



Call for Papers

The 11th International Workshop on Evolutional Technologies & Ecosystems for 5G Phase II (WDN-5G ICC2018)

Scope

Current research efforts on 5G Radio Access Networks (RAN) strongly focus on millimeter-wave (mmWave) access for addressing a critical weakness of deployed cellular systems, i.e. the capacity to realize enhanced mobile broadband (eMBB) services, as discussed at the World Radio-communication Conference 2015 (WRC-2015). Forseeing a new market, the FCC in US also opened up in total nearly 11 GHz of spectrum above 27.5 GHz to 5G, including unlicensed spectrum at 64-71 GHz. Aside, mmWave technologies have reached a significant degree of maturity and their state-of-the-art products, operated in the 60GHz unlicensed band, are already in the market. Wireless engineers and business planners now consider how to efficiently introduce and operate mmWave in 5G and beyond, where the answers to the question depend on scenarios/use cases/services to be deployed. For example, the forthcoming 5G Phase II, taken care by the planned 3GPP Release 16, is particularly interested to a new class of services called ultra High Speed Low Latency Communications (uHSLLC) e.g. mmWave V2X. To realize such requirements, it is essential to combine mmWave with Mobile Edge Computing (MEC), a technology allocating storage and computation resources at the edge of the network to reduce latency. However, how to combine them effectively has not been fully discussed, especially for critical applications of strict latency constraints foreseen in 5G networks. Another critical issue in terms of cost is how to backhauling the mmWave smallcell networks, knowing that it is impossible to provide Gigabit Ethernet backhaul everywhere. One of the solution is to introduce selfbackhauling technique using mmWave in combination with Software Defined Network (SDN) technology to reduce OPEX/CAPEX. However, detailed discussions e.g. interference management or implementation issues should be investigated thoroughly in practice.

The main objective of the workshop is to offer an opportunity for academic and industrial researchers to discuss on evolutional technologies and killer ecosystems for

the realization of 5G Phase II, taking into account the combination of mmWave and MEC, under the support of MEC/SDN technologies.

Topics of Interest include (but not limited to):

- Architecture for 5G heterogeneous networks & beyond
- Millimeter wave communications and 5G-NR
- 5G ecosystems for Phase II
- Hardware implementation and demonstration of 5G systems
- MEC architecture for 5G networks
- Resource management/MANO in HetNet
- Micro-operator network management
- Self-organizing networks (SON) and reinforcement learning
- 3GPP, WiFi, and WiGig interworking
- MU-MIMO and massive MIMO at mmWave bands
- Smart antenna systems and dynamic cell structuring
- Enhanced channel models for 5G Phase II
- Backhaul (wired, wireless, millimeter wave, etc.) and networking
- Fronthaul and functional splitting
- Context information management for HetNet
- Network load balancing and smart information storage for C-RAN
- SDN/NFV based cognitive, cooperative, and reconfigurable networks
- Regulation and standardization for cooperative HetNet
- Storage and computation caching capability of small cells
- mmWave for A2X and V2X

Submission Guideline: see <http://icc2018.ieee-icc.org/authors/call-workshop-papers>

Submission link: <http://edas.info/N24152>

Deadlines:

Paper Submission Deadline: January 3, 2018

Acceptance Notification: February 21, 2018

Final Paper submission: March 5, 2018

Workshop date: May 20, 2018

Workshop Organizers & TCP Chairs

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