Call for Papers
Sixth International Workshop on
Cloud Technologies and Energy Efficiency in Mobile Communication Networks (CLEEN 2018)
How cloudy and green will mobile network and services be?
In conjunction with VTC2018-spring, 3 June 2018, Porto, Portugal

Scope and Objectives:

This workshop explores novel concepts to allow for flexibly centralised radio access networks using cloud-processing based on open IT platforms, in coordination with network function virtualization technologies and MEC (Multi-Access Edge Computing), that are recognized as key enablers for the definition of future 5G systems. The aim is to allow for a guaranteed high quality of experience for mobile access to cloud-processing resources and services, and to allow a future network evolution focused on energy efficiency and cost-effectiveness. In fact, all future innovative network solutions will be conceived and deployed with a long term perspective of sustainability, both in terms of energy consumption of mobile network (and related interoperability with terminals) and cost efficiency of the different deployment and management options. This requires new concepts for the design, operation, and optimization of radio access networks, backhaul networks, operation and management algorithms, and architectural elements, tightly integrating mobile networks and cloud-processing. This workshop will cover technologies across PHY, MAC, and network layers, technologies which translate the cloud-paradigm to the radio access and backhaul network, and will analyse the network evolution from the energy efficiency perspective. It will study the requirements, constraints, and implications for mobile communication networks, and also potential relationship with the offered service, both from the academic and the industrial point of view.

We solicit original submissions in the following areas:

- Centralized / decentralized PHY and MAC processing
- Flexible assignment of functionality in mobile networks
- Joint operation and optimization of radio access and backhaul networks for cloud-based mobile networks
- Resource allocation techniques; interference analysis, avoidance, and mitigation for heterogeneous networks
- Storage and computation capability of small cells
- Energy efficiency vs. QoS vs cost-efficiency trade-offs
- Service and energy management aspects of cloud-based mobile networks
- Architectural evolution of mobile networks and cost effective deployment strategies for evolved heterogeneous wireless network

- Multi-access Edge Computing and related enablers (e.g. new interfaces, protocols, mobility aspects, innovative cache support, …), including Multi access technologies
- MEC and RAN interworking, impacts of MEC in 5G architecture
- MEC verticals: support for V2X and advanced automotive use cases; application offloading and energy efficiency through MEC; virtual reality and augmented reality
- Management of cloud-based/cloud-operated heterogeneous networks providing access to cloud-services; edge disaggregation and distributed network operating systems
- Integration of cloud-services into green heterogeneous wireless Testbeds and performance evaluation for cloud-based mobile communication networks

Important Dates:
Paper Submission: 26/01/2018
Acceptance Notification: 12/02/2018
Camera-Ready and author registration: 28/02/2018
Workshop: 03/06/2018

Submission Guidelines:
Accepted papers should be presented for publication in IEEE Xplore. A full version of each paper has to be submitted through the TrackChair system under the workshop track. Guidelines for submission can be found in the CLEEN2018 website (www.5g-ppp.eu/cleen2018).

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