IEEE GLOBECOM WORKSHOP ON

Cloudified Architectures for 5G and beyond Systems

December 9, 2018, Abu Dhabi, UAE

http://wireless.iitp.ru/ca5g/

A major challenge for future wireless systems is the design of flexible network architectures that can support an increasingly diverse set of applications and services with heterogeneous user and network requirements. Existing commercial wireless systems – both 3GPP and non-3GPP ones – rely on closed hardware-based platforms. Such a rigid paradigm dramatically delays the adoption and deployment of new standards; also, it imposes significant challenges in the implementation and innovation of techniques to support new services, to maximize spectrum and network efficiency, and to improve wireless coverage.

Software-defined networking enables reconfigurable, scalable, low-cost, and efficient solutions for enhanced mobile broadband communications, massive machine-type communications, and ultra-reliable low latency communications, which are the main three targets for 5G developers. Thanks to virtualization technology and network function virtualization, deployed wireless systems will be ready to support innovative communication solutions including those using THz spectrum or light communications.

CALL FOR PAPERS

This workshop aims at bringing together leading researchers from both academia and industry, at providing an opportunity for them to share their vision on 5G, new cloudfied architectures, and solutions enabled by such architectures as well as at presenting new performance evaluation methods and prototyping.

Topics of interest include but are not limited to:

- Novel architectures for next-generation wireless networks
- Software-defined networking
- Network function virtualization
- Network slicing
- Traffic- and infrastructure-aware functional split on cloud architectures
- Tactile Internet support on cloud environments
- Ultra-reliable low-latency communications in cloud architectures
- Cloudified solutions for the IoTs
- Challenges and limitations for Massive MTC usage
- Advanced V2X communications over mobile cloud architectures
- New radio support in Cloud RANs

- Cooperative transmission and reception in Cloud RANs
- Dense networks and interference mitigation in Cloud RANs
- Cloud-enabled massive MIMO
- Traffic classification in cloud architectures
- Novel applications and services
- Cross-layer design and optimization in cloud architectures
- Interaction between applications and networking equipment
- QoS and resource management in cloud architectures
- Modeling and performance evaluation
- Implementations and testbeds

Important Dates

- Paper submission deadline: July 15 , 2018
- Paper acceptance notification: August 15, 2018
- Camera-Ready: September 15, 2018

Submission Instructions

Submitted manuscripts must be formatted in standard IEEE camera ready format (double-column, 10pt font) and must be submitted via EDAS as PDF files (submission site: http://edas.info/N25044). The manuscripts must be no longer than 6 pages. The Program Committee reserves the right to not review papers that violate these formatting rules. Submitted papers must not have been previously published, or be under consideration for publication elsewhere. All submitted papers will be reviewed and judged on originality, technical correctness, relevance, and quality of presentation. All accepted papers must be presented at the workshop by one of the authors.

Organizers

General Chairs:

- Ian Akyildiz, Georgia Tech, USA and IITP RAS, Russia
- Josep Jornet, University of Buffalo, USA
- Dario Pompili, Rutgers University, USA

TPC Chairs:

- Rui Aguiar, University of Avero, Portugal
- Evgeny Khorov, IITP RAS, Russia
- Oguz Sunay, Open Networking Foundation, USA