
FOREWORD

Special Section on Analog Circuits and Their Application Technologies

I am honored to announce the publication of this special section on analog circuits and their application technologies. With rapid progress of the current technologies, the advancement of analog circuits has made its way into many areas and become indispensable in our daily lives. The development and application of analog circuits have grown rapidly cover a very wide field of IoT (Internet of Things) and AI (Artificial Intelligence). This special section aims to keep on exploring and exchanging up-to-date techniques and research results, integrating the research so as to bring the results into full play.

I believe that the readers will find a variety of eye-opening ideas in this special section which consists of nine outstanding technical papers. Seven submitted papers selected through a rigorous review process, include topics on LDO regulator, voltage boost converter, analog filter, transimpedance amplifier, transmitter, VCO and CNN accelerator.

In addition to these submitted fine papers, this special section includes two excellent invited papers. One invited paper by Prof. Tetsuya Hirose Group reviews the switched-capacitor voltage boost converter for low-voltage and low-power energy harvesting. The other invited paper by Dr. Yoshinori Kusuda presents various circuit techniques of reducing switching artifacts in chopper amplifiers.

On behalf of the editorial committee, I would like to express our sincere appreciation to all who submitted manuscripts for this special section, and to all the reviewers. I would like to thank all editorial committee members, as listed below, for their enthusiastic support of the editorial work. Finally, I would like to thank Dr. Nicodimus Retdian and Dr. Noriyuki Miura for their extensive work as guest editors.

Guest Associate Editors:

Ippei Akita (AIST), Tetsuya Iizuka (The Univ. of Tokyo), Hiroaki Ishihara (Toshiba), Masao Ito (Renesas Electronics), Hiroyuki Ito (Tokyo Inst. of Technology), Kenichi Okada (Tokyo Inst. of Technology), Tohru Kaneko (Asahi Kasei Microdevices), Masaki Sakakibara (Sony Semiconductor Solutions), Takahide Sato (Univ. of Yamanashi), Zule Xu (The Univ. of Tokyo), Koji Takinami (Panasonic), Takahiro Nakamura (Hitachi), Kiichi Niitsu (Nagoya Univ.), Ryuichi Fujimoto (Kioxia), Tatsuji Matsuura (Tokyo City Univ.), Tadashi Minotani (NTT Telecon), Masaya Miyahara (KEK), Cosy Muto (Nagasaki Univ.), Keita Yasutomi (Shizuoka Univ.), Takafumi Yamaji (Sojo Univ.), Ryuji Yoshimura (Rohm), Ning Li (Sophia Univ.)

Guest Editors:

Nicodimus Retdian (Shibaura Inst. of Technology), Noriyuki Miura (Kobe University)

Hao San (Tokyo City University), Guest Editor-in-Chief

Hao San (*Senior Member*) received M.S. and Dr. Eng. degrees in electronic engineering from Gunma University, Japan, in 2000 and 2004, respectively. He joined Gunma University as an assistant professor in the Department of Electronic Engineering in 2004. In 2009, he joined Tokyo City University, and is presently a Professor in Department of Electrical, Electronics and Communication Engineering there. His research interests include analog and mixed-signal integrated circuits. Dr. San has been an Associate Editor of IEICE Transactions on Electronics from 2010 to 2016. He was the treasurer of the IEEE Circuits and Systems Society Japan Chapter from 2011 to 2012. He is a member of the IEEE and IEEJ.

