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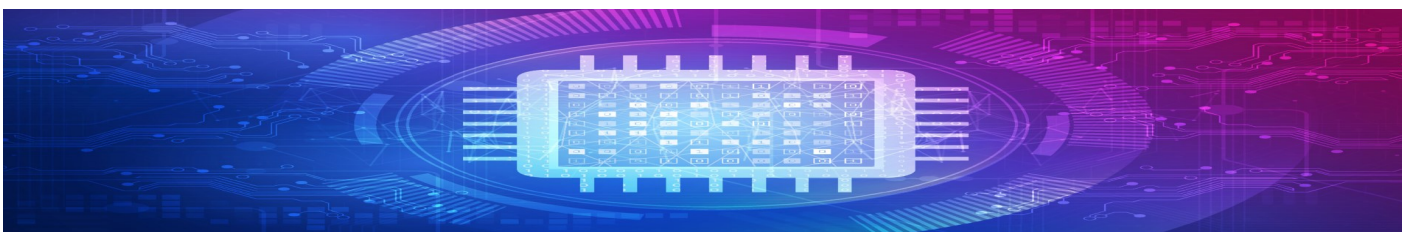
HiPEAC 2025 workshop

Charting the Future of Edge AI

The transformative workshop on **"Charting the Future of Edge AI: Functional and Non-Functional Requirements in the Age of Generative AI"** took place at the HiPEAC 2025 Conference in Barcelona, Spain, on January 21, 2025. The event was organised by the Chips JU EdgeAI project in collaboration with the HE dAIEDGE project and delved into edge AI systems functional and non-functional requirements engineering, the significant integration of IoT, edge computing, and the evolving landscape of generative AI.

This workshop provided a comprehensive platform for stakeholders to exchange ideas, share experiences, and collaborate on advancing edge AI technologies. By addressing functional and non-functional requirements defined based on system engineering principles, participants gained valuable insights into deploying effective and responsible edge AI solutions using cross-disciplinary approaches for enhancing edge AI capabilities in the generative AI era.

119 attendees from 77 institutions in 23 countries registered for the event .



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Tech Talk 2025 Strategic Event

The highly anticipated TechTalk2025 event took place on January 29–30, 2025, in Athens, Greece.

This strategic gathering brought together industry leaders, innovators, and experts to explore groundbreaking advancements in technology and their transformative impact on building a sustainable and customer-focused future.

TechTalk2025 provided a unique platform for thought-provoking discussions and interactive sessions aimed at addressing global challenges, identifying critical technology drivers, and shaping the future of mobility and sustainability.

The EdgeAI project coordinator, Ovidiu Vermesan (SINTEF), co-led a session focused on "Cyber Security in AI," alongside John Reiner (AVL). This session addressed the critical vision for cybersecurity and resilience within future mobility systems, particularly in the context of immersive driving experiences.

Discussions highlighted the necessity of AI-powered and highly integrated technology stacks fortified with advanced post-quantum cryptographic technologies and adaptive algorithms. The central theme revolved around ensuring unbreakable data security and maintaining operational integrity against increasingly sophisticated cyber threats.

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EdgeAI 2nd Webinar

Shaping the Future by Advancing Open-Source AI Webinar

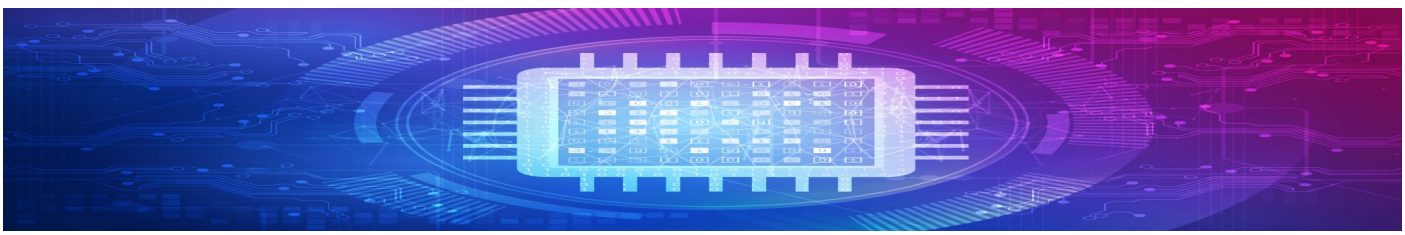
The Shaping the Future by Advancing Open-Source AI Webinar was held online via Go-to-Webinar on 20th of February 2025 and was organized by EdgeAI project with the help of Open Source Initiative and the Eclipse Foundation.

The webinar recording is available at: https://www.youtube.com/watch?v=Vz2bKUqtueI

The webinar brought together European and international open-source experts to share best practices, explore key trends, challenges, and benefits, and discuss collaboration on AI within the Open Source Initiative (https://opensource.org/) and the Eclipse Foundation (https://www.eclipse.org/) ecosystems.

The invited speakers aimed to present and discuss the technical challenges of creating an open-source ecosystem that addresses the development of AI, generative AI and edge AI technologies, frameworks, tools and applications.

The event successfully concluded with 48 registered participants from 12 European and 6 non-European countries and positive feedback from the audience.



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GOSIM 2025 Conference

Open Source AI Strategy Forum and GOSIM - Global Open-Source Innovation Meetup AI Paris 2025 Conference

The Chips JU EdgeAI project was present at the Open Source AI Strategy Forum on 5 May 2025 and GOSIM - Global Open-Source Innovation Meetup AI Paris 2025 Conference, 6-7 May 2025, at Station F in Paris, France.

Station F is the world's largest startup campus, housing over 1,000 startups and numerous tech programs. Renowned for fostering AI innovation, Station F hosts specialised accelerators and dedicated spaces that bring together cutting-edge AI startups, researchers, and corporate partners, fuelling collaboration, groundbreaking projects, and rapid growth in artificial intelligence. Visionaries, disruptors, and pioneers converge at Station F to shape the next frontier of AI.

While GOSIM AI Paris 2025 is a global stage for open-source AI, where over 80+ leading experts from around the world presented 60+ high-quality tech talks to more than 500 registered participants. This event covered four major themes: AI Models, AI Infrastructure, AI Applications, and Embodied Intelligence, and offered a comprehensive look at the latest developments in open-source AI technologies. Additionally, two special forums, the Open Harmony Tech Forum and the PyTorch Developer Day, attracted enterprises and developers from around the globe.

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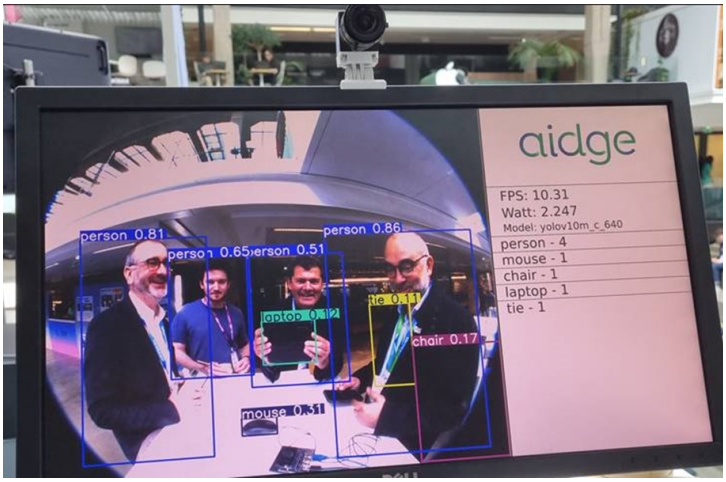
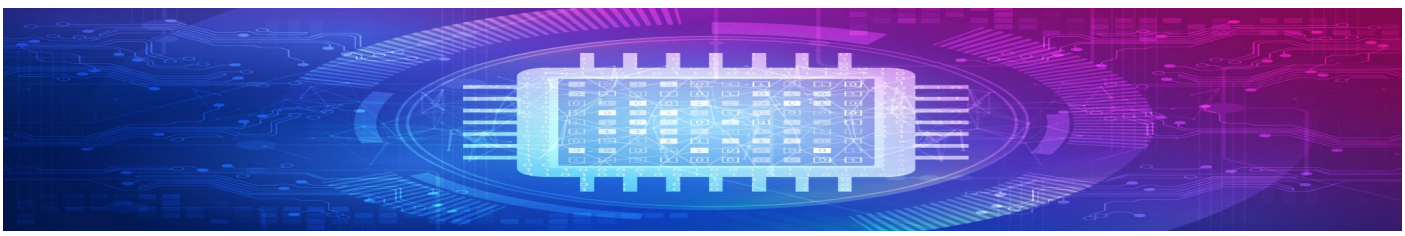
GOSIM 2025 Conference

Open Source AI Strategy Forum and GOSIM - Global Open-Source Innovation Meetup AI Paris 2025 Conference

Ovidiu Vermesan, SINTEF, the Chips JU EdgeAI project coordinator, had a presentation on "Empowering the Edge: Open-Source Edge AI Accelerating Research and Innovation" and participated in the panel discussions in the "Open-Source AI and Research" Session.



Pierre Gaillard and Cyril Moineau from CEA were present during the GOSIM conference. They presented the Eclipse Aidge, part of the EdgeAI portfolio and emerged as a crucial open-source initiative to democratise developing and deploying efficient Deep Neural Networks (DNN) on embedded platforms. By offering end-to-end tools for DNN design, analysis, simulation, optimisation and hardware-aware deployment across diverse targets (CPUs, GPUs, MCUs), Aidge empowers developers to build sophisticated AI applications for IoT, robotics, automotive, and beyond. Eclipse Aidge is hosted on The Eclipse Foundation's GitLab instance.



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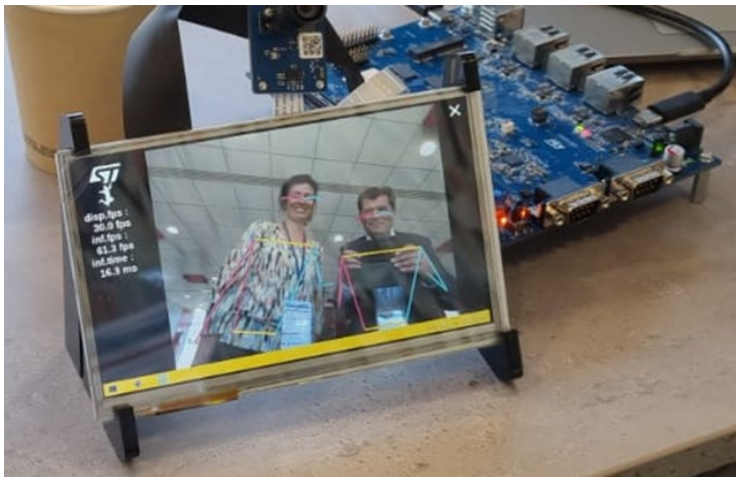
ADTC 2025 Conference

The Chips JU EdgeAI project was present at the European Nanoelectronics Applications, Design & Technology Conference - ADTC 2025, May 14-16, 2025, Grenoble, France, and represented by STMicroelectronics, SINTEF and INPG - University of Grenoble Alpes.

The European Nanoelectronics Applications, Design and Technology Conference focuses on electronic components, electronic system design, design automation, and manufacturing topics related to micro- and nanoelectronics, which are critical to success for many European companies. EUREKA, Horizon Europe, and local governments have supported exhaustive research and development in this area in recent years. This conference will highlight the exciting and promising results primarily from the PENTA/XECS, ECSEL/KDT/Chips JU & H2020/HE and IPCEI ME/CT projects design technology, and manufacturing topics have been invited to contribute to the conference.



This annual event clearly focused on deep technical discussions between the leading European experts in the addressed fields, independent from the research programs where the individual projects were started. European projects on electronic system design, design technology, and manufacturing topics have been invited to contribute to the conference.

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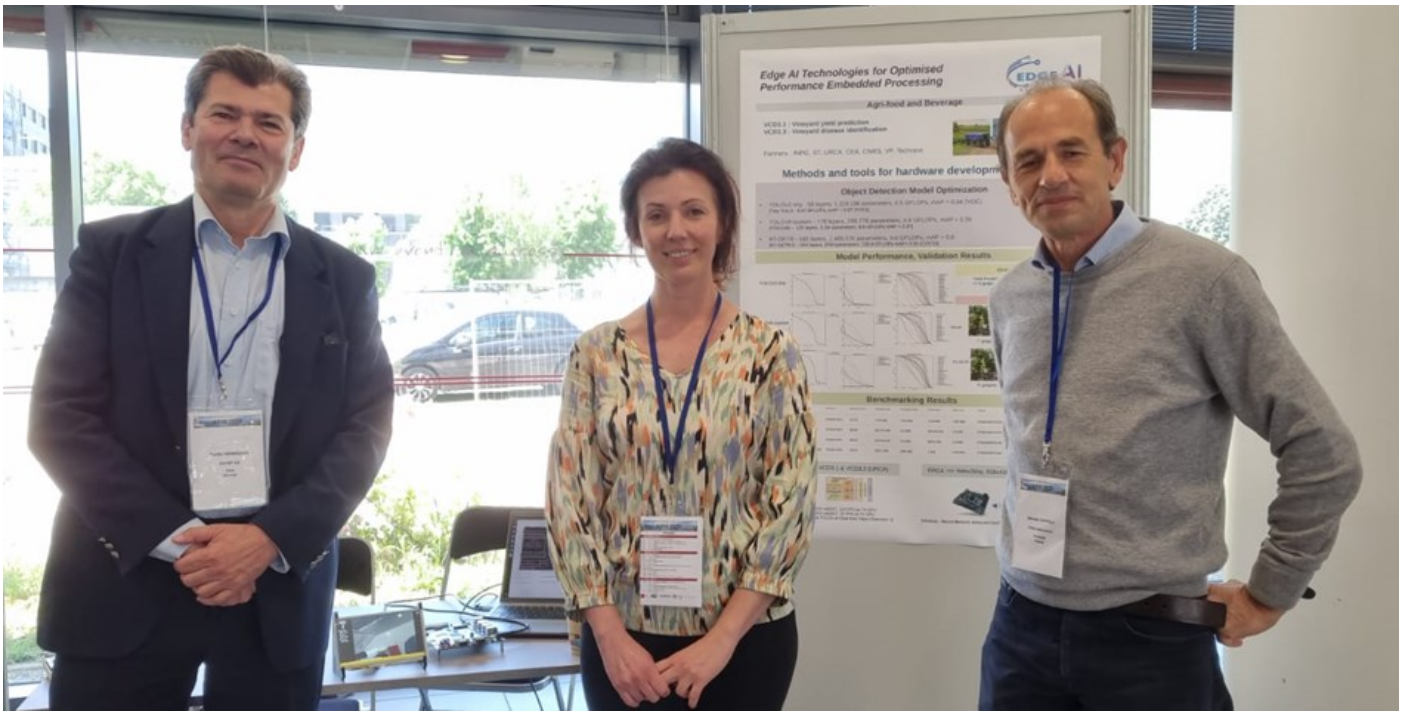
ADTC 2025 Conference



Antonio-Marcello Coppola, STMicroelectronics, co-chaired the conference with Gilles Sicard, CEA Leti, France, and highlighted the importance of developing edge AI in nanoelectronics technologies and applications.

Ovidiu Vermesan, SINTEF, co-chaired Technical Session 4: Spintronic and Quantum Sensing and Communication together with Patrick Cogez, AENEAS, France, and actively participated in the discussions on the topics addressed by the different sessions, such as neuromorphic computing, CAD tools based on AI, software-defined vehicles (SDVs), chiplets, and sustainability.

Ana Pinzari, INPG - University of Grenoble Alpes, presented the work in the Chips JU EdgeAI project, value chain on Agrifood and Beverage and showed the results obtained in the value chain demonstrators addressing the Vineyard – Yield Prediction and Vineyard Disease Identification. The implementation presented the optimisation of object detection edge AI models (YOLOv2-tiny, YOLOv8-custom, RT-DETR), the models' performance and the validation results using the STM32MP257F-EV1 evaluation board.

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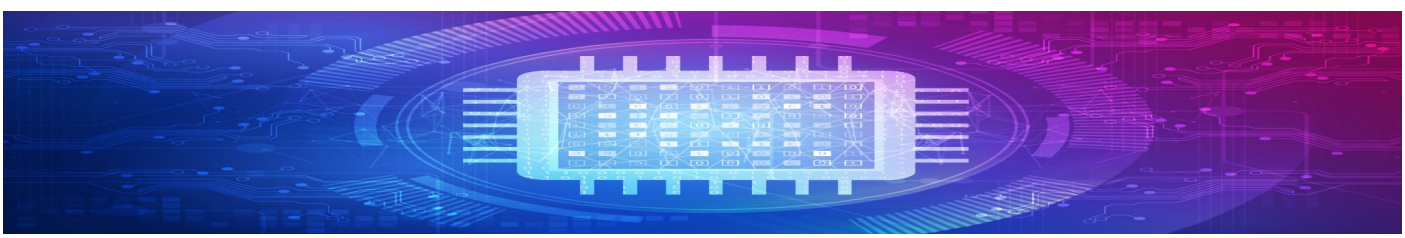
EdgeAI 3rd Webinar

Edge AI – Challenges and perspectives illustrated by application cases. Live NanoEdge AI Studio tutorial to carry out your first project.

The **"Edge AI – Challenges and perspectives illustrated by application cases. Live NanoEdge AI Studio tutorial to carry out your first project"** webinar will be held online via Go-to-Webinar on 3rd of June 2025.

This webinar will discuss the technology's challenges, advantages, and limitations, using different examples to illustrate the application. It will also present state-of-the-art tools to start a project easily and a live demonstration using NanoEdge AI Studio to discover what can be done without previous experience in an AI project.

Register for the webinar here: https://edge-ai-tech.eu/edge-ai-academy/



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Edge AI Academy Summer School

Edge AI Academy Summer School 2025

The **Edge AI Academy Summer School 2025** is held on **7-8 July 2025 at Scuola Universitaria Superiore Sant'Anna, Pisa, Italy.**

The summer school aims to empower participants with advanced knowledge, hands-on experience and an in-depth understanding of edge AI, which combines Artificial Intelligence (**AI**) with edge computing and the Internet of Things (**IoT**) to process data closer to its source. Edge AI technology is gaining prominence due to its ability to enhance real-time decision-making, reduce latency, improve data privacy, and diminish reliance on continuous internet connectivity. The topics will extend to **RISC-V architectures** as ultra-low-power high-performance RISC-V-based processors and ultra-low-power vector-based accelerators are advancing smart IoT and edge AI computing capabilities. The two-day innovative educational initiative is designed for students, young researchers, and professionals eager to expand their understanding and skills in these cutting-edge technologies. Participants will engage in interactive discussions, hands-on sessions, and lectures covering foundational concepts and innovative applications of edge AI across various domains with leading experts, gain insights into real-world applications, and work on team-based projects to foster collaboration and innovation.

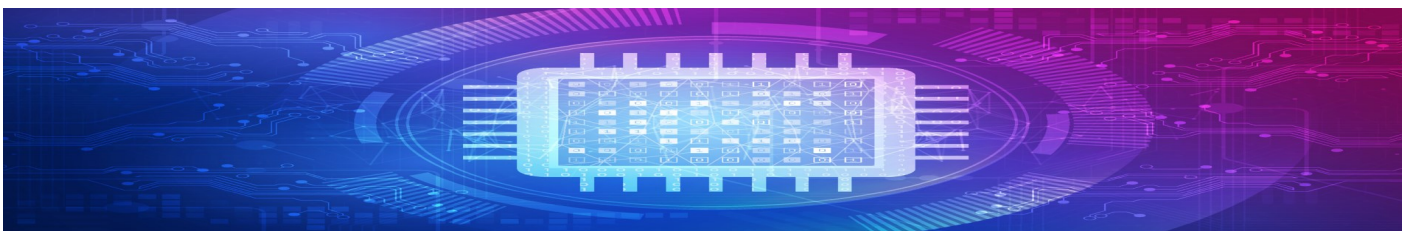
This two-day educational initiative is specifically tailored for students, young researchers, and professionals seeking to deepen their understanding and skills in the rapidly advancing fields of Edge AI technology and RISC-V architectures.

The Academy Summer School 2025 website is available at: https://edge-ai-tech.eu/academy-homepage/

The Edge AI Academy Summer School 2025 is co-organised by the large-scale **Chips JU EdgeAI project in cooperation with CLEVER, REBECCA, TRISTAN, NEUROKIT2E, SMARTY projects, and dAIEDGE and SMARTEDGE Horizon Europe (HE) projects** to provide a platform to exchange knowledge and ideas among experts and professionals interested in advances in AI circuits and device design, AI hardware architectures, industrial edge AI technologies, toolchains, and applications.

*Apply Now (for Master/PhD/Post-doc candidates): https://edge-ai-tech.eu/academy-application/

Click here to Register
(for accepted students & professionals)



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https://edge-ai-tech.eu/

EdgeAI

@EdgeAI

EdgeAI Key Facts

Start: 01 December 2022

Duration: 43 months

Budget: 35,43 M€

Coordinator: SINTEF AS

Consortium: 48 partners

Consortium

SINTEF, Infineon, ams OSRAM, SoftwareCUBE, TU Wien, imec, NXP, GNT, NEURO Controls, COGNITION FACTORY, IMST, Universität zu Lübeck, scm group, ST, VRANKEN POMMERY, TECHNEXT, cea, Grenoble INP UGA, Université de Reims Champagne-Ardenne, cnrs, Université Polytechnique Hauts-de-France, Χαροκοπειο Πανεπιστημιο Harokopio University, HTS, Intelligent Machines IoT & Cyber Physical Systems DeepSensing S.R.L., Xtremion, Università degli Studi di Cagliari, Alma Mater Studiorum Università di Bologna, Università degli Studi di Milano, Elektronikas un datorzinātnu institūts Institute of Electronics and Computer Science, signify, Technolution, almende, TU/e, Fredrikstad energi, NxtEnergy, PROLUX, nxtech, itml innovation applied, Convergence, SynSense

Disclaimer

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This project has received funding from Chips JU under grant agreement No 101097300. The Chips JU receives support from the European Union's Horizon Europe research and innovation program and Austria, Belgium, France, Greece, Italy, Latvia, Netherlands, Norway.