## Thursday, September 19, 2024 General Sessions - Grand Victoria End 09:00 09:15 Welcome & TPC Update Keynote: Accelerated Infrastructure in an Al World 09:15 09:45 Puneet Agarwal, Marvell Keynote: Qualcomm 09:45 10:15 Industry Panel: Building RISC-V Systems: An Indian Perspective 10:15 11:00 Moderator: Subhra Kanti Das, Thales Panelists: Dr. Krishna Kumar Rao, CDAC; Sundar Haran, Western Digital; Srikanth Puvvada, Ola-Krutrim; Neel Gala, Incore Semiconductor 11:00 11:15 Tea Break & Networking End Track 1 - Grand Victoria B Track 2 - Grand Victoria A Track 3 - Robusta & Arabica Track 4 - Brain Box Track 5 - Marquis Paper Session 1A: Paper Session 2A: Paper Session 3A: Paper Session 4A: Paper Session 5A: 11:15 12:45 Design & Architecture Form al Verification Design Verification - SV & UVM Mixed Signal Design & Verification Design Verification - Scenario Generation/Usage 4A1:639 - Accelerating Silicon Bug Detection and 1A1:3195 - Design Implementation of Generic 2A1:1947 - Navigating Instruction Length Decode: TAP 3A1:3687 - Sparking UVM stimulus via state design Optimizing Execution Flow through Intelligent Adaptive 5A1: 296 - Accelerating Sign-Off Cycles: Automated Architecture for Image Processing Applications and its 11:15 11:45 into IP using Formal Verification pattem Glitch Detectors in AMS Verification Scenario Extraction from Large Design Landscapes Verification with UVM Framework Vedprakash Mishra Debarati Banerjee, Nikhil Singla and Rohit Jindal Aadhar Sharma, Avinash Chaudhary, Bhavya Shah and Gaurav Pratap, Vishal Keswani and Sachin Bansal Sougata Bhattacharjee Sooraj Sekhar 2A3:9864 - Early bird catches the bug - the Arch Formal 3A2:7056 - SVRAND - Random Configuration - One 4A2:9609 - ChipGuard: A Robust Automated System to 5A2:7316 - Expanding Verification Horizons: OOPs-1A2:9722 - Data-Driven Design for Adaptive Multi-Die Streamline Design Verification Quality Parameters Enhanced Script-Driven Verification using Auto PSS class to resolve all parts 12:15 11:45 SoC. Aatreyi Bal, Mahendrawada Sai Kameshwara Rao, Kaushal Vala, Krunal Kapadiya, Joseph Bauer and Giridhar Rangarajan, Jitender Dahiya and Sriram K Gen Utility (APGU). Ankita Roy and Vikrant Kapila Sireesha Tulluri and Robert Beers Shyam Sharma Sounderraian Ashutosh Bisht and Manvendra Singh 1A3:4275 - A shift-left approach in Qualification of 2A2:3167 - Towards Rigorous Faimess: Formal 3A3:3812 - A Generic Clock UVC for Generating and A3:9754 - Analog Mixed Signal Verification & Validation 5A3:5557 - Pragmatic use cases of ChatGPT in chip Digital IPs for SoCs by applying next gen automation Verification of Multi-Level Arbitration through Testing of High Speed PLL and CDR Methodology: Bridging the Gap between Pre Silicon 12:45 12:15 verification and data analytics Dipanshu, Mukesh Gandhi, Amab Ghosh & Parag Verification and Post Silicon Validation Hierarchical Family Chains Aieetha Kumari Venkatesan and Hemamalini Sundaram Hirak Jyoti Chakraborty and Ashutosh Bajpai Vedprakash Mishra and Keerthi B Lonkar Vidya Timmanagoudar, Marcel Oosterhuis and Steef G 13:45 Lunch Break 12:45 13:45 14:15 Posters and Exhibitor Visit

Paper Session 3B:

Design Verification - 3D IC/Chiplet

3B1:407 - Protocol Env: A Dynamic approach to Enable

Multi-Protocol UCIe Design Verification

Vinit Sheth, Deepak Nagaria and Vikas Makhija

3B2:1272 - Beyond Boundaries: Overcoming Chiplet

Verification Challenges

Pankaj Singh

3B3:7052 - Navigating the Maze: Verifying Multi-Module

PHY designs in UCIe Multi-Die Systems

K S Prasad Subudhi, Ashutosh Singh and Narasimha

Babu G V L

Tea Break & Networking

Paper Session 3C:

Design Verification - Coverage/Performance

3C1:4372 - Register model back door access

automation for a complex IP

Kilaru Vamsikrishna, Dhruv Ashvinbhai Donga and

Sushrut B Veerapur

3C2:5643 - Unified Coverage Methodology: Accelerated

Coverage Closure at SoC and IP level

3C3:7227 - Simulation performance improvement with

Dynamic memory load & C model export

Varsha Antony and Mangesh Kondalkar

Best Paper Awards & Closing

Prateek Jain and A jay Goyal

Paper Session 4B:

Low Power Design & Verification

4B1:8500 - Next-Gen Low Power Verification:

Empowering Shift-Left Predictive Analysis with Virtual

Instrumentation

Sachin Bansal, Yi Liu, M. Vaishnavi Reddy, Nupur

Gupta, Vishal Keswani and Manish Goel

4B2:1219 - Signal Integrity Challenges in rail-to-rail

Parallel Interfaces designed for MEMS, Automotive &

Infotainment Applications

Piyush Mishra, Suprbha Kumari and Anuj Gupta

4B3:3654 - Power Probe: Addressing Power Noise

Signal Integrity Challenges for Wide IO HBM Memories

Through Advanced Verification Approach

Giridhar Rangarajan, Chethan G B, Bhargava Krishna

Venigalla, Akbhobhya B and Anil Deshpande

Paper Session 4C:

Functional Safety / RISC-V

4C1:955 - Leveraging Statistical Random Fault (SRF)

Sampling for Efficient Functional Safety with reduced

efforts

Akshaya Kumar Jain, Udaykrishna J, Gaurav Goel and

Arun Gogineni

4C2:9497 - An Extension to RISC-V Test Generator: A

quick exception check

Ranjan Barik, Sai Krishna Pidugu, Manju Bhargavi and

Subhra Kanti Das

4C3:2603 - Verification Methodology for Debug Unit of a

Superscalar RISCV Processor

Ajay Sharma, Afshan Anjum and Sourav Roy

Gulshan Kumar Sharma, Sougata Bhattacharjee,

Paper Session 5B:

Em ulation

5B1:3974 - Expedited Gate Level Verification -

Unleashing the Potential of Netlist Integrated Emulation

Platforms

Samhith Kumar Pottem, Vasudeva Reddy Ambati,

Rahul S S, Sarang Kalbande, Garima Srivastava and

Hyundon Kim

5B2:6678 - Simulated Emulation: Methodology For a

Shalini Maheshwari and Ashok Kumar Bhatt

5B3:2224 - Unveiling Advance Hybrid Emulation

Methodology for Accelerated Android Home Screen

Bring-up and System Level Verification at Pre-Silicon

Rinkesh Yadav, Vishweswaran Kannan, Sarang

Kalbande, Garima Srivastava and Hyundon Kim

Paper Session 5C:

Post Silicon

5C1:344 - Video/JPE G Performance Analysis and

UseCases Validation in Post Silicon using SystemC and

OpenVINO based Neural Network models

Suresh Vasu and Palanivel Guruvareddiar

5C2:6777 - Enhancing Post-Silicon Validation Through

Generative Adversarial Networks (GANs) for Test Case

Generation

Aditi Bharmaik and Vidhya Sagar

5C3:1035 - An Automated approach for optimizing

Circuit Marginality Validation methodologies

Vivek Sharma, Pankaj Sharma and Subrata Kumar

Behera

Faster Turnaround on Emulation

Paper Session 1B:

Design & Architecture

1B1:8189 - Automation of Delay Tuning in TSV aware

Heterogeneous 3D Inter-Die memory controller

Rahul Laxkar, Ananya Sinha, Naveen Srivastava and

1B2:6634 - Voltage Slack Analysis as part of Design

Robustness analysis to avoid failures due to voltage

variations

Anurag Sharma and Savithri Sundareswaran

1B3:3720 - Generative Al based RTL code generator

Hareesh Perumal S, Ashutosh Bajpai, Kranthi Kiran

Gandem and Vishnu Dutt Pathak

Paper Session 1C:

System /System C

1C1:7510 - Early Architecture Exploration of Multi Die

Designs

Ranjan Mahajan and Souradeep Guha

IC2:9221 - SDV Aware Verification : Verification

Challenges, Opportunities & Evolution around SW

Defined Vehicles (SDV) & Zonal Architectures

Neha Srivastava

IC3:614 - Early Performance Exploration of Memory

based on JEDEC Specifications

Parvinder Asija and Aman Gupta

Sekhar Dangudubiyyam

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Paper Session 2B:

Form al Verification

2B1:2190 - Complexity Conquered: Pioneering Formal

Verification Methods for Systolic Controllers in

Advanced Computing

Sarsii Saurabh, Rahul Dabur, Tushar Agarwal and

Vichal Verma

2B2:7611 - Who watches the watchman? FuSa

Verification of DCLS configuration through Formal and

Static checks

Avinash Pandey, Srobona Mitra Mitra, Sayandeep

Sanyal, Sathish Kumar Manickam, Deepak Baranwal

and Arunava Dutta

2B3:1423 - GenAl Leap in Formal Verification

Testplanning

Anshul Jain, Karan Rawat and Pradip Prajapati

Paper Session 2C:

Form al Verification

2C3:6747 - Enhancing Arbitration Integrity: Formal

Verification of Weighted Round Robin Arbiter in High-

Performance Graphics

Usha Rani Bagadi, Mohit Choradia, Ajay Kumar Kolluri

and Vichal Verma

2C2:2323 - A Novel Flowfor Low-Power Assertion-

Based Verification for Improved Quality and Time-to-

Market

Gurleen Kaur

2C3:9882 - Pioneering Software Formal Verification

Methodology for Firmware

Sparsa Roychowdhury, Disha Puri and Sudipa Mandal