
FOREWORD

Special Section on Antenna and Propagation Technologies Contributing to Realization of Next Generation Wireless Systems

The fifth generation (5G) mobile communication system is expected to offer a dramatically high system capacity, and antenna technology based on non-conventional requirements and propagation technology considering the new systems are being actively investigated. In addition, a tremendous number of devices will communicate with each other at the same time for Internet-of-Things (IoT)/Machine-to-Machine (M2M) applications. The need to consider all these factors gives researchers a new vantage point from which to investigate antennas and propagation. In particular, antenna and propagation technologies suitable for addressing issues such as spectral resources and energy consumption are noteworthy endeavors. With respect to this current trend, the papers selected in this special section present state-of-the-art studies on antennas, propagation, and antenna related technologies for the next generation wireless systems.

For this section, 11 high quality papers were submitted and 9 papers were accepted. This includes one invited paper describing a cutting-edge active array antenna system that will enhance the performance of the next generation cellular network.

The editorial committee members thank all authors and reviewers for their contributions to this special section, and hope that the published studies will promote further investigation of future wireless systems.

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Keizo Cho, Guest Editor-in-Chief

Keizo Cho (*Fellow*) received his B.E. degree from Yokohama National University, Japan, in 1986 and his M.E. and Dr. Eng. Degrees from Tokyo Institute of Technology, Japan, in 1988 and 2002, respectively. He joined NTT Radio Communication Systems Laboratories, Japan, in 1988. He has been engaged in the research and development of antennas for mobile communication systems. He was a visiting researcher at the Communication Research Laboratory, McMaster University, Hamilton, Ontario, Canada from 1994 to 1995. He was a Group Leader of Antenna Research Group of NTT Network Innovation Laboratories from 2002 to 2003, and a Group Leader of the RF Technology Research Group of Research Laboratories, NTT DOCOMO, INC., Japan from 2003 to 2012. Since April 2012, he has been with Chiba Institute of Technology, Chiba, Japan, where he is currently a Professor in Department of Information and Communication Systems Engineering. He has been serving as a committee member of various technical societies and international meetings. He served as a Chair of the Technical Committee on Antennas and Propagation of the IEICE from 2015 to 2016, a Vice-Chair of the Steering Committee of 2016 International Symposium on Antennas and Propagation (ISAP2016), and Editor of the IEICE Transaction on Communications. He received the Young Researcher's Award and the Best Paper Award from the IEICE in 1995 and 2009, respectively. He is a senior member of the IEEE.

