

23rd International Conference on Telecommunications

ICT2016 "Expansion to Small"

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Thessaloniki, Greece | Makedonia Palace Hotel

Technical Sponsorship



Special Session

Methodologies and technical solutions for the 5G air interface design

Organizers: **Giuseppe Piro**, *Politecnico di Bari, Italy*, **Martin Schubert**, *Huawei's European Research Center, Munich, Germany*.

Call for Papers

The mobile Internet is experiencing a fast growth, and it is projected to bring a 1000-fold increment of overall mobile data traffic by 2020. This development is driven by an increasing demand for pervasive video and broadcast-like services, broadband access capabilities everywhere, seamless connectivity with a high user speed, machine-to-machine applications, and real-time and ultra-reliable communications. This trend is prompting worldwide research to conceive new technological solutions for the upcoming 5th generation (5G) cellular network.

The design of a new 5G air interface involves new technological challenges, like (i) the large mobile data volumes and required user data rates, (ii) the increasing number of connected devices, (iii) the emergence of new use cases requiring very reliable connections and mission-critical communication, and (iv) the introduction of tactile Internet applications that impose very stringent latency requirements.

This raises the need for developing, evaluating, and improving flexible and reliable PHY and MAC mechanisms being capable of satisfying the very demanding 5G requirements to be met for enabling a broader range of new 5G services.

The special session aims at collecting a number of high-level scientific contributions coming from the industry and academia, which propose interesting and promising solutions and methodologies for the design of the new 5G air interface. Topics of interest include but are not limited to:

- New waveforms, frame designs, and novel physical layer technologies for the 5G Air interfaces
- Coding and modulation
- Low complexity and powerful Massive MIMO
- MAC and Radio Resource Management approaches for the 5G
- mmWave air interface design
- Non-orthogonal access schemes beyond OFDMA
- Device-to-device, machine-to-machine, and V2X communications
- New link-to-system level mapping models
- Testbeds and simulation tools for 5G

Prospective authors are invited to submit high-quality original technical papers following the rules of the Main Track of ICT 2016 for presentation at the conference and **publication in the ICT 2016 Proceedings and IEEE Xplore**, using EDAS, at <https://edas.info/newPaper.php?c=21703&track=78668>.

Important dates

Paper submission deadline: **February 20, 2016**

Notification of paper acceptance: **March 5, 2016**

Camera Ready Papers: **March 15, 2016**

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