

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

Mala De1

1 National Institute of Technology Patna

Potential competing interests: No potential competing interests to declare.

The paper handles an important issue of flood prediction. But the following limitations need to be taken care of.

- 1. The literature survey on the topic is very limited, and multiple deep learning-based forecasting methods are studied in the shown literature. There are numerous ANN-based forecasting methods, so it's not clear from the paper why the authors have decided to study only these 8 papers.
- 2. The data processing section does not detail what data cleaning process is used.
- 3. Four types of data, i.e., rainfall, streamflow, water level, and temperature data, are considered here. It is not explained why only these parameters are considered as input to the ANN model.
- 4. "Neural networks are one of the machine learning models, and they are a subset of deep learning that mimics how a human brain works" please check the sentence, is the information correct? Is NN a subset of deep learning as mentioned here?
- 5. The paper does not discuss the ANN model in detail. Even it does not mention the ANN model name. It is not clear which ANN model the authors have used.
- 6. Why are rainfall and flood weakly correlated, as shown in Fig 2? Explain.
- 7. Does weather here mean temperature only? If so, then it is better to replace the weather variable name with the temperature variable name.
- 8. Why were 2 hidden layers taken in the ANN? How and why was it decided?
- 9. What are the activation functions? What training algorithm was used?
- 10. The accuracy is very high, and the errors are shown to be very low. This high level of accuracy for a practical forecasting tool is doubtful. Support with detailed results, actual values, and predicted values (a few samples).

Qeios ID: K61AVD · https://doi.org/10.32388/K61AVD