
FOREWORD

Special Section on Recent Progress in Electromagnetic Theory and Its Application

The purpose of this special section is to present a collection of original papers that give an overview of recent progress of research and development in electromagnetic theory and its applications, including those related papers presented at the 2018 Symposium on Electromagnetic Theory, held in Tottori Prefecture, Japan on November 15–17, 2018. Presentations in international symposia and meetings held in 2018, which include AP-S/URSI2018, PIERS2018, ICEAA2018 and ISAP2018, were also considered as possible contributions to this special section. In response to the call-for-papers, we received several potential paper submissions. After careful reviews, 1 paper and 1 brief paper were accepted in this special section.

The topics of accepted papers are modal analysis of a polygonal-core optical fiber and filter design in a plasmonic waveguide. We hope that the readers find this special section useful in the research of the electromagnetic theory and its applications. We would like to express our sincere appreciations to all the authors of contributed papers for their efforts in preparing the manuscripts and to all the reviewers for their careful reviews and valuable comments.

We are also indebted to the editorial committee members for their dedicated efforts in organizing this special section. In particular, we would like to express our sincere gratitude to Professor Takashi Kuroki of Tokyo Metropolitan College of Industrial Technology and Professor Koki Watanabe of Fukuoka Institute of Technology, who played important roles in the publication of this special section.

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Akira Hirose and Koichi Hirayama, Guest Editors

Akira Hirose (*Fellow*) received the Ph.D. degree in electronic engineering from the University of Tokyo in 1991. He is presently Professor with the Department of Electrical Engineering and Information Systems, the University of Tokyo. The main fields of his research interests are wireless electronics and neural networks. He served as the President of the JNNS (2013–2015), Founding President of Asia-Pacific Neural Network Society (APNNS), Vice President of the IEICE Electronics Society (2013–2015), Editor-in-Chief of the IEICE Transactions on Electronics (2011–2012), Associate Editor of journals such as the IEEE Transactions on Neural Networks (2009–2011, 2019-present), IEEE Geoscience and Remote Sensing Newsletter (2009–2012), Chair of the Neurocomputing Technical Group in the IEICE, General Chair of the 2013 Asia-Pacific Conference on Synthetic Aperture Radar (APSAR 2013) in Tsukuba, General Chair of International Conference on Neural Information Processing (ICONIP) 2016 Kyoto, and General Chair of International Geoscience and Remote Sensing Symposium (IGARSS) 2019 Yokohama. Dr. Hirose is a Fellow of the IEEE.



Koichi Hirayama (*Member*) received the B.S., M.S., and Ph.D. degrees in electronic engineering from Hokkaido University, Sapporo, Japan, in 1984, 1986, and 1989, respectively. In 1989, he joined the Department of Electronic Engineering, Kushiro National College of Technology, Kushiro, Japan. In 1992, he became an Associate Professor of Electronic Engineering at Kitami Institute of Technology, Kitami, Japan, and in 2004 he became a Professor. He has been interested in the analysis and optimal design of electromagnetic and optical waveguides. In 2018, he was awarded the Best Paper Award from the IEICE. Dr. Hirayama is a member of the Japan Society of Applied Physics and a senior member of IEEE.

