



Green Communication Systems and Networks

SYMPOSIUM CO-CHAIRS:

Pengbo Si, Beijing University of Technology, China

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SCOPE AND MOTIVATION:

The high-density deployment of base stations and the exponentially increasing of sensors and actuators in 5G and 6G networks bring great challenge on reducing carbon footprint in 5G and 6G networks. Moreover, the information sharing and intelligent decision making capabilities help recent communication systems and networks play an important role in improving energy efficiency in various industries.

The aim of Green Communication Systems and Networks Symposium in GLOBECOM 2019 is to serve as a platform presenting state-of-the-art research work on challenging issues related to energy efficiency in communication systems and networks, as well as to shed further light on future directions in this space. Authors from both industry and academia are invited to submit papers and share their recent results on this platform.

MAIN TOPICS OF INTEREST:

- Energy-efficient transmission technologies and network protocols
- Green 5G/6G networks
- Energy-efficient protocols and networking
- Green network concepts and architectures
- Cross-layer design and optimization for green communications and computing
- Green routing and switching
- Green wireline communications and networking
- Energy-efficient storage, cloud computing, edge computing and data centers
- Green traffic shaping and policy implementation
- Energy-efficient resource management and scheduling
- Green software, hardware, devices, and equipment
- Power-efficient cooling and air-conditioning systems for communications and computing
- Physical layer approaches for green communications and computing
- Low cost, energy-efficient antenna and RF designs
- Green management of communication networks
- Context-based green approaches & green awareness
- Economy and pricing for green systems and services



- Green network monitoring
- Measurement and profiling of green issues
- Power consumption trends and reduction in communications and computing
- Modeling and analysis for green communications and computing
- Security in green communication and computing
- Carbon-neutral communication and computing systems
- Cognitive technologies to reduce energy consumption in communication networks
- Zero-emission base stations, communication devices, and networks
- Standardization, policy and regulation for green communications and computing
- Non-energy based green topics, issues and approaches
- ICT for green buildings and smart cities
- Architectures and models for smart grid communications
- Sensor and actuator networks for smart grid
- Communications networks for the smart grid
- Quality of service in smart grids
- Self-organizing green wireless networks
- Green industrial processes
- Energy harvesting, storage, recycling, wireless power transfer
- Renewable energies for ICT
- Energy-aware communications and networking
- Architectures, models, security, and approaches for smart grids and smart grid networks
- Advanced metering infrastructure and smart meter technologies
- Experimental test-beds and results for green communications and computing
- Field trials and deployment experiences

SUBMISSION GUIDELINES:

The IEEE GLOBECOM 2019 website provides full instructions on how to submit papers and the paper format. All papers should be submitted via EDAS through the following link: <https://edas.info/N25074>