



[ICITconf'2025] Review for paper #1571157523 completed

From Edas Help <help@edas.info>

Date Tue 7/15/2025 9:33 PM

To Nguyen The Loc <nguyentheloc@humg.edu.vn>

Dear Dr. The-Loc Nguyen,

Thank you for completing the review of the paper #1571157523 ("APMR-CNN: a Photonic Convolutional Neural Network Based on Cascaded All-Pass Microring Resonators") for ICITconf'2025. Below is a copy of your review.

You can modify the report by going to <https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fedas.info%2FR.php%3Fr%3D13561012&data=05%7C02%7Cnguyentheloc%40humg.edu.vn%7C08b9ac5b83594256d0bd08ddc3ac9c12%7Cc852d62b30324cdc96ab30e4368fabd7%7C0%7C0%7C638881868321644641%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMtIlslkFOljoitWFBpbCIsIlldUljoyfQ%3D%3D%7C4000%7C%7C%7C&sdata=3Il%2FugE5vXhvtXTVhtRIWcc4dxgq4O5WcRrxCoaUQ0M%3D&reserved=0> up to the due date of Jul 16.

Best regards,
The conference chairs

> *** Novelty and originality: Rate the novelty and originality of the ideas or results presented in the paper.

Significant original work and novel results. (4)

> *** Technical content and scientific rigour: Rate the technical content of the paper (e.g.: completeness of the analysis or simulation study, thoroughness of the treatise, accuracy of the models, etc.), its soundness and scientific rigour.

Solid work of notable importance. (4)

> *** Quality of presentation: Rate the paper organization, the clearness of text and figures, the completeness and accuracy of references.

Well written. (4)

> *** Relevance and timeliness: Rate the importance and timeliness of the topic addressed in the paper within its area of research.

Excellent (5)

> *** Strong aspects: Comments to the author: what are the strong aspects of the paper

- The proposed architecture, which uses a cascade of all-pass microring resonators (APMRs) to perform dot-product computations, is an elegant and clever simplification of existing methods.
- Achieving 98.21% accuracy on MNIST with a low validation loss of 0.056 demonstrates strong practical utility.

> *** Weak aspects: Comments to the author: what are the weak aspects of the paper?

- The abstract mentions FMNIST, but no results for this dataset are presented in the body of the paper, which is an inconsistency.
- The paper repeatedly claims the architecture is "energy-efficient" but provides no quantitative data to support this.

> *** Recommended changes: Recommended changes. Please indicate any changes that should be made to the paper if accepted.

- Support claims of energy efficiency and scalability with data.
- Either include FMNIST results or remove the reference from the abstract to align with the main text.
- "APRM" instead of "APMR" in the caption of Figure 4 should be corrected.

> *** Comments to the TPC: Confidential comments to the TPC (will be not sent to Authors)

This is a high-quality paper with a novel architecture. The core idea is strong, and the results, while limited to simpler datasets, are convincing. The work is highly relevant to the ICIT 2025 conference's domains and should be accepted with minor revisions.

> *** Submission Policy: Does the paper list the same author(s), title and abstract (minor wording differences in the abstract are ok) in its PDF file and EDAS registration?

Yes, the paper lists the same authors, title, and abstract in its PDF file and EDAS registration.

> *** Overall Recommendation: Overall Recommendation
Accepted (1)