

Call for Papers

----- Special Section on the Architectures, Protocols, and Applications for the Future Internet -----

The Institute of Electronics, Information and Communication Engineers (IEICE) announces a forthcoming special section on "The Architectures, Protocols, and Applications for the Future Internet" to be published in June 2025 as a special section of Transactions on Information and Systems.

The Internet has rapidly become a part of the social infrastructure with the spread of the WWW and multimedia information processing. Moreover, the evolution of device technology has enabled not only mobile terminals and smartphones, but also smart meters, sensors, automobiles, and other objects to be connected to the Internet, generating and transmitting a wide variety of traffic. In recent years, huge IT companies have begun to privatized their own servers in the networks of telecommunications carriers, affecting the structure of the Internet. Furthermore, with the rapid development of artificial intelligence technologies such as deep learning and generative AI, the Internet faces new challenges and opportunities concerning how to perform data distribution and advanced computation safely and efficiently. Under these circumstances, it is becoming increasingly important to propose and demonstrate new architectures and their application technologies so that the Internet can play a role in the future as an open infrastructure that supports various social and economic activities. This special issue aims to provide a platform for researchers and practitioners to share their latest findings and insights on the future of the Internet as an open infrastructure.

1. Scope

(1) Internet architecture and protocols:

Wireless, mobile/pervasive/ad-hoc networking, Autonomous and/or distributed routing/network protocol, Blockchain, Robust, adaptive and QoS aware traffic control, Datacenter networking, Network virtualization, SDN (Software Defined Networking), NFV(Network Function Virtualization), Sensor networking, Vehicular networking, ID/location separation, Information-centric networking, Delay tolerant networking, In-network computing architecture, application protocols

(2) Network computing and applications:

Distributed computing, Edge/Fog/Cloud Computing, Distributed data infrastructure, Social networking, IoT (Internet of Things), Cyber physical system, M2M (Machine to Machine) networking, Network and applications for ecology, Metaverse/Digital Twin networking, Network technology for distributed knowledge processing/AI

(3) Novel Internet operation and management:

Analysis method and amelioration technology for customer satisfaction, QoS/QoE management, tele-presence, Digital rights management (DRM), Integration of communication and broadcasting, Wireless LAN, Traffic estimation, Automated network operations

(4) Internet security and social role of Internet technology:

Secure protocols, Intrusion prevention systems, Intrusion detection systems, Packet tracing technology, Authentication/Authorization (including PKI), Cognitive security, Network security from social aspect, Analysis and proposal of Internet usage for education, medical treatment, welfare, commerce and dealing with disasters, Education for information ethics

2. Manuscript for Special Section

- A manuscript should be prepared according to the guideline given in "The Information for Authors" (https://www.ieice.org/eng/shiori/mokuji_iss.html). We encourage the authors to use the IEICE Style File (<https://www.ieice.org/ftp/index-e.html>).
- The standard length is within 8 printed pages for a PAPER, 2 printed pages for a LETTER with the format determined by the IEICE Style File. The maximum length of a LETTER at the time of initial submission is 4 pages. Please note that if the length exceeds the standard pages, the publication fee will suddenly increase.
- The time period for re-submission after the first review notification (60 days for the regular section) may be shortened.

3. Submission Instructions

- This special section will accept only manuscripts by electronic submission. Prospective authors are requested to follow carefully the submission process described below.
- Authors must agree to the "Copyright Transfer, Article Processing Charge Agreement, Notices from the IEICE, and Privacy Policy" via electronic submission.
- Submit the manuscript and the "Copyright Transfer and Page Charge Agreement, Notices from the IEICE, and Privacy Policy" using the IEICE Web site (https://review.ieice.org/regist/regist_baseinfo_e.aspx).
- Choose "[Special-NT] The Architectures, Protocols, and Applications for the Future Internet" in the menu of "Journal/Section" in the submission page. Do not choose "[Regular-ED] Information and Systems" or other special sections.

4. Submission Deadline June 14, 2024

5. Contact Point

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6. Editorial Board for this Special Section

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7. Remarks

- * A manuscript must arrive no later than Submission Deadline.
- * **Upon accepted for publication, all authors, including authors of invited papers, should pay the page charges covering partial cost of publication around November 2024. If payment is not completed by 15 December 2024 your manuscript will be handled as rejection.**
- * The standard period of 60 days between the notification (of conditional accept) and the second submission may be shortened according as the review schedule.
- * If there are non-members among the authors, we recommend that the authors take this opportunity to join the IEICE. For detailed information on the IEICE Membership Application, please visit the web-page, https://www.ieice.org/eng_r/join/individual_member.html.
If all authors are non-members, the article processing charge for non-members will be applied, except for invited papers.
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