



GREEN COMMUNICATION SYSTEMS AND NETWORKS SYMPOSIUM

SYMPOSIUM CHAIRS AND 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 large number of devices with high transmission capacity connected to the Internet is playing a major role in increasing the energy consumption by communications networks.

The Green Communication Systems and Networks Symposium in IEEE Globecom 2020 aims to consolidate and disseminate the latest developments and advances in the emerging research areas relevant to green communications and computing. This symposium invites participations from both academic and industry researchers working in the areas of green-enabled communications and computing networks, as well communication and computing technologies enabling other green solutions such as smart grids, green cloud 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

- Green transmission technologies and network protocols
- Green wireless cellular networks
- Cross-layer design and optimization for green communications and computing
- Green wireline communications and networking
- Green optical communications, switching and networking
- Green scheduling for communications and computing
- Green software, hardware, devices, and equipment
- Green storage, cloud computing, and data centers
- Use of cognitive principles to achieve green objectives
- Novel network concepts and architectures lowering the overall footprint of ICT
- Energy efficiency in 5G/6G
- Energy efficient backscatter communication



- Green traffic shaping and policy implementation
- 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
- Big data meet green challenges
- Energy efficiency and scalability of communication networks and infrastructures
- 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
- 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
- Smart cities
- Intelligent transportation systems
- Transport and logistics efficiency, e.g., applications to road traffic optimization and supply chain management
- Mitigation of electromagnetic pollution
- 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

IMPORTANT DATES

Paper Submission: 15 April 2020

Notification: 25 July 2020

Camera Ready and Registration: 1 September 2020



SUBMISSION INSTRUCTION

All papers for technical symposia should be submitted via EDAS through the following link: <https://edas.info/N27054>