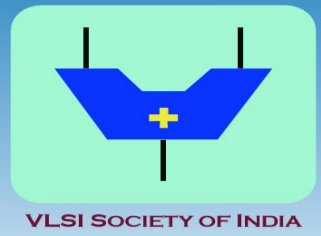




# 27<sup>th</sup> International Symposium on VLSI Design and Test (VDAT-2023)

Sept. 29 - Oct. 01, 2023

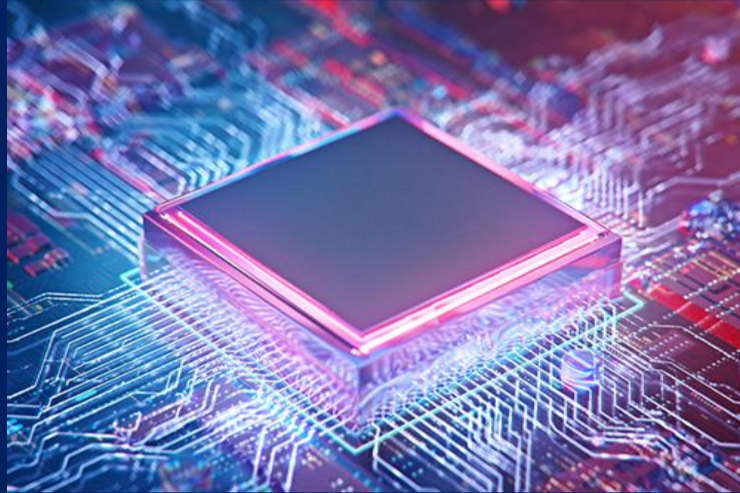
SYMPOSIUM VENUE → BITS Pilani - Pilani Campus (Rajasthan) 333 031, INDIA



VLSI SOCIETY OF INDIA

## CALL FOR PAPERS

VLSI Design & Test Symposium (VDAT) promotes research and development in various fields of VLSI Design. VDAT began as a small workshop in the year 1998, and in 2005 it acquired the status of an international symposium. The 27<sup>th</sup> International Symposium on VLSI Design and Test (VDAT-2023) will be jointly hosted by Birla Institute of Technology & Science (BITS), Pilani, and CSIR - Central Electronics Engineering Research Institute (CSIR-CEERI), Pilani. This symposium aims to bring Industries, Academics, Researchers, Startups, MSMEs, and related practitioners together to exchange their ideas for leveraging in their respective fields. The VLSI Society of India, leading institutes and industries actively support the symposium.



### Emerging Chip Architectures for Future: Beyond Moore's Law

#### Organizing Patrons

Prof. V Ramgopal Rao,  
Vice-Chancellor, BITS Pilani

Prof. Sudhir Kumar Barai  
Director, BITS Pilani

Dr. P C Pancharia  
Director, CSIR-CEERI

#### Steering Committee

Prof. V. Agarwal, Auburn University, USA  
Dr. Satya Gupta, VLSI Society of India  
Mr. Jaswinder Ahuja, Cadence, India  
Ms. Chitra Hariharan, Intel  
Mr. Niranjan Pol, Seagate  
Mr. Anil Kempanna, Intel  
Mr. Lakshmi Kethamreddy, Samsung  
Mr. Sumit Goswami, Qualcomm  
Mr. Veeresh Shetty, Siemens  
Prof. Gaurav Trivedi, IIT Guwahati  
Prof. Preeti Ranjan Panda, IIT Delhi  
Prof. Manoj Gaur, IIT Jammu  
Mr. Nagi Naganathan, Microsoft, USA

#### Advisory Committee

Ms. Sunita Verma, MeitY  
Dr. Praveen Kumar S., DST/SERB  
Mr. Surinder Singh, Former Director, SCL  
Mr. Anand Ramamoorthy, Micron Technology  
Mr. Raja Subramaniam, Synopsys  
Mr. Ruchir Dixit, Siemens  
Prof. Santanu Chaudhury, IIT Jodhpur  
Prof. G. Sundar, BITS Pilani  
Prof. Suman Kundu, BITS Pilani  
Prof. Srinivasan Madapusi, BITS Pilani  
Dr. Abhijit Karmakar, CEERI, Pilani  
Prof. M. B. Srinivas, BITS Pilani  
Prof. S. Gurunaryanan, BITS Pilani

#### Local Advisory Committee

Prof. D. Boolchandani, MNIT Jaipur  
Prof. Lava Bhargava, MNIT Jaipur

#### General Chair

Prof. Chandra Shekhar, BITS Pilani  
Prof. M Balakrishnan, IIT Delhi

#### Organizing Committee Chair

Dr. Nitin Chaturvedi, BITS, Pilani  
Dr. Jai Gopal Pandey, CEERI, Pilani

#### Sponsorship Chair

Prof. Sanket Goel, BITS, Pilani  
Prof. Navneet Gupta, BITS, Pilani  
Mr. Preet Yadav, NXP

#### Technical Programme Chair

Prof. Raj Singh, AcSIR  
Prof. Sudeb Dasgupta, IIT Roorkee  
Prof. Virendra Singh, IIT Bombay  
Mr. M. Santosh, CEERI Pilani  
Dr. Abhijit Asati, BITS, Pilani

#### Tutorial Chair

Dr. S C Bose, IIT, Jodhpur  
Prof. Anu Gupta, BITS, Pilani

#### Publicity Chair

Prof. Santosh Kumar Vishwakarma, IIT Indore  
Dr. Pramod Tanwar, CEERI, Pilani

#### Registration Chair

Dr. Rahul Singhal, BITS, Pilani  
Dr. Meetha V. Shenoy, BITS, Pilani

#### Design Contest Chair

Prof. Dinesh Sharma, IIT Bombay  
Prof. G S Visweswaran, IIT Delhi

#### Exhibit Chair

Dr. Sandeep Joshi, BITS, Pilani  
Dr. Vijay Chatterjee, CEERI, Pilani

#### Startup Chair

Mr. Ashok Mishra, Bangalore  
Mr. Sachin Arya, BITS, Pilani

#### Website Chair

Dr. Virendra Shekhawat, BITS, Pilani  
Dr. Yashvardhan Sharma, BITS, Pilani

#### Logistics Chair

Dr. Pankaj B Aggarwal, CEERI, Pilani  
Dr. Anand Abhishek, CEERI, Pilani  
Mr. Pawan Sharma, BITS, Pilani

### A Push for

### Aatma Nirbhar Bharat



#### Low-Power Integrated Circuits and Devices

Low-Power Analog/Digital/Mixed Signal Circuits  
Low-Voltage Low-Power Sensors Interface  
Circuit design for Reliability  
Device Modelling and Simulation  
MEMS/NEMS/MOEMS Devices, Organic Devices

#### FPGA-based Design and Embedded Systems

Adaptive Computing using Reconfigurable Fabrics  
Large-Scale Systems and Power Networks  
Hardware-Software Co-design  
Reconfigurable and FPGA-based Design  
Multi-FPGA Systems

#### Memory, Computing & Processor Design

Memory Design  
STT-RAM, PC-RAM, R-RAM, and Memristors  
Emerging Memory Technologies  
Neuromorphic Computing  
Quantum Computing

#### System-Level Design

Systems-on-Chip (SoC), Lab-on-Chip  
Mixed-Mode System-on-Chip  
High-Speed Interconnects, Network-on-Chip  
Wireless Transceivers, Multimedia Processors  
Heterogeneous and Homogeneous MPSoCs

#### VLSI Architectures and System Integration

VLSI Processors & Signal Processing Architectures  
RF Integrated Circuits & Systems  
Machine Learning Architectures  
Low-Power IoT Architectures and Systems  
Compressive Sensing, Wireless Systems

#### Emerging Integrated Circuits and Systems

Artificial Intelligence Accelerators  
Cognitive Computing Systems  
Printed & Flexible Electronics  
Low Power Edge Computing System  
Analog/Digital/Mixed Signal Circuits

#### VLSI Testing and Security

Hardware Security and VLSI Design Optimization  
Hardware Attacks, Detection, Threat Modelling  
Fault Diagnosis and Fault Models  
DFT and BIST for Digital Designs

#### CAD for VLSI

Design Automation and CAD Tools  
Design Flows for MPSoCs  
ML/AI based Design-Flows and EDA  
Design Automation for DFX

#### Student Fellowship

VDAT-2023 will provide a limited number of fellowships to Undergraduate and Masters students for attending the symposium. Details may be checked out from the website.

### Dates & Deadlines

#### Regular Papers

Full Paper Submission: **May 15-June 15, 2023**

Notification of Acceptance: **July 22, 2023**

Camera Ready Paper: **August 07, 2023**

#### Tutorials

Tutorial Proposal Submission: **May 15-June 15, 2023**

Tutorial Announcement: **August 15, 2023**

#### Poster Papers

Paper Submission: **May 15-June 15, 2023**

Notification of Acceptance: **July 22, 2023**

Camera Ready Paper: **August 07, 2023**

#### Design Contest

Submission of Design: **May 15-June 15, 2023**

Notification of Acceptance: **July 15-22, 2023**

#### Submission Guidelines

Authors are invited to submit original, unpublished research manuscripts on the above topics. Submissions must be done through easy-chair portal: <https://easychair.org/conferences/?conf=vdat2023>. All papers will be peer-reviewed with a double-blind review process. All accepted papers must be presented by one of the authors in order to be included in the SCOPUS indexed Springer Lecture Notes in Computer Science (LNCS) conference proceedings.

<https://discovery.bits-pilani.ac.in/VDAT2023/>

<https://www.linkedin.com/in/vdat2023bitspilani/> <https://www.facebook.com/VDAT2023> <https://www.instagram.com/vdat23.bitspilani/>