

# **IEEE Communications Society Quantum Communications and Information Technology - ETC (QCIT-ETC)**

**Meeting held at IEEE Globecom 2022**

November 23, 2022

9am – Noon EDT

Virtual

## **Meeting Minutes**

Minutes taken by: Andrea Conti

## Participants

The total of participants was 38, as listed at the end of this document.

### 1. Welcome and Opening

The Chair Lajos Hanzo opened the meeting at 9am EDT.

The 4 founding members are: Lajos Hanzo, Andrea Conti, Michael Ng, and Peter Mueller.

The Chair presented the agenda as below

1. Welcome and Opening
2. Approval of the Agenda
3. Invitation to Globecom 2022 and IEEE Quantum Week 2022
4. QCIT Talks
5. Approval of Previous Meeting Minutes
6. Report on ETC Meeting
7. Report on Workshops & Conferences
8. Reports on Keynotes and Invited Talks Report on Keynotes, Invited Talks, Publications, and Future Events
9. Standards Liaison
10. New Business Items
11. Next QCIT-ETC Meeting
12. Adjourn

The QCIT-ETC website is <http://qcit.committees.comsoc.org/>

There are two e-mail distribution lists (450+ members):

- [qcit@comsoc.org](mailto:qcit@comsoc.org)

for internal announcements only (e.g., ICC, Globecom, Committee meetings like today, and Awards)

- [qcit-announce@comsoc.org](mailto:qcit-announce@comsoc.org)

for CFP email distribution list. It is open to all signed-up members to distribute QCIT related CFPs

Sign-up: Send “join QCIT(-ANNOUNCE)” message to [list@comsoc.org](mailto:list@comsoc.org)

Unsubscribe: Send “SIGNOFF QCIT” message to [list@comsoc.org](mailto:list@comsoc.org)

## 2. Approval of the Agenda

The agenda was approved.

## 3. Invitation to ICC 2023 and IEEE Quantum Week 2022

The participants have been invited to submit their work to the next **Quantum Track at SAC Symposium** to be held at IEEE ICC’23, Rome, Italy, May 28- June1, 2023

Track Chair: Prof. Mohsen Razavi, University of Leeds, UK

CfP available at <https://icc2023.ieee-icc.org/sites/icc2023.ieee-icc.org/files/symposium-cfps/Revised%20ICC2023-CFP-SAC-QCIT.pdf>

Participation to the **IEEE Quantum Week 2022** September 18–23, 2022 in Broomfield, Colorado - <https://qce.quantum.ieee.org/2022/> was discussed.

## 4. Meeting Technical Talks

The following technical talks were given

- Balint Koczor, “Will quantum error mitigation achieve practical advantage?”
- Yifeng Xiong, “Quantum Error Mitigation Relying on Permutation Filtering”

- Osvaldo Simeone, “Quantum machine learning: An introduction”

## 5. Approval of Previous Meeting Minutes

The minutes of previous meeting (held at IEEE ICC 2022), circulated via QCIT website <http://qcit.committees.comsoc.org/> (tab “Meetings”), were approved.

## 6. Reports on ETC-TAC Meeting

No significant novelty for this meeting.

## 7. Reports on Workshops and Conferences

Announced the second time the QCIT ETC will organized a Track in the IEEE ICC’23 conference: *SAC Quantum Communications and Computing Track*, dedicated session in the main conference.

Please use the QCIT-ANNOUNCE distribution list to send your CFPs and report your conferences, workshops, sessions, etc.

If you are looking for IEEE ComSoc support for your event, please ask anyone of the officers.

## 8. Reports on Keynotes and Invited Talks Report on Keynotes, Invited Talks, Publications, and Future Events

QCIT members continued to offer keynotes, invited talks, and tutorial in different venues.

For example, some QCIT members will be presenting their fundamental research at the 4<sup>th</sup> International Symposium on Quantum Physics and Quantum Information science (Theme: Advances in Fundamental Quantum Information science Research), Beijing, China – Nov 30 Dec. 1, 2022 <http://qpqis.baqis.ac.cn/2022> organized by Prof. Gui-Lu Long.

QCIT is looking for a member who would be willing to serve in the position of an Appointed Representative of Publications. If you are interested, please contact the newly elected officers.

Please use the QCIT-ANNOUNCE distribution list to send your CFPs and report your special issues, book chapters, and so on.

QCIT is looking for a member who would be willing to serve in the position of an Appointed Representative of Publications. If you are interested, please contact the officers.

The QCIT ETC has contributed to the formation of the new IEEE-level Open-Access journal, namely the IEEE TRANSACTIONS ON QUANTUM ENGINEERING;

A new IEEE ComSoc Communications Magazine Special Section has started.

## 9. Standards Liaison

No news from previous meeting. The QCIT-ETC is supporting standards work within the field.

IEEE SA - 1913 - Software-Defined Quantum Communication

<http://standards.ieee.org/develop/project/1913.html>

IEEE SA - 1913 - Software-Defined Quantum Communication IEEE.org IEEE Xplore Digital Library IEEE Standards.

Liaison: [Steven Bush \(bushsf@research.ge.com\)](mailto:bushsf@research.ge.com)

IEEE SA - 7131 - Standard for Quantum Computing Performance Metrics & Performance Benchmarking

<http://standards.ieee.org/develop/project/7131.html>

IEEE SA - 7131 - Standard for Quantum Computing Performance Metrics & Performance Benchmarking IEEE.org IEEE Xplore.

Liaison: [Peter Mueller \(pmu@zurich.ibm.com\)](mailto:pmu@zurich.ibm.com)

IEEE SA - 7130 - Standard for Quantum Computing Definitions

<http://standards.ieee.org/develop/project/7130.html>

IEEE SA - 7130 - Standard for Quantum Computing Definitions IEEE.org IEEE Xplore Digital Library IEEE.

Liaison: [Peter Mueller \(pmu@zurich.ibm.com\)](mailto:pmu@zurich.ibm.com)

## 10. New Business Items

The QCIT ETC is contributing to the IEEE-level Quantum Initiative:  
<https://quantum.ieee.org/about>

Attendants are reminded about the following:  
NAE report <https://www.nap.edu/catalog/25196/quantum-computing-progress-and-prospects>

Worldwide Large Regional Programs:

- US IARPA and others
- China Secure Backbone
- EU Flagship and Quanterra

European Efforts:

- European Flagship Program on Quantum Technologies

## 11. Next QCIT-ETC Meeting

Next QCIT ETC meeting will be held at IEEE ICC 2023.

## 12. Adjourn

The meeting was adjourned at Noon EDT.

## Participants List

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