in black ink, appearing to read 'Partha Pande'.

Partha Pratim Pande, *Editor-in-Chief*  
School of Electrical Engineering and  
Computer Science  
Washington State University  
Pullman, WA 99164 USA

Digital Object Identifier 10.1109/MDAT.2022.3147071

Date of current version: 28 February 2022.