

# 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.

The manuscript presents a valuable attempt to apply Artificial Neural Networks (ANN) for flood prediction in Temerloh, Pahang, showcasing high accuracy and the development of a Flood Monitoring Dashboard. While the study highlights significant advancements in flood prediction using machine learning, several areas require further elaboration to enhance the manuscript's contribution to the field.

**Model Adaptation and Robustness:** Address how the ANN model adapts to climate change impacts on flood patterns and its robustness in handling extreme events and outliers. Clarifying the model's flexibility and performance in atypical scenarios would enhance its real-world applicability.

**Data Integrity and Methodology:** Discuss potential biases within the SPRHiN and Weather Underground datasets and the sensitivity of model performance to different data imputation methods. A deeper analysis of data reliability and methodological choices is needed for robust predictions.

**Comparative Analysis and Computational Resources:** Compare the ANN model's efficacy to other machine learning algorithms and detail the computational demands for training and deployment. Insights into scalability and comparative advantages would provide a clearer understanding of the model's utility.

**Usability and Interpretability:** Enhance the manuscript by discussing the Flood Monitoring Dashboard's user-friendliness, based on user testing or feedback, and how the model's predictions can be made interpretable and actionable for stakeholders.

**Generalization and Future Enhancements:** Elaborate on the challenges of extrapolating findings to other regions with distinct characteristics and the potential incorporation of spatial data and land cover information in future model iterations to improve predictive capabilities.