
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 to the papers presented at the 2012 symposium on Electromagnetic Theory, held at Aso Plaza Hotel, Aso, Kumamoto, Japan on November 15–17, 2012. Presentations in this symposium were considered to be the important parts of this special section. Presentations in the International Symposiums and Meetings such as PIERS 2012- Kuala Lumpur, PIERS 2012-Moscow, PIERS 2013-Taipei, IEEE AP-S/URSI 2012, and ISAP 2012 were also considered to be the parts of this special section. In response to the call-for-papers, we received 9 papers and 7 brief papers. After careful review, 5 papers and 2 brief papers were accepted in this special section.

The accepted papers and brief papers may be categorized into 5 groups which include (1) Optical Waveguide Analysis, (2) Antenna Technologies, (3) Numerical Techniques, (4) Periodic Structures, (5) Time-domain Analysis. 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 adequate judgments and valuable comments.

We are also indebted to the editorial committee members for their dedicated efforts in organizing this special section. Especially, we would like to express our sincere thanks to Guest Editors, Professor Yoshiaki Ando of The University of Electro-Communications, and Professor Koichi Hirayama of Kitami Institute of Technology, who played important roles in the publication of this special section.

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Masahiko Nishimoto and Hiroshi Shirai, Guest Editors-in-Chief

Masahiko Nishimoto (Member) received the B.E. degree in Electronic Engineering from Kumamoto University, Japan, in 1982, and M.E. and D.E. degrees in Computer Science and Communication Engineering, from Kyushu University, Fukuoka, Japan, in 1984 and 1987, respectively. Since 1987 he has been with a department of Electrical Engineering and Computer Science, Kumamoto University, where he is currently a Professor. From 2009 to 2010, he served as IEEE AP-S Fukuoka Chapter Chair, and from May 2011 to May 2013, he served as the Chair of the Technical Committee on Electromagnetic Theory in Electronics Society of the IEICE. His research interests are in the area of radar signal processing, scattering and diffraction of electromagnetic waves, and computational electromagnetics.



Hiroshi Shirai (Fellow) received the B.S. and M.S. degrees in Electrical Engineering from Shizuoka University, Japan, in 1980 and 1982, respectively, and the Ph.D. degree from Polytechnic University, New York in 1986. Since April 1987, he has been with Chuo University, Tokyo, Japan, where he is currently a Professor and an Associate Dean of Faculty of Science and Engineering. He has been serving as a committee member of various technical societies and international meetings. He is now the Chair of the Technical Committee on Electromagnetic Theory in Electronics Society of the IEICE. He received the R.W.P. King Best Paper Award from the Antennas and Propagation Society of the IEEE in 1987. His current research interests include wave propagation and diffraction in time harmonic and transient domains. Dr. Shirai is a Fellow of the Electromagnetics Academy, a senior member of the IEEE, and a member of Sigma Xi, the IEE of Japan, the ASJ, and the ASA.

