



2022 IEEE SYMPOSIUM ON VLSI TECHNOLOGY AND CIRCUITS

# SECOND ANNOUNCEMENT & CALL FOR PAPERS

TECHNOLOGY AND CIRCUITS FOR THE CRITICAL INFRASTRUCTURE  
OF THE FUTURE

HILTON HAWAIIAN VILLAGE, HONOLULU, HAWAII, USA

SUNDAY-FRIDAY, JUNE 12-17, 2022

JUNE 12 WORKSHOPS | JUNE 13 SHORT COURSES | JUNE 14-16 TECHNICAL SESSIONS | JUNE 17 FRIDAY FORUM

**Paper Submission Deadline: 23:59 PST Monday, February 7, 2022**

Complete conference, author, and registration information available at:

[www.vlssymposium.org](http://www.vlssymposium.org)

## SCOPE

Starting in 2022, Symposia on Technology and Circuits are merged into one Symposium to maximize synergy across both domains. The Symposium encourages submissions in all areas of VLSI Technology and Circuits, including:

- Advanced CMOS devices and technologies
- Advanced packaging, heterogeneous integration
- Beyond-CMOS technologies and platforms, such as quantum devices and computing systems
- Biomedical devices, circuits, and systems
- Data converters
- Device and system reliability
- Devices and accelerators for machine learning
- Device physics, characterization, and modelling
- Digital circuits, hardware security, signal integrity, IOs
- DTCO and design enablement
- Frequency generation and clock circuits
- Memory technologies, devices, circuits, and architectures
- Power, analog and mixed-signal devices, and circuits
- Process technology
- Processors and SoCs
- Sensors, imagers, IoT, MEMS, display circuits
- Wireless and RF devices circuits and systems
- Wireline and optical transceivers; optical interconnect and processors

**NEW: Innovative Systems, designed with FPGAs and COTS components**

## HIGHLIGHTS

The Symposium on Technology and Circuits will be organized as a **hybrid event with both live sessions on-site in Hilton Hawaiian Village** to enable networking opportunities, **and on-demand sessions** to allow access to selected talks and panels to those who cannot travel. The 5-day event will include:

- Plenary Sessions
- Technical Sessions
- Focus sessions on BEOL, new concepts for transistor scaling
- Joint focus sessions on 6G, Compute in Memory, Biomedical and 3D heterogeneous integration.
- Short Courses on key VLSI topics: Monolithic and Heterogeneous Integration, New Computing Paradigms and Automotive Electronics
- Demo Session for outstanding papers
- Forum Session "VLSI for infrastructure and Infrastructure for VLSI"
- Evening Panels: "Chip Shortage – what does it mean for the global industry?", "What it takes from Lab to Manufacturing" and "Building the 2030 Workforce".
- SSCS / EDS Women in Engineering & Young Professionals events.
- Satellite workshops will be held in advance.

The Symposium website is the central resource for information, including details on paper submissions and Best Student Paper eligibility.

[www.vlssymposium.org](http://www.vlssymposium.org)

# HIGHLIGHTS

Prospective authors are invited to submit two-page papers and abstracts. The submission site will be available by the end of the year. 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. The full Author’s Guide will be available before the end of the year.

## Schedule-at-a-Glance

*tentative schedule, subject to change*

Sunday	June 12	VLSI & Satellite Workshops
Monday	June 13	Short Courses
Tuesday—Thursday	June 14-16	Plenary & Technical Sessions
Friday	June 17	Friday Forum

## BEST STUDENT PAPER AWARD

## ONLINE CALL FOR PAPERS

Students are encouraged to apply for the prestigious Best Student Paper award. The selection will be based on quality and presentation for the paper at the Symposium. The winning student will be presented a monetary award and a certificate at the 2023 opening session. **The student must be enrolled is 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.



### Symposium Chairs

Tomas Palacios, MIT  
Brian Ginsburg, Texas Instruments

### Program Chairs

Borivoje Nikolić, University of California, Berkeley  
Gosia Jurczak, Lam Research

### Secretariat (North America and Europe)

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### Symposium Co-Chairs

Yusuke Oike, Sony Semiconductor Solutions Corp.  
Katsura Miyashita, Toshiba Electronic Devices and Storage Corp.

### Program Co-Chairs

Takaaki Tsunomura, Tokyo Electron Ltd.  
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