

**Call for Papers**  
**15<sup>th</sup> workshop on**  
**Reliability Issues in Next Generation Optical Networks**  
**R O N E X T**

In conjunction with ICTON  
**21<sup>st</sup> International Conference on Transparent Optical Networks,**  
Angers, France, July 9-13, 2019  
<https://www.itl.waw.pl/pl/icton2019>    <http://www.icton2019.com/>  
Technically (co-)sponsored by the IEEE

**Scope of workshop:** The information society is relying more than ever on the availability of an efficient communication infrastructure able to **withstand and recover** from a wide range of **failures**. These failures include single/multiple network **component malfunctioning**, **natural disasters** (e.g., earthquakes, tsunamis, floods, power outages) disrupting large network segments, and **deliberate attacks** which increase in frequency, sophistication and extent. Aside from the **data plane resiliency**, the propulsive paradigms of **software-defined networking** and **network virtualization** call for novel solutions to ensure the **control plane resiliency**. This workshop gathers international experts to discuss the latest research advances and trends in the field of reliability in Next Generation Optical Networks. Topics of relevance include but are not limited to:

- **Basic methods and theory for modelling network survivability**
  - Measures to evaluate network vulnerability to disruptions
  - Network reliability & availability modelling
  - Optical components & systems reliability
  - Architecture and reliability of network nodes
  - Reliability measures and guarantees
- **Survivable network design and operation**
  - Survivable core, metro and access network architectures
  - Algorithms for resilient routing, network resource management & traffic engineering
  - Protection and restoration approaches
  - Survivable datacenter networks
  - Network design/update techniques to reduce vulnerability to disruptions
  - CapEx/OpEx trade-offs in reliable network design
  - Energy efficiency in reliable networks
  - Network monitoring and failure detection approaches
- **Reliability and resilience of the control plane**
  - Survivable SDN control plane design
  - Reliable network function chaining
  - Survivable network virtualization
  - Resilient network orchestration
  - Software reliability

The workshop will feature a **Special Session on Disaster Resilience of Optical Communication Services** dedicated to dissemination of outcomes and cross-fertilization of ideas in the frame of [COST Action RECODIS](#).

**RONEXT Technical Program Committee:**

*Chair:* Marija Furdek, Chalmers University of Technology, Sweden

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**Paper submission:** according to ICTON submission rules at <https://www.itl.waw.pl/pl/icton2019> (4 pages, MS Word and PDF version), **please write RONEXT in the subject line** when submitting your contribution. All accepted RONEXT papers will be included in ICTON 2019 Proceedings (published on IEEE Xplore).

**Important dates:**      Submission deadline: March 31, 2019      Notification of acceptance: April 30, 2019  
Post-deadline papers with very recent results are requested by June 1, 2019