

## SECOND ANNOUNCEMENT AND CALL FOR PAPERS

### 2023 SYMPOSIUM ON VLSI TECHNOLOGY AND CIRCUITS

~ Rebooting Technology and Circuits for a Sustainable Future ~

Rihga Royal Hotel Kyoto, Japan  
Sunday–Friday, June 11–16, 2023

June 11 Workshops  
June 12 Short Courses  
June 13–15 Technical Sessions  
June 16 Forum



**Paper Submission Deadline: 23:59 JST Wednesday, February 1, 2023**  
**Details: [www.vlssymposium.org](http://www.vlssymposium.org)**

### Symposium Scope

The Symposium calls for papers in the following areas:

- **Advanced CMOS and interconnect technologies**
- **Advanced packaging, 2.5D and 3D integration**
- **Advanced process and material for scaling and new devices**
- **Beyond CMOS, such as spin logic, optical and quantum computing**
- **Biomedical devices, circuits, and systems**
- **Data converters**
- **Device physics, characterization, reliability, and modelling**
- **Devices and accelerators for machine learning**
- **Digital circuits, hardware security, signal integrity, IOs**
- **DTCO and design enablement**
- **Frequency generation and clocking circuits**
- **Innovative Systems using FPGAs and COTS components**
- **Memory technologies, devices, circuits, and architectures**
- **Power, analog and mixed-signal devices, and circuits**
- **Processors and SoCs**
- **Sensors, imagers, IoT, MEMS, display circuits**
- **Wireless and RF devices circuits and systems**
- **Wireline and optical transceivers, optical interconnects and processors**

### Paper Submission

Prospective authors must submit two-page paper abstracts to the Symposium 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 in the “Authors” section of the website, including the Authors’ Guide and Pre-publication Policy. **Extended versions of outstanding papers will be invited for publication in the IEEE Transaction on Electron Devices, IEEE Journal of Solid-State Circuits, and IEEE Solid-State Circuits Letters.**

### Focus Sessions

In addition to the solicited topics, the Symposium will offer Focus Sessions on special areas of Technology and Circuits of joint interest, such as:

- **AR/VR/MR/Metaverse and its integration**
- **Automotive and Aerospace applications**
- **BEOL Interconnects and BPD/BSPDN**
- **Novel 3D memory devices to continue scaling DRAM, Flash, and other NVM**
- **New Computing**
- **3D Packaging Technologies and System Integration (Thermal management)**

### Highlights

The 6-day Symposium will offer the following events in addition to the technical sessions:

- **Plenary Sessions**
- **Demo Session for outstanding papers**
- **Full-Day Short Courses on key VLSI topics**
- **Evening Panels**
- **Full-Day Forum**
- **Workshops**

### Best Student Paper Award

Selection will be based on quality of the paper and presentation at the Symposium. The winning student will be presented with a certificate and monetary award at the 2024 VLSI Symposium opening session.

**At time of submission, the student must be enrolled as a full-time student, be the leading author and presenter of the paper, and indicate consideration for the award.**

### Contacts

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**Symposium Chairs:**  
Katsura Miyashita, Toshiba Electronic Devices & Storage Co.  
Yusuke Oike, Sony Semiconductor Solutions

**Symposium Co-Chairs:**  
Gosia Jurczak, LAM Research  
Borivoje Nikolić, University of California, Berkeley

**Program Chairs:**  
Takaaki Tsunomura, Tokyo Electron Limited  
Mototsugu Hamada, The University of Tokyo

**Program Co-Chairs:**  
Vijay Narayanan, IBM  
Ron Kapusta, Analog Devices, Inc.

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