

**IEEE International Conference on Quantum Computing and Engineering (QCE)
Guidelines for Reviewing QCE25 Manuscripts — V47
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Opening remarks

QCE25 features seven Technical Paper Tracks: QALG, QAPP, QML, QNET, QPHO, QSYS, QTEM. The detailed track topics can be found on the QCE25 conference website and EasyChair as follows:

<https://qce.quantum.ieee.org/2025/call-for-technical-papers/>
<https://qce.quantum.ieee.org/2025/authors/conference-topics/>
<https://easychair.org/cfp/QCE25>

QCE24 received a record number of 450+ technical paper manuscripts—an increase of 150+ compared to QCE23. QCE25 received a record number of 600+ technical paper manuscripts—an increase of 150+ compared to QCE24. At least three reviewers must review each manuscript, and each reviewer is expected to review 6-8 papers. Thus, we need 300+ reviewers for the QCE25 technical paper review process.

The number of papers submitted to each track varies: QAPP: 130+, QML: 120+, QSYS: 110+, QNET: 90+, QALG: 80+, QTEM: 40+, QPHO: 15+. Before the papers are assigned to reviewers, the Technical Program Board Chairs will check whether each paper was submitted to the most relevant track and attempt to balance tracks concerning the number of submissions to be reviewed.

We hope the following review guidelines will help guarantee the quality of the reviewing process experience and the authors' experience. A big thank you to all the QCE25 reviewers for their expertise, commitment, and timely completion of the reviews. Conferences, such as QCE25, are only sustainable with the outstanding and dedicated support of the reviewers.

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QCE25 Paper Track Program Committees

Each Paper Track Program Committee (TPC) will review the manuscripts submitted to their track under a **single-blind review process** as practiced over the past five years at QCE. Single-blind peer review is a conventional method of peer review in which the authors do not know who the reviewers are. However, the reviewers know who the authors are. In contrast, double-blind peer review is when neither authors nor reviewers know each other's names or affiliations. Papers and reviews that substantially deviate from the guidelines outlined on the QCE25 website might be desk-rejected or asked for a prompt resubmission.

Table 1: Summary of key deadlines for the QCE25 technical paper review process

Phase	Start Date	End Date
Track Chairs invite TPC Members	Wed, Feb 26	Fri, Apr 11
Track Chairs encourage TPC Members to disseminate the QCE25 Call for Papers and Proposals https://easychair.org/cfp/QCE25	Wed, Feb 26	Mon, Mar 31
Track Chairs ascertain that TPC Members log into EasyChair	Fri, Mar 14	Mon, Apr 14
TPC Members bid for papers to review	Tue, Apr 15	Sun, Apr 20
Track Chairs assign papers to TPC Members	Mon, Apr 21	Fri, Apr 25
TPC Members review papers	Mon, Apr 28	Fri, Jun 13
Track Chairs and TPC Members discuss reviews	Sat, Jun 14	Fri, Jun 20
Track Chairs make final decisions	Sat, Jun 21	Fri, Jun 27
Final check & decisions by Technical Program Board Chairs	Fri, Jun 27	Wed, Jul 2
Program Board Chairs send out Technical Paper Notifications	Mon, Jul 7	N/A
Track Chairs select the top three Best Papers of their track	Mon, Jul 7	Mon, Jul 21

The following sections describe the QCE25 review process using EasyChair, outlining each phase, from paper bidding to final decisions. This section includes essential guidelines, responsibilities, and evaluation criteria to ensure a fair and rigorous review process. Reviewers and track chairs are strongly encouraged to follow these instructions carefully to maintain the high expectations of the conference and to adhere to the deadlines.

QCE25 Review Process

Part 1: Paper Bidding by TPC Members – Tue, Apr 15 - Sun, Apr 20

We will employ **EasyChair's manuscript bidding feature** to facilitate the track chairs' paper assignment tasks. During the first few days of the review process, TPC members are asked to bid for papers they would like to review and for which they have expertise. The Technical Program Board Chairs will open the bidding for each track and invite TPC members to **bid for approximately 15-20 paper manuscripts**. Each TPC member will only review 6-8 papers, but bidding for 15-25 papers is essential for the bidding process to be effective. Track chairs, please

monitor the bidding and send reminders three days before the bidding deadline. TPC members, please complete the bidding by the bidding deadline.

For Track chairs, the bidding is enabled using the **Administration tab** in EasyChair. Select **Configure**, search for Paper bidding, and **enable Paper bidding** button using the pencil on the right-hand side (Cf. Table 2):

Table 2: EasyChair Track Paper bidding and assignment setup

Paper bidding and assignment	
For paper assignment, do you use paper bidding or relevance detection?	paper bidding
Is paper bidding enabled?	no
Is viewing bids of PC members by chairs enabled?	yes
Is assignment of submitted papers to the program committee enabled?	yes
The number of reviewers per paper is	3

If you have questions, please contact Andrea Delgado <delgadoa@ornl.gov>.

After you have enabled Paper bidding, send an email to your PC members to strongly encourage them to bid by the deadline.

How to Bid for Papers using EasyChair

TPC members log into their EasyChair account and click on the **Bidding tab** to access the track's paper submissions list. They can then read the abstracts or full papers to decide which papers to review. For each paper, select one of the following options:

- yes:** I want to review this proposal (paper)
- maybe:** I can review it
- no (default):** I prefer not to review it
- conflict:** I have a conflict of interest

Please note the **conflict** option, which can be used to **declare any potential conflicts of interest**. Maintaining the integrity and fairness of the QCE25 review process is paramount, and it hinges significantly on our ability to manage conflicts transparently and effectively. Conflicts of interest include **personal relationships with authors, professional relationships, such as colleagues in the same department or institution, prior or current collaborations, including joint publications or research projects, or financial interests that the outcome of the review process might influence**. Note you cannot undeclare a conflict once you have selected the conflict option for a paper.

Part 2: Paper assignments by Track Chairs – Mon, Apr 21 - Fri, Apr 25

After the bidding process, the track chairs assign paper manuscripts to TPC members **using the bidding information received and the interactive assignment system on EasyChair**. The goal is to match paper manuscripts with reviewers who have expressed the most interest and expertise, thereby improving the quality of the review process.

Track chairs use the **View-bids** and the **Assignment tabs** to assign papers to reviewers. When the PC members have completed their bidding, track chairs can use the menu item **Automatic Assignment** to make a first pass on the review assignments. On the second pass, track chairs use the menu item **Interactive Assignment**. Having the **View-bids page** open next to the **Interactive Assignment page** is very helpful. You have to **login to EasyChair twice** to have two EasyChair tabs open simultaneously.

Part 3: Paper Review by TPC members – Mon, Apr 28 - Fri, Jun 13

QCE25 Paper Manuscript Evaluation

Three TPC members must review each technical paper before it can be included in the IEEE Xplore digital library.

Please note that submitted manuscripts must **NOT** have appeared in or be under consideration for another conference, workshop, or journal (cf. IEEE Policies below).

Paper categories. QCE has two major paper categories:

1. **Full papers** — 8-10 pages (including figures and tables and appendices), plus two additional pages for references for a maximum of 12 pages. Full papers should fall into one of the following subcategories (listed in an EasyChair column):
 - a. **Research papers (RESP)** — novel contributions and/or innovations and the research methods used in quantum computing and engineering.
 - b. **Survey papers (SURP)** — a survey on a quantum computing and engineering research topic.
2. **Short papers** — 4-6 pages (including figures and tables and appendices), plus one additional page of references for a minimum of 7 and a maximum of 7 pages. Short papers fall into one of the following subcategories (listed in an EasyChair column):
 - a. **New Ideas and Emergent Results (NIER) papers** — novel and promising ideas and/or techniques often in an early development stage.
 - b. **Experience and Application (EXAP) papers** — experiences gained from applying/evaluating quantum computing and engineering research results in practice. It is encouraged that partners/co-authors from both practice and research join in the effort so that the paper reflects the perspectives of both sides. The papers should emphasize the value of the experience to the community.
 - c. **Artifact papers (ARTI)** — model problems, exemplars, or practical sets of resources valuable for the broader quantum computing and engineering community.

Reviewer guidelines: As a reviewer for IEEE Quantum Week, your expertise plays a crucial role in upholding our conference's quality standards. We count on your thoughtful evaluations to maintain and enhance the quality, rigor, and reputation of the QCE proceedings. To ensure the effectiveness of the review process, please adhere to the following guidelines:

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- **Review Length and Content:** Each review should be comprehensive yet concise, typically spanning a few paragraphs. Begin by summarizing the paper's main ideas, ensuring you capture the essence of the submission's contribution to quantum computing and engineering.
- **Strengths and Weaknesses:** Discuss at least a couple of the work's strengths and weaknesses. It is essential that your critique is balanced—acknowledge the areas where the submission excels and those that require improvement.
- **Constructive Feedback:** Always frame your comments constructively. Consider how your feedback can assist the authors in enhancing their manuscript. Suggestions for improvement should be specific and actionable, aimed at elevating the quality of the work. Please note constructive feedback is essential for both accepted and rejected papers. In the QCE25 peer-review process, there is no interaction between the reviewers and the authors—do not contact the authors.
- **Justification of Recommendation:** Based on your manuscript analysis, justify your recommendation. Your rationale must be rooted in the paper's content and the conference's evaluation criteria.

Reviewing full papers

- Focus on assessing the paper's originality, technical soundness, clarity of presentation, and significant contribution to the field.
- Assess whether the chosen research methodology appropriately addresses the research questions and objectives.
- Assess whether the evaluation is appropriate to determine its success and answer the research questions.
- Assess the cited sources relevant to the paper's topic and research questions. Do the references support the arguments and claims made in the paper?
- Provide detailed feedback on strengths and weaknesses and suggest areas for improvement.

Reviewing short papers

- Focus on the core research contribution, assessing its novelty, significance within the field, and clarity of presentation, while keeping in mind the brevity of the format.
- Concentrate on evaluating the key findings and their implications without expecting the same level of depth as a full research paper.
- Is the paper pertinent to its short paper category (i.e., NIER, EXAP, and ARTI)?
- Avoid excessive criticism based on length limitations: Recognize that the paper's brevity may restrict the level of detail provided.
- Avoid demanding extensive data or methodology not feasible for a short format: Focus on the core concepts and their presentation.
- Avoid unfairly comparing to full-length research papers: Evaluate the paper based on its intended format.

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Review Criteria — Submissions will be assessed according to the following evaluation criteria:

- Interest and relevance
- Correctness and depth of technical content
- Originality and novelty
- Significance and potential impact
- Organization and quality of presentation
- Relevance, quality, currency, and diversity of references

Suggested Review Format

- *Summary of the paper (3-4 sentences)* — Capture the core idea and contribution.
- *Strengths* — Highlight novel aspects, solid technical content, or impactful results.
- *Weaknesses* — Identify limitations, unclear explanations, missing references, or potential improvements.
- *Justification of recommendation* — Provide reasoning for the decision in alignment with the conference criteria (short vs long paper, rating on a scale of -3 to +3, track topic alignment)

The depth of your analysis is crucial for the decision-making process and the QCE25 Program's overall quality.

Part 4: Discussion by Track Chairs & TPC Members – Sat, Jun 14 - Fri, Jun 20

The track chairs will start the discussion process, where the three reviewers of each paper can adjust their reviews and converge. Note that the authors will not have the opportunity to respond to reviews. More instructions to follow on the Discussion process.

Part 5: Final Check & Decisions by Track Chairs – Sat, Jun 21 - Wed, Jun 27

Track chairs mark each paper with **Accept/Reject**.

Part 6: Final Check by Program Board Chairs – Fri, Jun 27 - Wed, Jul 2

The Technical Program Board Chairs will do a final assessment of the review results provided by the reviewers. Our general goal is to accept approximately 40-50% of the submitted papers (the percentage of accepted papers per track can vary). The Chairs reserve the right to change paper scores to achieve this goal.

Part 7: Technical Paper notifications by Program Board Chairs – Mon, Jul 7

Technical Paper Notifications (Accepts and Rejects) sent via EasyChair by Program Board Chairs to Manuscript Authors.

Part 8: Best Papers Selection by Track Chairs – Mon, Jul 7 - Mon, Jul 21

Each track selects Best Paper (1), a first-runner-up (2), and a second-runner (3). During the QCE25 conference, the track chairs will announce the best papers and present certificates to the authors on stage before the daily keynotes.

IEEE Policies for Reviewing Papers

Reviewer Guidelines for IEEE Computer Society publications

- <https://www.computer.org/publications/reviewer-resources>

Understand Your Peer Review

- <https://conferences.ieeeauthorcenter.ieee.org/understand-peer-review/>

Ethics in Peer Review

- <https://conferences.ieeeauthorcenter.ieee.org/understand-peer-review/ethics-in-peer-review/>

IEEE Technical Paper Policies

- IEEE positions on submission and peer review policies are detailed here: <https://journals.ieeeauthorcenter.ieee.org/become-an-ieee-journal-author/publishing-ethics/guidelines-and-policies/submission-and-peer-review-policies>
- <https://cis.ieee.org/publications/t-emerging-topics-in-ci/tetci-ieee-preprint-policy>
- https://www.ieee.org/content/dam/ieee-org/ieee/web/org/pubs/author_version_faq.pdf

arXiv Submission Policy

Having a paper on arXiv arXiv.org, TechRxiv.org, or any not-for-profit preprint server approved by the IEEE Publication Services and Products Board (PSPB) does not prohibit authors from submitting a paper to QCE25. arXiv papers are not peer-reviewed and not considered formal publications. Hence, arXiv papers do not count as prior work. Authors are not expected to compare their submission to an arXiv version of the paper – provided the paper has not appeared in a journal or workshop/conference proceedings.

IEEE Guidelines for Artificial Intelligence (AI)-Generated Text

The use of AI-generated content in an article (including but not limited to text, figures, images, and code) shall be disclosed in the acknowledgments section of any article submitted to an IEEE publication. The Generative AI system used shall be identified, and specific sections of the article that use AI-generated content shall be identified and accompanied by a brief explanation regarding the level at which the Generative AI system was used to generate the content. Using

Generative AI systems for editing and grammar enhancement is standard practice today and, as such, is generally outside the intent of the above policy. In this case, disclosure, as noted above, is not required.

Guidance on Text produced by Generative AI Tools

The QCE25 conference allows tools, such as OpenAI ChatGPT, Microsoft Copilot, Google Gemini, Perplexity, Grammarly, or other AI assistants, to help improve the paper submission text. We recommend reviewing your submission for language issues using these AI services. Of course, using these Generative AI services is not required. As required by IEEE, the use of any AI-generated text shall be disclosed in the acknowledgments section. The sections of the paper that use AI-generated text shall have a citation to the Generative AI system used to generate the text.