

Review of: "Flood Prediction Using Artificial Neural Networks: A Case Study in Temerloh, Pahang"

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Potential competing interests: No potential competing interests to declare.

This paper addresses an interesting and necessary topic; however, it has some issues that need to be improved if it is expected to be a contribution. Below are some suggestions:

- 1. Introduction is very brief. It is necessary to go deeper into the background, detail the problem more, and use more citations to reinforce the assertions.
- 2. In the Literature Review section, it is necessary to add more recent works. Table 1 is cut off, which is not aesthetically pleasing.
- 3. It is necessary to add some important characteristics of the data used: time period, sources, resolution, among others. The description is very brief. In addition, the methodological diagram needs to tell more details of the study. The diagram presented (Figure 1) is ideal for a work report, but not for a scientific article. In this context, it is also necessary to detail the Python libraries used in order to encourage the reproducibility of the study.
- 4. The model development is meager and needs to be specified in more detail: what parameters were set in the neural network? Was it applied for regression or classification? Why are so many unrelated validation metrics used? What is the threshold value for interpreting the correlation?
- 5. The AUC value is too high for an ANN, and I have many doubts about it. It is not a matter of presenting very high values (which in the long run are misleading), but of obtaining reliable and consistent results. It is important to verify that there is no over-fitting. In addition, the discussion should compare the AUC value obtained with values from other studies. It is also necessary to justify why so many unrelated validation metrics are used: MAE, MSE, and RMSE are used in regression problems, while ROC-AUC and the parameters of the confusion matrix are used in classification problems.

I hope these suggestions will be considered.