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

Daniel Caetano Santos[1]

1 Universidade Federal de Santa Maria

Potential competing interests: No potential competing interests to declare.

This article describes the development of a Flood Prediction tool using Artificial Neural Networks.

The work holds social, economic, and scientific interest. The textual structure is comprehensible, but some scientific details need improvement to make it publishable.

Below are some scientific comments:

General Comment:

- The article describes an interesting development, with extensive discussion. In the conclusion section, it is important to pay attention to the relationship between low temperature and flood occurrence. It is difficult to affirm this relationship; it is not clear whether low temperatures are observed before flood conditions. A more comprehensive explanation is that low temperatures are related to rainfall rather than flood conditions.

- This work needs to be reproduced by other researchers, and a clear description of all work phases is necessary.

More specific scientific points are mentioned below:

- The literature review should be expanded to cover aspects of ANN, including benefits and advantages.
- The data preprocessing does not explain the methodologies used for quality control of observed data.
- It is unclear whether the temperature data is observed or forecasted, and what the real source is.
- The frequency data needs better explanation.
- The evaluation methods could be elaborated further, including mathematical formulations.
- The process of data scaling needs to be explained.
- What is the definition of "Weather" in this context?
- What is the stream flow level?