Outlook

[IAAA'2026] Review for paper #1571275503 completed

From Edas Help <help@edas.info>
Date Wed 2026-04-29 2:40 PM
To Nguyễn Duy Huy <nguyenduyhuy@humg.edu.vn>

Dear Mr. Duy-Huy Nguyen,

Thank you for completing the review of the paper #1571275503 ("Diffusion Policy Optimization for Autonomous UAV Navigation in GNSS-Denied Cluttered Environments") for IAAA'2026. Below is a copy of your review.

You can modify the report by going to https://edas.info/R.php?r=14101306 up to the due date of Apr 28.

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 paper successfully demonstrates that a DPPO action head can resolve path bifurcations (choosing left vs. right) that typically cause Gaussian policies to crash.
- The Generative Curriculum Learning (GCL) module significantly improves training efficiency by maintaining environments at the "Zone of Proximal Development" (50% success rate).
- The AeroGen outperforms the SAC-APF baseline by 38 percentage points in success rate (84.6% vs

46.7%) and more than doubles the path efficiency (SPL).

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

- At 185ms per planning step, the model is significantly slower than standard MLP policies (<1ms). While amortized by executing four actions per plan, this latency might limit the UAV's maximum safe flight speed in extremely dense thickets.
- The evaluation is restricted to a custom (though high-fidelity) simulation. Although visual domain randomization is used, the paper lacks physical hardware validation, a common requirement for high-impact robotics publications.

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

- Include a discussion or experiment showing the relationship between flight speed and success rate, given the 185ms planning delay.
- Provide a brief estimation of the power and computational requirements for running the 153M parameters (even if mostly frozen) on standard UAV companion computers like the NVIDIA Jetson Orin series.
- Expand the future work section to detail how the "Safety Clipping" and "Soft Prompts" will be tuned when transitioning to physical sensors.

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

This is a high-caliber submission that leverages the latest trends in generative AI (Diffusion Models) to solve a fundamental problem in aerial robotics (multimodal trajectory planning). The scale of the simulation experiments (31.5M steps) and the depth of the ablation studies (testing DPPO, GCL, and Depth encoders separately) provide high confidence in the results. It is an excellent candidate for acceptance.

> *** 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?

The same author(s), title, and abstract are listed in both the PDF file and the EDAS registration.

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