Call for Papers

------- Special Section on Wired-and-Wireless Network System Technologies in Beyond 5G/6G -------

The IEICE Transactions on Communications announces that it will publish a special section entitled "Special Section on Wired-and-Wireless Network System Technologies in Beyond 5G/6G" in the April 2028 issue.

Studies on advanced wired-and-wireless network system technologies for Beyond 5G/6G are in progress, and with the flexible network infrastructures supporting the creation of various application services, it is expected to solve social issues such as declining birthrate and aging population, energy depletion, and serious natural disasters. In Society 5.0, information networks are expected to contribute to economic development as well as solving such social issues by the advanced fusion of cyber and physical spaces. In order to realize such expectations, it is essential to establish wired-and-wireless network system technologies that create innovative value such as zero touch and infinite frontier, in addition to the advancement of existing technologies for larger capacity, power saving, ultra-low latency, flexibility, high efficiency, safety and reliability. Furthermore, artificial intelligence (AI)/machine learning (ML) techniques are expected to play an important role for establishing such network systems.

In order to further promote the above-mentioned researches of networks in Beyond 5G/6G, we thus call publications (scheduled to appear in the April 2028 issue) to discuss and develop wired-and-wireless network system technologies including Beyond 5G/6G networks, AI/ML, 5G/local 5G, LTE/4G, network virtualization/softwarization/programmability, network slicing, cloud/edge/fog computing, cyber-physical system (CPS), Internet of Things/Everything (IoT/IoE:IoX), optical network architecture, wireless access/core network, as well as promising application fields such as utilization of data, security/privacy, cooperation in different fields, and so on.

1. Scope

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

- Beyond 5G/6G
- 5G/Local 5G
- Artificial Intelligence (AI)/ Machine Learning (ML)-based Techniques
- Cyber-Physical System (CPS)
- Internet of Things/Everything (IoT/IoE:IoX)
- Network Function Virtualization (NFV)
- Network Slicing
- Software-Defined-Network (SDN)
- Network Softwarization
- Network Programmability
- Big Data
- (Multi/Mobile) Edge Computing
- Fog Computing
- Cloud Networking
- Future Network Architecture
- Network Infrastructure
- Fault Tolerance
- Wireless Access/Core Network
- Mobile Networks and Mobility
- Optical Network Architecture
- Routers, Middleboxes, End-host Network Stacks
- Information-Centric Network (ICN)
- Energy-Efficient/Green Network
- Cross Field Cooperation
- Security/Privacy
- Theory/Simulation/Experiments
- Measurements
- Deployment and Experience

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, https://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 **7th May 2027 (JST)**. Authors should choose the Wired-and-Wireless Network System Technologies in Beyond 5G/6G 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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