

## FIRST ANNOUNCEMENT AND CALL FOR PAPERS

## 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.vlssymposium.org](http://www.vlssymposium.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.vlssymposium.org](http://www.vlssymposium.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.vlssymposium.org](http://www.vlssymposium.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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