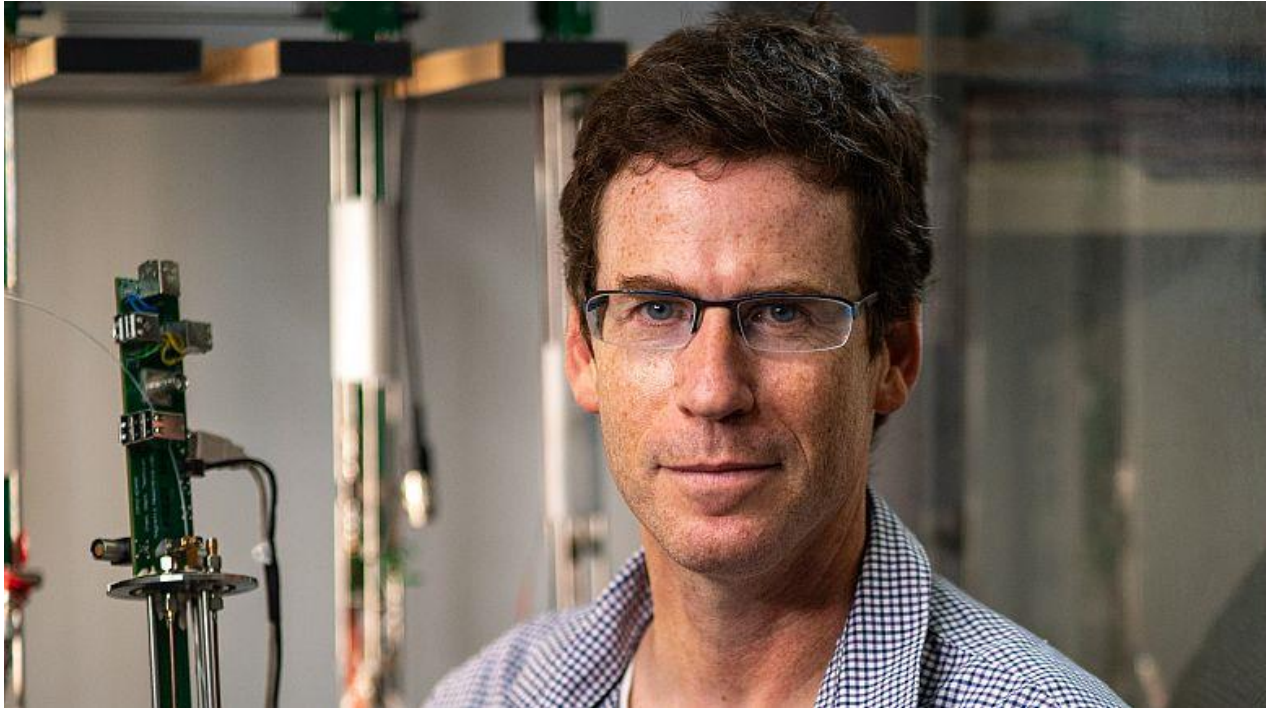


The Technion is opening a new study track for quantum technologies February 18, 2024

The new TechQ program will open at the beginning of April 2024 in integrated learning at the Technion campus in Tel Aviv and the Technion laboratories in Haifa. Intended for engineers and scientists.



In the photo above: Prof. Aaron Blank, head of the quantum technologies program. Photo: Technion

The Technion in Haifa announced a new study program, TechQ, dedicated to theoretical and practical training in the field of quantum technologies. This is a continuing education program designed for those with a bachelor's degree or higher in engineering or science. The lectures will be held at the Technion campus in Sharon, Tel Aviv, and the practical exercises and laboratories will be held in designated facilities at the Technion campus in Haifa. The program is designed to train professional personnel in computing and quantum technology and will give the graduates a thorough understanding of the developing field, which is based on the utilization of the special properties of quantum forms such as the nucleus of an atom, an electron, a superconducting circuit and more.

These features can be expressed in quantum computing systems that will allow very fast calculations, communication systems that are immune to eavesdropping, the transfer of a lot of information in a short time and at low powers, sensitive sensors for detecting objects and underground mapping, and systems for performing accurate time measurements for the purposes of navigation, guidance and synchronization. The new program includes a concentrated study of the world of concepts in the field, a comprehensive theoretical basis, advanced laboratories with practical experience and direct contact with leading researchers from the Technion.

The academic director of the new program is Prof. Aaron Blank, a Technion faculty member and holder of a doctorate in physical chemistry. Prof. Blank has a rich background as a professional officer in the Air Force, and in development projects at Rafael and the Aerospace Industry. He leads several groundbreaking studies dealing with quantum technologies, some of them in collaboration with industry and research groups in Europe. The other lecturers in the course: Prof. Yoav Sagi from the Faculty of Physics at the Technion, who is engaged in the study of the quantum properties of a cloud of cold atoms, and Prof. Gilad Gor from the Faculty of Mathematics at the Technion, who is an expert in quantum communication.