Special Session on
Energy-aware Methodologies and Techniques for Green ICT Infrastructures
(EMTGI 2022)
at
World Congress on Information and Communication Technologies

(WICT 2022)

on
World Wide Web
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http://mirlabs.org/wict22/

Objectives and Scope

Since the late 1990s (Kyoto Protocol, December 1997), the increasing need for containing and reducing energy consumption has caught the interest of both the industrial and academic communities due to the global warming and climate change, which are causing the increase of global temperature and the rise of sea levels. In this context, a significant role of the scholars and the practitioners is to design new techniques and methodologies that may inspire and support the policies and the strategies that countries and firms will put into action.

That said, this Special Session aims to be a forum for researchers and practitioners interested in addressing issues and challenges related to optimizing computing and networking system power consumption, energy-efficient systems, and energy-related security issues. A particular focus is given to ICT infrastructures. In fact, in order to implement energy-aware techniques and methodologies, it is of paramount importance that the ICT infrastructures, such as Data Centers, Networks, Software architectures, will be redesigned in a "green" perspective. Another focus of this Special Session is the study of emerging threats in Cybersecurity related to energy consumption. Papers focused on Machine learning and Artificial intelligence techniques related to energy topics will also welcome.

Topics

Potential topics include, but are not limited to, the following:

- Energy-efficient communication, computing technologies, protocols and architectures
- Energy-efficient management of network and/or data center resources
- Energy efficiency, Quality of Service, and reliability in ICT systems
- Energy-aware networking architecture and protocols

- Energy-aware algorithms and application design
- Energy consumption measurements, models, and monitoring tools
- Energy-efficient cloud and data center technology
- Power Consumption Modelling of energy-aware Protocols, Mechanisms and Countermeasures
- Energy-related Attacks and Countermeasures
- Ad-hoc solutions for battery operated, or with limited power capacity devices
- Security Weaknesses introduced by Green-enabled devices
- Solutions for smart grids

Paper Publications

- Proceedings will be published in Lecture Notes in Networks and Systems, Springer (Indexed in SCOPUS, INSPEC, WTI Frankfurt eG, zbMATH, SCImago) https://www.springer.com/series/15179
- Papers maximum length is 10 pages
- Papers must be formatted according to Springer format (Latex/word) available at: https://www.springer.com/de/authors-editors/book-authors-editors/manuscriptpreparation/5636#c3324

Special Session Chairs
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