"Graduation" of IEEE Quantum Initiative
& Highlights of IEEE Quantum Week 2023

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After a 4-year stint, the **IEEE Quantum Initiative (QI)** will "graduate" at the end of this year. Launched in 2019 by the IEEE Future Directions Committee (FDC), QI has served as the leading community for all projects on quantum technologies (https://quantum.ieee.org/). QI addresses the quantum landscape, identifies challenges and opportunities, leverages the existing initiatives on the FDC, and engages the quantum community at large.

QI met its strategic goals of growing the global technical community in quantum and demonstrating the sustainability of this interdisciplinary technical community, and in the process, has become FDC's most visible and successful initiative. Highlights include the following:

- Sponsorship from many Societies and OUs (Computer, Photonics, Communications, Council on Superconductivity, Signal Processing, Electronics Packaging, Electron Devices, Technology and Engineering Management, Consumer Technology, Power and Energy, Educational Activities, Standards, Entrepreneurship, and MTT-S).
- Ongoing education activities: Podcasts, Curricula development, Accreditation, QSEEC (Quantum Science and Engineering Education Conference).
- Active industry collaboration: QED-C (Quantum Economic Development Consortium).
- Working Group: HPC (High-Performance Computing).
- Successful year-on-year increase in international participation in the flagship conference, IEEE Quantum Week (see below).

With dedicated FDC support, a strong foundation has been established and the QI will transition into the **IEEE Computer Society Quantum Technical Community (QTC)** as of January 1, 2024. More information will be published by IEEE in February 2024. Collaboration and support across IEEE and various external organizations will be maintained. Within QTC, there will be many focus areas, some of which already involve many packaging aspects such as "Superconducting qubit engineering", "Trapped ion engineering", "Cryogenics for quantum", "Quantum roadmaps", "Integrating HPC and quantum computing." Participation is open to all (IEEE members and non-members).

IEEE Quantum Week, the IEEE International Conference on Quantum Computing and Engineering (QCE), bridges the gap between the science of quantum computing and the development of an ecosystem surrounding it. QCE23, the fourth conference of the series, was held as a successful hybrid event in Bellevue, Washington, on September 17-22, 2023. This multi-disciplinary venue featured technologies from worldwide quantum companies, start-ups, and research labs. Here are some collected numbers:

- Over 1,350 attendees from 44 countries.
- Participation: industry (48%); academia (38%); government labs (12%); high school students (2%).
- 9 keynotes, 32 workshops, 30 tutorials, 13 panels, 168 papers, 93 posters, and 4 Birds-of-a-Feather sessions.
- 400$^+$ program hours recorded for review.
- 15 parallel tracks per day across 6 days.

- Career Fair and Student-Mentorship Program.
- 56 patrons and exhibitors.

Keynote: **Krysta Svore Microsoft** — Distinguished Engineer and VP of Advanced Quantum Development

Keynote: **Shruti Puri Yale University** — Assistant Professor of Applied Physics

Patrons, exhibitors, and supporters of QCE23

QCE24 will be held as an in-person event with virtual participation at the Palais des Congrès in Montréal, Québec, Canada on September 15-20, 2024. Information together with the Call for Papers/Tutorials/Workshops/Panels/Posters can be found at https://qce.quantum.ieee.org/2024/.