GLSVLSI 2023

June 5-7, 2023, Knoxville, TN, USA

http://www.glsvlsi.org/

Sponsored by ACM SIGDA

General Chairs

Himanshu Thapliyal
University of Tennessee, Knoxville, USA
Ronald F. DeMara
University of Central Florida, USA

Program Chairs

Inna Partin-Vaisband
University of Illinois Chicago, USA
Srinivas Katkoori
University of South Florida, USA

Finance Chair

Boris Vaisband,
McGill University, Canada

Special Session Chairs

Ujjwal Guin
Auburn University, USA
Ramtin Zand
University of South Carolina, USA

Registration Chair

Naghmeh Karimi
University of Maryland, BC, USA

Publications Chair

Tooraj Nikoubin
University of Texas Dallas, USA

Publicity Chairs

Norbert Herencsar
Brno Univ. of Tech., Czech Republic
Srihari Rao Patri
NIT Warangal, India

Presentations/Video Chairs

Soheil Salehi
University of Arizona, USA
Amit Degada
Marvell Technology, USA

Steering Committee

Hai Zhou	Fabrizio Lombardi
Victor Zhirnov	Alex Jones
Weisheng Zhao	Houman
Zhiyuan Yan	Homayoun
Ken Stevens	Jie Han
Ioannis Savidis	Deming Chen
Avesta Sasan	Yiran Chen
Gang Qu	Erik Brunvand
Tinoosh	Sanjukta Bhanja
Mohsenin	Baris Taskin
Martin Margala	Hai (Helen)Li
Enrico Macii	Yehea Ismail

Call for Late Breaking Research Papers: Page Limit 2 pages.

Original, unpublished **late breaking research** papers describing preliminary research in the general areas of VLSI and hardware design are solicited. Please visit http://www.glsvlsi.org/ for more information. In addition to the traditional topic areas of GLSVLSI listed below, papers are also solicited for a new track on **"IoT and Smart Systems"**.

Program Tracks:

- **VLSI Circuits and Design:** ASIC and FPGA design, microprocessors/micro-architectures, embedded processors, high-speed/low-power circuits, analog/digital/mixed-signal systems, NoC, SoC, IoT, interconnects, memories, bio-inspired and neuromorphic circuits and systems, BioMEMs, lab-on-a-chip, biosensors, CAD tools for biology and biomedical systems, implantable and wearable devices, machine-learning for design and optimization of VLSI circuits and design.
- **IoT and Smart Systems:** Circuits, computing, processing, and design of IoT and smart systems such as smart cities, smart healthcare, smart transportation, smart grid etc.; cyber-physical systems, edge computing, machine learning for IoT, TinyML, cloud computing for IoT devices.
- **Computer-Aided Design (CAD):** hardware/software co-design, high-level synthesis, logic synthesis, simulation and formal verification, layout, design for manufacturing, algorithms and complexity analysis, physical design (placement, route, CTS), static timing analysis, signal and power integrity, machine learning for CAD and EDA design.
- **Testing, Reliability, Fault-Tolerance:** digital/analog/mixed-signal testing, reliability, robustness, static/dynamic defect- and fault-recoverability, variation-aware design, learning-assisted testing.
- **Emerging Computing & Post-CMOS Technologies:** nanotechnology, quantum computing, approximate and stochastic computing, sensor and sensor networks, post CMOS VLSI.
- **Hardware Security:** trusted IC, IP protection, hardware security primitives, reverse engineering, hardware Trojans, side-channel analysis, CPS/IoT security, machine learning for HW security.
- **VLSI for Machine Learning and Artificial Intelligence:** hardware accelerators for machine learning, novel architectures for deep learning, brain-inspired computing, big data computing, reinforcement learning.
- **Microelectronic Systems Education:** Pedagogical innovations using a wide range of technologies such as ASIC, FPGA, multicore, GPU, TPU, educational techniques including novel curricula and laboratories, assessment methods, distance learning, textbooks, and design projects, Industry and academic collaborative programs and teaching.

Paper submission deadline: March 17, 2023 (11:59pm EST)
Acceptance Notification: March 28, 2023
Camera-Ready: April 5, 2023

Paper Submission: Authors are invited to submit short **(2 pages maximum)**, original, unpublished papers on late breaking research along with an abstract of at most 200 words. To enable blind review, the author list should be omitted from the main document. Previously published papers or papers currently under review for other conferences/journals should NOT be submitted and will not be considered. Electronic submission in PDF format to the **http://www.glsvlsi.org** website is required. Author and contact information (name, affiliation, mailing address, telephone, fax, e-mail) must be entered during the submission process.

Paper Format: Submissions should be in camera-ready two-column format, following the ACM proceedings specifications located at: **https://www.overleaf.com/latex/templates/association-for-computing-machinery-acm-sig-proceedings-template/bmvfhcdnxfty** and the classification system detailed at: **http://www.acm.org/publications/class-2012**

Paper Publication and Presenter Registration: Papers will be accepted for short or poster presentations at the symposium. Every accepted paper MUST have at least one author registered to the symposium by the time the camera-ready paper is submitted; at least one of the authors is also expected to attend the symposium and present the paper. Accepted papers will appear in ACM digital library.