
FOREWORD

Special Section on Wired-and-Wireless Network System Technologies in Beyond 5G/6G

Studies on advanced wired-and-wireless network system technologies for beyond 5G/6G era are in progress, and with the flexible network infrastructures supporting the creation of various application services, it is expected to solve social issues such as aging population, energy depletion, and serious natural disasters. In Society 5.0, information networks are expected to contribute to economic development as well as solving such social issues by the advanced fusion of cyber and physical spaces. In order to realize such expectations, it is essential to establish wired-and-wireless network system technologies that create innovative value such as zero touch and infinite frontier technologies, in addition to the advancement of existing technologies. Furthermore, artificial intelligence (AI)/machine learning (ML) techniques are expected to play an important role for establishing and operating such network systems.

In order to further promote the above-mentioned studies for network system technologies in beyond 5G/6G, the Technical Committee on Network Systems (NS) of the IEICE has organized the “Special Section on Wired-and-Wireless Network System Technologies in Beyond 5G/6G”. In response to a call for papers, high-quality papers from the academic and industry community were submitted. Through peer review processes, finally, 7 papers have been accepted for the publication. We have also invited a paper of the latest study concerning a digital twin ecosystem. The editorial committee believes that this special section will provide useful information and promote innovation toward the beyond 5G/6G.

On behalf of the editorial committee, finally, we would like to express our sincere appreciation to all of the authors, the reviewers, and the IEICE publishing office who supported this special section.

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Tetsuya Oishi (*Member*) received his BE and ME in Electrical Engineering from Waseda University in 1993 and 1995, respectively. Since joining NTT Corporation in 1995, he has been engaged in the research and development of network systems software, such as VoIP server systems and NFV systems. He is now a vice president of Planning Department of NTT IOWN Integrated Innovation Center. From 2022 to present, he is a chair of IEICE technical committee on network systems (NS).

