



LAB Demo of a Quantum-Enabled SMC Applied to Vehicular Networks

Q.DOT PROJECT – April 6, 2022, Instituto de Telecomunicações, University of Aveiro

Program

Reception (Restaurante Universitário - UA)

12:15-14:00 - Reception of the Capgemini

Welcome

14:00-14:20 - Quantum Technologies to Support Secure Multiparty Computation in Vehicular Networks (Armando Nolasco Pinto – IT Aveiro)

Overview of the QDOT project (Amphitheatre IT1)

Session 1: 14:00-14:20 – QDOT description and goals (CapGemini)

- Main technologies: QKD and SMC
- Advantage over existing solutions
- Project progress so far

Session 2: 14:20-14:40 - SMC with quantum technologies: automotive use-case (Capgemini)

- SMC with OT solution
- QKD protocol with BC to achieve OT
- Distinction between physical (quantum) layer and the software (classical) one
- Use-case details
- Implementation details

Session 3: 14:40-15:00 - DV Quantum Communication System – A Practical System (Sara Mantey)

- Laboratorial implementation of the Quantum Raw Key Distribution system

Session 4: 15:00-15:20 - Panel Discussion and Q&A

Coffee break: 15:20 – 15:30

Demo Session: quantum raw key generation LAB Demo (video) and Quantum-Enabled SMC Applied to Vehicular Networks

Co-financed by:

