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

Xin Gong[1]

1 University of Hong Kong

Potential competing interests: No potential competing interests to declare.

I have read the paper with great interest, and I found the technical results presented to be correct. In my opinion, this manuscript can be improved via considering the following aspects.

1. The article lists the existing formulas of predecessors [Etkin, 1972] at great length, and explains almost all the variables in them. Some of them are too redundant! I hope you can write down the key points and be more concise!

2. The article proposes Rezazadeh et al. [15] designed an Adaptive neuro-fuzzy Inference System (ANFIS) to monitor a UAV quadrotor. And this is the first study where a combination of the LQR-ANFIS algorithm is ever used to control and stabilise a drone flight. So, how are his experiments similar and different from yours? What is your advantage compared to him? Please describe it in detail!

3. In the third part PROPOSED METHOD, there are some typographical errors when describing variables! Hope it can be corrected!

4. In Fig. 1. Fuzzy Inference System, the text is rather blurry, there are some minor issues with text layout, and the thickness of the lines are also different. I hope it can be changed!

5. The software and system used in Experiment A are somewhat old and do not reflect the novelty! I hope to be able to conduct experiments in a newer environment!

6. In Fig. 2. LQR-ANFIS, the text in the picture is too small to read clearly! Hope it gets corrected!

7. The adaptive neuro-fuzzy inference systems (ANFIS) proposed in the article are generated by the Linear Quadratic Regulator (LQR) under white-noise disturbance, but the noise vector used in Equation 15 does not clearly indicate what kind of noise it is.? So, are other types of noise also possible? Please explain in detail!

8. The whole article is somewhat undetailed, and should focus on describing the experimental part, but the results and methods that have been previously described are too much! Hope it can be improved!

9. Will the adaptive neuro-fuzzy inference systems (ANFIS) proposed in this article have widespread practical applications in the future? Any ideas? More discussions welcome!

10. Please carefully check the grammar, formatting and composition of the entire paper