

AI Hardware Innovation Workshop -From Semiconductor Design to AI Datacenter Deployment

10:00 – 10:05 am	Welcome Opening remarks and overview of key industry trends
10:05 – 11:00 am	Advanced Packaging Design and Multiphysics <i>Explore the latest industry trends driving heterogeneous integration, chiplet architectures, and 2.5D/3D IC technologies. Learn how Siemens EDA and Simcenter provide a connected digital twin for design, thermal, mechanical, and reliability analysis of advanced packages. Discover workflows that reduce development risk while accelerating performance, power, and manufacturability objectives</i>
11:00 – 11:20 am	Thermal Calibration and Validation <i>Achieving thermal accuracy requires more than simulation alone. Learn how Siemens combines Simcenter T3STER thermal characterization and measurement technology with FLOEFD and FloTHERM simulation solutions to create calibrated digital twins and continuously improve model fidelity. Discover how a closed-loop calibration process accelerates design decisions while increasing confidence in thermal performance and reliability predictions.</i>
11:20 – 11:30 am	Break
11:30 – 12:00 pm	Multiphysics Thermo-Mechanical Analysis <i>Understand how thermal loads, material behavior, and mechanical stresses interact to influence product reliability and performance. Discover how Siemens' integrated Multiphysics solutions enable engineers to accurately predict thermo-mechanical effects such as warpage, fatigue, vibration, and package reliability across complex electronic systems.</i>
12:00 – 01:00 pm	Lunch and Networking
01:00 – 01:30 pm	Guest Speaker - Resonac Hear from Resonac, a leading supplier of advanced packaging materials and high-capacity storage components that support the AI hardware industry. Gain insights into the materials and technologies shaping the next generation of AI infrastructure.

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01:30 – 02:00 pm	Manage AI thermal challenges from Silicon to systems to facilities <i>AI workloads are creating unprecedented power densities that require a holistic thermal strategy spanning chip, package, board, server, rack, and datacenter levels. Understand the challenges of cooling next-generation AI infrastructure and the tradeoffs between air, liquid, and facility-level cooling approaches. Learn how Siemens delivers an end-to-end thermal digital twin enabling predictive analysis from silicon through AI factories and datacenters</i>
02:00 – 02:30 pm	Liquid Network Systems: 1D Multidomain Simulation Workflow <i>Design and optimize complex liquid cooling architectures, including CDUs, manifolds, cold plates, and facility cooling networks, using a system-level digital twin approach. Learn how Siemens enables rapid evaluation of thermal-hydraulic performance, flow balancing, pressure management, and transient operating conditions. Gain insights into integrating component, rack, and facility models to improve efficiency, reliability, and scalability of AI infrastructure.</i>
02:30 – 02:45 pm	Break
02:45 – 03:15 pm	AI Powered Engineering and Design Exploration <i>Explore how AI is transforming simulation-driven engineering by accelerating design exploration, optimization, and decision-making. Learn how Siemens solutions leverage PhysicsAI, Reduced Order Modeling, and Agentic AI technologies to reduce simulation turnaround time and enable rapid virtual prototyping. Discover intelligent workflow automation that empowers engineers to focus on innovation rather than repetitive tasks.</i>
03:15 – 03:35 pm	Data Management for AI & Simulation <i>Successful AI adoption depends on trusted, accessible, and traceable engineering data. Learn how Siemens connects simulation, test, and design data through an integrated digital thread, enabling scalable AI-driven workflows across teams and organizations. Discover how data governance, traceability, and lifecycle management create a foundation for simulation reuse, knowledge capture, and enterprise-wide collaboration.</i>
03:35 – 04:00 pm	Panel Discussion/Q&A <i>Engage directly with Siemens experts and industry specialists to discuss your engineering challenges, AI initiatives, and digital transformation goals. Explore practical approaches, lessons learned, and emerging technologies spanning semiconductor, electronics, thermal management, and datacenter applications. Bring your questions and gain insight from a broad range of technical and industry perspectives</i>