



Workshop on Edge Artificial Intelligence for 6G



General Co-chairs

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Important Dates

- ❖ Paper submission deadline:
January 20, 2022
- ❖ Notification of acceptance:
March 06, 2022
- ❖ Camera-ready papers:
March 15, 2022

Submission link

<https://edas.info/N28800>

Webpage link

<https://icc2022.ieee-icc.org/program/workshops>

Scope

6G will revolutionize the evolution of wireless from “connected things” to “connected intelligence”. By embedding model training and inference capabilities into the network edge, edge artificial intelligence (AI) stands out as a disruptive technology for 6G to seamlessly integrate sensing, communication, computation, and intelligence, thereby improving the efficiency, effectiveness, and trustworthiness of 6G networks. Edge AI will accelerate the evolution of sensing capabilities, communication strategies, network optimizations, and application scenarios. However, edge AI will cause task-oriented data traffic flows over networks, for which disruptive communication techniques, efficient resource allocation methods and holistic system architectures need to be developed. The challenges for building edge AI ecosystems are multidisciplinary spanning wireless communications, machine learning, operation research, domain applications, regulations and ethics. The goal of this workshop is to bring together researchers and experts from academia and industry to consider edge AI opportunities across theoretical, algorithmic, systematic, and entrepreneurial considerations to embrace the exciting era of edge AI.

Topics

We seek original completed and unpublished work not currently under review by any other journal/magazine/conference. Topics of interest include, but are not limited to:

- Edge learning models, algorithms and architectures
- Federated learning, analytics and optimization
- Communication-efficient edge training/inference systems
- Wireless network techniques for edge training
- Task-oriented communication and model compression for edge inference
- Short-packet communication for edge inference
- Service-driven network resource allocation for edge AI systems
- Joint sensing, computing, caching, communication for edge AI
- Privacy, security, interpretability and optimality in edge AI
- Theoretical performance analysis for edge AI systems
- Learning to optimize edge AI systems
- Edge AI empowered wireless network design and optimization
- Edge AI for intelligent radio resource allocation and signal processing
- Software platform, hardware platform, and application scenario for edge AI

Paper Submission

The workshop accepts only novel, previously unpublished papers. The page length limit for all initial submissions for review is SIX (6) printed pages (10-point font) and must be written in English. All final submissions of accepted papers must be written in English with a maximum paper length of six (6) printed pages (10-point font) including figures. No more than one (1) additional printed page (10-point font) may be included in final submissions and the extra page (the 7th page) will incur an over length page charge of USD100. For more information, please see IEEE ICC 2022 official website: <https://icc2022.ieee-icc.org/authors>. For those accepted papers in which the major contributions lie in experimental findings and/or training of deep learning models, the authors are expected to provide program codes that can be accessed by the community for verification purposes, to be consistent with science papers reporting new experimental findings. Qualified papers will receive COMSOC grant covering all or most of the **open access** costs, if sufficient information and/or source codes are provided in open access to allow verification of experimental results as scientific experiments require.