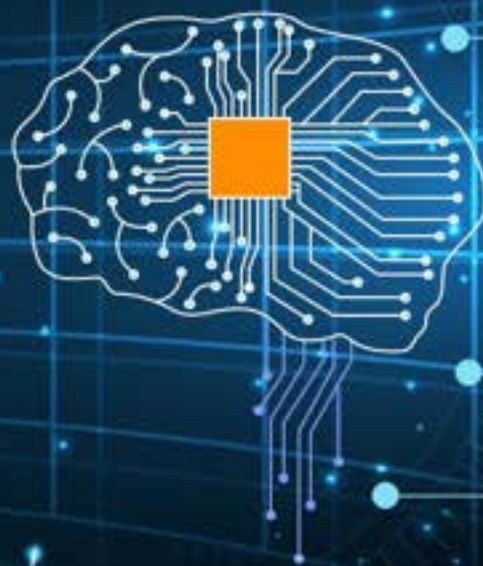


The International Workshop on Edge Artificial Intelligence for Industrial Applications (EAI4IA)



AI



Vienna, Austria
25-26 July 2022

Day 1

Monday 25 July 2022 - Day 1

10:00 **Topic: European Embedded AI Ecosystem Projects and Synergies**

Positioning and synergies between AI4DI, TEMPO and ANDANTE

10:30 Break

11:00 **Topic: Trustworthy, Dependable AI for Digitising Industry**

A framework for integrating automated diagnosis into simulation. - David Kaufmann, AVL List, Austria

AI-Driven Strategies to Implement a Grapevine Downy Mildew Warning System - Lucas Mohimont, Université de Reims Champagne Ardenne, France

An End-to-End AI-based Automated Process for Semiconductor Device Parameter Extraction - Dinu Purice, Cognition Factory GmbH, Germany

(invited/panel) AI Industrial Applications Zoom-in

12:30 Lunch

13:30 **Topic: Embedded AI for semiconductor manufacturing**

Feasibility of wafer exchange for European Edge AI pilot lines - Annika Franziska Wandesleben, Fraunhofer, IPMS, Germany

Failure detection in silicon package - Saad Al-Baddai, Infineon Technologies AG, Germany

S2ORC-SemiCause: Annotating and analysing causality in the semiconductor domain - Lan Liu, Know-Center GmbH, Austria

AI machine vision system for wafer defect detection - Dmitry Morits, VTT, Finland

15:00 Break

15:30 **Topic: AI model development workflow and HW target platforms deployment**

Embedded Edge Intelligent Processing for End-To-End Predictive Maintenance in Industrial Applications - Ovidiu Vermesan, SINTEF, Norway

Deploying a Convolutional Neural Network on Edge MCU and Neuromorphic Hardware Platforms - Simon Narduzzi, CSEM, Switzerland

Efficient Edge Deployment demonstrated on YOLOv5 and Coral Edge TPU - Ruben Prokscha, Ostbayerische Technische Hochschule Amberg-Weiden, Germany

Temporal Delta Layer: Exploiting Temporal Sparsity in Deep Neural Networks for Time-Series Data - Preetha Vijayan, imec, Netherlands

17:00 End

19:00 Dinner

Day 2

Tuesday 26 July 2022 - Day 2

09:00 **Topic: Strategic Vision and Road mapping**

KDT and Future Chips JU. Vision and Future Plans - Yves Gigase, KDT JU, Belgium

Disruptive technology development through SME's - Dylan Muir, SynSense, Switzerland

(invited) Industry perspective (Siemens Austria)

(invited) University perspective (University of Vienna, Austria)

Panel discussion

10:30 Break

11:00 **Topic: Explainable AI in the Embedded Electronics Industry Environment**

ECSEL and KDT Industrial AI Focus Area. Portfolio of Projects and Initiatives - Georgi Kuzmanov, KDT JU, Belgium

(invited) XAI - International Perspective

(invited) Explainable AI in Industry: Challenges and Opportunities

Panel discussion

12:30 Lunch

13:30 **Topic: Verification, Validation and Benchmarking of AI Systems and Technologies**

Neuromorphic Computing Benchmarking for Inference - Loreto Mateu, Fraunhofer IIS, Germany

Benchmarking the Epiphany processor as a reference neuromorphic architecture - Amirreza Yousefzadeh, imec, Netherlands

On the Verification of Diagnosis Models - Franz Wotawa, TU Graz, Austria

Panel discussion

15:00 Break

15:30 **Topic: Emerging AI Technologies in Industrial Applications**

(invited) Application overview for embedded AI.

Panel discussion

17:00 End