Call for Papers

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

The IEICE (Institute of Electronics, Information and Communication Engineers) Transactions on Electronics announces a forthcoming special section on "Solid-State Circuit Design —Architecture, Circuit, Device and Design Methodology" to be published in **July 2024**.

Thanks to the continuous advancement in CMOS device scaling, the number of transistors on a VLSI chip has been ever increasing. It is reaching the level of 10 giga transistors on a single chip, the equivalent of the total number of neurons in the human brain. This would certainly provide us a great opportunity for new applications and information processing. Meanwhile, the demands for advanced circuit and design techniques for coping with leakage current and process variation are increasing. Recent SoCs integrate SRAM and analog circuits, and hence memory and analog circuits for low-voltage operation are expected. With these backgrounds, in order to continue growth of VLSI, the development of new applications and architectures as well as new circuit and design technologies is essential. The purpose of this Special Section is to explore and stimulate original researches related to the subjects. The papers are solicited from prospective authors interested in the related fields.

1. Scope

Possible topics include, but are not limited to:

- VLSI Architecture
- 3D Integrated Circuit
- SoC
- Memory Circuit
- Digital Circuit
- Analog Circuit
- Interface Circuit
- Design Methodology
- Low Power Technology
- Packaging Technology
- Reliability
- High yield

2. Submission Instructions

The deadline for submission is **July 15, 2023 (Japan Standard Time)**. Types of manuscripts for this Special Section are only PAPER and BRIEF PAPER. Manuscripts should be prepared according to the guidelines indicated in the Information for Authors; https://www.ieice.org/eng/shiori/mokuji_es.html. This special section will accept only papers by electronic submission. Prospective authors are requested to follow carefully the submission process described below.

Submit a paper and transfer copyright of the paper using the IEICE Web site https://review.ieice.org/regist/regist_baseinfo_e.aspx. Authors should choose the [Special-CD] Solid-State Circuit Design –Architecture, Circuit, Device and Design Methodology as a "Journal/Section" on the online screen. Do not choose [Regular-EC].

3. Inquiries:

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4. Special Section Editorial Committee

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