Special Section on the Architectures, Protocols, and Applications for the Future Internet

Internet technology is getting increasingly pervasive as our daily life infrastructure. In recent years, not only smart phones and tablet PCs, but also various devices such as smart meters, smart cars, environmental sensors, etc. are connected to the Internet. The IoT society where various kinds of communication between these devices is performed on the Internet is coming. Along with this, the requirement for functions and performance needed for the Internet is becoming more sophisticated, and big challenges including the Internet architecture are expected. While many researches tackle such emerging applications, remaining issues should be solved to step forward the next stage. This special section aims to share the latest research results of architectures, protocols, and applications for the Future Internet.

In responding to the call for paper of this special section, we have received 12 submissions. Through a rigorous and objective review process performed by our editors and reviewers, four papers have been selected for publication. Topics on buffer-less bidirectional multi-ring networks with sharing an optical burst mode transceiver, simulation study of low latency network architecture using mobile edge computing, scalable and optimized attribute revocation in cloud computing, a priority control method for media access control method are discussed in these papers. We also had two invited papers on NAPT-based mobility service for software defined networks and SDN-based self-organizing energy efficient downlink/uplink scheduling. We hope this special section will provide useful views of research and development for advanced networking technologies towards the Future Internet.

We would like to express our sincere thanks to all the authors for their valuable contributions, and to the anonymous reviewers for their voluntary work. As the Guest Editor-in-Chief of this special section, I would also like to thank the team of Guest Editors and Guest Associate Editors for their participation and efforts to make this special section successful.

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Takuo Suganuma (Member) received his MS and PhD in Engineering from Chiba Institute of Technology, Japan, in 1994 and 1997, respectively. He is currently a Professor of Cyberscience Center at Tohoku University, Japan. He received UIC-07 Outstanding Paper Award in 2007, etc. His main research interests include agent-based computing, flexible network middleware, network management, symbiotic computing, green ICT and Disaster-resistant communications. He is a member of IEICE, IPSJ and IEEE.