

AVVISO DI SEMINARI

(1) Mercoledì 14 maggio 2025, 13:30-15:30 – Aula 5, Sede Didattica

(2) Giovedì 15 maggio 2025, 13:30-15:30 – Aula B, Sede Didattica

Dipartimento di Ingegneria e Architettura

Università degli Studi di Parma

Titles

(1) Basics, Fixed AI, the Heterogeneity challenge and the solutions, the Gen EdgeAI transition.

(2) Practical use of ST EdgeAI Core Technology on ST Sensors and MCU.

Joint Abstract

What are the fundamental milestones of AI? From where does the Fixed AI originate and what Edge AI mean ? What does the Heterogeneity at the EDGE challenge mean and how ST solve it? Why is Generative AI the major responsible for the new Digital Divide gap? How can EDGE AI be instrumental to solve the Digital Divide gap?

These are some key questions that will be addressed during these speeches to provide the students with some basic understanding of AI both from an Edge and Industry perspective and to accompany them to both Tiny Machine Learning and Embedded proficient engineers in their AI journey toward innovation and productivity.

This type of understanding is becoming paramount priority for any enterprise which ambition is to be a leader of AI applications, hardware and software solutions at the edge.

There is an increasing productivity demand which can be met through AI tools to support these communities in being faster, more productive to unleash their creativity, especially in small and medium enterprises where investments cannot be wasted. ST capitalized its multi-year efforts into the Unified AI Core Technology. It acts as the enabling unifying AI technology to serve all heterogeneous products such as micro-controllers and sensors. Examples will be shown both from adoption and for study purposes on STM32, STM32N6, Stellar MCUs and AI MEMs sensors. Demonstration of the tool in action will be provided to the audience.

However, all that falls into the Fixed AI landscape which is subject to a transition toward Generative and Agentic AI first in the cloud. This perspective needs to be changed to rethink the Edge. Some examples will be provided by using STM32MP2 and STM32N6 and future perspective discussed too.

Bio of the Speaker

Danilo PAU is Technical Director, IEEE AAIA & ST Fellow, NAAI, APSIPA Life and SigmaXi Member in STMicroelectronics. Danilo (h-index 30, i10-index 86) graduated at Politecnico di Milano. He worked on memory reduced HDMAC HW design, MPEG2 video memory reduction, on video coding, transcoding, embedded (Khronos) 2/3D graphics, and (ISO/IEC/MPEG CDVS and CDVA with Leonardo Chiariglione) computer vision. Currently, his work focuses on the ST Unified AI Core Technology. He supervised many students.

Il seminario è tenuto nell'ambito del corso di Internet of Things (IoT). Per maggiori informazioni contattare il docente, prof. Gianluigi Ferrari (gianluigi.ferrari@unipr.it).