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Decision on your submission to The Visual Computer

The Visual Computer <bhuvaneswari.rangasamy@springernature.com>

Thu, Mar 26, 2026 at 3:30 PM

To: pkn@vcet.ac.in

Ref: Submission ID df98d52c-9c21-4e06-a92a-11f916fc9525

Dear P. Karthikeyan B. Sakthivel S. S. Surya Varsiny S. M. Tejesvini,

On behalf of The Visual Computer journal, I would like to extend my gratitude for your submission. While we acknowledge the innovative aspects of your paper titled "Vision-Based Cyclone Identification in Meteorological Satellite Data," we regret to inform you that, at this stage, the overall quality does not meet the standards required for publication in The Visual Computer. Consequently, your paper has not been sent for external review.

However, we see potential in your research and encourage you to revise and optimize your manuscript. Should you choose to resubmit within the next two weeks, the new submission will be treated as a fresh manuscript, and we will re-evaluate its suitability for peer review.

When resubmitting, please include a Cover Letter detailing the specific modifications and enhancements made to the manuscript.

Title Suggestion:

Your current title is descriptive, but for The Visual Computer, we suggest a title that is both concise and informative, capturing the essence of your innovation. We propose the new title:

"Transformer-Based Cyclone Detection: Leveraging Spatiotemporal Features from Satellite Imagery"

This title highlights the core contribution of your work—the use of a transformer-based approach for cyclone detection—while emphasizing the integration of spatiotemporal features, which is a key aspect of your methodology.

Abstract Revision:

Your abstract provides a good overview, but it can be refined to better align with The Visual Computer's style. Here's a suggested revision:

"Tropical cyclone detection is critical for disaster preparedness and risk mitigation. This study introduces a transformer-based framework for identifying cyclones in meteorological satellite data, utilizing the Data-efficient Image Transformer (DeiT) architecture. Unlike traditional methods relying on temporally densified datasets, our approach operates on native sequential satellite observations, preserving cloud evolution dynamics. We integrate physically interpretable spatiotemporal descriptors, including mean brightness, texture energy, and dense optical flow magnitude, to characterize cloud-top evolution and motion persistence. Experiments on North Indian Ocean satellite sequences demonstrate competitive classification performance, with improved physical interpretability and reduced preprocessing complexity. Our framework offers a scalable solution for automated cyclone monitoring, enhancing early detection and continuous atmospheric surveillance."

Source Code and Dataset:
To enhance the transparency and reproducibility of your work, we request that your open-source code be hosted on platforms such as GitHub, accompanied by comprehensive usage guidelines or documentation. It is imperative that these links are permanent, thereby enabling readers to effortlessly replicate your experiments and evaluate your results.This should cover dependencies and requirements, descriptions and implementations of key algorithms, and other relevant details.The goal is to facilitate readers in replicating your experiments and evaluating your results. Including links to these resources in the abstract of your manuscript would greatly enhance the transparency and reproducibility of your work. Furthermore, assigning a DOI (Digital Object Identifier) to both your code and data will significantly bolster the accessibility and citation of your research artifacts, ensuring their long-term impact and usability within the scientific community. In addition, on your code links such as those on GitHub or Zenodo, we'd like you to remind readers that this code is directly related to the manuscript you are currently submitting to The Visual Computer. Moreover, you are encouraged to urge readers to cite this relevant manuscript.

It is recommended that the author cite 1-2 recent literatures from Visual Computer, and the citation time should be within the last 1-2 years. Please note that this is just a suggestion and avoid excessive citation. The following are two sample articles.

(1)CAFormer: a connectivity-aware vision transformer for road extraction from remote sensing images. The Visual Computer, 2025: 1-17
(2)Benchmarking computer vision architectures for cloud detection from lidar ceilometer backscatter data. The Visual Computer, 2025: 1-18

In particular, as a non-mandatory recommendation, authors are advised to discuss and/or compare several state-of-the-art papers from relevant journals/conferences in the field (optional examples include, but are not limited to). The relevant literature and papers listed below relate to the subject area of the journal's focus and may be considered for inclusion in the discussion and comparison.
(1)Zhang, Mengting, and Xiuxia Tian. "Transformer architecture based on mutual attention for image-anomaly detection." Virtual Reality & Intelligent Hardware 5.1 (2023): 57-67.
(2)Lin, Chuchao, Changjun Zou, and Hangbin Xu. "SCNet: A Dual-Branch Network for Strong Noisy Image Denoising Based on Swin Transformer and ConvNeXt." Computer Animation and Virtual Worlds 36.3 (2025): e70030.
(3)Pan, Fengli, et al. "Simulation of Ocean Waves With Spectrum-Based Wave Particle." Computer Animation and Virtual Worlds 36.2 (2025): e70014.
(4)SAT-Net: Structure-Aware Transformer-Based Attention Fusion Network for Low-Quality Retinal Fundus Images Enhancement, IEEE Transactions on Multimedia, 2025
(5)EAPT: efficient attention pyramid transformer for image processing, IEEE Transactions on Multimedia 25 (2021): 50-61
(6)FFFN: Frame-by-frame feedback fusion network for video super-resolution, IEEE Transactions on Multimedia 25 (2022): 6821-6835

These articles are merely recommendations based on the content and research direction of the papers, which can help enhance the relevance of the paper topics and the timeliness of the content. However, they are not mandatory. Authors can choose whether to adopt them or not based on their own circumstances.

To help your research reach a broader audience quickly and enhance its academic visibility, consider submitting a preprint of your manuscript to the In Review platform of Springer Nature journals (submission link: https://www.researchsquare.com/publishers/in-review) after your manuscript has been submitted to our journal. If you choose to do so, access the platform through the provided link, click the "Submit a Preprint" button in the upper right corner to enter the submission page, and then follow the on-screen instructions to register an account and upload your manuscript and related information.

We sincerely hope these suggestions are helpful in refining your manuscript for resubmission. Please feel free to contact us if you have any questions or require further guidance. We look forward to reviewing your revised paper. It should be noted that you need to specify the modifications made in the email. To ensure your efficiency and save your time, we usually only offer one chance to resubmit your manuscript. You need to describe in detail the modifications made in the email so that we can quickly locate the problem and complete the review.

The Visual Computer, as an important journal in computer graphics and visual computing, looks forward to receiving relevant, interesting and important contributions from your future research. When you submit your future research, please pay attention to comparing and analyzing your work in relation to relevant studies recent published in our journal, so as to enhance the relevance of your manuscript to the journal’s scope.

Best regards,

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