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New communication paradigms are emerging, such as the Internet of Things (IoT), Cyber-Physical Systems (CPS), 5G, Small Cell Communications, Tactile Communications, Nano Communications, Cognitive Networking, Visual Light Communications (VLC), Machine-to-Machine Communications (M2M), Device-to-Device (D2D), and Vehicular Networks. With the help of green techniques, such as standby/idle power management, energy harvesting, energy storage, energy transfer, virtualization, adaptive/flexible networks, we can design future emerging networking and communication systems/paradigms to be green from start and to ensure a sustained development to even greener solutions in the far future.

ICT, and in particular the evolution toward 5G communication systems, needs to become more green, where energy efficiency and sustainability are design criteria of the network and service architectures. Flexible networks that adapt their capacity to the requirements and context can lead to significant energy savings. Novel networking paradigms need to be introduced to assure that all components are used with maximum utilization. Green network architectures will leverage on cross-layer, cognitive and, cooperative aggregation mechanisms to provide a communication infrastructure where the energy consumption is minimized while guaranteeing the quality/grade of service required by the applications. Along with energy efficiency, network resources utilization is to be optimized and radiation is to be minimized.

This workshop believes in a holistic long-term approach to green communications and networking, which includes all aspects of ICT systems during their full life cycle, their part in the bigger picture, their interactions with the environment and societies.

- Green Technologies in Internet of Things (IoT) and Cyber Physical Systems (CPS)
- Next generation green wireless communication systems, including green 5G systems
- Machine-to-Machine Communications (M2M) and Device-to-Device (D2D)
- Green strategies in 5G transport network
- Small Cell Communications
- Visual Light Communications (VLC)
- Green wire-line and optical networks
- Green tech in service discovery and service provisioning
- Tactile Communications
- Nano Communications
- Cognitive Networking
- Vehicular Networks
- Utilization and standby/idle power management
- Virtualization to consolidate under-utilized hardware resources
- Adaptive resources, such as adaptive link rates, elastic networks
- Energy harvesting, energy storage, energy transfer
- Collaborative/cooperative/cognitive techniques as green technologies
- User mobility modeling to predict and adapt to patterns to reduce energy expenditure
- Increased life-time of ICT hardware for e-waste reduction
- Energy consumption and optimization of communications infrastructure
- Green assessment of computing, communications, and networking

Important Dates:

Paper Submission: 18 November 2016
Notification Date: 17 February 2017
Final Paper: 10 March 2017

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