Review of: "Revolutionizing Precision Agriculture with Drone-Based Imaging and Fuzzy Intelligent Algorithms"

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Potential competing interests: No potential competing interests to declare.

Dear authors;

The present work proposes "Revolutionizing Precision Agriculture with Drone-Based Imaging and Fuzzy Intelligent Algorithms." 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: fuzzy intelligent algorithm, etc.).
- 2. Since the topic discusses quadrotor drones and control and a 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.
- The introduction lacks improvement and the addition of something improved by the authors. (In the introduction, the researchers talked about general uses in the field of weather conditions and monitoring, and since the study is directed to agricultural use, there is a lack and almost absence of this topic in the introduction).
- 2. The article is a combination of a study between the use of a drone and image processing techniques, but the first branch of the study was ignored, which is the AI-agriculture drone. At the very least, mention the name of the technique used in the study.
- 3. There are some mathematical variables that are not defined in the article that must be defined, like (fi, rietc).
- 4. In general, the idea is very important because of the advantages it offers to agriculture, but there are some shortcomings regarding how to draw conclusions in the conclusion that are very confusing with what was previously drawn in the study.

5. The article is good, but there are some paragraphs that need to be rearranged, such as the use of drones and their military and civilian applications in the context of the study (UAVs and Their Applications) after talking about developing the model and application.

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

Best regards,