# EDGE AI Academy

## Program

## Summer School

**7-8 July 2025, Pisa, Italy**

# EDGE AI Academy Summer School – 2025

**Date: 7-8 July 2025**
**Venue: Scuola Superiore Sant'Anna, Pisa, Italy**

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| | **Monday 7 July 2025 – Day 1** |
| **11.30 – 12:00** | **Welcome and Registration: Aula Magna - Scuola Sant'Anna, Pisa** |
| **12:00 – 13:00** | **Networking Lunch** |
| | ***Edge AI and RISC-V Technology Advancements:*** |
| ***13:00 – 14:30*** | **Plenary Session A01** |
| | ***Session A01 (Room Aula Magna - Scuola Sant'Anna): Edge and generative AI*** |
| *13:00 – 14:30* | ***Course A01-1: The path from edge fixed AI to GenAI: Tutorial and practical examples (Part 1 and 2).*** *Danilo Pau, Technical Director, STMicroelectronics, Italy.* |
| ***14:30 – 16:00*** | **Plenary Session B01** |
| | ***Session B01 (Room Aula Magna - Scuola Sant'Anna): Edge AI and autonomous systems*** |
| *14:30 – 15:15* | ***Course B01-1: Scenario generation for autonomous driving using LLMs based on real-world edge data.*** *Andreas Stephan, Robert Bosch, Germany.* |
| *15:15 – 16:00* | ***Course B01-2: Autonomous mobile robots in smart manufacturing: A real-world approach to edge AI and computer vision.*** *Ayaan Verghese, Research Scientist, Dell Technologies, Ireland; Matthew Keating, Research Scientist, Dell Technologies, Ireland.* |
| **16:00 – 16:30** | **Afternoon Coffee/Tea Break** |
| ***16:30 – 18:00*** | **Plenary Session C01** |
| | ***Session C01 (Room Aula Magna - Scuola Sant'Anna): Edge AI deep neural networks (DNNs) tools*** |
| *16:30 – 17:15* | ***Course C01-1: Aidge - a new framework for DNN development, training and deployment on the edge.*** *Fabian Chersi, Senior AI Architect, CEA-LIST, France.* |
| *17:15 – 18:00* | ***Course C01-2: Deploying DNNs in RISC-V with Klepsydra AI: A step-by-step, end-to-end workshop.*** *Pablo Ghiglino, CEO, Klepsydra Technologies, Switzerland; Mandar Harshe, Senior Software Developer, Klepsydra Technologies, Switzerland.* |
| ***18:00 – 19:30*** | **Plenary Session D01** |
| | ***Session D01 (Room Aula Magna - Scuola Sant'Anna): Edge AI technology trends and roadmap*** |
| *18:00 – 18:45* | ***Course D01-1: The intelligent edge - Navigating the frontiers of edge AI technology and applications (Part 1).*** *Ovidiu Vermesan, Chief Scientist, SINTEF, Norway; Giulio Urlini, Research Program Manager, STMicroelectronics, Italy; Alain Pagani, Principal Researcher and Deputy Director, DFKI, Germany.* |
| *18:45 – 19:30* | ***Course D01-2: Panel discussions - Navigating the frontiers of edge AI technology and applications (Part2).*** |
| **20:30** | **Dinner** |

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| | **Tuesday 8 July 2025 – Day 2** | |
| **09.00 – 09:30** | **Welcome and Registration: TeCIP Institute, Pisa** | |
| | ***RISC-V and Edge AI Architectures:*** | ***Edge AI concepts and methods:*** |
| ***09:30 – 11:00*** | **Parallel Sessions A02 & B02** | |
| | ***Session A02 (Room A - TeCIP Institute): RISC-V*** | ***Session B02 (Room B - TeCIP Institute): Cognitive explainable concepts*** |
| *09:30 – 10:15* | ***Course A02-1: End-to-end neural networks on RISC-V multi-core processors: from model optimization to full-system simulation.*** *Giuseppe Tagliavini, University of Bologna, Italy; Alessio Burrello, position, Politecnico di Torino, Italy; Daniele Jahier Pagliari, Politecnico di Torino, Italy.* | ***Course B02-1: Cognitive approaches to low-code real-time control of digital twins and swarm monitoring and control.*** *Dave Raggett, W3C/ERCIM, UK.* |
| *10:15 – 11:00* | ***Course A02-2: Exploring hardware-efficient architectures for reducing data transfer in DNNs.*** *Mounika Vaddeboina, Senior Engineer System Concept and Architecture, Infineon Technologies AG, Germany; Sebastian Prebeck, Hardware Design Senior Engineer, Infineon Technologies AG, Germany.* | ***Course B02-2: Explainable and generative modelling on the edge for industrial application.*** *Pasquale Coscia, Tenure-Track Researcher, Università degli Studi di Milano, Italy.* |
| **11:00 – 11:30** | **Morning Coffee/Tea Break** | |
| ***11:30 – 13:00*** | **Parallel Sessions C02 & D02** | |
| | ***Session C02 (Room A - TeCIP Institute): Vision models at the edge*** | ***Session D02 (Room B - TeCIP Institute): Federated learning*** |
| *11:30 – 12:15* | ***Course C02-1: Optimizing vision transformers for the edge: The power of pruning.*** *Martyna Poreba, CEA-List, France; Karim Ben Chehida, CEA-List, France.* | ***Course D02-1: Privacy in federated learning.*** *Chuan Xu, Assistant professor, Inria/Université Côte d'Azur, France.* |
| *12:15 – 13:00* | ***Course C02-2: Deploying, benchmarking and profiling of large vision models at the edge.*** *Carmelo Scribano, post-doctoral researcher, University of Modena and Reggio Emilia, Italy.* | ***Course D02-2: Federated learning in edge computing.*** *Sevasti Politi, AI/ML Technical Leader, ITML, Greece; Konstantinos Lieros, ML engineer GNT, Greece.* |
| **13:00 – 14:00** | **Networking Lunch** | |

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| ***14:00 – 15:30*** | **Parallel Sessions E02 & F02** | |
| | ***Session E02 (Room A - TeCIP Institute): Security and privacy*** | ***Session F02 (Room B - TeCIP Institute): Edge AI for smart manufacturing*** |
| *14:00 – 14:45* | ***Course E02-1: Privacy enhancing technologies (PETs).*** *Aysajan Abidin, Research Manager, COSIC KU Leuven, Belgium.* | ***Course F02-1: Systematic definition and verification of edge AI requirements.*** *Silke Braun, Senior Manager Innovation & Funding, Infineon Technologies Austria AG, Austria; Michael Cernusca, Project Director for Global Public R&D Funding, ams OSRAM AG, Austria; Roman Lobner, Founder and CEO SoftwareCUBE SCP GmbH, Austria.* |
| *14:45 – 15:30* | ***Course E02-2: AI under attack: Navigating the security and privacy frontier.*** *Ihsen Alouani, Associate Professor UPHF, France, Senior Lecturer, Queen's University Belfast.* | ***Course F02-2: Powering the future of industry with multimodal large language models: From chip design to smart manufacturing.*** *Jie He, TUWIEN, Austria.* |
| **15:30 – 16:00** | **Afternoon Coffee/Tea Break** | |
| ***16:00 – 17:30*** | **Parallel Sessions G02 & H02** | |
| | ***Session G02 (Room A - TeCIP Institute): Edge AI architectures*** | ***Session H02 (Room B - TeCIP Institute): Data insights in edge AI*** |
| *16:00 – 16:45* | ***Course G02-1: Lowering barriers for neuromorphic computing at the micro-edge.*** *Paolo Meloni, Associate Professor, Dipartimento Ingegneria Elettrica ed Elettronica, Università degli Studi di Cagliari, Italy.* | ***Course H02-1: Generative AI to gain data insights from the shopfloor intuitively.*** *Aparna Saisree Thuluva, Siemens, Germany.* |
| *16:45 – 17:30* | ***Course G02-2: Computation-in-memory architecture for edge AI applications.*** *Rajendra Bishnoi, Assistant Professor, Delft University of Technology, Netherlands.* | ***Course H02-2: The role of IoT in edge AI.*** *Jānis Judvaitis, Senior Researcher, Institute of Electronics and Computer Science, Latvia.* |
| | **End** | |

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