
FOREWORD

Special Section on Recent Advances in Simulation Techniques and Their Applications for Electronics

Computer simulation is playing a more and more important role in the design of various systems, equipments, and components. At the same time, simulation techniques are advancing rapidly to treat problems in a wider range of fields with higher efficiency in simulation time and computer resources usage, higher reliability, better readability, and easier handleability. The purpose of this special section is to present a collection of original papers which highlight the recent progress of research and development in simulation techniques and their applications for electronic and optical fields.

Based on the critical evaluation reports by the reviewers and discussions by the editorial committee, 16 papers are finally accepted for publication in this special section, including 1 invited paper, 6 papers, and 9 brief papers. The major topics covered by these papers are (1) Hardware and software acceleration techniques for computer simulations. (2) Improved numerical methods for better accuracy and efficiency, including the finite-difference time-domain (FDTD) method and the method of moment (MoM). (3) Modeling and designing techniques for microwave and photonic structures, including microwave and millimeter-wave antennas and filters, dielectric waveguides and optical fibers.

On behalf of the editorial committee, I would like to express my sincere gratitude to all the authors of the submitted papers for their contribution, and the reviewers for their generous effort in reviewing the papers. Also I would like to thank cordially all the members of the editorial committee for their devoted work which make it possible to publish this special section on schedule.

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Zhewang Ma (*Senior Member*) received the B. Eng. and M. Eng. degrees from the University of Science and Technology of China (USTC), in 1986 and 1989, respectively, and the Dr. Eng. degree from the University of Electro-Communications, Tokyo, Japan, in 1995. He joined the University of Electro-Communications in 1996 as a research assistant, and was an associate professor in 1997. Since 1998 he has been with Saitama University, Japan, and been a professor since 2009. His current research interests are mainly in the development of microwave and millimeter-wave devices and circuits, computational electromagnetics, and measurements of dielectric materials and high temperature superconductors.

