
FOREWORD

Special Section on Network Resource Control and Management Technologies for Sustainable Social Information Infrastructure

To realize the “Industry, innovation and infrastructure” and “Sustainable cities and communities” adopted as the parts of the SDGs (Sustainable Development Goals), the achievement of “Society 5.0” concept, which brings us the broad range of innovations resulting from the data-driven cooperation between various services and industries, is essential. In the society 5.0 smart society, diverse and a large amount of data will be communicated, computed and stored intelligently in the end-to-end network infrastructure.

For this achievement, emerging new network resource control and management technologies that can be utilized in the wide range of environments such as wireless access networks, core networks, substrate networks, and cloud networks, are expected.

In order to further promote the above-mentioned researches for network technologies toward SDGs and Society 5.0, the Technical Committee on Network Systems (NS) of the IEICE has organized the “Special Section on Network Resource Control and Management Technologies for Sustainable Social Information Infrastructure”. In response to a call for papers, high-quality papers from the academic and industry community were received. Through peer review processes, finally, 7 papers have been accepted for the publication. We have also invited two papers of the latest studies concerning the traffic control with the upper-layer congestion-avoidance mechanism and the secure resilient edge cloud designed networking for IoT/cyber physical system (CPS). The editorial committee believes that this special section will provide useful information and promote innovation toward the SDGs and Society 5.0.

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

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Yoshikatsu Okazaki, Guest Editor-in-Chief

Yoshikatsu Okazaki (*Senior Member*) received a B.E. and M.E. in applied physics from the University of Tokyo. Since he joined NTT in 1991, he had been engaged in research and development on network systems, network operation and Next Generation Network (NGN), and also worked on network design and planning in NTT WEST Corporation. He is currently working on managing research of future network architecture and technologies as the general manager, the head of NTT Network Technology Laboratories. From 2018 to present, he is a chair of IEICE technical committee on network systems (NS).

