





Certificate of Attendance

Pavan Bhat Keelanje Srinivas

successfully participated in a presence seminar on the topic

Introduction to Quantum Machine Learning

The following topics were covered:

- Quadratic unconstrained binary optimization (QUBO)
- Quantum annealers
- Variational quantum algorithms (VQA)
- Quantum clustering
- Quantum support vector machine (QSVM)
- Quantum neural networks

The 32 hours course took place on March 27-28 and April 3-4, 2023 with

 Dr. Ali Moghiseh, Alexander Geng, Dr. Michael Trebing, Patrick Holzer, Dr. Mazen Ali, Dr. Valeria Bartsch, and Théo Lisart.

It was evenly divided between theory and practice. DWave, IBM, Qiskit, and PennyLane were used for the practical part.

Kaiserslautern, April 4, 2023

MINIA GENVA IN

Leistungszentrum Simulations- und Software-basierte Innovation

Dr. Ali Moghiseh

Fraunhofer ITWM, Scientific Organizer