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

Stala Zouaoui1

1 Centre Universitaire Tissemsilt

Potential competing interests: No potential competing interests to declare.

reviewing report

The present work proposes "Neuro-Fuzzy-Based Adaptive Control for Autonomous Drone Flight". Based on the results and concluding remarks, the work seems interesting, but it needs minor revision regarding some remarks, which is very important to get it right. Identifying work among the scientific community, see, e.g.

1. You should review keywords and add some words that have an explanatory depth to the chosen topic like (ex: PID and LQR controller).

Please correct Adaptive euro-fuzzy inference systems in keywords.

- 1. Since the topic discusses quadrotor_ drone and control and new method of study of this type of UAV, I recommend some recent publications to add quality to this important research:
- a. Zouaoui, S., Mohamed, E., Kouider, B. (2019) "Easy Tracking of UAV Using PID Controller", Periodica Polytechnica Transportation Engineering, 47(3), pp. 171–177. <u>https://doi.org/10.3311/PPtr.10838</u>
- b. SATLA, Z., ELAJRAMI, M., BENDINE, K., SALAH, M., POLAT, A. P, PI, PID controller designed for UAV Quadrotors trajectory. In: International Conference on Innovative Engineering Applications: proceedings. 2018. <u>https://www.researchgate.net/publication/327920172_P_PI_PID_controller_designed_for_UAV_Quadrotors_trajectory</u>
- c. Elajrami, M., Satla, Z., & Bendine, K. (2021). Drone Control using the Coupling of the PID Controller and Genetic Algorithm. Communications Scientific Letters of the University of Zilina, 23(3), C75-82.
 doi: 10.26552/com.C.2021.3.C75-C82.
- 1. In the page 4, paragraph 4 please change [Etkin, 1972] to related number [22]
- 2. The first paragraph related to page 05, you must add third Euler angles (theta phi and psi)
- 3. I recommend adding some illustrations of a drone so that it is easier for readers to understand some important details for them. Can use this research for this point.
- 4. Finally, I recommend adding a table containing the physical and mechanical characteristics of the Drone selected for the research.

Satla, Z. & Encadreur Elajrami, M. (2019). « Contribution À La Modélisation Et À La Commande D'un Drone Miniature » [Thèse de Doctorat, Université Djillali Liabès - Sidi Bel Abbés]. https://www.theses-algerie.com/2519265048435545/these-de-doctorat/universite-djillali-liabes---sidi-belabbes/contribution-%C3%A0-la-mod%C3%A9lisation-et-%C3%A0-la-commande-d-un-drone-miniature.

The work can of scientific interest since it provides elements of novelty to the research field. Therefore, it should be revised and improved in its quality.