ICT10-048 - LQuNet - Local Quantum Network

Zusammenfassung

LQuNet aims at the development of a completely new approach for multi-user Quantum Key Distribution in a local network. We will elaborate a design for a highly asymmetric QKD setup with one central receiver unit and several peripheral sender units that will be able to establish digital keys between several partners and a central authority at the same time. We will demonstrate multi-user QKD in a passive optical network. Within the project all key components shall be developed: the sender and receiver unit, the network components and electronics and software for management of the system and for key management. The main objective of the project is to build up a demonstration of a QKD system that uses low cost elements at various end-points of a local network in order to secure local networks of sensors and actuators – e.g. in power plants – for the protection of critical infrastructure on the one hand and to secure the access network of large QKD-networks on the other hand.

Keywords:
Quantum Cryptography Network

Principal Investigator: Michael Hentschel

Institution: AIT Austrian Institute of Technology GmbH

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Weiterführende Links zu den beteiligten Personen und zum Projekt finden Sie unter
https://www.wwtf.at/funding/programmes/ict/ICT10-048/