



Call for Papers  
1st workshop on  
**Integration of Optical and Satellite Communication Systems  
into 5G Edge Networks (OSCTo5G)**

in conjunction with ICTON  
21th International Conference on Transparent Optical Networks,  
Angers, France, July 9-13, 2019  
<https://www.il-pib.pl/en/icton2019>  
technically (co-)sponsored by the IEEE

**Scope of workshop:** Mobile data traffic forecasts predict an enormous growth of traffic volume driven mainly by the increase in the number of connected devices and popularity of innovative applications such as personalized media mobility in urban environments, disaster recovery and first responder applications, factories of future and autonomous vehicles. This calls for a fundamental change in network infrastructures, architecture, management and orchestration to offer features such as extremely high data rates and capacities, low latency, on-demand service-oriented resource allocation, network scaling and automation. 5G attempts to address these issues and it is expected to overcome the challenges of the next generation communication systems, featuring capabilities beyond what 4G is offering. Heterogeneous technologies convergence is one of the main enablers of 5G where different technologies come together in an orchestrated way to realize 5G vision.

Optical fiber, satellite systems and enablers like Network Softwarization (NS) are key technologies to support the 5G vertical requirements. It triggers an enormous effort, at different levels, ranging from the definition of use cases and architectures, physical layer integration, network management and orchestration up to standardization actions, to integrate inhomogeneous communication technologies under a single uniform umbrella. The aim of this workshop is to present recent research results targeting the integration of the optical and satellite communication systems into 5G edge networks. Topics of relevance include but are not limited to:

- Use Cases and Architectures
  - Operators and Enterprise-based Environments;
  - Slices in Constrained Environments (IoT, Edge, etc.);
  - Innovative service and Application;
  - Smart-X slice mobility.
- Physical Layer Design and Hardware Aspects
  - Advanced Optical Elements for 5G Communications
  - Advanced Satellite Systems for 5G Communications
- Network Softwarization, Management and Orchestration
  - Virtualization of Satellite and Optical Elements;

- Software Defined Networking for Converged Technologies;
- Common operations and API;
- Inter- and intra-slice Interactions;
- Lifecycle Management and Orchestration;
- High Availability and Reliability Techniques.
- Standardization Trends and Activities
  - Status and progresses in 3GPP/ETSI/IETF/5GAA and other SDOs;
  - Slice-enhanced Networking and Telecommunication Protocols;
  - SDN/NFV Initiatives;

### Technical Program Committee:

Chair: Pouria Sayyad Khodashenas, Fundació I2cat, Spain  
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**Paper submission:** according to ICTON [submission rules](#) (4 pages in electronic form, MS Word version accompanied by a PDF version), please write OSCto5G in the subject line when submitting your contribution. All accepted OSCto5G papers will be included in ICTON 2019 Proceedings (published on IEEE Xplore).

**Important dates:** Short proposal submission deadline: 31 January, 2019  
 Full invited paper submission deadline: 20 April, 2019