
FOREWORD

Special Section on Future Directions of Research and Development on Communication Quality

The technical committee on Communication Quality of IEICE Communication Society has reached 30th anniversary from the foundation as a type 2 workshop. This technical committee has focused on research and development on design, management, control, and evaluation of network technologies/systems/services, the quality of network applications, user-perceived quality, user needs, and their standardization process. Considering the recent development of 5th generation cellular networks, virtualization technologies, Internet of Things technologies, and the progress of machine learning/artificial intelligence, communication quality has more and more diversified aspects in the future information networks. Therefore, the research and development activities on communication quality becomes significantly important. This special section focuses on the broad topic of research and development of communication quality, including optimization, control, and design technologies, in order to explore their future directions of the research and development of communication quality.

After a careful discussion, the editorial committee has arranged two invited papers on traffic reduction in IoT systems and present state and future prospect of Quality of Experience studies. This special section consists of two invited papers and 10 papers among 12 submissions.

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.

Special Section Editorial Committee Members

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Hideyuki Shimonishi, Guest Editor-in-Chief

Hideyuki Shimonishi (*Senior Member*) received M.E. and Ph.D. degrees from the Graduate School of Engineering Science, Osaka University, Osaka, Japan, in 1996 and 2002. He joined NEC Corporation in 1996 and has been engaged in research on traffic management in high-speed networks, switch and router architectures, and traffic control protocols. As a visiting scholar in the Computer Science Department at the University of California at Los Angeles, he studied next-generation transport protocols. Since then, he engaged in researches on networking technologies including SDN, NFV, IoT, 5G mobile systems. Especially, he has been leading early SDN research with Stanford university and contributed to the world first commercialization of OpenFlow networks. Now he works as a senior principal researcher at System Platforms Research Labs. NEC Corp. He has been a committee member of the technical committee on Communication Quality of IEICE Communication Society since 2005, and now service as a chair of the committee. He has received many awards including Young Researcher's Award and Achievement Award from IEICE. He is a member of IEICE and IEEE.

