
FOREWORD

Special Section on Solid-State Circuit Design—Architecture, Circuit, Device and Design Methodology

We are facing the era of Internet of Things (IoT) that every single thing owns or detects some data and sends them, which are stored on the cloud, manipulated, utilized and that brings innovations into our daily life. For this, a huge amount of data communication happens and a huge amount of data storage are required, where solid-state circuits play the key roles. The development of the IoT world is supported by the endless efforts of the researchers and engineers including not only the authors but also the readers of this special section.

It is my great honor to announce the publication of this special section on solid-state circuit design. The section is devoted to a distinctive exploration of new techniques on integrated circuits. It contains 3 regular papers and 1 brief paper. One paper discusses a PLL which is one of the basic elements for the wireless data communication, and another paper discusses a PLL and ADC to monitor the quality of the data communication. As for the data storage, a trade-off between performance, reliability and cost on Storage-Class Memory and NAND flash hybrid SSD are discussed. The other paper discusses more basic logic schemes based on floating-gate MOS transistors for noise-robust operations.

On behalf of the editorial committee, I would like to express my sincere appreciation to all the authors for their contributions and to all the reviewers for their critical readings. Also, I would like to thank the editorial committee for their work on this special section. Editorial Committee Members:

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Minoru Fujishima (*Senior Member*) received the B.E., M.E. and Ph.D degrees from the University of Tokyo, Japan in 1988, 1990 and 1993, respectively. He joined the University of Tokyo in 1988 as a research associate, and was an associate professor since 1999. He was also a visiting professor of Universiteit Leuven, Belgium, from 1998 to 2000. Since 2009, he has been a professor of Hiroshima University. His current research interests are in millimeter and terahertz CMOS circuits.

