FOREWORD

Special Section on Electromagnetic Compatibility in Conjunction with EMC Sapporo and APEMC 2019

In the Electromagnetic Compatibility (EMC) field, there are conventional research topics such as interference among electronic equipment and on telecommunications. Recently, there raises new research topics with rapid spread of information communication technology: security and interference issue in IoT and wireless technologies and wireless power transfer technology that improves our lifestyle. Moreover, relation between nature phenomenon and electromagnetic environment and bioelectronics interactions are still important topics. The EMC field becomes much important in several many academic and industrial fields. In June 2019, an international symposium on EMC (EMC Sapporo and APEMC 2019) had been held in Sapporo, Japan and many EMC issues were discussed there.

This special section has been planned to introduce recent results, which includes papers from EMC Sapporo and APEMC 2019 and some additional contributions on related topics, to promote the development of new EMC technologies further. We received four submissions for regular papers, and after careful review and discussion, three papers were accepted for publication. In addition to that, one invited paper was also solicited for this special section. This paper is on wireless power transfer, which proposes a single coil active shielding method of wireless unmanned aerial vehicle charger for leakage magnetic field reduction. Other papers are on a method of measuring the unsymmetric voltage of conducted noise, a method for defining an APD-based emission limit of CISPR standard for electromagnetic pulsed disturbance, and coplanar waveguide with magnetic noise suppression sheet. The editorial committee believes that this special section can provide worthwhile information to the readers.

As the Guest Editor-in-Chief, I would like to express my sincere appreciation to all of the authors who submitted their valuable papers, and to the members of editorial committee and the reviewers who made great effort to complete the editing and reviewing process.

Special Section Editorial Committee Members

Guest Editors:

Tohlu Matsushima (Kyushu Institute of Technology), Takahiro Aoyagi (Tokyo Institute of Technology)

Guest Associate Editors:

Yoshiharu Akiyama (NTT-AT), Takaaki Ibuchi (Osaka University), Tomoo Ushio (Osaka University), Ken Kawamata (Tohoku Gakuin University), Kimihiro Tajima (NTT-AT), Takashi Hikage (Hokkaido University), Hiroshi Hirayama (Nagoya Institute of Technology), Katsumi Fujii (NICT), Fengchao Xiao (The University of Electro-Communications), Takahiro Yoshida (Tokyo University of Science)

Shinobu Ishigami (Tohoku Gakuin University), Guest Editor-in-Chief

Shinobu Ishigami (Senior Member) was received the B.E., M.E., and the D.E. degrees from University of Electro-communications, Chofu, Tokyo, Japan, in 1990, 1992, and 1997, respectively. He had been a research associate in University of Electro-communications from 1992 to 1999. He joined Communications Research Laboratory (currently National Institute of Information and Communications Technology) in 1999. He is now a professor of Faculty of Engineering, Tohoku Gakuin University from 2016. In 2011, he received the 2011 Richard Schulz Transactions Prize Paper Award from IEEE Electromagnetic Compatibility Society. He was the TPC (Technical Program Committee) Chair of EMC Sapporo and APEMC 2019. Dr. Ishigami is a member of the Institute of Electrical and Electronics Engineers, the Institute of Electronics, Information, and Communications Engineers of Japan, of the Institute of Electrical Engineers of Japan, respectively.

