Final Program

Wednesday, 10 June 2026

09:30 - 10:30 : Plenary Talk 1: Alberto Ortiz

10:30 - 11:00 : Coffee Break

11:00 - 12:20 : Memristors (Chair: Rodrigo Picos)

Order	Title	Authors
1	Using a Modified Window Function for Avoiding Terminal State Problems in Memristor Modeling	**Valeri Mladenov**, Stoyan Kirilov
2	A Simple Memristor Model with a Rectangular Window Function for Memory Crossbar Analysis	**Stoyan Kirilov**, Valeri Mladenov
3	Towards Optical Memristor-Based Cellular Neural Networks	**Ioannis Messaris**, Dimitris Prousalis, Vasilis Ntinas, Ahmet Samil Demirkol, Sean Lethbridge, Ayoub H. Jaafar, Neil Kemp, Ronald Tetzlaff
4	Device Variability and Uncertainty Propagation in Memristive Reservoir Computing	Davide Rossetti, **Fernando Corinto**

12:20 - 13:20 : Circuit Design 1 (Chair: Spiros Nikolaidis)

Order	Title	Authors
1	Hardware-Efficient and Robust Mersenne Twister PRNG using Digitally-Optimized Chaotic Seeding	Kareem Elsheikh, Wafaa Sayed, Lobna Said, **Ahmed Madian**
2	FPGA Implementation of a Hybrid Chaotic True Random Number Generator Using Fibonacci Ring Oscillator	Mohamed Ehab, Wafaa Sayed, Ahmed Madian, **Lobna Said**, Mohamed Ehab
3	Characterizing Side-Channel Leakage in Pipelined and Parallelized AES Hardware Implementations	**Marina Takla**, Eyad Sameh El-Tameme, Eman Hosny, Hazem Fayed, Hassan Nassar, Jörg Henkel, Mohamed Abdelghany

13:30 - 14:30 : Lunch

14:30 - 15:30 : Plenary Talk 2: Alfonso Gabarrón

15:30 - 16:00 : Coffee Break

16:00 - 17:00 : Neuromorphic (Chair: Fernando Corinto)

Order	Title	Authors
1	Optimization of Neural Network Architectures for Accurate Analog Circuit Surrogate Modeling	**Savvas Karipidis**, Valentina Davidoiu, Andi Buzo, Georg Pelz, Thomas Noulis
2	Neuromorphic In-Memory Computing For Solving Convection-Diffusion Systems	Spiridon Nikolaidis, Ventsislav Ignatov, **Angela Slavova**
3	Interpolation of Latent Dynamics for Surgical Action Recognition Using Gaussian Processes	**Ioannis Kafetzis**, Alexander Hann, George F. Fragulis

17:30 - 18:30 : Circuit Design 2 (Chair: Lobna Said)

Order	Title	Authors
1	TIGFET-Based Polymorphic Logic Gate for Reconfigurable Arithmetic Applications	Tika Ram Pokhrel, Andrew Robert, **Vassilis Alimisis**, Paul P. Sotiriadis, Alak Majumder
2	Universal Logic Gates Obtained by Switching Between Chaotic Attractors in Chua\'s Circuit	Iacyel G. Silva, **Wojtek Korneta**, Carol de Benito, Stavros G. Stavrinides, Rodrigo Picos
3	RheosV: A 32-bit Pipelined RISC-V Processor with Interrupt Support and Atomic Operations for Mechatronic Applications	**Anastasios Avgoustidis**, John Kalomiros

Thursday, 11 June 2026

09:30 - 10:30 : Plenary Talk 3: Christian Dile, R&S

10:30 - 11:00 : Coffee Break

11:00 - 12:20 : Communications/RF (Chair: Rodrigo Picos)

Order	Title	Authors
1	Design-Oriented Modeling of TSV Substrate Noise Coupling to Ring VCOs	**ILIAS EXOUZIDIS**, **Alberto Garcia Ortiz**, **George Floros**, **Georgios Panagopoulos**
2	A PAM-8 60-GHz Transmitter in a 22nm FD-SOI CMOS Process	**Fotios Kolovos**, Vasileios Vasileios Manouras, Yannis Papananos
3	Dual-band Inverted-F MIMO Antenna Using Enhanced Hummingbird Algorithm for Mobile Phone Terminals	Ioannis Partheniotis, Maria Papadopoulou, Panagiotis Sarigiannidis, Theodoros Samaras, Sotirios Goudos, **Achilles Boursianis**

Order	Title	Authors
4	Electric Field Finite Element Formulation for Wave Propagation in Bianisotropic Media	**Vasileios Salonikios**, Michalis Nitas

12:20 - 13:40 : Circuit Design 3 (Chair: George Antoniou)

Order	Title	Authors
1	High-Level Modeling of Stuck-at Faults in Approximate Multipliers for Enhanced Test Qualit	**Alberto Garcia Ortiz**
2	Quadtree NoC Architecture with Real-Time Guarantees for Spiking Neural Networks	**Juan Neyra**, Sebastian Fischer, Alberto Garcia Ortiz
3	On the Effectiveness of Linear Adaptation in Koopman Models Under Parameter Drift	Jinming Sun, **Alberto Garcia Ortiz**
4	Homotopic and Error-Free Training Pipelines for Electrical Component Recognition and Localization	**Athanasios Delis**, Kris Koutsi, Panayiotis Tsanakas

13:30 - 14:30 : Lunch

14:30 - 16:00 : Poster Session

Order	Title	Authors
	An isolated IGBT driver chip with a noval IGBT desaturation fault detection and handling scheme	**ao li**, Jianxiong Xi, Lenian He

Order	Title	Authors
	A Bidirectional Isolated I2C Design with Dynamic Regulation and Latch-Up Prevention for Low-Voltage Applications	**Anxiao Zhou**, Jianxiong Xi, Lenian He
	Organising Your Data - Setting up a Database for Signal, Distance, Angle and Position Measurements	**Marco Gunia**, Frank Ellinger
	Machine Learning–Based Fault Detection in SEPIC DC–DC Converters	**Mirjana Kocaleva Vitanova**, **Zoran Zlatev**, Elena Karamazova, Nikolay Hinov, Plamen Stanchev
	A Comparative Study of VHDL versus Verilog for Teaching Digital Systems Design	**Konstantinos Tatas**, Eleni Tsolaki
	Conversion-time-scalable 8-bit SAR ADC featuring various power consumption and sampling frequency	**Mohammad Bayazi**, Renato Negra
	Carbon Footprint Reduction in the Fur Production Process Welfarming Utilizing Digital Systems	**Dimitris Ziouzios**, Aikaterini Tsepoura, Vasileios Vasiliadis
	Microfluidic Polarization-Reconfigurable Refractive Metasurface Antenna Using Liquid Metal	**Adnan Nadeem**, Nosherwan Shoaib, Photos Vryonides, Symeon Nikolaou

Order	Title	Authors
	Additively Manufactured RF Components Using Nanocomposite Conductive Materials and NonHomogeneous Dielectric Substrates	David Chatzichristodoulou, **Adnan Nadeem**, Evangelos E. Melagrakis, Georgios Michalis, Photos Vryonides, Symeon Nikolaou
	A Compact Single-Layer Air-filled SIW Bandpass Filter with Two Separate Passbands For 6G Applications	Raghav Upadhyay, Mithun Kushwaha, Manoj Kumar, Anjali Kumari, M. Jaleel Akhtar, Symeon Nikolaou, **Photos Vryonides**
	FPGA-Based Field Arithmetic Logic Unit for Homomorphic Encryption	Zeinab Hassaan, **Ghada Bouattour**, Lobna Said, Nermeen Hassan
	Efficient Domain Adaptation of a Lightweight BERT Retriever: Comparing Full Fine-Tuning and LoRA for Biomedical Search	Reham Hasna, Majd Ali, **Rodrigo Picos**, Mohamad Moner Al Chawa
	A Compact Model for Slow-Sweep ReRAM	Mohamad Moner Al Chawa, Majd Ali, Carol de Benito, **Rodrigo Picos**

15:30 - 16:00 : Coffee Break

16:00 - 17:20 : Sensors and Systems (Chair: Wojtek Korneta)

Order	Title	Authors
1	Adaptive Sampling for Energy-Constrained Agriculture Sensor Nodes and its Microcontroller Implementation	**Konstantinos Tatas**, Eleni Tsolaki, Konstantinos Kosti

Order	Title	Authors
2	Evaluation of Computed Order Tracking for Vibrational Machine Health Monitoring on a Low Power Embedded ASIP	**Dam Linh Tran**, Hanna Finja Finke, Viktor Schneider, Jens Karrenbauer, Holger Blume
3	Evaluation of the BMV080 fanless PM sensor for outdoor air quality monitoring applications	**Matteo Verzeroli**, Luigi Gaioni, Valerio Re
4	Vehicle Classification Using FMCW Cloud Point Radar Sensors	Ioannis Christopoulos, Fotios Papadopoulos, Efstratios Paliodimos, Periklis - Antonios Michalopoulos, Charalampos Patrikakis, **Stylianos Mytilinaios**

17:30 - 18:50 : Circuit Design 4 (Chair: Alkis Hatzopoulos)

Order	Title	Authors
1	Hyperparameter Analysis of NSGA-II and NSGA-III for Complex LDO Sizing	**Savvas Karipidis**, Valentina Davidoiu, Andi Buzo, Georg Pelz, Thomas Noulis
2	Application of Fractal Theory in PV DC-AC Inverter Control	**Plamen Stanchev**, Reni Kabakchieva, Nikolay Hinov
3	Fingerprint-Based Selective Rejection for Improving Reliability Under Adversarial Attacks	**Dimitrios-Christos Asimopoulos**, Vasileios Vitsas, Panagiotis Radoglou-Grammatikis, Dimitrios Pliatsios, Georgios Th. Papadopoulos, Sotirios Goudos, Thomas Lagkas, Evangelos K. Markakis, Panagiotis Sarigiannidis

Order	Title	Authors
4	e, the Eulers e, 2D Continued Fraction Type Digital Filter: Circuit and State-Space Realization	**George Antoniou**

Friday, 12 June 2026

09:30 - 10:30 : Plenary Talk 4: Ronald Tetzlaff

10:30 - 11:00 : Coffee Break

11:00 - 12:20 : Bioelectronics (Chair: Alberto Ortiz)

Order	Title	Authors
1	Multi-mode CMOS Implementation of Prostate Cancer Diagnostics with In-memory Sensing and Edge Computing	**Dmitrii Semenov**, Gian Luca Barbruni, Roman Sotner, Pavel Horsky, Sandro Carrara
2	An Energy-Efficient Analog Integrated Artificial Neural Network for Pancreatic Cancer Detection	**Vassilis Alimisis**, Andreas Papathanasiou, Vasileios Moustakas, Anna Mylona, Christos Dimas, Alak Majumder, Paul P. Sotiriadis
3	Nonlinear Feature Transformation Artificial Neural Network Analog Integrated Architecture for Low-Power EIT-based Stroke Classification	**Christos Dimas**, Vassilis Alimisis, Andreas Papathanasiou, Daniela Papa, George F. Fragulis, Paul P. Sotiriadis
4	Design of a Flexible Wideband Terahertz Frequency Selective Surface for Corneal Hydration Sensing	**Abdulla P**, Thushara M R, Anitha George

12:20 - 13:20 : Circuit Design 5 (Chair: Ronald Tetzlaff)

Order	Title	Authors
1	A Tunable, Low-Power, Analog Integrated Implementation of the Soboleva Hyperbolic Tangent Activation Function	Andreas Papathanasiou, **Vassilis Alimisis**, Lazaros Moysis, Marcin Lawnik, Paul P. Sotiriadis, George F. Fragulis
2	Hardware-Friendly Reduction of USRCAT Descriptors for Ultra-Fast Virtual Screening	**Lluc Crespí-Castañer**, Alejandro Moran, Joan Font-Rosselló, Pedro J. Ballester, Miquel Roca, Josep L. Rosselló
3	Bare Metal vs RTOS: An Energy Analysis of FreeRTOS on the RP2040	Ioannis Sofianidis, Vasileios Konstantakos, **Spiridon Nikolaidis**, Angela Slavova