



# IEEE EUROCON 2017

6 – 8 July 2017 Ohrid, Republic of Macedonia



## Important Dates

31 December 2016

**15 January 2017:**

Full paper submission

4 February 2017

**15 February 2017:**

Paper acceptance notif.

**6 April 2017:**

Early registration,  
Camera-ready papers

## Honorary Chair

Karen Bartleson  
2017 IEEE President

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## Call for Papers

**Special Thematic Area - Ultra High Speed Wireless and Optical Technologies for 5G**  
within IEEE EUROCON 2017 – 17th IEEE International Conference on Smart Technologies

### INTRODUCTION

The upcoming 5G networks are expected to provide users with a multitude of services at unprecedented data rates and high reliability. The development of a flexible transport network that meets the stringent demands of future mobile access is of critical importance, considering the limited radio resources and current state of technology. Novel architectures and technologies need to be developed for both wireless and optical communications.

The convergence of these two technology domains offers the combined benefits of flexibility and high capacity and is thus of significant interest. The goal of the Special Thematic Area is to identify and discuss the challenges and recent advances in the area of ultra-high speed connectivity for 5G networks. Authors are invited to submit their work on the following list of topics.

Submissions on architectural aspects of converged wireless and optical transport networks are particularly welcome.

### TOPICS OF INTEREST

#### Wireless technologies

- Novel architectures; systems and approaches for 5G communication systems
- Converged optical and wireless architectures
- Signal processing and waveforms for advanced wireless communications
- Massive MIMO and LOS-MIMO, as well as beamforming approaches and applications
- Cross-layer (PHY and MAC) design for ultra-high datarates
- MAC interfaces and protocols for 5G
- New architectures and frontends for mmWave and Terahertz communications
- Antenna design for beamforming and massive MIMO
- Indoor and outdoor positioning as well as synchronization techniques
- Demonstration/Implementation of ultra-high speed wireless systems

#### Optical technologies

- Innovation in optical architectures and network management for the future mobile fronthaul/backhaul applications
- Next-generation high-speed PON networks for 5G (e.g. WDM-PON, TDM-PON, OFDMA-PON, Hybrid PON)
- Convergence of fixed-mobile and optical fronthaul/backhaul networks
- Management, monitoring and control of the optical fronthaul/backhaul networks
- Control algorithms, network virtualization, resource abstraction and virtualization
- New functional splits, data models and management protocols (e.g. Netconf/YANG based)
- Approaches of dynamic, on-demand, and elastic networking
- Operation enhancement methods for testing, monitoring, maintenance, installation, etc.

### Special Thematic Area (STA) ORGANIZERS

**Chair** Prof. Eckhard Grass, IHP - Innovations for High Performance Microelectronics and Humboldt-Universität zu Berlin, Germany, [grass@ihp-microelectronics.com](mailto:grass@ihp-microelectronics.com)

**Co-chair** Dr. Jim Zou, ADVA Optical Networking SE, Germany, [JZou@advaoptical.com](mailto:JZou@advaoptical.com)

### PAPER SUBMISSION

The working language of the conference is English. The contributions must be original, have neither been nor are intended to be published elsewhere during the review period. All submissions will be refereed by experts in the field. Types of research papers: academic, industrial, or professional presentations, as well as students'. The quality of the scientific papers will be assessed based on its originality, significance and clarity. Accepted papers will be published in EUROCON2017 Proceedings. Only presented papers satisfying all IEEE standards will be submitted to the IEEEExplore database (indexed by Inspec, Ei Compendex, Scopus, Web of Science and Google Scholar) and are eligible for further submission to IEEE journals.

Paper submission is organized via *EasyChair*.

<https://easychair.org/conferences/?conf=ieeeeurocon2017>

Conference Web page: <http://eurocon2017.org/>