Special Issue

Federated Edge Learning: Models, Mechanisms, Algorithms, and Applications

Message from the Guest Editors

We are delighted to invite submissions to this upcoming edition of *Electronics* on "Federated Edge Learning: Models, Mechanisms, Algorithms, and Applications". This Special Issue seeks to advance research on Federated Edge Learning (FEL) in resource-constrained environments, a rapidly evolving field that presents both unique challenges and transformative opportunities in artificial intelligence. By bridging theory and practice, this collection aims to drive innovation in distributed learning systems, with far-reaching implications for the Internet of Things (IoT), mobile computing, and beyond. We invite original research articles and reviews on topics including, but not limited to, the following areas:

- Game-theoretic models for efficient FEL.
- Incentive mechanism design for FEL in resourceconstrained environments.
- Privacy-preserving mechanisms in FEL.
- Communication-efficient strategies for FEL.
- Model compression and acceleration methods for FEL.
- System architectures for scalable FEL.
- Heterogeneity-aware approaches in FEL.
- UAV-assisted FEL for enhanced global efficiency.
- Real-world case studies and applications of FEL.

Guest Editors

Prof. Dr. Jianfeng Lu

Dr. Haozhao Wang

Dr. Gang Li

Deadline for manuscript submissions

20 February 2026



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Electronics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
electronics@mdpi.com

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About the Journal

Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guestedited by leading experts in selected topics of interest.

Editor-in-Chief

Prof. Dr. Flavio Canavero

Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).

