

TIME	S#	SESSION TITLE	S#	SESSION TITLE
MONDAY JULY 6th 2020				
8:00 - 8:30	1	Opening Plenary Session		
	2	Keynote I		
8:30- 9:30		Evgeni Gousev Senior Director of Engineering in Qualcomm Research		
BREAK				
9:30-11:00	3	CRT - I 1.Mounika Kelam; Battu Balaji Yadav; Zia Abbas; "A Compact, Power Efficient, Self-Adaptive and PVT Invariant CMOS Relaxation Oscillator". [ID: 147; Number: 1570639013] * 2.Ahmad Tarraf; Niklas Kochdumper; Malgorzata Rechmal-Lesse; Markus Olbrich; Lars Hedrich; "Equivalence Checking Methods for Analog Circuits Using Continuous Reachable Sets". [ID: 142; Number: 1570638918] 3.Smrutilekha Samanta; Santanu Sarkar; "A 1.8V 8-Bit 500 MSPS Segmented Current Steering DAC with >66 dB SFDR". [ID: 12; Number: 1570631801]	4	CAD - I 1.Halima Najibi; Jorge Hunter; Alexandre Levisse; Marina Zapater; Miroslav Vasic; David Atienza; "Enabling Optimal Power Generation of Flow Cell Arrays in 3D MPSoC with On-Chip Switched Capacitor Converters". [ID: 84; Number: 1570637939] * 2.Yaguang Li; Yishuang Lin; Meghna Madhusudan; Arvind Sharma; Wenbin Xu; Sachin Sapatnekar; Ramesh Harjani; Jiang Hu; "Exploring a Machine Learning Approach to Performance Driven Analog IC Placement". [ID: 13; Number: 1570631897] 3.Marcos Tomazzoli Leinritz; Murilo Roschildt Perleberg; Marcelo Porto; Gabriel Luca Nazar; "Enhancing Real-Time Motion Estimation Through Approximate High-Level Synthesis". [ID: 42; Number: 1570637242] 4.Ioannis Galanis; Iraklis Anagnostopoulos; Chinh Nguyen; Guillermo Bares; Dona Burkard; "Inference and Energy Efficient Design of Deep Neural Networks for Embedded Devices". [ID: 119; Number: 1570638172]
11:00-12:30	5	DCF - I 1.Amin Norollah; Zahra Kazemi; David Hély; "3D-Sorter: 3D Design of a Resource-aware Hardware Sorter for Edge Computing Platforms Under Area and Energy Consumption Constraints". [ID: 107; Number: 1570638110] * 2.Suraj Dohar; Siddharth Kala; Vasantha MH; Y B N Kumar; "A Novel Single Event Upset Tolerant 12T Memory Cell for Aerospace Applications". [ID: 121; Number: 1570638181] * 3.Ameer Shalabi; Kolin Paul; Tara Ghasempouri; Jaan Raik; "NV-SP: A New High Performance and Low Energy NVM-Based Scratch Pad". [ID: 10; Number: 1570631522]	6	EPT - I 1.Abdulqader Nael Mahmoud; Frederic Vanderveken; Christoph Adelman; Florin Ciubar; Sorin Cotofana; Said Hamdioui; "2-Output Spin-wave Programmable Logic Gate". [ID: 5; Number: 1570625305] * 2.Marcel Walter; Robert Wille; Frank Torres; Rolf Drechsler; "Bail on Balancing: An Alternative Approach to the Physical Design of Field-coupled Nanocomputing Circuits". [ID: 14; Number: 1570632587] * 3.Baogang Zhang; M. G. Sarwar Murshed; Faraz Hussain; Rickard Ewetz; "Fast Resilient-Aware Data Layout Organization for Resistive Computing Systems". [ID: 34; Number: 1570636004]
12:30-1:00	BREAK			
1:00-2:30	7	DCF - II 1.Gopal Raut; Shubham Rai; Santosh Vishvakarma; Akash Kumar; "A CORDIC Based Configurable Activation Function for ANN Applications". [ID: 156; Number: 1570639355] * 2.Raunaq Nayyar; Padmanabhan Balasubramanian; Douglas Maskell; "Hardware Optimized Approximate Adder with Normal Error Distribution". [ID: 46; Number: 1570637419] 3.Yirong Kan; Man Wu; Renyuan Zhang; Yasuhiko Nakashima; "A Multi-Grained Reconfigurable Accelerator for Approximate Computing". [ID: 66; Number: 1570637809] 4.Mohammadreza Esmali Nojehdeh; Levent Aksoy; Mustafa Altun; "Efficient Hardware Implementation of Artificial Neural Networks Using Approximate Multiply-Accumulate Blocks". [ID: 103; Number: 1570638095]	8	SDS - I 1.Seungseok Nam; Emil Matus; Sadia Moriam; Gerhard P. Fettweis; "Path-spreading Search Algorithm and ASIP Approach for Connection Allocation in TDM-NoCs". [ID: 11; Number: 1570631539] * 2.Vinay C Patil; Sandip Kundu; "On Leveraging Multi-threshold FinFETs for Design Obfuscation". [ID: 146; Number: 1570638983] 3.Michaela Brunner; Michael Gruber; Michael Tempelmeier; Georg Sigl; "Logic Locking Induced Fault Attacks". [ID: 70; Number: 1570637902] 4.Nourhan Elhamawy; Maël Gay; Ilia Polian; "An Open-source Area-optimized ECEG Cryptosystem in Hardware". [ID: 104; Number: 1570638098]
2:30-4:00	9	QCW - I 1.1570636792: Oumarou Oumarou; Alexandru Paler; Robert Basmadjian; "QUANTIFY: A Framework for Resource Analysis and Design Verification of Quantum Circuits" 2.1570637467: Giovanni A Cirillo; Giovanna Turvani; Mario Simoni; Mariagrazia Graziano, "Advances in Molecular Quantum Computing: From Technological Modeling to Circuit Design" 3.1570637658: Thomas Ayrat; François-Marie Le Régent; Zain Saleem; Yuri Alexeev; Martin Suchara , "Quantum Divide and Compute: Hardware Demonstrations and Noisy Simulations" 4.1570637803: Shaun C Miller, "Quantum Resource Counts for Operations Constructed from an Addition Circuit"	10	SDS - II 1.Abhijit Das; Abhishek Kumar; John Jose; Maurizio Palesi; "Exploiting On-Chip Routers to Store Dirty Cache Blocks in Tiled Chip Multi-Processors". [ID: 96; Number: 1570638065] * 2.Hadi Mardani Kamali; Kimia Zamiri Azar; Houman Homayoun; Avesta Sasan; "SCRAMBLE: The State, Connectivity and Routing Augmentation Model for Building Logic Encryption". [ID: 126; Number: 1570638207] * 3.Subodha Charles; Prabhat Mishra; "Lightweight and Trust-aware Routing in NoC Based SoCs". [ID: 15; Number: 1570632686] 4.Subodha Charles; Prabhat Mishra; "Securing Network-on-Chip Using Incremental Cryptography". [ID: 16; Number: 1570632694]
4:00-4:30	BREAK			
4:30-6:00	11	STUDENT RESEARCH FORUM 1.Marcel Walter; Rolf Drechsler, "Design Automation for Field-coupled Nanotechnologies", [ID: 93; Paper#: 1570638052] 2.Vladimir Herdt; Rolf Drechsler, "Efficient Techniques to Strongly Enhance the Virtual Prototype Based Design Flow", [ID: 86; Paper#: 1570637943] 3.Mehran Goli; Rolf Drechsler, "Automated Design Understanding of SystemC-based Virtual Prototypes: Data Extraction, Analysis and Visualization", [ID: 36; Paper#: 1570636290] 4.Sukarn Agarwal, "LiNoVo: Longevity Enhancement of Non-Volatile Last Level Caches in Chip Multiprocessors", [ID: 106; Paper#: 1570638102]		
TUESDAY JULY 7th 2020				
8:30- 9:30	12	Keynote II David Atienza Alonso Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland		
BREAK				
9:30-11:00	13	CRT - II 1.Biswajit R. Bhowmik; Santosh Biswas; Jatindra Kumar Deka; Bhargab Bhattacharya; "Locating Open-Channels in Octagon Networks on Chip-Microprocessors". [ID: 48; Number: 1570637456] 2.Chen-hui Feng; Hui Qian; Zhongfeng Wang; "An Implementation of Pre-Quantized Random Demodulator Based on Amplitude-to-Pulse Converter". [ID: 30; Number: 1570635218] 3.Prema Kumar Govindaswamy; Vijaya Sankara Rao Pasupureddi; "A 2*7-1 Low-Power Half-Rate 16-Gb/s Charge-Mode PRBS Generator in 1.2V, 65 nm CMOS". [ID: 101; Number: 1570638086]	14	SDS - III 1.Mahdi Zahedi; Mahta Mayahinia; Muath Abu Lebdeh; Stephan Wong; Said Hamdioui; "Efficient Organization of Digital Periphery to Support Integer Datatype for Memristor-based CIM". [ID: 60; Number: 1570637707] 2.Shashank Suman; Hemangee Kapoor; "Reinforcement Learning Based Refresh Optimized Volatile STT-RAM Cache". [ID: 109; Number: 1570638113] 3.Yaohua Wang; Xiaowen Chen; Hu Xiao; "Associative Thread Compaction for Efficient Control Flow Handling in GPGPUs". [ID: 39; Number: 1570637171]
11:00-12:30	15	AFC - I 1.Anthony Bisulco; Fernando Cladera Ojeda; Volkan Isler; Daniel D. Lee; "Near-chip Dynamic Vision Filtering for Low-Bandwidth Pedestrian Detection". [ID: 132; Number: 1570638218] * 2.Saurabh Tewari; Kolin Paul; Anshul Kumar; "Bus Width Aware Off-Chip Memory Access Minimization for CNN Accelerators". [ID: 6; Number: 1570629448] * 3.Junseok Oh; Florian Neugebauer; Ilia Polian; John Hayes; "Retraining and Regularization to Optimize Neural Networks for Stochastic Computing". [ID: 18; Number: 1570632776] 4.Margherita Ronchini; Milad Zamani; Hooman Farkhani; Farshad Moradi; "Tunable Voltage-mode Subthreshold CMOS Neuron". [ID: 123; Number: 1570638190] 5.Bokyung Kim; Hai (Helen) Li; "Leveraging 3D Vertical RRAM to Developing Neuromorphic Architecture for Pattern Classification". [ID: 166; Number: 1570639436]	16	Special Session: Secure and High-Speed Electronic Systems - I 1.1570637290: Ibrahim Latunde Olokodana; Saraju P Mohanty; Elias Kougioukos, "Distributed Kriging-Bootstrapped DNN Model for Fast, Accurate Seizure Detection from EEG Signals" 2.1570639992: Sheikh Ariful Islam; Srinivas Katkooi; "SafeController: Efficient and Transparent Control-Flow Integrity for RTL Design" 3.1570644287: Liuting Shang; Muhammad Adil; Ramtin Madani; Chenyun Pan, "Fast Linear Programming Optimization Using Crossbar-Based Analog Accelerator"
12:30-1:00	BREAK			
		QCW - II		Special Session: Secure and High-Speed Electronic Systems - II

1:00-2:30	17	<p>1.1570637915: Daniel Vert; Renaud Sirdey; Stéphane Louise, "Operational Quantum Annealers are Cursed by Their Qubits Interconnection Topologies"</p> <p>2.1570638331: Teruo Tanimoto; Shuhei Matsu; Satoshi Kawakami; Yutaka Tabuchi; Masao Hirokawa; Koji Inoue, "How Many Trials Do We Need for Reliable NISQ Computing?"</p> <p>3.1570638332: Teruo Tanimoto; Shuhei Matsu; Satoshi Kawakami; Yutaka Tabuchi; Masao Hirokawa; Koji Inoue, "Practical Error Modeling Toward Realistic NISQ Simulation"</p> <p>4.1570639490: Suvadip Batabyal; Lovekush Sharma, "A Quantum Pipeline for an Executable Quantum Instruction Set Architecture"</p>	18	<p>1.1570640813: Yuwen Cui; Shakthi Prabhakar; Hui Zhao; Saraju P Mohanty; Juan Fang, "A Low-cost Conflict-free NoC Architecture for Heterogeneous Multicore Systems"</p> <p>2.1570640814: Juan Fang; Jiaxing Zhang; Shuaibing Lu; Hui Zhao "Exploration on Task Scheduling Strategy for CPU-GPU Heterogeneous Computing System"</p> <p>3.1570643880: Yang Wu; Himanshu Thapliyal, "Low-Power and Energy-Efficient Full Adders with Approximate Adiabatic Logic for Edge Computing"</p>
2:30-4:00	19	<p>CRT - III</p> <p>1.Christos Georgakidis; Christos P Sotiriou; Nikolaos Sketopoulos; Milos Krstic; Oliver Schrape; Anselm Breitenreiter; "Radiation Hardening Legalisation Satisfying TMR Spacing Constraints". [ID: 61; Number: 1570637719]</p> <p>2.Farzane Rabiee; Mostafa Kajouyan; Newsha Estiri; Jordan Fluech; Mahdi Fazeli; Ahmad Patooghy; "Enduring Non-Volatile L1 Cache Using Low-Retention-Time STTRAM Cells". [ID: 71; Number: 1570637904]</p> <p>3.Joseph Paturel; Olivier Sentieys; Angeliki Kritikakou; "Fast Cross-Layer Vulnerability Analysis of Complex Hardware Designs". [ID: 128; Number: 1570638209]</p>	20	<p>DCF - III</p> <p>1.Bo Wu; Jing Tian; Xiao Hu; Zhongfeng Wang; "A Novel Modular Multiplier for Isogeny-Based Post-Quantum Cryptography". [ID: 53; Number: 1570637593]</p> <p>2.Shao-I Chu; Chen-En Hsieh; Yi-Ming Lee; Sayed Ahmad Salehi; "Enhanced Architecture for Computing Polynomials Using Unipolar Stochastic Logic". [ID: 54; Number: 1570637639]</p> <p>3.Ricardo de Araújo Coelho; Felipe Tanus; Álvaro Freitas Moreira; Gabriel Luca Nazar; "ACQuA: A Parallel Accelerator Architecture for Pure Functional Programs". [ID: 37; Number: 1570636552]</p> <p>4.Weihang Tan; Antian Wang; Yunhao Xu; Yingjie Lao; "Area-Efficient Pipelined VLSI Architecture for Polar Decoder". [ID: 148; Number: 1570639080]</p>
4:00-4:30	BREAK			
Poster Session I				
4:30-6:00	21	<p>1.Selahattin Sayil; Subed Lamichhane; Kutay Sayil; "Coupling Noise Mitigation Using a Pass Transistor". [ID: 89; Number: 1570637989]</p> <p>2.Jitumani Sarma; Shatadal Chatterjee; Rakesh Biswas; Sounak Roy; "A Fast Transient Digitally Assisted Flash-based Modular LDO for Sensor Nodes in WBAN". [ID: 158; Number: 1570639372]</p> <p>3.Andreas Kouloumpiris; Theo Theocharides; Maria K Michael; "Cost-Effective Time-Redundancy Based Optimal Task Allocation for the Edge-Hub-Cloud Systems". [ID: 72; Number: 1570637905]</p> <p>4.Mahboub Fakhr; Ali Jahanian; "Vulnerability Analysis Against Fault Attack in Terms of the Timing Behavior of Fault Injection". [ID: 74; Number: 1570637907]</p> <p>5.Josie Esteban Rodriguez Condia; Marcio Goncalves; Matteo Sonza Reorda; Luca Sterpone; Jose Azambuja; "Analyzing the Sensitivity of GPU Pipeline Registers to Single Events Upsets". [ID: 164; Number: 1570639429]</p> <p>6.Tiankai Su; Atif Yasin; Sébastien Pillement; Maciej Ciesielski; "Formal Verification of Constrained Arithmetic Circuits Using Computer Algebraic Approach". [ID: 92; Number: 1570638028]</p> <p>7.Stavros Simoglou; Christos P Sotiriou; Dimitris Valiantzas; Nikolaos Sketopoulos; "STA for Mixed Cyclic, Acyclic Circuits". [ID: 57; Number: 1570637686]</p> <p>8.Nikolaos Sketopoulos; Christos P Sotiriou; Vasileios Pavlidis; "Metal Stack and Partitioning Exploration for Monolithic 3DICs". [ID: 59; Number: 1570637692]</p> <p>9.Yuan-Dar Chung; Rung-Bin Lin; "Engineering a Standard Cell Library for an Industrial Router with ASAP7 PDK". [ID: 157; Number: 1570639356]</p> <p>10.Yongwen Zhuang; Dongmei Li; "Real Time Bayer Raw Video Projective Transformation System Using FPGA". [ID: 91; Number: 1570638025]</p> <p>11.Khyati Kiyawat; Yutaka Masuda; Jun Shiomi; Tohru Ishihara; "Real-time Minimum Energy Point Tracking Using a Predetermined Optimal Voltage Setting Strategy". [ID: 138; Number: 1570638312]</p> <p>12.Sayed Ahmad Salehi; Durjoy Deb Dhruba; "Efficient Hardware Implementation of Discrete Wavelet Transform Based on Stochastic Computing". [ID: 88; Number: 1570637962]</p> <p>13.Jianchi Sun; Nikhlesh Sharma; Jacob Chakareski; Nicholas Mastronarde; Yingjie Lao; "Action Evaluation Hardware Accelerator for Next-Generation Real-Time Reinforcement Learning in Emerging IoT Systems". [ID: 151; Number: 1570639253]</p> <p>14.Alish Kanani; Jigar Mehta; Neeraj Goel; "ACA-CSU: A Carry Selection Based Accuracy Configurable Approximate Adder Design". [ID: 113; Number: 1570638142]</p>		
WEDNESDAY JULY 8th 2020				
Keynote III				
8:30- 9:30	22	<p>Aviv Barkai <i>Senior SoC Engineer, Intel Corporation, Israel</i></p>		
BREAK				
9:30-11:00	23	<p>Special Session : IoT based Consumer Technologies for Smart Cities</p> <p>1.1570638144: Amit Joshi; Prateek Jain; Saraju P Mohanty, "Secure-iGLU: A Secure Device for Noninvasive Glucose Measurement and Automatic Insulin Delivery in IoMT Framework"</p> <p>2.1570639533: Ahmad Alkhodair; Saraju P Mohanty; Elias Kougianos; Deepak Puthal, "McPoRA: A Multi-Chain Proof of Rapid Authentication for Post-Blockchain Based Security in Large Scale Complex Cyber-Physical Systems"</p> <p>3.1570644295: Abraham Kuruvila; Shamik Kundu; Kanad Basu, "Analysing the Efficiency of Machine Learning Classifiers in Hardware-based Malware Detectors"</p> <p>4.1570640822: Saswat Kumar Ram; Shubham Chourasia; Banee Das; Ayas Kanta Swain; Kamala Kanta Mahapatra; Saraju P Mohanty, "A Solar Based Module for Powering IoT Sensors for Sustainable Smart Cities"</p>	24	<p>Special Session on EU Projects</p> <p>1.1570639739 Capacity Building Among European Stakeholders in the Areas of Cyber-Physical Systems, IoT & Embedded Systems: The SMART4ALL Digital Innovation Hub Perspective</p> <p>2.1570648574 CPSoSaware: Cross-layer Cognitive Optimization Tools & Methods for the Lifecycle Support of Dependable CPSoS</p> <p>3.1570649561 Towards Artificial-Intelligence-Based Cybersecurity for Robustifying Automated Driving Systems Against Camera Sensor Attacks</p>
11:00-12:30	25	<p>EPT - II</p> <p>1.Keshab K Parhi; Lulu Ge; "Molecular MUX-based Physical Unclonable Functions". [ID: 29; Number: 1570635168]</p> <p>2.Ryosuke Matsuo; Jun Shiomi; Tohru Ishihara; Hidetoshi Onodera; Akihiko Shinya; Masaya Notomi; "A Synthesis Method for Power-Efficient Integrated Optical Logic Circuits Towards Light Speed Processing". [ID: 95; Number: 1570638059]</p> <p>3.Manobendra Nath Mondal; Susmita Sur-Kolay; Bhargab Bhattacharyya; "Current Comparator-Based Reconfigurable Adder and Multiplier on Hybrid Memristive Crossbar". [ID: 90; Number: 1570638022]</p>	26	<p>SDS - IV</p> <p>1.Christoph Frisch; Michael Tempelmeier; Michael Pehl; "PAG-IoT: A PUF and AEAD Enabled Trusted Hardware Gateway for IoT Devices". [ID: 62; Number: 1570637724]</p> <p>2.Yanming Zhang; Xu Qiu; Qin Li; Fei Qiao; Qi Wei; Li Luo; Huazhong Yang; "Optimization and Evaluation of Energy-Efficient Mixed-Signal MFCC Feature Extraction Architecture". [ID: 68; Number: 1570637879]</p> <p>3.Gianmarco Ottavi; Davide Rossi; Angelo Garofalo; Giuseppe Tagliavini; Francesco Conti; Luca Benini; "A Mixed-Precision RISC-V Processor for Extreme-Edge DNN Inference". [ID: 100; Number: 1570638078]</p>
12:30-1:00	BREAK			
Poster Session II				
1:00-2:30	27	<p>15.Keshav Govindarajan; V S Kanchana Bhaaskaran; "Borrow Select Subtractor for Low Power and Area Efficiency". [ID: 180; Number: 1570639798]</p> <p>16.Md Adnan Zaman; Rajeev Joshi; Srinivas Katkoo; "High Level Modeling of Memristive Crossbar Arrays". [ID: 167; Number: 1570639450]</p> <p>17.Bastian Richter; Amir Moradi; "Lightweight Ciphers on a 65 nm ASIC - A Comparative Study on Energy Consumption". [ID: 73; Number: 1570637906]</p> <p>18.Cezar Rodolfo Wedig Reinbrecht; Bruno Forlin; Abdullah Aljuffri; Said Hamdioui; Mottaqiallah Taouil; Johanna Sepulveda; "Guard-NoC: A Protection Against Side-Channel Attacks for MPSoCs". [ID: 85; Number: 1570637940]</p> <p>19.Tuhin Subhra Das; Navonil Chatterjee; Prasun Ghosal; "Regulating Degree of Adaptiveness for Performance-centric NoC Routing". [ID: 110; Number: 1570638116]</p> <p>20.Boqian Wang; Zhonghai Lu; "Supporting QoS in AXI4 Based Communication Architecture". [ID: 19; Number: 1570632810]</p> <p>21.Jun Zhou; Mengquan Li; Pengxing Guo; Weichen Liu; "Mitigation of Tampering Attacks for MR-based Thermal Sensing in Optical NoCs". [ID: 52; Number: 1570637489]</p> <p>22.Ioannis Zografopoulos; Charalambos Konstantinou; "DERauth: A Battery-based Authentication Scheme for Distributed Energy Resources". [ID: 125; Number: 1570638201]</p> <p>23.Bibhas Ghosal; Rakesh Kumar; "Classification and Workload Balancing of Multi-Threaded Applications on Embedded Platforms". [ID: 155; Number: 1570639353]</p> <p>24.Nandan Kumar Jha; Shreyas Ravishankar; Sparsh Mittal; Arvind Kaushik; Mahesh Chandra; Dipan Mandal; "DRACO: Co-Optimizing Hardware Utilization, and Performance of DNNs on Systolic Accelerator". [ID: 153; Number: 1570639315]</p> <p>25.Hui Zhang; Wei Wu; Yufei Ma; Zhongfeng Wang; "Efficient Hardware Post Processing of Anchor-Based Object Detection on FPGA". [ID: 112; Number: 1570638134]</p> <p>26.Eric E Homan; Chonghan Lee; Jack Sampson; John P Sustersic; Vijaykrishnan Narayanan; "DoubtNet: Using Semantic Context to Enable Adaptive Inference for the IoT". [ID: 129; Number: 1570638210]</p> <p>27.Nagadastagiri R Challapalle; Makesh Chandran; Sahithi Rappalli; Vijaykrishnan Narayanan; "X-VS: Crossbar-based Processing-in-Memory Architecture for Video Summarization". [ID: 161; Number: 1570639411]</p>		

2:30-3:00	28	<p style="text-align: center;">RESEARCH DEMO SESSION</p> <ol style="list-style-type: none"> 1. 1570634070 iGLU: Non-invasive Device for Continuous Glucose Measurement with IoMT Framework 2. 1570647416 Tot-Mon: A Real-Time Internet of Things Based Affective Framework for Monitoring Infants 3. 1570648350 Demonstration of A PUF Based CAN Security Framework
3:00-3:30	29	<p style="text-align: center;">CLOSING - AWARDS</p>

* Denotes a Best Paper Award Candidate