

## **Call for Papers**

## **Special Session: Technology Challenges for Communications 5G**

## **Outline:**

In recent years, mobile networks have experienced impressive growth in data traffic and the current generation of the mobile technology continues to transform communication and information access to the population. The 5G related to the fifth generation of wireless systems is the next step in continuous innovation and evolution of the mobile industry, gaining support capacity of wireless networks 1000 times in terms of capacity, connections For billions of devices and individual users multi-GB / s experience capable of extremely low end-to-end delay and time-response times.

The distribution of these networks will materialize in the next decade. The 5G technology will provide low-energy equipment and a large number of devices, including a number of densely populated users, the main role of providing a faster air interface. To achieve these goals, 5G should consist of new radio access technologies and provide current wireless technologies such as LTE, HSPA, etc. The above is achieved by updating the network with the new radio access technologies (RAT) with the evolution of existing wireless technologies (eg LTE, HSPA, GSM and Wi-Fi). Therefore, the overall performance (and system...) requirement for 5G can be more folded, in addition to achieving faster transmission speed to support ultra-high video definition and virtual applications, should be able to provide lower delay around 1 millisecond for supporting real-time mobile control devices and vehicle-to-vehicle (V2V) applications. To improve the battery life of the connected devices the energy per bit should be reduced by a factor 1000, no change time between different radio technologies to ensure service delivery without problems. As a transition to 5G would bring a huge impact on the current communication technology, it also brings a number of challenges for industry and research community which needs to be addressed, especially in terms of spectrum and network topology. Therefore, at this special session we would like to explore the technological challenges in the design, implementation and deployment of 5G wireless systems.

## **Topics:** Topics include but are not limited to:

- New applications and scenarios to 5G wireless systems
- Cloudification and Virtualization and the 5G and Beyond
- Green Communications for Mobile Networks for 5G
- New architectures for 5G wireless systems
- · Coordination and elimination of interference in 5G wireless systems
- Millimeter wave technologies for 5G
- Massimo MIMO and new distribution concepts for 5G
- Multi-radio networks and 5G interaction
- Spectrum sharing aspects for 5G IoT technologies.
- Cooperation and Optimization of 5G Wireless Systems
- Energy efficiency aspects of 5G wireless systems

- Protocol design for 5G wireless systems
- Low latency and low power for 5G technologies
- Heterogeneous seamless positioning circuit designs for 5G

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Full Paper Submission deadline: 1 June 2017 **Important** 

Dates: Notification deadline: 31 July 2017 Camera-ready deadline: 31 August 2017



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