Review of: "Neuro-Fuzzy-Based Adaptive Control for Autonomous Drone Flight"

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Potential competing interests: No potential competing interests to declare.

While the manuscript provides an overview of adaptive control for autonomous vehicles, it needs to provide more clarity in elucidating several vital concepts and explanations, leaving gaps in the reader's understanding. Despite this, the following suggestions aim to enhance the paper by addressing the identified shortcomings :

1. The manuscript needs coherence regarding the choice of aerial vehicles throughout its sections. While the abstract introduces the application context as a "quadrotor," the proposed method section unexpectedly introduces aspects related to a "fixed wing" aircraft. This inconsistency raises concerns about the clarity and accuracy of the study's objectives and methodology. The results and discussion section, however, revert to discussing quadrotor outcomes. The author should review and correct these differences to improve the consistency of article. This might include defining the research's scope to indicate whether fixed-wing aircraft or quadrotors are considered, or it could mean ensuring the whole publication stays true to the original emphasis on quadrotors.
2. While specifying the dynamical system under evaluation, the author does not explicitly define the inputs and outputs.
3. The introduction needs more convincing arguments for its selection. Need more justification for opting for ANFIS and its advantages over alternative methods in addressing the challenges of the chosen application. A more comprehensive review of the literature on ANFIS applications and their success in similar domains must be specified.
4. The proposed method needs more crucial details regarding the specific type of fuzzy logic employed in the research, providing no information about the chosen membership functions, the formulation of fuzzy rules, and the methodology for defuzzification to convert fuzzy outputs into crisp results. This comprehensive detailing is essential for readers to grasp the inner workings of the fuzzy logic model, ensuring a more thorough and insightful evaluation of the research outcomes.
5. The author should explicitly address why alternatives, particularly neural networks, were not selected and highlight the unique strengths of fuzzy logic in contrast to these methods, which lack a thorough explanation for preferring fuzzy logic and fall short of providing a robust comparison with alternative algorithms.
6. The experimental results need an explanation of the desired results and a comparison of obtained results. A proper comparison with the proposed method is needed. An adequate description in figures, a comprehensive basis about comparison and confidence about the application is required.