



Day 1 – Friday Dec 2, 2022	
Time	Activity
9:00 30 min	  <p>Welcome</p>
9:30 30 min	<p>Keynote Speech</p> <p>The Battle of the Bands in the Era of 6G</p> <p>Prof. George K. Karagiannidis, <i>Electrical & Computer Engineering Department, Aristotle University of Thessaloniki</i></p>
10:00 30 min	Coffee Break
10:30 to 12:15	<p>Technical Session 1-I: 5G Communication Systems and Networks Session Chair:</p> <p>Towards Securing Next-Generation Networks: Attacking 5G Core/RAN Testbed George Amponis, Panagiotis Radoglou Grammatikis, Thomas Lagkas, Savvas Ouzounidis, Maria Zevgara, Ioannis Moscholios, Sotirios Goudos and Panagiotis Sarigiannidis</p> <p>Performance Evaluation of the 5G LDPC and RS Codes in a Pre-Amplified PPM Receiver Konstantinos Yiannopoulos, Antonios Aspreas and Nikolaos Sagias</p> <p>Overview of SDR Platforms Based on Open Source Software: A 5G System Emulation with Open Air Interface Emmanouil-Zafeirios Bozis, Michael Batistatos and Nikos Sagias</p> <p>Estimating the Required Resources in a Vehicular Ad Hoc Network Using Queueing Theory Models Irene Keramidi, Ioannis Moscholios, Michael Logothetis and Panagiotis Sarigiannidis</p> <p>Supervisory Control for the AODV Routing Protocol Nikolaos Kouvakas, Fotis Koumboulis, Dimitrios Fragkoulis and Nikolaos Georgiou</p> <p>A Call Admission Control Mechanism based both on Queueing and the Probabilistic Bandwidth Reservation Policy in Mobile Hotspots Marinos Vlasakis, Irene Keramidi, Ioannis Moscholios, Panagiotis Sarigiannidis and Michael Logothetis</p>
12:30 to 14:15	<p>Technical Session 1-II: Analog/Mixed-Signal Circuits-I Session Chair:</p> <p>Heart Rate Controller Design for Cardiac Pacemaker Julia Nako and Costas Psychalinos</p> <p>Home Healthcare Technologies & Services: Heart Rate Fetus Monitoring System Using a MCU ESP8266 Node Anastasios G. Skrivanos, Evangelia I. Kosma, Spyridon K. Chronopoulos, Ioannis Kouretas and Kostas Peppas</p>

	<p>A Hardware-Friendly Low-Power Area-Efficient GMM-Based Analog Classifier for Skin Detection Michail-Aggelos Gkaltemis, Georgios Lymperakis, Georgios Gennis, Vassilis Alimisis and Paul P. Sotiriadis</p> <p>Analyzing the Beehive's Sound to Monitor the Presence of the Queen Bee Dimitrios Kampelopoulos, Ioannis Sofianidis, Chrysoula Tananaki, Konstantina Tsiapali, Spyridon Nikolaidis and Kostas Siozios</p> <p>Simple Designs of Fractional-Order Shelving Filters for Acoustic Systems Alexandros Pagidas and Costas Psychalinos</p> <p>Designing a Lightweight Convolutional Neural Network for Bird Audio Detection Christos Tsompos, Vassilis Pavlidis and Kostas Siozios</p>
14:15 45 min	Mid-day Break
15:00 to 16:15	<p>Technical Session 1-III: Embedded Systems Session Chair:</p> <p>Simulated Partial Discharge Harmonic Data Generation for Neural Network Training in the Absence of Real Measurements: A First Approach Dimitris Barkas, Konstantinos Kalkanis, George Ioannidis, Stavros Kaminaris and Constantinos Psomopoulos</p> <p>CAS-HtBase: A New Database for the Study of HTs at the Pre-silicon Stage of ASICs Konstantinos G Liakos and Fotis Plessas</p> <p>Hardware Acceleration of Transformer Networks using FPGAs Christoforos Kachris, Georgios Tzanos and Dimitrios Soudris</p> <p>A high-performance FPGA architecture for Acceleration of SVM Machine Learning Training Christoforos Kachris, Charalampos Kardaris and Dimitrios Soudris</p>
16:30 to 18:15	<p>Technical Session 1-IV: Applications and Data Analysis Session Chair:</p> <p>Arduino Rocket Flight Computer Philippos G. Moschidis and Petros S. Bithas</p> <p>Computational Thinking in Greek Educational System for K-12: Towards the Future Teaching Approach Ioannis Dimos, Chrysoula Velaora and Athanasios Kakarountas</p> <p>The Computer Vision Box & Block Test in Rehabilitation Assessment Orestis Zestas, Dimitrios Soumis, Kyriakos Kyriakou, Kyriaki Seklou and Nikolaos Tselikas</p> <p>Digital Version of the "Open/Close Zip" Subtest Included in the Sollerman Hand Function Test Dimitrios Soumis, Orestis Zestas, Kyriakos Kyriakou, Kyriaki Seklou and Nikolaos Tselikas</p>
20:30	<p>Gala Dinner</p> <p>https://www.google.com/maps/d/edit?mid=1MuynrVFpJlun_GSPrq7kZOIYO2K_bxM&usp=sharing</p>

Day 2 – Saturday Dec 3, 2022

Time	Activity
	Technical Session 2-I: Communication Circuits and Systems Session Chair:
9:00	A Ka-Band Quasi-F-1 Power Amplifier in a 130 nm SiGe BiCMOS Technology Vasileios Manouras and Ioannis Papananos
	A 40 GHz Low Phase Noise VCO in 40 nm CMOS Ioannis-Dimitrios Psycharis and Grigorios Kalivas
11:15	Design and Implementation of a D-Band I/Q Modulator in a 130 nm SiGe BiCMOS Technology Filippa Soumpasakou, Vasileios Manouras and Ioannis Papananos
	Low Noise-Low Power Transimpedance Amplifier Design for Electric Field Sensing Aikaterini Lemonou, Zoi Agorastou, Thomas Noulis and Stylianos Siskos
	Nano-Watt Voltage References for High Supply Voltages Christos Lavrentiadis, Vasiliki Gogolou and Stylianos Siskos
	Chemically-Inspired Memristor-Based Neuron-Like Oscillating Circuit Theodoros Panagiotis Chatzinikolaou, Iosif-Angelos Fyrigos, Charalampos Tsioustas, Panagiotis Bousoulas, Michail-Antisthenis I. Tsompanas, Dimitris Tsoukalas and Georgios Ch. Sirakoulis
	3D IC Design-for-Test with Implementation of the IEEE 1149.1-2013, the IEEE 1500-2005, and the IEEE 1838-2019 Standard Konstantinos Leventos and Chrysovalantis Kavousianos
11:15 30 min	Coffee Break
	Technical Session 2-II: Internet of Things Session Chair:
11:45	SENITY: An Emulator for Smart Energy Management of Households in a City Kyriaki Seklou, Panagiotis Kokkinos, Vassilis Pouloupoulos and Nikolaos D. Tselikas
	ATLAS: Internet of Things Platform for Precision Aquaculture Vasilis Papanikolaou, Sotiris Tegos, Pavlos Bouzinas, Dimitrios Tyrovolas, Panagiotis Diamantoulakis and George Karagiannidis
14:00	DECODE Cloud Platform: A New Cloud Platform to Combat the Burden of Peripheral Artery Disease Mohammed Aboarab, Vassiliki Potsika, Dimitrios Fotiadis and Nikola Petrović
	A Technological Framework for Leveraging First Responders' Efficiency and Safety Michael Batistatos, Michail-Alexandros Kourtis, George Xilouris, Dimitris Santorinaios, Andreas Oikonomakis and Anastasios Kourtis
	An Augmented Reality Framework for First Responders: The RESPOND-A Project Approach Harbil Arregui, Eider Irigoyen, Iñaki Cejudo, Sebastian Simonsen, Drazen Ribar, Michail-Alexandros Kourtis, Yannis Spyridis, Natalia Stathakarou and Michael C. Batistatos
	Online Self-Distillation for Electric Load Demand Forecasting on Greek Energy Market Maria Tzelepi, Alkmini Sapountzaki, Nikitas Maragkos and Anastasios Tefas
	Short-Term Electric Load Demand Forecasting on Greek Energy Market using Deep Learning: A comparative study George Emmanouilidis, Maria Tzelepi and Anastasios Tefas

14:00 60 min	Mid-day Break
15:00 to 17:15	<p>Technical Session 2-III: Analog/Mixed-Signal Circuits-II</p> <p>Session Chair:</p> <p>Microcontroller Based Electric Field Mill Sensor Interface Alexandros Chatzis, Zoi Agorastou and Stylianos Siskos</p> <p>Metaheuristic Multivariable PI Controller Design for an Ethanol Production Continuous Fermenter Nikolaos Kouvakas, Fotis Koumboulis, Dimitrios Fragkoulis and Tatiana Chrysoula Drosou</p> <p>Comparison of Complementary Filters Implementations for Unmanned Aerial Vehicles Spyros Kontelis and Costas Psychalinos</p> <p>A Low-Cost IoT System for Indoor Positioning Targeting Assistive Environments Vasileios Serasidis, Ioannis Sofianidis, George Margaritis, Christos Sad, Vasileios Konstantakos and Kostas Siozios</p> <p>Buck-Boost Charge Pump based DC-DC Converter Evi Keramida, George Souliotis, Spyridon Vlassis and Fotis Plessas</p> <p>Charge-Based Time Registers for z-1 Implementation Konstantinos Panagiotis Pagkalos, Orfeas Panetas-Felouris and Spyridon Vlassis</p> <p>Power Analysis Methodology for Energy Harvesting System on Chip Christina Panagiotopoulou, Anastasios Michailidis, Vasiliki Gogolou, Thomas Noulis, Kostas Siozios and Stylianos Siskos</p>
	<p>Technical Session 2-IV: Optical and Wireless Communication Systems</p> <p>Session Chair:</p> <p>Wi-Fi 6 Aerial Relay Node for Emergency Operations Michael Batistatos, Michail-Alexandros Kourtis, George Xilouris, Dimitris Santorinaios, Andreas Oikonomakis, Emmanouil-Zafeirios Bozis, Ioannis Moscholios, Nikos Sagias and Anastasios Kourtis</p> <p>Path Loss Prediction Modelling using Different Boosting Machine Learning Methods Vasileios Panagiotis Rekkas, Sotirios Sotiroudis, Georgia Athanasiadou, Panagiotis Sarigiannidis, George Tsoulos and Sotirios Goudos</p> <p>Experimental Evaluation of a Euclidean Distances based 3-Color Shift Keying Scheme for Visible Light Communications Georgios Megas, Georgios Papatheodorou, Yiorgos Sfikas, Aristides Efthymiou and Yiorgos Tsiatouhas</p> <p>Hierarchical Energy Efficient Routing in Wireless Sensor Networks: A Comparative Study on LEACH Protocol and its Successors Dimitrios Rountos, Dionisis Kandris, Emmanouil Andreas Evangelakos and George Tselikis</p> <p>Bit Error Probability of an Optically Pre-amplified Pulse Position Modulation Receiver with Reed Solomon Error Correction Antonis Aspreas and Konstantinos Yiannopoulos</p> <p>Positioning Enhancement using Low Cost GNSS Receivers Data Exchange in Critical Intelligent Transport Systems Theodore T. Kapsis, Thanassis Mpimis, Athanasios D. Panagopoulos and Vassilis Gikas</p> <p>Machine Learning Assisted Indoor Visible Light Communications Radio Environment Maps Helena Serpi and Christina Tanya Politi</p>
17:15 30 min	Closing Ceremony and Student Paper Awards