

Thursday 19/10/2023 – DAY 1

09:00 – 09:30	Registrations + Welcome coffee			
09:30 – 10:00	Opening Main HALL (II)			
	Dr. Manolis ZERVAKIS President, Hellenic Emerging Technologies Association			
	Athanasios KIRIAZIS General Secretary for Research and Innovation			
	Prof. Eustratios STILIANIDIS Vice Rector for Research & Development, University of Thessaloniki			
10:00 – 10:45	Prof. Spyridon NIKOLAIDIS Conference Overview			
	Keynote Speech Main HALL (II) Tom KATSIOLAS Member of the IoT Advisory Board for the U.S. Department of Commerce President and CEO Archon Design Solutions, Inc. Title: "Trusted Value Chains and Digital Business Ecosystems from CHIPS to Edge" <p style="text-align: right;">Moderator: John KIKIDIS Global Ecosystem Lead, Renesas</p>			
10:45 – 11:45	Special Session Main HALL (II)			
	RENESAS: "The Powerful Convergence of AI & IoT"			
	10:45 – 11:30	Keynote by Kaushal Vora Sr. Director of Business Acceleration & Ecosystem Renesas Q&A		
10:30 – 11:45	Georgios FLAMIS Sr Staff Engineer, AIoT Renesas Title: "AI IoT applications are here!"			Moderator: John KIKIDIS Global Ecosystem Lead, Renesas
11:45 – 12:00	Coffee Break			
12:00 - 14:30	Parallel Sessions			
	Main HALL (II)		Foyer	
12:00 – 13:15	Paper Presentations S1.1 Smart applications Session Chair: Minas DASYGENIS		Poster Presentations	
12:00 – 12:15	3360	Autonomous Unmanned Ground Vehicle (UGV) In Smart Farming With A* Algorithm Antonios Chatzisavvas, Malamati Louta and <u>Minas Dasygenis</u>	1864	The Smart Fridge Project <u>Aikaterini Griva</u> , Vasileios Rekkas, Kyriakos Koritsoglou, Sotirios Sotiroudis, Achilles Boursianis, Maria Papadopoulou and Sotirios Goudos
12:15 – 12:30	8374	Comparing the Performance of Cameras and SW packets for the Cloud Coverage Process in Photovoltaic (PV) Parks Dionysios Reisis, Christoforos Vasilakis, <u>Georgios Venitourakis</u> , Alexandros Tsagkaropoulos, Panagiotis Golemis, Georgios Konstantoulakis and Panagiotis Tzouma Amrou	2051	Ground-based cloud observation using wide-view optical and thermal representations. Dimitrios Tsourounis, Panagiotis Tzoumanikas, Alexios Kotronis, Andreas Kazantzidis, George Economou, Orestis Panagopoulos and <u>Christos Theocharatos</u>
12:30 – 12:45	1160	Advanced Monitoring System of Industrial Refrigeration (ADMOSIR) <u>Theodoros Athanasopoulos</u> , George Mavropoulos, Antonios Depastas, Panagiotis Vlagopoulos, Katerina Spyropoulou and Emmanouil Zervakis	2309	An OTA-based power sensing integrated circuit for MPPT in photovoltaic energy harvesting applications. <u>Zoi Agorastou</u> , Vasileios Konstantakos, Konstantinos Siozios and Stylianos Siskos
12:45 – 13:00	6373	Implementation of a Beehive Health Monitoring System Based on Sound <u>Dimitrios Kampelopoulos</u> , Giannis Sofiannidis, Vasileios Konstantakos, Spyridon Nikolaidis, and Kostas Siozios	2550	Prediction of Analog Circuit Sizing Using an Artificial Neural Network Shubham Agarwal, Benjamin Prautsch and Uwe Hatnik

13:00 – 13:15	9471	An Audio Fingerprinting Approach based on the 2DFT for Byzantine Hymn Recognition <u>Dimitrios Kampelopoulos</u> , Lazaros Moysis, Konstantinos Karasavvidis, Achilles D. Boursianis, Sotirios K. Goudos and Spyridon Nikolaidis	2735	Classification of Fetal Images using Deep Learning Methodologies: The Smart Embryo Project <u>Lazaros Alexios Iliadis</u> , George Vergos, Paraskevi Kritopoulou, Achilleas Papatheodorou, Sotirios Sotiroudis, Achilles Boursianis, Kostas Kokkinidis, Maria Papadopoulou and Sotirios Goudos
13:15 – 14:30	Paper Presentations S1.2 Novel applications Session Chair: Nikolaos KONOFAOS		2870	Estimation of pedestrian trajectory using LSTM network architecture Christos Theocharatos, Dimitris Kastaniotis and <u>Vassilis Tsagaris</u>
13:15 – 13:30	1139	IDEAN Neurosciences Education Platform Aggelos Kostas, Anastasios Vittas, <u>Eirini Georgia Dimitriou</u> , Konstantinos Kalafatakis, Kalliopi Basiakou, Nikolaos Giannakeas, Alexandros Tzallas, Nikolaos Katertsidis and Markos G. Tsipouras	3392	A deep learning approach for detecting defects in melt pool images in DED-AM process. Thanassis Polizogopoulos, <u>Christos Theocharatos</u> , Konstantinos Tzimanis, Nikolas Porevopoulos, Panagiotis Stavropoulos, Konstantinos Ntalas and Albano Memlika
13:30 – 13:45	3726	SmartGlove Cloud Platform for Parkinson's Patients Data Collection & Analysis <u>Eirini Georgia Dimitriou</u> , Vasiliki Fiska, Konstantinos Kalafatakis, Nikolaos Giannakeas, Alexandros Tzallas, Nikolaos Katertsidis and Markos G. Tsipouras	3584	Machine learning methods for the discrimination of refrigerant gases Nikolaos Argirusis, <u>Petros Karvelis</u> , Georgia Sourkouni, John Konstantaras, Alice Baroncelli, Peter Segers and Christos Argirusis
13:45 – 14:00	4929	Rapid virtual prototyping of battery storage systems <u>Sotirios Athanasiou</u> and Georgios Koukos	4149	Design of an Autonomous, Multi-functional Stress Assessment Sensor for Naval Applications: The AMSA project Gregory Doumenis, <u>Vasiliki Naskari</u> , Evangelos Hristoforou, Polychronis Pattakos, Georgia Stamou, Christos Papakis, Ioannis Masklavanos
14:00– 14:15	9053	S2W-Med Health Status Monitoring N. Sionas, G. Pomportsis, <u>P. Christodoulou</u> , I. Tzamtzis	4363	A unified framework for object and person 3D-pose estimation with application in ancient drama Andreas Makedonas, Ioannis Papakonstantinou, Panteleimon Alkinoos Peftikoglou and <u>Christos Theocharatos</u>
14:15– 14:30	8723	Fish Shape Alignment Based on Deformable Shape Tracking Suite of Tools Nikos Petrelis, Georgios Keramidas, <u>Christos Antonopoulos</u> and Nikolaos Voros	4625	Deep Learning Architectures for Greek Orthodox Church Hymns Recognition: The Ymnodos Project <u>Lazaros Alexios Iliadis</u> , Nikolaos Tsakatanis, Sotirios Sotiroudis, Achilles Boursianis, Kostas Kokkinidis, Georgios Patronas, Pavlos Serafeim, Maria Papadopoulou and Sotirios Goudos
			4922	An IoT System for Innovative Cultural Experience Christos Sad, Aggeliki Ziaka and <u>Kostas Siozios</u>
			4933	An Improved Algorithm for Equalization and Energy Support for Lithium-ion Battery Storage Systems in Electric Motor Drive Applications Nikolaos Jabbour, Evangelos Tsioumas, Dimitrios Papagiannis and <u>Christos Mademlis</u>
			6288	Design of an Autonomous Wireless Electric Field sensor for maritime applications: the EFOS project <u>Ioannis Masklavanos</u> , Vasiliki Naskari, Christos Koutsos, Fotios Vartziotis, Gregory Doumenis, Stylianos Siskos, Achilleas Bardakas, Apostolos Segkos, Christos Tsamis, Christos Papakis and George Koukas
			6895	Area Allocation for Coverage Path Planning Using Affinity Propagation Clustering <u>Nikolaos Baras</u> , Antonios Chatzisavvas, Irene Tabakis and Minas Dasygenis
			9101	Crosstalk exploration between PA and LNA inductors Dimitrios Samaras, Alkis Hatzopoulos, <u>Vasilis Pavlidis</u> , Athanasios Stefanou, Georgios Chararas and Rafaela Themeli
			9465	Auditory Scene Profile Adaptation for ANC Headphones Dennis Tsoukalas and <u>Fotios Kontomichos</u>
14:30 – 15:15	Lunch Break			
15:15 – 16:00	Keynote Speech Main HALL (II) Dimitrios Kyritsis EPFL & University of Oslo Title: “Cognitive Digital Twins for Sustainable Value Chains”			
Moderator: Asst. Prof. Gregory DOUMENIS Informatics & Telecommunications, University of Ioannina				

16:00 – 17:45	Paper Presentations S1.3 Hardware design Session Chair: Gregory DOUMENIS	
16:00 – 16:15	7941	Design and Implementation of Bone Wax Application Device <u>Michail Tsilikas</u> and Dimitrios Papakostas
16:15 – 16:30	6794	Towards a modular IoT device design and prototyping for the Sports domain <u>Evrpidis Chondromatidis</u> , Emmanouil Tsardoulis, Konstantinos Panayiotou and Andreas Symeonidis
16:30 – 16:45	9301	High-Performance Design of SRT IP Blocks Aristotelis Tsekouras, Giorgos Stagakis, <u>Anastasis Avgoustidis</u> , Grigoris Kokkonis, Konstantinos Gkekas, Vasilis Pavlidis, Thomas Noulis and Giorgos Keramidas
17:00 – 17:15	1120	Fractional-N Phase Locked Loop for Wi-Fi 6/6E With 135 mW Power Consumption and Spur Reduction Techniques <u>Savvas Sgourenas</u> , Christos Andriakopoulos, Stefanos Pokamisas, Charis Basetas, Chrysa Vassou, Vasilis Tsamis, Kostas Retsinas, Vasilis Kolios, Nektarios Sgourenas and Giorgos Kasapoglou
17:15 – 17:30	5815	Enhanced Safety Architecture with Fault Preventive Mechanisms for Automotive Li-ion Battery Management Systems <u>Apostolos Delizonas</u> , Christos Mademlis, Evangelos Tsioumas, Dimitrios Papagiannis, Nikolaos Jabbour, Christos Sansaridis and Tilemachos Matiakis
17:30 – 17:45	838	Energy Efficient ML Accelerator using a Decoupled Vector Engine and a Systolic Array attached to a Low-Cost RISC-V Scalar Core <u>Giorgos Dimitrakopoulos</u> , Vasileios Titopoulos, Christodoulos Peltekis, Dionysios Filippas and Kosmas Alexandridis
17:45 – 19:00	Paper Presentations S1.4 AI - Edge AI and ML Session Chair: Kostas Siozos	
17:45 – 18:00	8081	Light Bulb control with DNN based voice user interface – the journey to design it Georgios Flamis, <u>George Chardalias</u> , Vin D'Agostino and Suad Jusuf
18:00 – 18:15	9736	Enabling Grid Resilience and Efficiency - EDGE Device for Power Grid analysis and Asset Monitoring Sami Hammal, Vagelis Alifragkis, Pavlos Psimadas and <u>Nikolaos-Antonios Livanos</u>
18:15 – 18:30	9653	Federated transformers for non-intrusive load monitoring in heat pumps <u>Stylianos Kanoutas</u> , Athanasios Bachoumis, Michael Birbas and Alexios Birbas
18:30 – 18:45	5311	AI-assisted Serious Games: Dialogue Management with Generative AI <u>Eleni Panopoulou</u> , Davide Aversa and Stavros Vassos
18:45 – 19:00	4607	Transforming the Path Towards Automation of Monitoring and Management for Edge Computing <u>Georgios Samaras</u> , Marinela Mertiri, Maria-Evgenia Xezonaki, Nikos Psaromanolakis, Vasileios Theodorou and Theodoros Bozios
19:00 – 19:15	102	Intelligence Functions Placement in B5G / 6G wireless networks <u>Vasiliki Lamprousi</u> , Sokratis Barmponakis, Vera Stavroulaki and Panagiotis Demestichas
20:00 – 21:30	Networking Cocktail at Allegro Thessaloniki Concert Hall Only for Paper Presenters - Sponsors - Speakers	

Friday 20/10/2023 – DAY 2

09:00 – 09:30	Welcome coffee	
09:30 – 11:00	Paper Presentations S1.5 Circuits and Systems Session Chair: Vasilis PAVLIDIS	
09:30 – 09:45	8700	Analysis of SQRL strengths and weaknesses compared to other authentication mechanisms <u>Dimitrios Simeonidis</u>
09:45 – 10:00	1994	Fault Detection in Analog Circuits by utilizing the Current Supply Transients <u>Vassilis Vassios</u> , Argirios Hatzopoulos, Dimitrios Papakostas and Ioannis Intzes
10:00 – 10:15	4126	Aging alleviation technique for 8T IMC SRAMs Helen-Maria Dounavi and <u>Yiorgos Tsiatouhas</u>
10:15 – 10:30	3841	Reduction of large-scale RLCK models via low-rank balanced truncation <u>Christos Giamouzis</u> , Dimitrios Garyfallou, Anastasis Vagenas and Nestor Evmorfopoulos
10:30 – 10:45	7520	MORCIC: Model Order Reduction Techniques for Electromagnetic Models of Integrated Circuits Dimitrios Garyfallou, Athanasios Stefanou, <u>Christos Giamouzis</u> , Moschos Antoniadis, Georgios Chararas, Konstantinos Chatzis, Dimitris Samaras, Rafaela Themeli, Anastasios Michailidis, Vasiliki Gogolou, Nikos Zachos, Nestor Evmorfopoulos, Thomas Noulis, Vasilis F. Pavlidis, Alkiviadis Hatzopoulos, Elpida Chatzineofytou and Yiannis Moisiadis
10:45 – 11:00	4978	Design and implementation of a compact RISC-V based Machine Learning accelerator on Low End FPGA Manolis Galetakis, <u>Stavros Kalapothas</u> , Georgios Flamis, Paris Kitsos and Fotis Plessas
11:00 – 11:40	Keynote Speech Main HALL (II) Prof. Kostas DORIS NXP Semiconductors, The Netherlands Title: “The pathway to higher resolution in mm-wave automotive radar” <p style="text-align: right;">Moderator: Prof. Stelios SISKOS Electronics Lab. Section of Electronics and Computers Physics Dept. AUTH</p>	
Career Day		
11:40 - 14:00	Companies Presentations	
	11:40 - 11:50	Invited Speaker: Katerina PAPAKOTA Career Counselor, Career Office of AUTH Title: “The Career Office of Aristotle University of Thessaloniki”
	11:50 - 14:00	RENESAS Stella TSAMPOUKOU
		KENOTOM Stefanos GIANNOPOULOS
		ANSYS Manolis FOTAKIS & Ioannis GEORGAKIS
		DELOITTE Pierrina MONASTIRIOTI & Eirini PAPAGIANNIDOU
		INACCESS, by POWER FACTORS Ioannis SAPOUNADELIS
		THESS IC Thrassos AXIOTIS
		THINK SILICON, an APPLIED MATERIALS Company Georgios KERAMIDAS
CHIPGLOBE Max MERGANTHALER & Lia ELEFTHERIADOU		

	ES SYSTEMS Theodoros ATHANASOPOULOS
	OLYMPIA ELECTRONICS Sophia CHATZIFOTI
	U-BLOX Panos PAGRATIS
	MEICSI Savvas SGOURENAS
	<u>Moderator:</u> Prof. Alkis CHATZOPOULOS Dept. of Electrical and Computer Engineering AUTH
14:00 – 14:10	Snack coffee break
14:10 – 14:50	<p>Keynote Speech Main HALL (II) Vasileios CHATZIKOS CEO Siemens A.E., Greece Title: “Industry 4.0: Unlocking the Future of Digital Transformation”</p> <p style="text-align: right;"><u>Moderator:</u> Tilemachos MATIAKIS KENOTOM Technical director</p>
	Invited Speakers
14:50 – 15:00	<p><u>Invited Speaker:</u> Byron CHRYSOVERGIS Technology Transfer and Innovation Manager at Aristotle University of Thessaloniki Title: “Technology Transfer and Innovation at Aristotle University of Thessaloniki”</p>
15:00 – 15:15	<p><u>Invited Speaker:</u> Spyros KIARTZIS HELLENIQ ENERGY Holdings S.A. Title: “Applying emerging technologies to address the challenges of energy transition”</p> <p style="text-align: right;"><u>Moderator:</u> Prof. Spyridon NIKOLAIDIS Physics Department, Aristotle University of Thessaloniki</p>
14:50 – 16:00	<p>Round table: “Connecting industry to academia”</p> <p><u>Participants:</u> RENESAS George FLAMIS, KENOTOM Tilemachos MATIAKIS, AUTH Prof. St. SISKOS), ACCADEMIA Georgios SAVVIDIS, PROGRESSIVE ROBOTICS Marios KIATOS</p> <p style="text-align: right;"><u>Moderator:</u> Prof. Alkis CHATZOPOULOS Dept. of Electrical and Computer Engineering AUTH</p>
15:40 – 16:00	<p>Closing Day 2 remarks Prof. Spyridon NIKOLAIDIS Prof. Dimitris MOURZTIS</p> <p>Edge Intelligence 2024 announcement: Dr. Manolis ZERVAKIS Prof. George STAMOULIS</p>
16:00– 17:00	Late Lunch