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## FOREWORD

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### Special Section on Progress in Information Network Science

Information networking systems have been growing tremendously as indispensable infrastructures in our society. They support important social activities concerning human life and property; however, the reliability, sustainability, and stability of them are not necessarily sufficient for supporting such important activities. One of the most significant reasons regarding this problem is that our conventional theoretical fundamentals lose their ability to solve new challenges in the current and the future networks. Accordingly, the importance of studying information network science have been increasing. The information network science will be really interdisciplinary, such as mathematical engineering, theoretical physics, and brain sciences, for attacking wide range of issues, from observing dynamics of social activities to developing fundamental theories. This special section is the second bullet, following the May 2012 issue focusing on information network science that was planned to foster such a challenging research area.

The Call for Papers attracted 21 full paper submissions. After careful review and much discussion, the editorial committee selected 10 papers (including three invited papers). The selected articles cover a variety of topics, including basic mathematical, physical investigation for information networks, novel analysis of information networks, etc. The submitted papers indeed include novel ideas and 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 foster the information network science.

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

#### Special Section Editorial Committee Members

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Masaki Aida (Tokyo Metro. Univ.), Guest Editor-in-Chief

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**Masaki Aida** (*Member*) received the B.S. degree in Physics and M.S. degree in Atomic Physics from St. Paul's University, Tokyo, Japan, in 1987 and 1989, respectively, and received the Ph.D. in Telecommunications Engineering from the University of Tokyo, Japan, in 1999. After joining NTT Laboratories in April 1989, he has been engaged in research on traffic issues in computer communication networks. From April 2005 to March 2007, he was an Associate Professor at the Faculty of System Design, Tokyo Metropolitan University. He has been a Professor of the Graduate School of System Design, Tokyo Metropolitan University since April 2007. He received the Best Tutorial Paper Award of IEICE Communications Society in 2013. Prof. Aida is a member of the IEEE, and the Operations Research Society of Japan.

