FOREWORD

Special Section on Dynamic Spectrum Access

Recently the radio spectrum is becoming exhausted because of the growing demands for the radio spectrum. In this regard, the paradigm shift from the conventional exclusive use of frequency resources by the fixed allocation to the dynamic frequency utilization is indispensable for the future wireless networks. It brings an emerging paradigm of dynamic spectrum access (DSA). The dynamic spectrum access technology realizes the efficient use of different radio access networks heterogeneously, or even allows the secondary systems to use the unused spectrum allocated for the primary systems. The IEICE Technical Committee of Software Radio (TCSR) has contributed to promoting DSA, since it is best realized by utilizing the software radio technology. To facilitate the active discussion in the field, this special section was planned.

In reply to call for papers, 49 papers and 5 letters were received. After fair and square review, 1 invited paper on the application of fuzzy logic for cooperative spectrum sensing, 15 papers and 2 letters are accepted for the publication in this section. These papers cover the subjects such as spectrum allocation, spectrum sensing, MIMO mesh network, protocols, wideband RF systems, and multimode receivers. The editorial committee wishes this section will provide the useful information and new ideas to those interested in DSA.

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 Members
Guest Editor-in-Chief:
Jun-ichi Takada (Tokyo Inst. Tech.)
Guest Editors:
Yukitoshi Sanada (Keio Univ.), Kenta Umebayashi (Tokyo Univ. of Agr. Tech.)
Guest Associate Editors:
Kazunori Akabane (NTT), Satoshi Denno (Kyoto Univ.), Takeo Fujii (Univ. Electro-Commun.), Seishi Hanaoka (Hitachi), Suguru Kameda (Tohoku Univ.), Kanshiro Kashiki (KDDI R&D Labs.), Minseok Kim (Tokyo Inst. Tech.), Go Miyamoto (NICT), Shigenobu Sasaki (Niigata Univ.), Makoto Taromaru (ATR), Tazuko Tomioka (Toshiba)

Jun-ichi Takada, Guest Editor-in-Chief

Jun-ichi Takada *(Senior Member)* received B.E. and D.E. degrees from Tokyo Institute of Technology in 1987 and 1992, respectively. He was a Research Associate at Chiba University in 1992–1994, and an Associate Professor at Tokyo Institute of Technology in 1994–2006. He has been a Professor in Tokyo Institute of Technology since 2006. In 2003–2007, he was also a Researcher in National Institute of Information and Communications Technology, where he has currently been a Visiting Researcher. His current interests include the radiowave propagation and channel modeling in various multipath environments, antenna evaluation under multipath environment, spectrum sensing technology, regulatory issues of spectrum sharing. He served as a secretary and the chair of IEICE Technical Committee on Software Radio in 2001–2007 and 2007–2009, respectively. He served as the chair of measurement WG in ITU-R TG 1/8 on compatibility between UWB devices and radiocommunication services in 2005. He has been currently the co-chair of SIG in body communications in European COST action 2100 "Pervasive Mobile & Ambient Wireless Communications." He also serves as an assistant secretary of Japan National Committee of URSI. He has extensively involved in the international cooperation and development projects, mainly in the Southeast Asian regions. He is currently working with the Department World Heritage in Luang Prabang, Lao PDR in database and GIS application. He is a member of IEEE, ACES, ITE, ECTI Association Thailand and JASID.

Copyright © 2009 The Institute of Electronics, Information and Communication Engineers