

Empowering Europe's Chips Ecosystem through Emerging Technologies
24 – 25 October 2025 | Conference Program



EMERGING TECH CONFERENCE
Edge Intelligence

Emerging Tech Conference

'EDGE INTELLIGENCE'

Empowering Europe's Chips Ecosystem
through Emerging Technologies

HCCC
Hellenic Chips Competence Centre



Με τη συγχρηματοδότηση της Ευρωπαϊκής Ένωσης



ΠΡΟΓΡΑΜΜΑ 2021 – 2027
ΑΝΤΑΓΩΝΙΣΤΙΚΟΤΗΤΑ

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Friday 24/10/2025 – DAY 1

09:00 – 09:30	Arrival – Registration
09:30 – 10:05	Opening Ceremony, Main Hall <i>Welcome addresses by conference organizers and institutional representatives.</i> Prof. Ioannis VOYIATZIS Professor, University of West Attica Prof. Cleo SGOUROPOULOU Board of Directors, University of West Attica Dr. Manolis ZERVAKIS President, Hellenic Emerging Technologies Association Eleftherios KRITIKOS General Secretary for Industry, Ministry of Development and Investments, Greece Conference Co-Chairs Conference Co-Organizers: Prof. Ioannis VOYIATZIS , Prof. Dimitrios SOUDRIS , Asst Prof Paris CHRYSOS , Asst Prof Gregory DOUMENIS <i>Master of Ceremony: Prof. Ioannis VOYIATZIS Professor, University of West Attica</i>
10:05 – 10:45	Keynote Speech, Main Hall Dionysios DIAMANTOPOULOS Staff Research Scientist, IBM Research Europe Title: The Great Chips Act: From Silicon to a Thinking AI World
10:45 – 11:30	Special Session Smart Batteries for Smart Energy Power Factors, Main Hall George KONSTANTOULAKIS Executive Director, SCADA and EMS, Power Factors, George PALAIOLOGOU O&M Senior Manager, Global Operations, M Renewables, Metlen Energy & Metal, Evangelos GALINAS ESS Sr. Technical Advisor, Panagiotis ZAPARTAS KENOTOM, Managing Partner. <i>Moderator: Dr. Gregory DOUMENIS Asst. Professor University of Ioannina</i>
11:30 – 11:50	Networking Coffee Break
Parallel Paper Presentations	
11:50 – 13:20	Sessions S1.1 Smart Energy & System Resilience, Main Hall <i>Asst. Prof Gregory DOUMENIS, Dr. George KONSTANDOULAKIS</i>
11:50 – 12:00	Session Presentation: Energy Intelligence and System Resilience in the Chips Act Framework <i>Asst. Prof Gregory DOUMENIS, Dr. George KONSTANDOULAKIS</i>
12:00 – 12:20	15 Impact of Battery Cell Characteristics on Forklift Powertrain Performance <i>Sotirios Athanasiou, Sotirios Efterpiou, Nikolaos Drougkas</i>
12:20 – 12:40	23 A Model-Based Approach to Battery SOC Estimation Using Kalman Filtering <i>Christos Avgerinos, Stamatios Asimakidis, Andreas Kechagias, Christos Sansaridis and Tilemachos Matiakis</i>
12:40 – 13:00	25 A Practical Approach to Energy Disaggregation in Household Electrical Installations Using Deep Learning. <i>Dimitrios Mylonas, Alberto Erspamer, Konstantinos Athanasiadis, Christos Yiakopoulos, Ioannis Poulakis, Panayiotis Tsanakas, Ioannis Antoniadis</i>
13:00 – 13:20	34 Air Quality Monitoring in Class-5 Operating Rooms Using ESEN-MESN12 Multi-Sensing Nodes: A Real-World Deployment Case Study <i>Georgios Alexandratos, Panagiotis Athanasios Sperdoulis and Emmanuel Zervakis</i>
13:20 – 14:20	Networking Lunch Break
14:20 – 14:50	Invited Talk, Main Hall Christoforos Kachris Assistant Professor, Dept. of Electrical and Electronics Engineering Title: Skills for the Semiconductor Industry: Unlocking New Careers in Microelectronics
14:50 – 16:20	Technical Business Presentation – Workshops, Main Hall 14:50 – 15:20 Power Factors Unity REMS: To optimize every kWh of renewable energy with unified technology from the sensor to the cloud Vaso KATSIKI , Senior Product Manager Power Factors SA 15:20 – 15:50 Renesas Edge AI processing and solutions George FLAMIS , CCed Renesas 15:50 – 16:20 Cyber Resilience Act Compliance Wizard Kyriakos AGAVANAKIS , CTO MEAZON <i>Moderator: Konstantina TSIAPALI VP HETIA BoD – HCCC Project Coordinator</i>
16:20 – 17:50	Career Day: Career Opportunities in the Chips Act Era, Main Hall & Foyer Engage with leading semiconductor employers through presentations, talks, and Q&A sessions 16:20 – 16:35 Power Factors SA Giota KARAGIANNI , Talent Acquisition Specialist & Anastasis CHASIOTIS , Talent Acquisition Coordinator 16:35 – 16:50 RENESAS Panagiotis MOUSTAKAS , Manager Global Online AE, Wireless Connectivity - MCU - MPU - Automotive - Analog – Power Renesas 16:50 – 17:00 MEAZON John GIONAS , COO at MEAZON 17:00 – 17:10 Intracom Defense Evangelos KYRIAZIS , Talent Acquisition Operational Unit Leader 17:10 – 17:20 OHB Hellas Alexis CHATZISTYLIANOS Embedded Electronics Engineer, Grigoris ZISIS Business Development Manager 17:20 – 17:30 ArgoSemi Manolis FRATZESKAKIS , CEO at Argo semiconductors 17:30 – 17:40 EFA GROUP Sofia REMPAPI , Talent Acquisition Specialist, EFA Group 17:40 – 17:50 THEON GROUP Ioannis KARAGIANNIDIS , Talent Acquisition Specialist, Theon Group <i>Moderator: Dr. Emmanouil ZERVAKIS President, Hellenic Emerging Technologies Association</i>
17:50 – 18:00	Closing Remarks – Day 1, Main Hall Summary and key takeaways from the day's sessions. Asst. Prof. Paris CHRYSOS Assistant professor, School of Science, University of Athens
19:00– 23:00	Networking Cocktail Reception at Terra Petra – Καράβι 360° Open Bar 1 Anatolikis Romylias St., Petroupoli 132 31, Greece <i>By invitation only – exclusively for ETCEI 2025 speakers & attendees.</i>

Saturday 25/10/2025 – DAY 2

09:00 – 09:30		Arrival – Registration	
09:30 – 10:00		Opening Presentation – Hellenic Chips Competence Centre (HCCC), <i>Main Hall</i> The HCCC Initiative: Opportunities and Impact for the Greek Semiconductor and Emerging Tech Ecosystem John KIKIDIS Vice President Executive Board of HCCC	
Parallel Paper Presentation			
10:00 – 11:30		Sessions S1.2 Intelligent Devices, Circuits & Architectures, <i>Main Hall</i> Prof.Dimitrios SOUDRIS , Prof.Ioannis VOYIATZIS	Sessions S2.2 Mobile Intelligence, Robotics and AI at the Edge, <i>Hall - II</i> Prof.Maria TZAMTZI , Dr Christos THEOCHARATOS
10:00 – 10:18	24 A DNN-to-Chip Design Flow for Energy Efficient Programmable Inference on the Edge <i>Georgios Alexandris, Alexis Maras, Panagiotis Chaidos, Ilias Papalamprou, Dimitrios Soudris and Sotirios Xydis.</i>	2 Classification of Pharmaceutical Blisters Packs using Computer vision in Edge AI platforms <i>Panagiotis Chatzikyriakos and Christoforos Kachris</i>	
10:18 – 10:36	30 Towards Efficient Spectrum Sensing for 5G/B5G Communications using Walsh Receivers, <i>Ioannis A. Bartsiokas, Panagiotis Vlachos, Michael Tzortzakakis, George Karachalios and Cedric Dehos</i>	4 Skin Cancer Identification on Edge Devices exploiting Kolmogorov Arnold Network <i>G. Venitourakis, M. Patsi, K. Charalampeli, C. Kachris and D. Reisis</i>	
10:36 – 10:54	39 An FPGA Implementation of LSTM for ECG Processing <i>Panagiotis Zintzovas, Vassilis Paliouras and Ioannis Kouretas</i>	22 A Multichannel Deep Learning Approach for Alzheimer’s Disease Detection using EEG-Based Topographic Maps <i>Konstantinos Stefanou, Andreas Miltiadous, Christos Bellos, Georgios Stergios, Markos G. Tsiouras, Alexandros T. Tzallas and Nikolaos Giannakeas</i>	
10:54 – 11:12	13 AI Model Optimization for RISC-V Microcontroller Architectures <i>Anastasios Fanariotis, Theofanis Orphanoudakis and Vasilis Fotopoulos</i>	33 TwinSynth: Rapid 3D Digital-Twin Scene Generation from Text or Sketch <i>Nikos Fragoulis, Andreas Makedonas</i>	
11:12 – 11:30	7 Designing M-bit Adders Utilizing the Compute-In-Memory Approach <i>Theocharis Diamantidis, Georgios Lentaris and Dimitrios Soudris</i>		
11:30 – 11:50		Networking Coffee Break	
Parallel Paper Presentation			
11:50 – 13:20		Sessions S1.3 Mobile Intelligence, Robotics and AI at the Edge, <i>Main Hall</i> Dr. Christos THEOCHARATOS , Prof. Maria TZAMTZI	Sessions S2.3 Intelligent Devices, Circuits & Architectures, <i>Hall – II</i> Prof. Ioannis VOYIATZIS , Prof. Dimitrios SOUDRIS
11:50 – 12:08	32 Quality Assessment in Resistance Spot Welding using Thermal Imaging and Machine Learning <i>Th. Polizogopoulos, Kyr. Sabatakakis, Nik. Bourlesas, Harry Bikas, Pan. Stavropoulos, Christos Theocharatos</i>	17 Next generation AI chips using ferroelectric compute-in-memory synaptic arrays <i>A. Dimoulas, L. Begon-Lours, M. Deluca, T. Kaempfe, M.-H. Park, D. Kwon, K.-S. Min, Y.-H. Gong</i>	
12:08 – 12:26	41 Toward Model Matching for Remotely Controlled Differential Drive Robotic Vehicles <i>Nikolaos D. Kouvakas, Fotis N. Koumboulis, Konstantinos G. Tzierakis, John Sigalas and Anastasios Dimakakos</i>	35 Physics-Based Compact I–V Model for III-Nitride Quantum Well LEDs: Active–Defected Device Pair Approach for Predicting Surface Recombination <i>Andreas P. Kolias, Miltiadis K. Nakos, Charalabos A. Dimitriadis, Constantinos T. Angelis, Andreas Tsormpatzoglou</i>	
12:26 – 12:44	16 Edge Intelligence in Space: Heterogeneous Processing Platforms for AI in Satellite as a Service <i>Antonis Karteris, Alexis Chatzistylianos, Evgenios Tsigkanos, Giannis Panagiotopoulos, Alexandros Stavropoulos, Niki Doulou, Mathieu Bernou, George Lentaris</i>	29 Realization of a Shallow Neural Network with SiO2-based Memristive Crossbar Arrays <i>Charalampos Tsioustas, Panagiotis Bousoulas, Maria Kainourgaki, Danai Spathi, Viktoras Pagonis and Dimitris Tsoukalas.</i>	
12:44 – 13:02	42 Supervisors for Flexible X-type Industrial Floors: The case study of four manufacturing units <i>Fotis N. Koumboulis, Dimitrios G. Fragkoulis, Maria P. Tzamtzi, Konstantinos G. Tzierakis, Ioannis Marres</i>	31 A Low-Power Analog Integrated Artificial Neural Network Architecture for Hand Posture Classification <i>Andreas Papathanasiou, Vassilis Alimisis and Paul P. Sotiriadis</i>	
13:02 – 13:20	43 Developing an autonomous system for olive fruit harvesting based on robotic vision and machine learning <i>Dimitrios Kosmopoulos and Dimitrios Avgeros</i>	28 An Integrated Digital Twin Architecture for Laser Powder Bed Fusion Processes: Fusing Physics-based Simulations with AI <i>Michael Mayr, Ioannis Meintanis, Valentina Zambrano, Carlos Mallor, Sebastien Lani, Joel Wenger (4), and Georgios C. Chasparis</i>	
13:20 – 14:00		Networking Snack Break	
Parallel Poster & Paper Presentations			
14:00 – 15:00		Session S1.4 Innovation in Space Technologies Development, <i>Main Hall</i> Prof. Dionisios REISIS , Dr. Emmanouil ZERVAKIS	POSTER Presentation, <i>Foyer</i>
14:00 – 14:20	40 Development of a Compact and Efficient ADCS for the AcubeSAT Mission <i>Alexandra Tseli, Aikaterini Papadopoulou, Vasileios-Panagiotis Moustakas and Alkis Hatzopoulos</i>	03 Object Detection on Edge, Cloud or Mobile: A design space exploration on performance, energy and accuracy <i>Aristotelis Kretsimos and Christoforos Kachris</i>	
14:20 – 14:40	21 Analyzing SATNOGS open-source global network of satellite ground-stations collaboration with the Contribution Matrix <i>Paris Chrysos and Konstantinos Sioumalas-Christodoulou</i>	08 ResNet Autoencoder-Classifer for Representation Learning <i>Georgios Konstantoulas, Nikos Fragoulis and Christos Theocharatos</i>	
14:40 – 15:00	Book Presentation: “Cubesats: democratizing access to space” Paris CHRYSOS Asst. Professor, Department of Digital Industry Technologies, School of Science, NKUA	10 FPGA-based GBDTs accelerator for the LURAD radiation monitor <i>John Vourvoulakis, Kon/nos Karafasoulis, John Kazas, Constantinos Potiriadis and Charalambos Lambropoulos</i>	
		20 Securing the 5G Ecosystem: Real-Time Risk Management from Core to Edge <i>Dionysia Varvarigou, Kostas Lampropoulos, Spyros Denazis, Paris Kitsos</i>	
		27 A Methodology and Replication Roadmap for Designing Digital Twins in Additive Manufacturing <i>Ioannis Meintanis, Valentina Zambrano, Michael Mayr, Carlos Mallor, Sebastien Lani, Joel Wenger and Georgios Chasparis</i>	
		36 Optimizing Data Collection for AI-based Avian Detection <i>George Dimas, Ioannis Misios, Lampros Argyris and Vassilis Orfanos</i>	
		38 Compact ReRAM Error Correction Pipeline via Adaptive Time-to-Digital Conversion <i>I. Tompris, I. K. Chatzipaschalis, I. - A. Fyrigos, and G. Ch. Sirakoulis</i>	
		44 CRACoWi EU project presentation <i>Kyriakos Agavanakis, Ioannis Gionas</i>	
15:00 – 15:40		Keynote Speech, <i>Main Hall</i> Prof. Kostis DASKALAKIS Avanesians Professor of Computer Science at MIT Title: A world of interacting AIs	

Side Event - Chips Act Greece: Research, Innovation and Industrial Opportunities

15:40 – 16:10	Keynote Speech, Main Hall Romano HOOFMAN Strategic Development Director, imec Title: EUROpractice and Beyond: Empowering Europe's Semiconductor Innovation under the Chips Act.
16:10 – 16:50	Panel Discussion, Main Hall Topic: Chips Act: New Opportunities for Research, Industry and Startups <i>Participants:</i> Romano HOOFMAN imec, John KIKIDIS Renesas, Ioannis RAPTIS NCSR, George KALANTZIS Industrial Edge Engineering.
16:50 – 17:20	Round Table Discussion, Main Hall Topic: Strengthening the Semiconductor Value Chain: From Research to Industry <i>Participants:</i> Alexis BIRBAS UPatras, Chrissavgi DRE Deputy Director, New Technologies, INTRACOM DEFENSE, Grigoris ZISIS Business Development Manager OHB, Michalis DRITSAS Policy Officer, Strategy & Implementation Coordination Service <i>Moderator:</i> Prof. Dimitris KENOURGIOS member of the Administrative Council of the NKUA, Professor of Finance at the Department of Economics (TOE)
17:20 – 17:30	Closing Remarks – Day 2, Main Hall Prof. Dimitrios SOUDRIS School of Electrical and Computer Engineering, National Technical University of Athens
17:30 – 17:50	Conference Summary & 2026 Outlook, Main Hall Presentation of the Conference Summary Report and announcement of <i>Edge Intelligence 2026</i> .
17:50 – 19:30	Farewell Gathering