



**IEEE Global Communications Conference
9-13 December 2019 // Waikoloa, HI, USA**

Fifth Workshop on

Quantum Communications and Information Technology (QCIT'19)

<http://qcit.committees.comsoc.org/>

At IEEE Globecom'19, Waikoloa, HI, USA, 9-13 December 2019

<http://globecom2019.ieee-globecom.org>

The scope of this dedicated workshop is to explore the opportunities for application of communications theory and technologies to quantum technology and investigate novel applications. The workshop is the annual main event of ComSoc's Emerging Technical Committee on Quantum Communications and Information Technology (ETC-QCIT).

Over the last decade, a wide variety of experimental quantum communications and processing devices has been invented and used for fundamental demonstrations in laboratories. Results confirm feasibility of real applications in fields such as quantum communications, information processing and sensing. Recently one can observe novel applications on quantum key distribution, quantum sensors and random number generators which are partially even commercially available. Companies and governments started to invest significant amounts of funding in research and development of quantum technologies. This started to transfer knowhow from quantum technology-based research to applications. These developments are offering numerous opportunities to contribute within research, theory, applied technologies and engineering. The following topics are crucial, but not exclusive, to the development of future quantum technology systems and its applications:

- Coding theory
- Communications and information theory
- Entanglement distillation
- Error correction
- Experimental results and demonstrations
- Interconnection and complexity theory
- Modeling and simulation
- Network coding
- Optimized algorithms and applications
- Photonic communications technology
- Quantum information theory
- Quantum key distribution
- Quantum networks
- Quantum-algorithms and applications
- Remote state preparation
- RF based programming and algorithms
- RF technology and control
- Signal processing and architecture
- Systems architecture

It is the aim of this workshop to connect people from academia and industry to discuss about theory, technology and applications and exchange ideas to move efficiently forward in the engineering and development in this exciting area.

Submission info for camera-ready manuscripts

Original and unpublished regular papers are solicited from the above-mentioned areas. Regular papers have a length of 4 to 6 pages with an optional payable 7th page. All manuscripts will be peer reviewed and published in the workshop proceedings and after presentation in IEEE Xplore. Templates for the manuscripts can be downloaded from:

https://www.ieee.org/conferences_events/conferences/publishing/templates.html

The formatted manuscript should be electronically submitted as pdf via EDAS:

<http://edas.info/N26277>

Further information is available in the Globecom 2019 webpages:

<http://globecom2019.ieee-globecom.org>

Important dates:

Manuscript submission due date:	5. July 2019
Notification date:	15. August 2019
Final manuscript due date:	15. September 2019
QCIT'19 workshop date:	13. December 2019
Globecom'19 conference date:	9.-13. December 2019

Workshop organizers

Andrea Conti, University of Ferrara, Italy, a.conti@ieee.org

Lajos Hanzo, University of Southampton, United Kingdom, lh@ecs.soton.ac.uk

Peter Mueller, IBM Research Zurich Laboratory, Switzerland, pmu@zurich.ibm.com

Michael Ng, University of Southampton, United Kingdom, snx@ecs.soton.ac.uk