FOREWORD

Special Section on Frontiers of Information Network Science

Information networking technologies have been achieving tremendous growth as an indispensable infrastructure in our society. Their conventional theoretical fundamentals, however, lose their ability to resolve new quantitative and qualitative challenges posed in current and future networks. That is, frontiers of information network science, also called internet science or network science of complex systems etc, have been highly demanded. In addition, multidisciplinary approaches will be highly necessary including mathematical engineering, theoretical physics, brain sciences, etc. Because of such reasons, this special section was planned to further promote research and development in the frontiers of information network science.

The Call for Papers attracted 25 submissions: 22 full papers and 3 letters. After careful review and much discussions, the editorial committee selected 9 papers (including two invited papers) and 2 letters. The selected articles cover a variety of topics, including basic mathematical, physical investigation for information networks, novel analysis of information networks, nature-inspired information networks, social- or security-related basic issues in information networks, etc. The submitted papers indeed cover a wide variety of and novel approaches; it was hard for the committee to select the ones for publications. We hope that the special section will help the readers share new knowledge and ideas and encourage further exciting investigations to create the frontiers of information network sciences.

As the guest editor-in-chief, I would like to express my sincere appreciation to all authors for their contributions and to all reviews and members of the editorial committee for their great efforts in the review process.

Special Section Editorial Committee Members
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Masayuki Murata, Guest Editor-in-Chief

Masayuki Murata (*Fellow*)   received the M.E. and D.E. degrees in Information and Computer Science from Osaka University, Japan, in 1984 and 1988, respectively. In April 1984, he joined Tokyo Research Laboratory, IBM Japan, as a Researcher. From September 1987 to January 1989, he was an Assistant Professor with the Computation Center, Osaka University. In February 1989, he moved to the Department of Information and Computer Sciences, Faculty of Engineering Science, Osaka University. In April 1999, he became a Professor of the Cybermedia Center, Osaka University, and is now with the Graduate School of Information Science and Technology, Osaka University since April 2004. He has more than four hundred papers in international and domestic journals and conferences. His research interests include computer communication networks, performance modeling and evaluation. He is a Member of IEEE and ACM.