



Call for Papers

Green Communication Systems & Networks Symposium

Symposium Co-Chairs

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Scope and Motivation

Over the years, the use of Information and Communication Technology (ICT) has come to dominate several areas, improving our lives, offering us convenience, and reshaping our daily work circumstances in the process. Despite the passion about advances in the ICT infrastructure industry, enterprises and governments face the renewed challenges of tackling sustainability issues and adopting environmentally sound practices. Computers and other ICT infrastructure consume significant amounts of electricity, placing a heavy burden on electric grids and contributing to greenhouse gas emissions. Moreover, the increasing number of devices with high transmission capacity connected to the Internet is playing a major role in increasing the energy consumption by communications networks. In addition, the recent ascent of machine learning and artificial intelligence as a necessary tool to support ICT architectures and infrastructures is generating concerns about its energy footprint. The Green Communication Systems and Networks Symposium aims to consolidate and disseminate the latest developments and advances in the emerging research areas relevant to green communications and computing. This symposium invites participation from both academic and industry researchers working in the areas of sustainable and green-enabled communications and computing networks, as well as communication and computing technologies enabling other green solutions such as smart grids, green cloud and fog computing data centers, green buildings and green logistics, and smart cities. Authors are invited to submit papers presenting novel technical research studies as well as broader position papers.

Topics of Interest

The Green Communication Systems and Networks Symposium seeks original contributions in the following topical areas, plus others that are not explicitly listed but are closely related:

- Energy-efficient communications, computing and networking
- Energy efficiency in 6G
- Energy efficiency and scalability of communication networks and infrastructures
- Architectures, models, security, and approaches for smart grids and smart grid networks relevant to energy efficiency
- Collaborative Intelligence for Green Communication Systems
- Cross-layer design and optimization for green communications and computing
- Economics and pricing for green systems and services
- Energy footprint evaluation in networks and computing architectures
- Energy harvesting, storage, recycling, wireless power transfer
- Green communications via backscatter and metasurfaces

- Green edge computing
- Green Internet of Things
- Green big data networks
- Green machine learning and artificial intelligence
- Green management of communication networks
- Green optical communications, switching and networking
- Green optical wireless communications
- Green scheduling for communications and computing
- Green software, hardware, devices, and equipment
- Green storage, cloud and edge computing, and data centers
- Green transmission technologies and network protocols
- Green wireline communications and networking
- Low cost, energy-efficient antenna and RF designs
- Physical layer approaches for green communications and computing
- Machine learning and AI for energy efficiency and green operation in communication systems and networks
- Modelling and analysis for green communications and computing
- Power-efficient cooling and air-conditioning systems for communications and computing
- Renewable power at the service of data centers, edge, fog and cloud computing and networking
- Security in green communication and computing
- Experimental test-beds and field trials for green communications and computing
- Standardization, policy and regulation for green communications and computing

Important Dates

Paper Submission: 11 October 2023

Notification: 18 January 2024

Camera Ready and Registration: 15 February 2024

How to Submit a Paper

All papers for technical symposia should be submitted via EDAS. Full instructions on how to submit papers are provided on the IEEE ICC 2024 website: <https://icc2024.ieee-icc.org/>