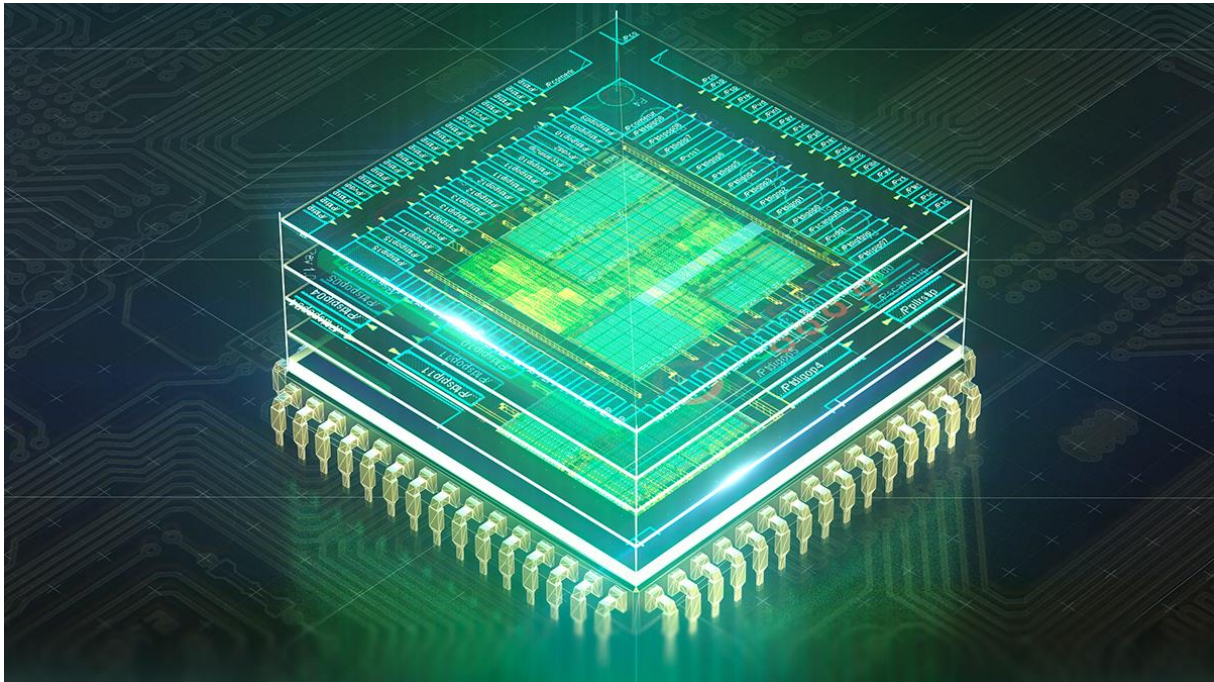




International Workshop on: *“Quantum Computing & Quantum Engineering”*



21st - 22nd of September 2020



Background

Quantum computing is the use of quantum-mechanical phenomena such as superposition and entanglement to perform computation. Computers that perform quantum computations are known as quantum computers and are believed to be able to solve certain computational problems, such as integer factorization (which underlies RSA encryption), substantially faster than classical computers.

There are several models of quantum computing, including the quantum circuit model, quantum Turing machine, adiabatic quantum computer, one-way quantum computer, and various quantum cellular automata. The most widely used model is the quantum circuit. Quantum circuits are based on the quantum bit, or "qubit", which is somewhat analogous to the bit in classical computation. Qubits can be in a 1 or 0 quantum state, or they can be in a superposition of the 1 and 0 states.

Quantum engineering is a revolutionary approach to quantum technology. It encompasses both fundamental physics and the broad engineering skill-set necessary to meet the practical challenges of the future.

The Black Sea Universities Network (BSUN) is an initiative aiming the development of a collaborative platform for cooperation between the universities from the Black Sea Region.

The network has the legal status of an international ad-hoc organization and has been established on the occasion of the 2nd Conference of the Black Sea Universities Rectors, held in Constantza between 9th and 12th of July 1998, on the premises of the "Ovidius" University of Constantza.

The network includes more than 120 member universities from the 12 member states of the Black Sea Economic Cooperation Organization as Albania, Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Moldova, Romania, Russia, Turkey, Ukraine and Serbia.

Co-organizers

- University POLITEHNICA of Bucharest, Romania
- „Igor Sikorsky” Kyiv Polytechnic Institute, Ukraine
- "18th of March" University of Canakkale, Turkey



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