

——Special Section on Fusion of Network Virtualization/Softwarization and Artificial Intelligence
towards Beyond-5G Innovative IoT Services——

The IEICE Transactions on Communications announces that it will publish a special section entitled “Special Section on Fusion of Network virtualization/Softwarization and Artificial Intelligence towards Beyond-5G Innovative IoT Services” in March 2021.

5G is reaching the stage of realization and ultra-high speed mobile broadband, ultra-low latency in communications, and accommodation of massive IoT devices lay the groundwork for innovative IoT services. On the other hand, towards Beyond-5G era, requirements for more reliable, flexible, and robust ICT (Information and Communication Technologies) systems are emerging and pose new challenges.

Advanced technologies for network virtualization and softwarization are expected to provide flexibility to satisfy a wide variety of customer demands, scalability to expand in accordance with the increase of demands, efficiency in resource usage even under scarce and heterogeneous environment, and sustainability to involve new functionalities and technologies in an incremental manner for service continuity. However, rapid progress needs to be made to tackle such new challenges. In particular, fusion with AI (Artificial Intelligence) attracts great attention.

We thus call for publications (scheduled to appear in the March 2021 issue) for promoting discussion and development of network virtualization and softwarization based on the fusion with Artificial Intelligence towards Beyond-5G innovative IoT services, especially on architectural examination, resource management and control approaches, mobile and wireless network virtualization, edge computing, open-source software, and so forth.

1. Scope

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

- AI-based network management and control in network virtualization
- Mobile and wireless network virtualization and its related mobility technologies
- Edge computing for Beyond 5G services
- Photonic network virtualization
- Management of massive IoT devices
- Security for network virtualization and secure services
- Innovative applications based on network virtualization
- Network softwarization and open-source software
- Testbeds for above technologies and experimental results

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 period 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 biography) via the IEICE Web site https://review.ieice.org/regist/regist_baseinfo_e.aspx by April 12th, 2020 (JST). Authors should choose the Fusion of Network virtualization/Softwarization and Artificial Intelligence towards Beyond-5G Innovative IoT Services as a “Journal/Section” on the online screen. Do not choose [Regular-EB] .

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