
Foreword

Rute Sofia¹ and Ramjee Prasad²

¹*Head of Industrial IoT at fortiss*

²*CTIF Global Capsule (Founder President), Aalborg, Denmark*
E-mail: sofia@fortiss.org; prasad.ramjee@ctifglobalcapsule.org

The Quantum Information Technologies Journal (QITJ) emerges as a scientific initiative of the CONASENSE (Communications, Navigation, Sensing, and Services Integrated) Steering Committee to advance and demystify the field of quantum technologies. This publication aims to bridge the gap between fundamental quantum mechanics and its rapidly evolving technological applications, while also supporting the broader educational mission of promoting quantum science at a time when interest in studying STEM (Science, Technology, Engineering, and Mathematics) disciplines is declining among incoming academic cohorts.

The CONASENSE Steering Committee had the objective of creating a scientific journal focused on quantum technologies, based on the foundation of quantum mechanics, while promoting both academic research and industrial innovation. At this pivotal moment, as the world marks a century since the formal birth of quantum mechanics, it is essential to reflect on its historical legacy and contemporary significance. The First Quantum Revolution of the 20th century gave rise to transformative technologies, including the invention of the LASER (Light Amplification by Stimulated Emission of Radiation), MRI (Magnetic Resonance Imaging), and microelectronics, which underpin modern computing. The quantum tech breakthroughs were made possible through the cumulative efforts of scientists and engineers across the last century, and they continue to shape the fabric of modern life. Today, as the global scientific community is working towards The Second Quantum Revolution, characterized by current and future advancements in

ii *Foreword*

quantum computing, quantum communication, quantum sensing and metrology, quantum simulation and quantum cryptography, there is an urgent need for a dedicated platform that can curate high-quality research, foster interdisciplinary collaboration, and stimulate thoughtful discourse across academia, industry, and government sectors.

The QITJ journal is committed to upholding the highest standards of scientific investigation, under the leadership and review of its Editor-in-Chief, and with the support of a specialist and international editorial board. Thus, it will serve as a platform for original contributions and critical perspectives that inform, inspire, and shape the developing quantum information technologies ecosystems. We, the CONASENSE steering committee, are pleased to welcome the QITJ's new readers to its inaugural edition. We invite you all to engage and contribute to what promises to be an intellectually and educationally enriching, as well as a technologically transformative, journey.

The CONASENSE Steering Committee <https://www.conasense.org/>