

Call for papers

5G Advanced: The Next Evolution Step of 5G NR

13 December 2018

5G attracted a lot of research in order to address the different verticals defined as the ones relevant for future cellular systems. After an intense research period, which is still ongoing, standardization activities were carried out and resulted in the first version of Rel-15 3GPP that was adopted in December 2017.

The focus in 5G research and standardization up to now was on core verticals. Three of the most important verticals considered up to now are: Enhanced mobile broadband (eMBB), Massive machine type communications (mMTC) and ultra-reliable and low-latency communications (URLLC). Research on Cellular networks beyond 5G, also known as 5G advanced, is starting to gain momentum in order to address other verticals/features that were not addressed in 5G. The workshop will target papers addressing advanced features relevant to 5G Advanced research from academia and industry that fully achieve or surpass 3GPP and ITU requirements. These include, but not limited to, the following topics:

- Advanced Massive MIMO/Beamforming solutions
- Antenna arrays other than rectangular arrays
- CRAN/DRAN based multi-node link management and interference coordination
- Related CRAN/DRAN architecture splits
- Non-Orthogonal Multiple Access (NOMA) and Random Access
- Efficient control and signaling schemes (for URLLC, mMTC)
- Native support of D2D, eV2X
- E2E performance optimization, advanced network control
- Novel context awareness and prediction framework
- Innovative MAC, RLC, PDPC and RRC concepts
- Novel content delivery techniques including caching
- Solutions for Self-Backhauling
- Broadcast (standalone Broadcast and mixed Broadcast/Unicast solutions)
- Autonomous driving applications (platooning, delivery drone etc.)
- Energy saving applications
- Healthcare applications
- Disaster relief applications
- Inclusion of optical wireless systems in mainstream cellular technology
- Flexible and efficient hardware transceiver implementation
- Spectrum management (licensed / unlicensed)

A workshop jointly
organized by the 5G PPP
phase II Projects



General Chairs:

Frank Schaich, *Nokia Bell Labs*
Marie-Helene Hamon, *Orange*
Belkacem Mouhouche, *Samsung UK*

Important Dates:

Paper Submission Deadline: *1 July 2018*
Notification of Acceptance: *31 July 2018*
Camera-Ready Submission: *30 August 2018*

TPC Chairs:

Gerhard Wunder, *Freie Universität Berlin*
Tommy Svensson, *Chalmers*
Panagiotis Demestichas, *Piraeus University*

Submission Guideline:

Maximum paper length is 6 pages (10pt) (1 more page with a charge of USD100). Paper should follow the standard IEEE Conference Template and be submitted through EDAS:

Special Session Chair:

Mythri Hunukumbure, *Samsung UK*

Workshop track (5G NR) <https://edas.info/N24870>

Publication Chair:

Khan Reaz, *Freie Universität Berlin*

www.one5g.eu/workshop

Full Day Workshop on 5G Advanced

