Call for Papers

------- Special Section on Deepening and Expanding of Information Network Science -------

The IEICE Transactions on Communications announces that it will publish a special section entitled "Special Section on Deepening and Expanding of Information Network Science" in the November 2016 issue.

Information networking technologies have been achieving tremendous growth as an indispensable infrastructure in our society. In particular, the recent advances in chip technology have required us to redefine the real world management of massive systems, which might be also complex and presumably made up with a variety of component devices, such as the Internet of Things. However, it is almost impossible to manage and control overall behavior of the whole system merely by knowing and assuming the behavior of its subsystems, such as independent devices or communication protocols being used in the network. Therefore, it is a sort of "recursive" approach that is quite essential for the real world implementation of the next generation networks. In this scenario, we first deepen the academic frameworks themselves for better explaining the onset of nontrivial behavior at macroscopic levels. Then, by applying such frameworks to our system, we reconsider and improve every specification for the components of the network to benefit its system performance, stability, or robustness. For this purpose, we encourage not only multidisciplinary studies around information communication technologies but also a wider spectrum of academic approaches including mathematical engineering, theoretical physics, biological system engineering, computer science, and applied mathematics, etc. Longer or extended version of the works that have been presented at the Korea-Japan Joint Workshop on Complex Communications Sciences (KJCCS2016) will be also welcomed as the submissions. We are thus planning to publish a special section (scheduled to appear in the November 2016 issue) to further promote research and development of progress in information network science.

1. Scope
This special section aims at timely dissemination of research in these areas. Possible topics include, but are not limited to:

- deepening and expanding the frameworks for information network science
- theory of information network as complex systems, or applications to multimedia communication
- novel modeling, performance measure, analyzing methods for information network or multimedia communication
- theory and/or application of network information theory, such as network coding
- theory and/or application of techniques in multimedia communication to information network
- theory of nature-inspired information networking
- theory and/or application of information networking as social networks
- physical systems and devices inspired by network science
- novel network analysis method based on computer science and applied mathematics
- theory and/or application of very large-scale systems including Internet of Things (IoT)
- novel approach to information networks, such as information geometry and statistical mechanics

2. Submission Instructions
The standard number of pages is 8. The page charges are considerably higher for extra pages. Manuscripts should be prepared according to the guideline in the "Information for Authors." The latest version is available at the web site, http://www.ieice.org/eng/shiori/mokuji_cs.html. The term for revising the manuscript after acknowledgement of conditional acceptance for this special section could be shorter than that for regular issues (60 days) because of the tight review schedule.

This special section will accept papers only by electronic submission. Submit a manuscript and electronic source files (LaTeX/Word files, figures, authors’ photos and biographies) via the IEICE Web site https://review.ieice.org/register/register_baseinfo_e.aspx by March 18, 2016 (JST). Authors should choose the Deepening and Expanding of Information Network Science as a "Journal/Section" on the online screen. Do not choose [Regular EB].

Contact point:
Tatsuto Murayama
Graduate School of Science and Engineering, University of Toyama
Tel: +81-76-445-6746, Fax: +81-76-445-6748, E-mail: eb-netsci2016@mail.ieice.org

3. Special Section Editorial Committee
Guest Editor-in-Chief: Hiroyoshi Miwa (Kwansei Gakuin Univ.)
Guest Editors: Tatsuto Murayama (Univ. of Toyama), Hiraku Okada (Nagoya Univ.)
Guest Associate Editors: Takuya Asaka (Tokyo Metropolitan Univ.), Shintaro Arai (Kagawa College), Takeru Inoue (NTT), Masato Uchida (Chiba Inst. Tech.), Eiji Okamoto (Nagoya Inst. Tech.), Asaki Saito (Future Univ.-Hakodate), Shigeki Shiokawa (Kanagawa Inst. Tech.), Won-Joo Hwang (Inje Univ.)

* Authors must agree to the "Copyright Transfer and Page Charge Agreement" via electronic submission.
* Please note that if the submitted paper is accepted, all authors, including authors of invited papers, are requested to pay for the page charges covering partial cost of publications.
* At least one of the authors must be an IEICE member when the manuscript is submitted for review. Invited papers are an exception. We recommend that authors unaffiliated with IEICE apply for membership. For membership applications, please visit http://www.ieice.org/eng/member/OM-appli.html