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

Prashant Istalkar[1]

1 Indian Institute of Technology, Bombay

The study, "Flood Prediction Using Artificial Neural Networks: A Case Study in Temerloh, Pahang," by Ahmad Jazli Abdul Rahman and Nor Azuana Ramli, developed an ANN model for flood modeling. The study found that streamflow and water level have a high correlation with floods, whereas temperature shows a negative correlation with floods. Additionally, this study developed a portal to visualize and guide authorities during flood events.

I have carefully read and evaluated the manuscript and suggest rejection. The reason is that the study includes a lot of uncertainty. We all know that flooding happens due to increased water levels, and this is valid everywhere. So, just relating floods to increased streamflow and water levels does not make sense to me. Also, I do not understand the significance of relating floods with temperature. I appreciate the efforts by the authors to create the flood monitoring dashboard. But, to me, it does not add much value to flood management. Even considering this as a case study, I expect a more detailed investigation, the use of state-of-the-art machine learning models, and an insightful discussion on possible solutions/flood monitoring systems.

Specific Comments:

The abstract is too long to read. Make it shorter.

In the introduction section, for most of the sentences, citations are missing.

There are several grammatical errors such as "However, this modeling is not very efficient as it requires precise topography, and the data need to be collected from rain precipitation over a certain period."

The data and methodology section is very general. More details about the data (with units, length of data) should be included. Also, the 'Model development' section is also very general. More details about ANN (such as working equations) are expected here.

The results presented here are not sufficient to come to any solid conclusions.