UNIVERSITÀ DEGLI STUDI
DI TRENTO

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Thursday 20th July 2023 - 14:00 p.m.
Room A204 – Polo Ferrari 1

Neuromorphic energy-efficient secure accelerators based on phase change materials augmented silicon photonics (NEUROPULS)

Abstract:
"Neuromorphic energy-efficient secure accelerators based on phase change materials augmented silicon photonics"
In this talk I will discuss the goals and objectives of the recently funded Horizon Europe project NEUROPULS. First, I will introduce the current challenges in edge-computing and security that the project is aiming to tackle, then I will present the proposed strategy based on a highly multi-disciplinary approach covering the entire supply chain from emerging materials and fabrication platforms to prototypes and high-level simulation platforms. Finally, I will illustrate our method to benchmark the performance of the developed accelerator based on three use-cases in autonomous driving, anomaly detection, and GNSS positioning.

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