FOREWORD

Special Section on Wireless Distributed Networks for IoT Era

A special section on Wireless Distributed Networks (WDN) was published in December 2010. Although six-years has passed since publication, research on WDN is still being actively pursued. Recently, inter-networking of various physical devices, which is also referred to as Internet of Things (IoT), has been attracting much attention. WDN is growing in significance as a way of implementing the network infrastructure of IoT. In particular, advanced frequency spectrum sharing, resource control for low power consumption, wired and wireless seamless networks for flexible network topology, highly reliable and real-time wireless communication technologies for remote control, ambient intelligence systems and so on are recognized to be key technologies when integrated with WDN to realize IoT. Since the era for proactive implementation of IoT is upon us, a special section on WDN which considers core technologies for IoT will encourage WDN research and development and expand the areas of IoT applications. To facilitate the active discussion and to further promote research and development in these fields, this special section was planned.

In reply to call for papers, 11 papers were received. After fair and square review, four invited papers on the latest technologies from the physical to application layers, and four papers are accepted for the publication in this section. These papers cover from the principle theories and element technologies to the applications of WDN for IoT Era. The editorial committee hopes this section will provide useful information and new ideas to those interested in WDN for IoT Era.

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.

Kazuhiro Uehara, Guest Editor-in-Chief

Kazuhiro Uehara *(Fellow)* received the B.E., M.E., and Ph.D. degrees from Tohoku University, Miyagi, in 1987, 1989, and 1992, respectively. In 1992, he joined NTT and engaged in research on array antennas, active antennas and indoor propagation in the millimeter-wave and microwave frequency bands. From 1997 to 1998, he was a Visiting Associate at the Department of Electrical Engineering, California Institute of Technology, USA. From 2013 to 2016, he is a Senior Manager of the Wireless Systems Innovation Laboratory, NTT Network Innovation Laboratories. Currently, he is a Professor of the Graduate School of Natural Science and Technology, Okayama University. He was a part-time lecturer at the Department of Electrical Engineering, Tohoku University from 2003 to 2010 and in 2013 and 2015, and at the School of High-Technology for Human Welfare, Tokai University from 2009 to 2011. His current interests include research and development of software defined radio and cognitive radio systems, millimeter-wave wireless systems, and IoT/M2M wireless access systems. He served as Chair of the Technical Committee on Software Radio, TCSR, IEICE Communication Society from 2009 to 2011, General Co-Chair of the 6th CrownCom, June 2011, and Guest Editor-in-Chief of the Special Section on WDN and CR, IEICE Transactions on Communications, December 2010 and April 2012, respectively. From 2011, he is an Adviser of the TCSR, IEICE. He received the Young Researcher's Award in 1995, the Best Paper Award in 1997, 2014, and 2016, the Communications Society Outstanding Contributions Award in 2011, the Communications Society Distinguished Contributions Award in 2011, the Communication Society Best Paper Award in 2011 and 2014, and the Achievement Award in 2014, from IEICE, the 1st YRP Award from the Yokosuka Telecom Research Park (YRP) R&D Promotion Committee in 2002, and the 18th Telecom System Technology Award from the Telecommunications Advancement Foundation in 2002. He is a senior member of IEEE.