

Colloquium Chair



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The field of satellite and space communications is of paramount importance, both from a national as well as an international point of view. Satellites provide access to fixed and mobile services at the same cost factor for all users within the coverage area, they are a key element of the Internet backbone, and they constitute an essential element in disaster relief scenarios as well as in risk and crisis management for institutional, government and defence applications.

Particularly interesting and challenging are problems related to power and spectrum efficiency, flexibility and adaptability for different propagation conditions, broadband requirements and regulatory implications, mobile services, parameter estimation and synchronization at very low signal-to-noise ratios, fading and interference mitigation techniques, complexity and feasibility issues. However, as satellite systems are becoming more complex and their functions more interrelated, also cross-layer protocol and standardization problems have to be taken into account for future systems.

The main objective of the Colloquium is to provide a platform for scientists, industry, operators and service providers to share ideas, discuss recent advances, exchange their R&D experience, and present state-of-the-art techniques.

Topics of interest include, but are not limited to:

Theory and Techniques

- Propagation models and antenna technologies
- Channel modelling and distortion countermeasures
- Novel modulation, synchronization and coding schemes
- Fading and interference mitigation techniques
- Free-space optical communications
- OFDM and spread spectrum techniques
- MIMO and diversity techniques
- Onboard switching and processing
- Radio resource management
- Cross-layer design
- Encapsulation and QoS issues

Systems and Applications

- Next generation mobile and broadband systems
- LEO and MEO constellations
- Ad-hoc and wireless sensor networks
- Hybrid terrestrial and satellite networks
- Satellite communications and future Internet
- Navigation and Earth observation via satellite
- Systems for deep-space communications
- Standardization and regulatory problems
- Role of satellites in 5G
- Security aspects

Submission Dates

- Full Paper due: 12/02/2018
- Notification of acceptance: 15/04/2018
- Camera ready paper: 20/05/2018

Paper format and submission procedure are available at <http://csndsp2018.com/>

For further information about this Colloquium, please contact: **Dr. Gappmair and Dr. Teschl**

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