

Quantum Key Distribution (QKD) and Cyber Security

4 SEPTEMBER, 2024

AGENDA

Programme of the 3rd Training Event on Quantum Key Distribution (QKD) and Post-Quantum Cryptography (PQC) for Cyber Security

1st Day Training - September 4th, 2024 (Moderator: Ilias Papastamatiou, GRNET)

09:00-09:15	Registration
09:15-09:45	Welcome Remarks <ul style="list-style-type: none"> Athanasios Paliatsos, Ministry of Digital Governance Dimitrios Katsianis, Deputy Chairman, Board of Directors, GRNET Nektarios Tavernarakis, Chairman, Board of Directors, FORTH Dimitris Plexousakis, Vice-Chairman, Board of Directors, FORTH Fabiana Da-PIEVE, European Commission
09:45-09:50	Overview of the Two-Day HellasQCI Training Evangelos Markatos, FORTH
09:50-10:35	Keynote speech Hannes Hübel , AIT
10:35-10:45	HellasQCI project overview and synergies with EuroQCI Ilias Papastamatiou, GRNET
10:45-11:00	Coffee Break
11:00-11:20	EuroQCI Projects PETRUS Ramacher Sebastian, AIT NOSTRADAMUS Hannes Hübel , AIT
11:20-12:20	National QCIs (panel) Panel Theme: Challenges ahead on the road to EuroQCI Moderator: George Kanellos, NKUA <ul style="list-style-type: none"> CYQCI, Cyprus Kyriacos Kalli / Konstantinos Katzis EstQCI, Estonia, Ingrid Linnas PRISM, Malta, Johann Briffa PTQCI, Portugal, Catarina Bastos RONAQCI, Romania, Alin Bogdan
12:20-12:40	Why QKD? Harry Manifavas, FORTH

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12:40-13:20	Lunch break
13:20-14:10	<p>National QCIs (panel) Panel Theme: Challenges ahead on the road to EuroQCI Moderator: Evangelia Athanasaki, GRNET</p> <ul style="list-style-type: none"> • QCI CAT, Austria, Sebastian Ramacher • EuroQCI Spain, Andrea Gorni • LUX4QCI, Luxembourg, Junaid Ur Rehman • PIONIER-Q, Poland, Piotr Rydlichowski • QCIHungary, Hungary, János Mohácsi
14:10-14:30	<p>QKD Architecture: Quantum Layer Giannis Giannoulis, NTUA</p>
14:30-14:50	<p>QKD Architecture: Key Management Layer George Kanellos, NKUA</p>
14:50-15:10	<p>QKD Architecture: Application Layer Homer Papadopoulos, NCSR</p>

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<p>15:10-16:10</p>	<p>Space session (panel) Panel Theme: Space: the final frontier for QKD? Moderator: Vassilis Charmandaris, FORTH & UoC & EUC</p> <ul style="list-style-type: none"> • Giannis Gianoulis, NTUA • Kostantinos Katzis, CYQCI • Menios Tsiganis, AUTH • Vasilis Varelas, Raymetrics • Wolf von Klitzing, FORTH • Manolis Xilouris, NOA
<p>16:10-16:20</p>	<p>Coffee Break</p>
<p>16:20-17:20</p>	<p>Business session / Commercial solutions Moderator: Konstantinos Tsimvrakidis, Petros Papapetropoulos</p> <ul style="list-style-type: none"> • ThinkQuantum, Simone Capeletto • ID Quantique, Pejman Panahi • Single Quantum, Aliki Athanasiadou
<p>17:20</p>	<p>End of day 1</p>

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2nd Day Training - September 5th, 2024 (Moderator: Evangelos Markatos, FORTH)

09:30-10:00	Introduction to PQC, PQC Transition Harry Manifavas, FORTH
10:00-10:30	Authentication in QKD Giorgos Nikolopoulos, FORTH
10:30-11:15	“Demo of QKD Networks” Giorgos Kanellos, NKUA (video)
11:15-11:30	Coffee Break
11:30-12:15	Extracting and Managing Keys from QKD to Enhance Cryptographic Techniques for File Encryption (Lab) Homer Papadopoulos, NCSRDI (hands on)
12:15-13:00	QKD-PQC: Securing Key Transfers for Application Layer Utilization Homer Papadopoulos, NCSRDI
13:00-14:00	Lunch break
14:00-14:45	Experiment Polarisation-Encoded QKD in Lab Aristeidis Stathis, NTUA Argiris Ntanos, NTUA Kostas Vyrsoinos, AUTH
14:45-15:05	Demo of Polarisation-Encoded QKD in (Virtual) Lab Aristeidis Stathis, NTUA Argiris Ntanos, NTUA Kostas Vyrsoinos, AUTH
15:05-15:50	HellasQCI Use Cases / Cybersecurity <ul style="list-style-type: none"> • Towards Software-Defined QKD Networks Georgios Gardikis, SPACEHellas • Quantum Cryptography implementation in Refinery campus Dionysios Vythoulkas, Motor Oil Hellas
15:50-16:00	End of Day 2
17:00	Visit to Skinakas Observatory