FOREWORD

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.

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