FOREWORD

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

Our society has been greatly benefited by the advance of Internet technologies. As interactive communications and instant access of information on a global scale permeate into our daily lives, the population of connected people and devices, and the amount of network traffic showed an exceptional growth. To cope with the rapid growth of Internet traffic, and facilitate new emerging applications, tremendous research efforts have been made, including those tried to improve the functionality and performance of current Internet, as well as to make fundamental changes in architectures, control methods, and management strategies for the future Internet. This special section aims to provide some insights into resolving pending issues of architectures, protocols, and applications for the future Internet.

In responding to the call for paper of this special section, we have received 24 submissions (including 20 papers and four letters). Through a rigorous review process performed by our editors and reviewers, five papers have been selected for publication. Topics on new architectures, operation and management schemes, and novel applications are discussed in these papers. We also had an invited paper on the new directions for a Japanese academic backbone network. We hope this special section will provide useful views of research and development for advanced networking technologies.

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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Yusheng Ji, Guest Editor-in-Chief

Yusheng Ji (Member) received B.E., M.E., and D.E. degrees in electrical engineering from the University of Tokyo. She joined the National Center for Science Information Systems (NACSIS) in 1990. Currently, she is a Professor at the National Institute of Informatics (NII), and the Graduate University for Advanced Studies (SOKENDAI). Her research interests include network architecture and resource management for communication networks. She is an editor of IEEE Transactions on Vehicular Technology, and has served as an Associate Editor of IEICE Transactions and IPSJ Journal, Guest Editor/Guest Associate Editor of Special Sections of IEICE Transactions and IPSJ Journal, Symposium Co-chair of IEEE GLOBECOM, and TPC member of many conferences including IEEE INFOCOM, ICC, WCNC, etc.