

Call for Participation

ASP-DAC 2023

28th Asia and South Pacific Design Automation Conference



Date: January 16 – 19, 2023

Place: Miraikan, National Museum of Emerging Science and Innovation,
Koto-ku/Tokyo, Japan (Hybrid: In-Person and Virtual Conference)

Aims of the Conference

ASP-DAC is the largest conference in Asia and South-Pacific regions on Electronic Design Automation (EDA) area for VLSI and systems. ASP-DAC has been started at 1995 and this ASP-DAC 2023 is 28th conference. ASP-DAC 2023 offers you an ideal opportunity to touch the recent technologies and the future directions on the LSI design and design automation areas by technical papers and tutorials. ASP-DAC also holds Designers' Forum to make presentations about the latest designs for designers. Please do not miss ASP-DAC 2023.

Features of ASP-DAC 2023

■ Keynote Speeches

1. **January 17 (Tuesday):** Tadahiro Kuroda, University of Tokyo (Japan), "More Moore, More than Moore, More People"
2. **January 18 (Wednesday):** Georges G.E. Gielen, KU Leuven (Belgium), "Analog synthesis 3.0: AI/ML to boost automated design and test of analog/mixed-signal ICs"
3. **January 19 (Thursday):** Takuya Yasui, TSMC Japan Design Center (Japan), "Innovation by Design and Technology Co-Optimization"

■ Tutorials

Half-day tutorial sessions will take place on **Monday, January 16**. Registered tutorial participants can attend any of the following 7 topics taught by world-class experts.

Tutorial-1: Optimization Problems for Design Automation of Microfluidic Biochips: Scope of Machine Learning

Tutorial-2: Cryogenic Memory Technologies: A Device-to-System Perspective

Tutorial-3: Quantum Annealing for EDA and Its Hands-on Training

Tutorial-4: The Evolution of Functional Verification: SystemVerilog, UVM, and Portable Stimulus

Tutorial-5: Design Methods and Computing Paradigms based on Flexible Inorganic Printed Electronics

Tutorial-6: HW/SW Codesign for Reliable In-Memory Computing on Unreliable Technologies: Journey from Beyond-CMOS to Beyond-von Neumann

Tutorial-7: Agile Hardware and Software Co-Design

■ Designers' Forum

Designers' Forum is conceived as a unique program that shares the design experience and solutions of real product developments among LSI designers and EDA academia/developers. The topics discussed in this forum include 3 oral sessions; "Next-Generation Computing", "Advanced Sensor Technologies" and "Application and Edge AI Design", and panel discussion "DX System Design from Hardware to Application" by speakers of Designers' Forum as panelists.

■ University LSI Design Contest

In University LSI Design Contest, state-of-the-art LSI and/or system designs compete on their design excellence and implementation quality. 6 high-quality designs all including actual measurement proof will be introduced at the design contest session on **Tuesday, January 17**.

■ Technical Sessions

There are 102 high quality papers selected from 328 submissions. We also plan 7 special sessions: "Machine Learning for Reliable, Secure, and Cool Chips: A Journey from Transistors to Systems", "Security of Heterogeneous Systems Containing FPGAs", "Computing, Erasing, and Protecting: the Security Challenges for the Next Generation of Memories", "Brain-inspired Hyperdimensional Computing to the Rescue for beyond von Neumann Era", "Hardware and Software Co-design of Emerging Machine Learning Algorithms", "Full-Stack Co-design for On-Chip Learning in AI Systems", "Learning x Security in DFM"

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Conference Secretariat

PCO Works

e-mail: aspdac2023@aspdac.com

<https://www.aspdac.com/>