

2019 SYMPOSIUM ON VLSI TECHNOLOGY

Pushing the Limits of Semiconductors for United and Connected World

RIHGA Royal Hotel Kyoto, Japan

Sunday – Friday, June 9-14, 2019

June 9 Sunday Workshop

June 10 Short Course

June 11-13 Technical Sessions

June 14 Friday Forum

Paper Submission Deadline: 23:59 JST Monday, January 28, 2019

For details, please visit: www.vlsisymposium.org

Symposium Scope

Papers will be selected based on technical innovation, advances relative to previously published work, credibility of claims, and quality of writing and illustrations. The scope includes:

- **Technologies for IoT** including ultra-low power, energy harvest, wearable, sensors, display, and communication devices
- **Technologies for AI** including CPU, GPU, in-memory computing, and stochastic computing
- **Stand-alone and embedded memories** including SRAM, DRAM, 3D NAND, MRAM, PCRAM, ReRAM, FeRAM and other new memories
- **CMOS technology, microprocessors and SoCs** including scaling, manufacturing, and yield optimization
- **RF/analog and sensors** including mixed-signal, analog, I/O, power device, imaging and MEMS
- **Process and material technologies** including transistor process, high mobility channels, SOI, lithography and patterning, and 3D NAND processes
- **Packaging technologies and system-in-package (SiP)** including through-silicon-vias (TSVs); 3D and 2.5D integration
- **Photonics technology and beyond CMOS devices** including Si photonics; quantum computing and spintronics devices

Call for Workshop

The call for proposals for the Sunday Workshop is now open. You organize the workshop, VLSI provides the venue. Check the details in www.vlsisymposium.org.

Short Course

A full day Short Courses will offer in-depth lectures on the topics of highest interest to the VLSI community given by distinguished experts from industry and academia.

Joint Circuits and Technology Focus Sessions

Joint circuits and technology focus sessions will be offered in the following special topics of joint interest:

- **Tech & system for new computing:** design and technology for enabling high performance AI, neuromorphic computing, beyond Von Neumann architecture, etc.
- **Design and technology for scaling extension:** design for manufacturing, process-design co-optimization, on-die monitoring of variability and reliability
- **Embedded memory technology and design:** SRAM, DRAM, Flash, PCRAM, ReRAM, MRAM, etc.
- **3D and heterogeneous integration:** power and thermal management, inter-chip communication, SiP architectures and applications

Paper Submission

Prospective authors must submit two-page camera-ready papers and abstracts through the Symposia's website, www.vlsisymposium.org. Accepted papers will be published as submitted, with **no revisions permitted**. Authors must follow detailed instructions provided within the "Authors" section of the website, including the Authors' Guide and Pre-publication Policy.

Best Student Paper Award

Best Student Paper Award selection will be based on quality and presentation of the paper at the Symposium. The winning student will be presented a monetary award and a certificate at the 2020 Symposium opening session. **The student must be enrolled as a full-time student at the time of submission, be the leading author and presenter of the paper**, and indicate when submitting the paper that the paper should be considered for the award.

Secretariat for VLSI Symposia

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