

PROGRAM

Days: [Friday, September 22nd](#) [Saturday, September 23rd](#) [Sunday, September 24th](#) [Monday, September 25th](#)

Friday, September 22nd

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09:00-09:05	Session 1: Opening Session
Opening Session	
09:05-09:50	Session 2: Dr. Yervant Zorian. "Design and Test" with "Silicon Lifecycle Management"
Plenary Session 1A	
10:00-12:00	Session 3
Regular Papers	
Session 1A	
CHAIR: Eugenia Litvinova	
10:00	Ievgen Kabin , Peter Langendoerfer and Zoya Dyka Vulnerability of Atomic Patterns to Simple SCA (abstract)
10:15	Arman Galstyan New Approach of IO Cell Placement Addressing Minimized Data and Clock Skews in Top Level (abstract)
10:30	Gor Abgaryan Crosstalk Prediction In Integrated Circuits Based On Machine Learning Techniques (abstract)
10:45	Narek Avagyan Aging And IR Drop Aware Power Mesh Prediction Based On Machine Learning (abstract)
11:00	Vazgen Melikyan , Mushegh Grigoryan , Ashot Avetisyan and Tigran Khachatryan Accelerating CNN Models for Visual Odometry: Design and FPGA Implementation for Efficient Hardware Acceleration (abstract)
11:15	Marampally Saikiran , Michael Sekyere , Mona Ganji and Degang Chen Graph Theory based Defect Simulation Framework for Analog and Mixed Signal (AMS) Circuits with Improved Time-Efficiency (abstract) PRESENTER: Marampally Saikiran
11:30	Marampally Saikiran , Michael Sekyere , Mona Ganji and Degang Chen Digital Assisted Defect Detection Methods for Analog and Mixed Signal Circuits : An Overview (abstract) PRESENTER: Marampally Saikiran
11:45	Vijayalakshmi Naganadhan , Marampally Saikiran , Mahmoud Gshash and Degang Chen Systematic Methodology to Design High Precision Voltage References with Sub-ppm/oC Temperature Coefficient (abstract) PRESENTER: Vijayalakshmi Naganadhan

Saturday, September 23rd

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09:00-09:45	Session 4
Plenary Session 2A	
09:00	Vazgen Melikyan Integrated Circuit Reliability: Current State, Challenges and Solutions (abstract)
09:45-13:45	Session 5
Regular Papers	
Session 2A	
CHAIR: Ivan Hahanov	
09:45	David Devadze , Zaza Davitadze , Vladimir Hahanov , Svetlana Chumachenko , Eugenia Litvinova , Ivan Hahanov , Shevchenko Olga , Yugar Hacimahmud Abdullayev and Anna Hahanova In-Memory Fault-Free Vector Simulation (abstract)
10:00	Vladimir Hahanov , Aleksander Shkil , Dariia Rakhlis , Anatolii Miroshnyk , Irina Hahanova and Ivan Hahanov Modeling Faults as Addresses (abstract)
10:15	Wajeb Gharibi , Marina Abashidze , Vladimir Hahanov , Eugenia Litvinova , Maryna Miroshnyk , Georgiy Kulak , Svetlana Chumachenko and Alexander Mishchenko In-memory Fault as Address Simulation (abstract)
10:30	Ningfei Song , Nanlin Jin , Jingchen Wang , Jie Zhang , Jeremy Smith , Yutao Yue and Ka Lok Man Advancements in Battery State of Charge Estimation Methods for Battery Management Systems: A comprehensive Literature Review (abstract)
10:45	Elza Jintcharadze and Marina Abashidze Performance and Comparative analysis of Elliptic Curve Cryptography and RSA (abstract)
11:00	Nikhita M Congestion-Aware Routing in Software Defined Vehicular Networks (abstract)
11:15	Vazgen Melikyan , Ashot Harutyunyan , Vachagan Davtyan , David Revazyan and Gevorg Harutyunyan Tuning Genetic Algorithm Parameters for Placement of Integrated Circuit Cells (abstract)
11:30	Shuaibu Musa Adam , Usman Ibrahim Musa , Kamran Siddique , Jie Zhang , Jingchen Wang , Danny Hughes and Ka Lok Man A Survey on Hardware Prefetching in Shared-Memory Multiprocessors (abstract)
11:45	Oleg Petrosyan and Arman Manukyan Functional Verification of Multiport SRAM Memories based on UVM. (abstract) PRESENTER: Arman Manukyan
12:00	Vazgen Melikyan and Armen Petrosyan Physical Design of 6T Cell of SRAM Devices and Comparative Analysis of Layout (abstract)
12:15	Tigran Khachatryan , David Galstyan and Eduard Harutyunyan A Comprehensive Approach for Enhancing Deep Learning Datasets Quality Using Combined SSIM Algorithm and FSRCNN (abstract)
12:30	Yurii Lykov , Anna Lykova and Stepan Savenko Research on the Throughput Capacity of LoRaWAN Communication Channel (abstract)
12:45	Vazgen Melikyan , Petros Petrosyan , Narek Avagyan and Gor Abgaryan Smart Adjustment Of Transistor Parameters To Reduce Temperature Rise Due To Self-Heating Effect (abstract)
13:00	Armen Babayan Validation and Test Challenges for Multi-Memory Bus BIST Engines (abstract)
13:15	Sergo Harutyunyan Aging Protected Two Stage CTLE For High Speed Data Receivers (abstract)
13:30	Andrew Sharp , Shafiqul Monir , Richard Day , Yuriy Vagapov and Anton Dianov A Test Rig for Thermal Analysis of Heat Sinks for Power Electronic Applications (abstract)

Sunday, September 24th

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09:00-09:45	Session 6
Plenary Session 3A	
09:00	Zainalabedin Navabi AI in Digital Systems Design Automation (abstract)
09:45-13:15	Session 7
Regular Papers	
Session 3A	
09:45	Gül Nihal Güçül , Caner Yalçın and Engin Özçelik Analysis results of greenhouse gas and meteorology data obtained during pandemic period using developed dynamic monitoring station (abstract)
10:00	Vakhtang Janpoladov A Machine Learning-Based Post-Route PVT-aware Power Prediction of Benchmark Circuits at Floorplan Stage of Physical Design (abstract)
10:15	Anatoly Petrenko Approaches for WSN (Wireless Sensor Networks) Standardization and their Interoperability in Combining into a Global Network (abstract)
10:30	Rabia Bayraktar , Ahmet Emin Yetkin and Merve Elmas Erdem Real Time Fire and Smoke Detection on RGB Images using YOLOv7 with Optimized Hyper-Parameters (abstract) PRESENTER: Rabia Bayraktar
10:45	Rabia Bayraktar and Merve Elmas Erdem Motion Aware Data Sampling Using Sequential Frames for Deep Learning Models (abstract) PRESENTER: Rabia Bayraktar
11:00	Rabia Bayraktar and Merve Elmas Erdem Vehicle Speed Detection using Depth Map on Real Time Systems (abstract) PRESENTER: Rabia Bayraktar
11:15	Artem Bronnikov , Oleksandr Tsybaj and Igor Nevljudov Q-Learning Decision-Making Model for Robotic System (abstract)
11:30	Igor Zakharov , Olesia Botsiura and Dimitar Diakov Type A expanded uncertainty assigned to the measurand (abstract)
11:45	Ahmet Haydar Ornek and Esmenur Civil Comparison of Depth Models in Real-world Scenarios: A Case Study (abstract)
12:00	Hrayr Sahakyan Foldback Current Limiting in Low-Dropout Voltage Regulators with Aging Analysis Based Operating Envelope (abstract)
12:15	Oleksandr Martynyuk , Oleksandr Drozd , Lyudmila Sugak , Sergii Kravtsov , Dmitry Martynyuk and Igor Kovalev Model of Verification of Distributed Storage Systems (abstract)
12:30	Negin Safari , Amirmahdi Joudi , Maryam Rajabalipannah , Zahra Jahanpeima , Hasan Sadeghzadeh and Zainalabedin Navabi HIRMA: High-performance Implementation for RISC-V Microcontroller Applications (abstract)
12:45	Ebrahim Nouri , Nooshin Nosrati , Hanieh Totonchi Asl , Mozhgan Rezaie Manavand and Zainalabedin Navabi Multi-level Fault Injection Methodology Using UVM-SystemC (abstract)

Monday, September 25th

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10:00-13:00	Session 8
Regular Papers	
Session 4A	
10:00	Olesia Barkovska , Oleksandr Shulinus , Dmytro Rosinskiy , Yevhen Lebodkin and Vitaliy Serdechnyi Research on Model Rendering Performance in Blender 3D Using Massively Parallel Systems (abstract)
10:15	Sahil Thakur , Yogeshwar Dutt Sharma , Quan Nguyen Ba Anh , Pham Nguyễn Hoàng Long , Louis Wy Liu , Abhishek Kandwal and Rohit Jasrotia Assessment of the Powder form of Auricularia Fungus' Ability to Absorb Harmful Ionizing Radiations (abstract)
10:30	Vladimir Tsarik and Victor Djigan Constrained Adaptive Arrays for Narrow-Band GNSS Signal Receivers (abstract)
10:45	Volodymyr Doroshenko and Nadiia Stognii Mathematical Modeling of Radiation from a Periodical Multiple-Slot Superwide Antenna (abstract)
11:00	Oleg Petrosyan , Serob Muradyan and Arpi Simonyan Introduction of New Temperature Dependences of Parameters in a Single-Diode Five-Parameter Model of Solar Panels (abstract) PRESENTER: Arpi Simonyan
11:15	Aleksandre Davitadze and Zaza Davitadze QR-Cloud-Edge Computing for Good Logistics (abstract)
11:30	Besik Beridze and Mikheil Donadze Network Anomaly Detection Utilizing Machine Learning Methods (abstract)
11:45	L. Harlan , Sachin Kumar and Shyamal Mondal Numerical Investigation of Split Ring Resonator-based Terahertz Filter (abstract) PRESENTER: L. Harlan
12:00	Nomaz Mirzaev and Farkhod Meliev Investigation of noise filtering methods on histological images (abstract)
12:15	Shavkat Fazilov , Khabiba Abdiyeva and Ozod Yusupov IMPROVEMENT OF IMAGE ENHANCEMENT TECHNIQUE FOR MAMMOGRAPHY IMAGES (abstract) PRESENTER: Khabiba Abdiyeva
12:30	Michael Sekyere , Marampally Saikiran and Degang Chen A Power Supply Rejection Based Approach for Robust Defect Detection in Operational Amplifiers (abstract) PRESENTER: Michael Sekyere
12:45	Yugar Hacimahmud Abdullayev , Eugenia Litvinova and Hanna Khakhanova Vector Logic Analysis of Big Data (abstract)