IEEE International Conference on Communications

16-20 May 2022 // Seoul, Korea

Intelligent Connectivity for Smart World

Call for Papers for
Symposium on Selected Areas in Communications
Quantum Communications & Computing Track

TRACK CHAIR:

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SCOPE AND MOTIVATION:

The scope of this symposium is to explore the opportunities for application of communications theory and technologies to quantum technology and its applications. 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 quantum communications and information related fields. Recently one can observe upcoming applications in areas like quantum communications, quantum sensors and random number generators which are partially even commercially available. Companies and governments started to spend significant amounts of funding in research and development of quantum technologies. However, the step from quantum technology-based devices to real systems running a communications or information processing task has not completed yet. Moreover, many problems show opportunities to contribute with knowhow, technologies and engineering out of the communications area. It is the aim of this symposium 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 of this exiting area.

TOPICS OF INTEREST:

The SAC Quantum Communications & Computing Track seeks original contributions in various topics, including:

- Quantum communications
- Quantum information theory and quantum coding theory
- Entanglement distillation & swapping
- Quantum error correction
- Quantum state discrimination
- Quantum sensing & metrology
- Quantum synchronization

- Quantum coding theory
- Quantum sensing
- Quantum networks
- Quantum algorithms
- Interconnection and complexity theory
- Modeling and simulation
- Optimized algorithms and applications
- Quantum computing
- Modeling and simulation
- Quantum systems architecture
- Experimental results and demonstrations

IMPORTANT DATES:

Deadline for paper submission: 11 October 2021
Date for notification: 18 January 2022
Deadline for final paper submission: 15 February 2022