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## FOREWORD

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### Special Section on Technologies for Effective Utilization of Spectrum White Space

The IEICE Technical Committee on Software Radio has been contributing to the research and development for effective utilization of frequency spectrum from the academic side. Radio spectrum is becoming exhausted because of the growing demands for wireless broadband communications. Spectrum white space is expected to be a powerful solution for the spectrum scarcity problem. The utilization of spectrum white space still requires solving many issues including spectrum sensing schemes, medium access control designs, or white space database systems. This special section has been prepared to further promote the fundamental technologies for the spectrum white space and provides useful information to researchers in this area.

After a careful discussion, the editorial committee has arranged 3 invited papers; one deals with the modeling of spectrum usage in cognitive radio, another presents the concept of network-assisted approach for dynamic spectrum coordination, and the third one summarizes the current status on regulation and standardization issues as well as the trials for white space communications. This special section consists of three invited papers and ten papers among 30 submissions.

As the guest editor-in-chief, I would like to express my sincere appreciation to all the authors for their contributions and to all the editors and reviewers for their voluntary activities.

#### Special Section Editorial Committee

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Yukitoshi Sanada, Guest Editor in Chief

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**Yukitoshi Sanada** (*Senior Member*) received his B.E. degree in electrical engineering from Keio University, Yokohama Japan, his M.A.Sc. degree in electrical engineering from the University of Victoria, B.C., Canada, and his Ph.D. degree in electrical engineering from Keio University, Yokohama Japan, in 1992, 1995, and 1997, respectively. In 1997 he joined the Faculty of Engineering, Tokyo Institute of Technology as a Research Associate. In 2000 he joined Advanced Telecommunication Laboratory, Sony Computer Science Laboratories, Inc, as an associate researcher. In 2001 he joined Faculty of Science and Engineering, Keio University, where he is now a professor. From 2011 to 2013, he was a Chair of the Technical Committee on Software Radio, TCSR, IEICE Communication Society. He was an Organizing Chair of the 6th International Conference on Cognitive Radio Oriented Wireless Networks and Communications, CrownCom, June 2011. From 2013, he is an Adviser of the TCSR, IEICE. He received the Young Engineer Award from IEICE in 1997, the Communication Society Distinguished Contributions Award from IEICE in 2003, 2005, 2009, 2010, and 2012, and the Communication Society Outstanding Contributions Award from IEICE in 2013, respectively. He also received WPMC'01 Best Paper Award in 2001.

