



TWINRELECT

WEBINAR



BRIDGING EU INNOVATION IN RELIABLE ELECTRONICS DESIGN

7.11.2025

09:00AM - 12:35PM (CET)

PARTNERS



Co-funded by
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MANCHESTER
1824

The University of Manchester

PROGRAM

09:00 - 09:10	Opening
09:10 - 09:35	TWINRELECT Nikolaos Chatzivangelis, University of Thessaly
09:35 - 10:00	AIDA4EDGE Prof. Tatjana Nikolić, University of Nis
10:00 - 10:10	Break
10:10 - 10:35	COIN-3D Asst. Prof. George Floros, Trinity College Dublin
10:35 - 11:00	RADNEXT Daniel Paul Söderström, CERN
11:00 - 11:25	RESIST Asst. Prof. Miloš Marjanović, University of Nis
11:25 - 11:35	Break
11:35 - 12:00	HCCC Prof. Ioannis Voyatzis, University of West Attica
12:00 - 12:30	Round Table
12:30 - 12:35	Closing

All times are in Central European Time (CET, Europe/Paris)

PARTICIPANTS



Twining for Excellence in Reliable Electronics: With the introduction of advanced semiconductor technologies, the design of reliable electronic systems has become more challenging, requiring novel analysis and design methods and tools. The ultimate goal of TWIN-RELECT project is to boost the scientific and innovation capacity of UTH in the design of reliable electronic systems through strategic networking with three advanced partners: IHP - Institute for High Performance Microelectronics from Germany, National Center for Scientific Research (CNRS) from France, and University of Manchester from United Kingdom.

AIDA4Edge aims to strengthen collaboration between the Coordinator (FEEUNI) and partners IHP, UoM, and UNIFE to achieve Edge AI excellence. The project tackles running complex AI on resource-limited Edge devices. UNIFE will optimize ANN hyperparameters, IHP will enhance power efficiency with multi-core AI accelerators, UoM will combine SNNs and ANNs to maintain accuracy and exploit sparsity, and FEEUNI will apply quantization for compression. Knowledge transfer will help FEEUNI build research capacity, become a center of excellence, and strengthen management skills, empowering participation in new research and boosting scientific and economic progress in Serbia.



AIDA4Edge

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The **COIN-3D project** aims to strengthen strategic networking and knowledge exchange between UTH and leading European research institutions to enhance research management and commercialization capacities in 2.5/3D chiplet architectures. By fostering innovation and aligning with the objectives of the European Chips Act, COIN-3D seeks to position UTH as a key player in the global semiconductor research ecosystem. The project includes extensive twinning activities and a strong collaboration framework supported by core research on 2.5/3D VLSI systems reliability. Its main goal is to develop advanced EDA tools that integrate novel algorithms for physical- and system-level reliability assessment, power delivery optimization, and aging modelling—pushing forward the state of the art in reliable 3D VLSI design.

RADNEXT is an H2020 INFRAIA-02-2020 infrastructure project with the objective of creating a network of facilities and related irradiation methodology for responding to the emerging needs of electronics component and system irradiation; as well as combining different irradiation and simulation techniques for optimizing the radiation hardness assurance for systems, focusing on the related risk assessments. The core of the project lies in providing transnational access for users to the irradiation facilities in the network, free of cost for the users.



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RESIST: A Cross-Layer Approach to Enhancing Electronic System Reliability

Its primary goal is to establish sustainable collaboration between IHP and ELFAK in the field of electronic system reliability. The project focuses on fault characterization and modeling across device, circuit, and system levels, preparing joint research proposals, and developing a long-term collaboration strategy. RESIST combines experimental studies and simulations to improve the understanding and reliability of electronic components, circuits, and systems.

HCCC: The Hellenic Chips Competence Centre (HCCC) aims to contribute significantly to the long-term objectives of the European Union's semiconductor strategy, as outlined in the EU Chips Act. HCCC recognizes the untapped potential of Greece's semiconductor ecosystem, which, though small, is highly innovative. By promoting collaboration among academia, industry, and government agencies, HCCC aims to drive technological advancement and enhance Europe's competitive position in semiconductor technologies. The specific objectives of HCCC include promoting semiconductor manufacturing in the EU, advancing research and innovation, developing high-tech skills, strengthening supply chain resilience, and fostering international cooperation.





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