2026 IEEE International Workshop on Quantum Computing: Circuits, Systems, Automation, and Applications (QC-CSAA)

Co-located with ISVLSI 2026

Authors are invited to submit papers for "2026 IEEE International Workshop on Quantum Computing: Circuits, Systems, Automation and Applications (QC-CSAA)". The previous successful editions (2020, 2021, 2022, 2024, 2025) of QC-CSAA have occurred as workshops at the IEEE Computer Society Annual Symposium on VLSI. The QC-CSAA workshop will provide a comprehensive review of fundamentals as well as the current state of the art in research and technology. The purpose of this is to explore design paradigms of quantum computing, including developing a full stack from quantum algorithms to a quantum chip. Advances in quantum computing hardware, software, and algorithms, as well as contributions on the transformative research needed to guide quantum computing performance toward practical and sustainable operations, will be aligned with the goal of this symposium. Further, circuits and systems targeting novel and existing applications of quantum computing to fields such as quantum chemistry, linear algebra, scientific applications, aerospace, material science, machine learning, etc., will be of special interest.

Topics of interest for this symposium include, but are not limited to:

Progress in quantum architectures, circuits, design automation and programming languages.

- Circuits and systems targeting novel and existing applications of quantum computing.
- Resource consumption estimates for quantum computing systems and applications.
- System codesign that prioritizes sustainable and efficient platform operation.
- Metrics and benchmarks for quantifying quantum computing performance.
- Performance estimates of quantum and hybrid computations.
- Resource-efficient methods for the control and execution of quantum programs.
- Quantum Machine Learning and Its Applications.
- Quantum computing in fields such as quantum chemistry, scientific applications, material science, machine learning, etc.

Submission Guidelines:

Authors are invited to submit unpublished extended abstracts (2 pages) or full papers (maximum 6 pages) through EasyChair. under the track **"Workshop on Quantum Computing: Circuits, Systems, Automation and Applications"**. Previously published papers or papers under review for other conferences/journals should not be submitted for consideration. Please use IEEE conference-style template, which can be found here: (Link to Template).

- **Workshop proceedings**. Accepted extended abstracts/full papers will be included in the ISVLSI conference proceedings indexed in the **IEEE Xplore Digital Library**.
- **Paper publications.** Extended versions of accepted papers will be invited to peer-reviewed journals such as **ACM Transactions on Quantum Computing** and **Springer Nature Computer Science**. The invitation will be based on the reviewer's feedback and the quality of the presentation.

Important Dates

Paper Submission Deadline: **April 12, 2026**

Acceptance Notification: **April 30, 2026**

Submission of Final Version: **May 10, 2026**

Contacts

For additional information, please contact the Workshop Organizers:

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