26th International Symposium on VLSI Design and Test

Tentative Program Schedule

Time	Day 1: July 17, 2022 (Sunday)	
07:45-09:30	Registration (OAT, IIT Jammu)	
	Hall - I	**Hall - II**
09:30-11:00	Tutorial-1	Tutorial-2
11:00-11:30	**Tea Break**	
11:30-13:00	Tutorial-3	Tutorial-4
13:00-14:00	**Lunch Break**	
14:00-15:30	Industry Talk-1	Industry Talk-2
15:30-16:00	**Tea Break**	
16:00-17:30	Industry Talk-3	Industry Talk-4

Time	Day 2: July 18, 2022 (Monday)	
07:30-08:30	Registration (OAT, IIT Jammu)	
08:30-09:15	Conference Inauguration	
09:15-10:00	**Inaugural Talk**	
10:00-10:45	Keynote Talk - I Session Chair: Prof Virendra Singh	
11:00 – 12:00	Paper Presentation Session I (Devices -I) (3R+1 S) I-R1(3621): Rahul Kumar Gupta and Sanjeev Manhas. Design, Simulation and Optimization of Aluminium Nitride based Accelerometer I-R2 (5685): Chanchal Chanchal, Ajay Kumar Visvkarma and D. S. Rawal. Investigation of Traps in AlGaN/GaN HEMT Epitaxial Structure Using Conductance	Paper Presentation Session II (Analog/Mixed Signal -I) (3R+1S) II-R1 (5387): Anmol Verma, Shubhang Srivastava and Ambika Prasad Shah. Aging Resilient and Energy Efficient Ring Oscillator for PUF design II-R2 (5040): Anshul Verma and Bishnu Prasad Das. Low Power Dual-Band Current Reuse-based LC-Voltage Controlled Oscillator

	Method I-R3 (1334): Ajay Kumar and Rohit Dhiman. Differential Multi-bit Through Glass Vias for Three-Dimensional Integrated Circuits I-S4(759): Vivek Kumar, Jyoti Patel, Arnab Datta and Sudeb Dasgupta. FEM Modeling of Thermal Aspect of Dielectric Inserted Under Source & Drain of 5nm Nanosheet	with Shared Inductor for IOT Applications II-R3 (8410): Aranya Gupta, Sanjeev Kumar Manhas and Bishnu Prasad Das. Highly Non-linear Feed-Forward Arbiter PUF against Machine Learning Attacks II-S4 (6207): Divya Singh and Sajal K. Paul. Novel configuration of multi-mode universal shadow filter employing a new active block
12:00 -12:15	Tea Break and Poster Session	
12:15-13:45	Paper Presentation Session III (Devices -II) (4R +1 S) III-R1 (9069): Shivendra Yadav, Deepak Joshi, Sanjib Kalita and Tushita Singh. Quantum Tunnelling and Thermionic Emission, Transistor simulation III-R2 (6288): Nitanshu Chauhan, Aniket Gupta, Govind Bajpai, Navjeet Bagga, Shashank Banchhor, Sudeb Dasgupta and Anand Bulusu. Unveiling the Impact of Interface Traps Induced on Negative Capacitance Nanosheet FET: A Reliability Perspective III-R3 (6306): Rajeewa Kumar Jaisawal, Sunil Rathore, P N Kondekar and Navjeet Bagga. Impact of Temperature on NDR Characteristics of a Negative Capacitance FinFET: Role of Landau Parameter (α) III-R4 (6797): Subrata Das, Debesh Kumar Das and Soumya Pandit. Reliability Aware Global Routing of Graphene Nanoribbon Based Interconnect	Paper Presentation Session IV (Analog/Mixed Signal -II) (4R+1S) IV-R1(5687): Neha Bajpai and Yogesh Singh Chauhan. A GaN Only Reverse Recovery Time Limiter Circuit Integrated with A Low Noise Amplifier IV-R2 (575): Ashutosh Pathy and Zia Abbas. 36nW, 16ppm/°C, Process Invariant Sub-Bandgap Voltage Reference without Amplifier IV-R3(4439): Mohd Asim Saeed, Deep Sehgal and Surinder Singh. Four Differential Channels, Programmable Gain,Programmable Data Rate Delta Sigma ADC IV-R4(9603): Kavitha S, Santosh Kumar Vishvakarma and Bhupendra Singh Reniwal. An Approach towards Analog In-Memory Computing for Energy-Efficient Adder in SRAM Array IV-S5(1532): Puneet Singh, Saroj Mondal and Krishnan Rengarajan.

	III-S5 (5146): Khushwant Sehra, Jeffin Shibu, Meena Mishra, Mridula Gupta, D. S. Rawal and Manoj Saxena. Implications of Field Plate HEMT towards Power Performance at Microwave X - Band	Low Power, Wideband SiGe HBT LNA Covering 57-64 GHz Band
13:45-14:45	**Lunch Break**	
14:45-15:30	Keynote Talk – II Session Chair: Prof Anand Darji	
15:30-16:30	Paper Presentation Session V Devices -II (3R) V-R1 (4837): Mahesh Vaidya, Alok Naugarhiya, Shirsh Verma and Guru Prasad Mishra. Low Loss Enabled Semi-Superjunction 4H-SiC IGBT for High Voltage and Current Application V-R2 (9543): Arvind Bisht, Yogendra Pratap Pundir and Pankaj Kumar Pal. Electro-Thermal Analysis of Vertically Stacked Gate All Around Nano-sheet Transistor V-R3 (5234): Shivangi Chandrakar, Deepika Gupta and Manoj Kumar Majumder. Signal Integrity and Power Loss Analysis for different Bump Structures in Cylindrical TSV	Paper Presentation Session VI (Digital -I) (3R+1 S) VI-R1 (4792): Prateek Sinha, Aniket Sharma, Nilay Niharas, Syed Farah Naz and Ambika Prasad Shah. QCA Technology based 8-bit TRNG Design for Cryptography Applications VI-R2 (1095): Jitesh Choudhary, Vishesh Bindal and Soumya J. MANA: Multi-Application Mapping onto Mesh Network-on-Chip using ANN VI-R3 (1183): Priyankkumar Prajapati and Anand Darji. Hardware design of two stage reference free adaptive filter for ECG denoising VI-S4 (7306): Anishetti Venkatesh, Chandan Kumar Jha, Vinod G U, Masahiro Fujita and Virendra Singh. Scalable Construction of Formal Error Guaranteed LUT-based Approximate Multipliers with Analytical Worst Case Error Bound
16:30 - 16:45	Tea Break	
16:45-17:45	Women in Engineering (WiE) Session Chair: TBD	VDAT-2023 Biding and Meet

17:45-18:45	Design Contest Showcase	Paper Presentation of Student Research Forum (SRF) Session Chair: TBD
19:30-22:00	Banquet Dinner (Speaker: TBD)	

Time	**Day 3: July 19, 2022 (Tuesday)**	
09:00-9:45	Keynote Talk – III Session Chair: Prof J.N. Tudu	
9:45 – 11:15	Paper Presentation Session VII (Sensors -I) (4R+1 S) VII-R1 (1160): Sukanya Ghosh and Lintu Rajan. Enhanced Performance Enabled Room Temperature Hydrogen Sensor Based on Pd-Ti/ZnO Schottky TFT VII-R2 (6636): Medha Joshi, Upendra Kumar Verma and Brijesh Kumar. Role of solvents on the performance of bulk heterojunction (BHJ) organic solar cells VII-R3 (5128): Anuj Srivastava, Nishant Kumar, Nihar Ranjan Mohapatra and Hari Shankar Gupta. High Resolution Temperature Sensor Signal Processing ASIC for Cryo-Cooler Electronics VII-R4 (4547):Rahul Sharma and Harshal Nemade. Fabrication, Optimization and Testing of Photoconductively Tuned SAW Device using CBD Method VII-S5 (2584): Kingsuk Bag, Kavindra Kandpal, Kislay Deep, Sharad Verma, Manish Goswami and Shashi Prabha Yadav. Design Of A Low-Voltage Charge-Sensitive Preamplifier Interfaced With Piezoelectric Tactile Sensor For Tumor Detection	Paper Presentation Session VIII (System Design-I) (1R+4 S) VIII-R1 (2451): Ramesh Kumar, Dr. Chiragkumar Patel, Ajay Kumar Singh, Vinay Kumar S, Himanshu N Patel and B Saravana Kumar. Development of Distributed Controller for Electronic Beam Steering using Indigenous Rad-Hard ASIC VIII-S2 (9745): Gaurav Kumar, Anuj Anuj, Satyadev Ahlawat and Yamuna Prasad. Low Cost Implementation of Deep Neural Network On Hardware VIII-S3 (4995): Chiragkumar B. Patel, Ganesh N. Mulay, Pooja Dhankher and Himanshu N. Patel. Tile Serial Protocol (TSP) ASIC for Distributed Controllers of Space-borne Radar VIII-S4 (6560): Jinay Dagli, Neel Shah, Mallikarjun Pidagannavar, Kailash Prasad and Joycee Mekie. Impact of Operand Ordering in Approximate Multiplication in Neural Network and Image Processing Applications VIII-S5 (7273): Aravindhan Alagarsamy, Sundarakannan Mahilmaran and Lakshminarayanan Gopalakrishnan. SMA: An effective partitioning with an amicable mapping approach for Networks-On-Chip

11:15 -11:30	Tea Break	
11:30-13:00	Paper Presentation Session IX (Memories-I) (4R+ 1S) IX-R1(3290): Shubham Singhania, Neelam Sharma, Varun Venkitaraman and Chandan Kumar Jha. CAR: Community Aware Graph Reordering for Efficient Cache Utilization in Graph Analytics IX-R2 (7124): Wasi Uddin, Ankit Bende, Avinash Singh, Tarun Malviya, Rohit Ranjan, Kumar Priyadarshi and Udayan Ganguly. Indigenous Fab-Lab Hybrid Device Integration for Phase Change Memory for In-Memory Computing IX-R3 (8054): Ashwin Lele, Srivatsava Jandhyala, Saurabh Gangurde, Virendra Singh, Sreenivas Subramoney and Udayan Ganguly. Disrupting Low-write-energy vs. Fast-read Dilemma in RRAM to Enable L1 Instruction Cache IX-R4 (7758): Pramod Kumar Bharti and Joycee Mekie. RTQCC-14T: Radiation Tolerant Quadruple Cross Coupled Robust SRAM Design for Radiation Prone Environments IX-S5 (7315): Shalu Saini, Anil Lodhi, Anurag Dwivedi, Arpit Khandelwal and Shree Prakash Tiwari. Resistive switching behavior of TiO2/(PVP:MoS2) nanocomposite bilayer hybrid RRAM	Paper Presentation Session X (Digital -II) (3R +1 S) X-R1(9132): Pooja Choudhary, Lava Bhargava, Masahiro Fujita and Virendra Singh. Synthesis of LUT based Approximating Adder Circuits with Formal Error Guarantees X-R2(9024): Srikanth Panasa and Srinivasu Bodapati. High Performance Ternary Full Adder in CNFET-Memristor Technology X-R3(7073): Mohamed Asan Basiri M and Hariveer Inumarty. Low Cost Hardware Design of ECC Scalar Multiplication X-S4(8132) : Neelkamal Jhajharia, Sonal Yadav and Hemangee Kapoor. i-MAX: Just-In-Time Wakeup of Maximally Gated Router for Power Efficient Multiple NoC
13:00-14:00	**Lunch Break**	
14.00-14:45	Keynote Talk – IV Session Chair: Prof S. Vishwakarma	
14:45-15:45	Poster Presentation and Networking P: 9382,5462,1161,4645,6699,474,2030,6928,7819,2815,1663 Session Chair: TBD	
15:45- 16:00	Tea Break	

16:00-17:00	**Panel Discussion on** “Chips to Startup for Sustainable Development: A Joint Ecosystem of Academia and Industry in India” Moderator: Session Chair: TBD
17:00-18:00	Valedictory Function: Award and Certificate Ceremony

R: Regular Paper 15 Min for presentation + 2 Min Q&A = 17 Min
S: Short Paper: 10 Min for Presentation + 2 Min Q&A = 12 Min
P:Poster : 4 Min Presentation + 1 Min Q&A = 5 Min