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Communications Enabling Shared Understanding



Call for Papers

Green Communication Systems and Networks Symposium

Symposium chairs

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Scope and Topics of Interest

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 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 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 include, but are not limited to, the following:

- Architectures, models, security, and approaches for smart grids and smart grid networks
- Advanced metering infrastructure and smart meter technologies
- Big data to meet green challenges
- Carbon-neutral communication and computing systems
- Context-based green approaches & green awareness

- Cross-layer design and optimization for green communications and computing
- Economics and pricing for green systems and services
- Energy-aware communications and networking
- Energy efficiency and scalability of communication networks and infrastructures
- Energy efficiency in 5G and beyond
- Energy harvesting, storage, recycling, wireless power transfer
- Experimental test-beds and results for green communications and computing
- Field trials and deployment experiences
- Green industrial processes
- Green management of communication networks
- Green network monitoring
- 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
- Green traffic shaping and policy implementation
- Green transmission technologies and network protocols
- Green wireless cellular networks
- Green wireline communications and networking
- ICT for green buildings
- Intelligent transportation systems
- Low cost, energy-efficient antenna and RF designs
- Measurement and profiling of green issues
- Mitigation of electromagnetic pollution
- Modelling and analysis for green communications and computing
- Non-energy based green topics, issues and approaches
- Novel network concepts and architectures lowering the overall footprint of ICT
- Physical layer approaches for green communications and computing
- Power consumption trends and reduction in communications and computing
- Power-efficient cooling and air-conditioning systems for communications and computing
- Renewable energies for ICT
- Security in green communication and computing
- Smart cities
- Standardization, policy and regulation for green communications and computing
- Transport and logistics efficiency, e.g., applications to road traffic optimization and supply chain management
- Use of cognitive principles to achieve green objectives
- Zero-emission base stations, communication devices, and networks

Submission Guidelines

The IEEE ICC 2020 website (icc2020.ieee-icc.org) provides full instructions on manuscript format and how to submit a manuscript. You will select the desired symposium/track when submitting your manuscript.