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

Mahmoud E. Abd-Elmaboud[1]

1 Mansoura University

Potential competing interests: No potential competing interests to declare.

The study focuses on developing a flood prediction model using Artificial Neural Networks (ANN) for the Temerloh district. However, it does not provide a clear justification for choosing ANN over other machine learning algorithms. Could you explain the rationale behind selecting ANN and how it outperforms other techniques in this specific context?

The data preprocessing step mentions using linear interpolation to handle missing data. While this is a common approach, it may introduce biases, especially if the missing data patterns are not random. Have you considered more robust imputation techniques or sensitivity analysis to assess the impact of missing data on your model's performance?

The correlation analysis shows that temperature has an inverse relationship with floods, but the paper does not provide a detailed explanation or hypothesis for this observation. Could you elaborate on the potential mechanisms or underlying factors that might contribute to this inverse relationship?

The study mentions the development of a flood monitoring dashboard using Power BI, but it does not provide any details on the design, functionality, or user interface of the dashboard. Could you include more information on how the dashboard can effectively visualize and communicate flood risk to various stakeholders, such as government agencies and local communities?

While the study focuses on the Temerloh district, it would be beneficial to discuss the generalization of the proposed approach to other regions in Pahang or Malaysia. What additional considerations or modifications might be necessary to adapt the flood prediction model and monitoring dashboard to different geographic areas with varying topographies, climate patterns, and data availability?