

# UTC-N QUANTUM HUB

## Training Session in Quantum Basics

**20-23 May 2025**

**Location:** Technical University of Cluj-Napoca (Online and On-site)

### Agenda:

Date and time	Topics	Trainer
	<b>1. Introduction. Qubit and Single Qubit Gates</b>	
Tuesday, May 20, 19:00	<ul style="list-style-type: none"> <li>• Single Qubits</li> <li>• Bases, Operators and Measurements</li> <li>• Gates</li> </ul>	Lecturer Cristian Codău
	<b>2. Multiple Qubits and Universality</b>	
Wednesday, May 21, 19:00	<ul style="list-style-type: none"> <li>• Systems with Multiple Qubits</li> <li>• Universal Gates</li> </ul>	Professor Tudor Palade
	<b>3. Entanglement and Quantum Teleportation</b>	
Thursday, May 22, 20:00	<ul style="list-style-type: none"> <li>• Entanglement</li> <li>• Generation of Bell States</li> <li>• Quantum Teleportation</li> </ul>	Assistant Rareș Buta
	<b>4. Quantum Cryptography</b>	
Friday, May 23, 19:00	<ul style="list-style-type: none"> <li>• Introduction to Quantum Key Distribution (QKD)</li> <li>• QKD protocols</li> <li>• Applications and Emerging Quantum Technologies</li> </ul>	Lecturer Andra Pastrav

**Certificate of Participation:** A certificate will be provided upon completion of a short quiz at the end of the training.

**Registration open until May 19, 15:00:** <https://forms.office.com/e/7VHTBvcZ1K>

