IEEJ Transactions on Electrical and Electronic Engineering

Special Issue on "Artificial Intelligence-assisted Federated Learning for Intelligent Systems: Concepts, Advancements and Future Perspectives"

The successful functioning of modern-day roadway inventory, infrastructure health monitoring, autonomous driving, linked automobiles, urban modeling, and smart cities depends heavily on the precision and efficiency of data processing techniques. To this end, digital photogrammetry, laser scanning, and LiDAR-generated geospatial data have emerged as vital sources of information. Despite significant progress made in the use of sensory data for intelligent systems (IS)-related applications, such as road network extraction, obstacle avoidance, platform localization, transportation infrastructure inventory, and high-definition map generation, there remain several pressing issues related to the processing and comprehension of vast amounts of data in IS-related applications. Advancements in data technology have led to the increasing use of federated learning for data integration in various real-life applications. Artificial intelligence (AI)-based models, such as Machine and Deep-learning, have proven to be powerful tools for exploring vast amounts of data, uncovering hidden insights, and identifying patterns and trends beyond human comprehension. Machine and Deep learning have already found extensive application in intelligent system analysis, feature detection in photos and videos, drone imagery, and three-dimensional data. Recent developments in intelligent technology have brought about exciting prospects and competitive advantages in various transportation applications. These innovative approaches, combined with sophisticated algorithms, have significantly enhanced the quality of task oriented outputs. We are thrilled to announce a special issue focused on advanced federated learning techniques for intelligent systems.

Please note that the manuscript may be published not as a Special issue paper in the Special issue but as a general paper in a TEEE(C), if the manuscript is not accepted by the deadline of publishing for the Special issue.

IMPORTANT IMFORMATION

Special Issue:	IEEJ TEEE C, Vol.20, Issue 2, 2025
Deadline of paper submission:	March 25, 2024
Submission method:	Submissions are accepted via the paper management system. Please visit the following website for electrical submission: https://submit.iee.or.jp/main/cgi/sstk-top.cgi.

NOTES
1. Follow the IEEJ paper submission guide (https://www.iee.jp/pub/contribution_guide/) in preparing papers.
2. In submitting papers, select "TEEE C(Electronics, Information and Systems)" on the " Paper, Technical Note and Letter Submission" screen of the paper management system, and then select the manuscript type (either

paper or letter). In addition, select "Artificial Intelligence-assisted Federated Learning for Intelligent Systems: Concepts, Advancements and Future Perspectives " from special issue theme.

3. The submissions by e-mail or postal mail will not be accepted.
4. Papers that cannot be published in the special issue due to peer review or the number of submissions are treated as general papers.

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