

SemiconTantra Conference -2025 Technical Paper

This format is intended for submissions from both academic researchers and industry professionals. We welcome original work that advances knowledge in semiconductor technologies, including applied innovations, case studies, and commercial implementations.

Title of Paper

1. Title of the Paper

Provide a clear and concise title for your paper that reflects the topic and scope.

2. Author(s) and Affiliation(s)

List all contributing authors, their affiliations (academic or industry), and email addresses.

Name	Organization Name	Email Id	Author/Co-Author
			Author
			Co-Author

3. Scope

We welcome submissions in, but not limited to, the following areas:

Architecture and System Design

Innovations in processor architecture, heterogeneous computing, memory hierarchies, and interconnects.

Digital and Analog Circuit Design

Novel methods for u-architecture and implementations in digital, analog, and mixed-signal circuit design for emerging technologies

Pre-Silicon Verification and Validation

Techniques and tools for functional verification, formal methods, simulation-based validation, Emulation, FPGA Prototyping.

Test and Reliability

Design-for-test (DFT), fault modeling, post-silicon validation, aging, and yield enhancement strategies.

• Hardware for AI Training and Inference

Efficient accelerators, edge AI hardware, neuromorphic computing, and domain-specific architectures.

Al for Chip Design

Machine learning approaches to design automation, layout optimization, timing closure, and EDA tool enhancements.

4. Abstract

Write an abstract of 250–350 words summarizing the core idea, methodology or solution, key findings or impact, and significance of the work. For industry submissions, include business or technical relevance.

5. Introduction

Describe the background and context, define the problem or opportunity, and outline your objectives.



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6. Related Work / State of the Practice

Summarize prior academic work or existing industry solutions and highlight the gap your work addresses.

7. Methodology / Implementation

Detail the technical or practical approach, design methods, tools used, and how your solution was realized. Industry authors may focus on architecture, deployment strategies, or real-world constraints.

8. Results / Case Study

Present experimental results, performance metrics, validation outcomes, or business impact. Include figures, tables, and quantitative/qualitative analysis as appropriate.

9. Discussion and Insights

Interpret your results, discuss challenges, innovations, lessons learned, and implications for academia or industry.

10. Conclusion and Future Work

Summarize the contributions and suggest directions for future research or product development.

11. References (If any)

List all sources cited in IEEE/ACM format. Number citations sequentially [1], [2], etc.

12. Appendix (Optional)

Provide supplementary material, detailed derivations, or extended data if necessary.

Formatting Guidelines:

- Font: Calibri, Size: 11pt

- Length: Minimum 2 , Maximum 4 pages including references

- File Naming: FirstAuthor_LastName_FullPaper.pdf- Submission Link : STC-2025 Paper Submission Link

Important Dates

• Paper Submission Deadline: 31st May 2025

Notification of Acceptance: 22nd June 2025

Camera-ready Submission: 15th July 2025

Conference Dates: 02nd Aug 2025