
FOREWORD

Special Section on VLSI Design and CAD Algorithms

In the past decades, semiconductor key devices have been contributing greatly to IT, ICT, and IoT technologies and industries which realized human relationships. From now on, Industrial Internet of Things (IIoTs) are possible to create a new world such as health and wellness environment in the post-pandemic era. In order to realize and accelerate the vision, VLSI technology and CAD algorithms is one of the important supporting technologies for Digital Twin, artificial intelligence and data assimilation. Hopefully this series of special sections helps researchers to acquire cutting-edge of work on VLSI design and CAD algorithms.

In this special section, we have received 20 papers. We made thorough reviews, had online paper selection meetings of all editorial committee members, and finally selected 9 papers. These papers are categorized into 4 topics: 1) Hardware Implementations and Design Examples, 2) Next-Generation Computing, 3) Hardware Security, 4) Circuit Design Methodology. They cover a wide variety of research areas.

On behalf of the guest editorial committee, I would like to express our sincere appreciation to all authors of papers submitted to this special section. I would also like to express my thanks to all members of the guest editorial committee and all reviewers for their work on judging the quality of papers. I should thank Professor Takashi Matsumoto from The University of Tokyo and Professor Shimpei Sato from Shinshu University for their work as Guest Editors. Thanks are also due to the IEICE headquarters for the support to this special section.

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Nozomu Togawa, Guest Editor-in-Chief

Nozomu Togawa (*Senior Member*) received the B.Eng., M.Eng., and Dr.Eng. degrees from Waseda University in 1992, 1994, and 1997, respectively, all in electrical engineering. He is presently a Professor in the Department of Computer Science and Communications Engineering, Waseda University. His research interests are VLSI design, graph theory, and computational geometry. He is a member of IEEE, ACM, and IPSJ.

