

—Special Section on Network Resource Control and Management
Technologies for Sustainable Social Information Infrastructure—

The IEICE Transactions on Communications announces that it will publish a special section entitled “Special Section on Network Resource Control and Management Technologies for Sustainable Social Information Infrastructure” in the April 2020 issue.

To realize the “Industry, innovation and infrastructure” and “Sustainable cities and communities” adopted as the parts of the SDGs (Sustainable Development Goals), the achievement of “Society 5.0” concept, which brings us the broad range of innovations resulting from the data-driven cooperation between various services and industries, is essential. For this achievement, since the amount of traffic transmitted in several kinds of networks increases significantly and the traffic pattern also becomes more diversified than ever, it is indispensable to build up a new sustainable social information infrastructure network that can accommodate such huge and diversified traffic, while providing the flexibility, the robustness, and the intelligence for dealing with all kinds of situation. Therefore, emerging new network resource control and management technologies that can utilize in the wide range of environments such as wireless access networks, wireless core networks, substrate networks, and cloud networks, are expected. Theoretical performance analysis, simulation/emulation experiments, and experimental evaluations are also important to deploy the promising technologies for sustainable social information infrastructure.

Besides, in welcoming the 2020 Tokyo Olympic and Paralympic, a special section is being planned (scheduled to appear in the April 2020 issue) to further promote the above-mentioned researches and technologies for sustainable social information infrastructure. We thus call publications to discuss and develop the network resource control and management technologies including not only the emerging technical fields such as AI/Machine-Learning, IoT/IoE (IoX), 5G, Mobile Edge/Fog Computing, network virtualization/softwarelization/programmability, optical transport network, wireless access/core network, and infrastructure/cloud network, but also the promising application fields such as big data, cooperation in different fields, and utilization of data.

1. Scope

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

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| • Artificial Intelligence (AI) | • Data Utilization |
| • 5th Generation (5G) | • Network Infrastructure |
| • Network Function Virtualization (NFV) | • Mobile Networks |
| • Network Slicing | • Network Resource Control |
| • Energy-Efficient/Green Network | • Internet of Things/Everything (IoT/IoE : IoX) |
| • Big Data | • Multi/Mobile Edge Computing (MEC) |
| • Wireless Access/Core Network | • Software-Defined-Network (SDN) |
| • Optical Network Architecture | • Microservice Architecture/API |
| • Network Resource Management | • Information/Content Centric Networking (ICN/CCN) |
| • Machine Learning (ML) | • Cross Field Cooperation |
| • Fog Computing | • Cloud Networking |
| • Network Programmability | • Security/Privacy |
| • Network Softwarization | • Performance Analysis/Simulation/Experiment |
| • Fixed Mobile Convergence (FMC) | |

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/regist/>

regist_baseinfo_e.aspx by 13th May 2019 (JST). Authors should choose the “Network Resource Control and Management Technologies for Sustainable Social Information Infrastructure” as a “Journal/Section” on the online screen. Do not choose [Regular EB].

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3. Special Section Editorial Committee

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