Call for Papers

15th workshop on
Reliability Issues in Next Generation Optical Networks
RONEXT

In conjunction with ICTON
21st International Conference on Transparent Optical Networks,
Angers, France, July 9-13, 2019
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
Co-Chairs: Carmen Mas Machuca, Technical University of Munich, Germany
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Salvatore Spadaro, Universitat Politècnica de Catalunya, Spain
Anna Tzanakaki, University of Bristol, UK
Luca Valcareghini, Scuola Superiore Sant’Anna, Italy

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