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

Angel Vazquez-Patino[1]

1 Universidad de Cuenca

Potential competing interests: No potential competing interests to declare.

The study has a very good specific application. Take into account the following comments that could improve the article.

The abstract says “Floods in Malaysia happen every year, especially in East Coast Peninsular Malaysia, due to the Northeast Monsoon and climate change” Is there evidence to say that climate change causes flooding?

The abstract says “Despite this, research on flood prediction in the state needs to be done using machine learning techniques.” But other methods can also be used.

I couldn't find the reference of (Trading Economics, n.d.)

Check the grammar of the text. It can be improved with a review of the English language.

Avoid writing things like “To achieve all three objectives of this research, a good research procedure needs to be established to produce excellent results”. The above does not add significant information to the manuscript; A clear and appropriate methodology is always expected.

Section 3 indicates “Collecting data is the first step in the research procedure. It is extremely important to make sure the data obtained is relatable and appropriate for the research and has

a high relation as well as integrity in order to achieve the research objectives.” How was the data collected? How did you ensure that the data is appropriate? How did you ensure integrity? This is the information expected in this section.

Section 3.1 says “which includes data encoding for string data and data formatting from Fahrenheit into Celsius”. How does this transformation help?

Section 3.1 says “This includes a linear interpolation technique that dictates the value of a function at any intermediate points.” What temporal and spatial resolution does the data have?

“For this research, there are activation functions at the hidden layer and output layer to segregate the important data, suppress irrelevant information, and help pass through only relevant information to the next layer.” What activation functions are used? It is the information that is expected to be in this section.

“Another method to be applied to the model in order to minimize the differences between the

predicted and actual output is the learning rate.” What learning rate did you choose? It is the information that is expected to be in this section.

What are the features that are finally used? Better to put that information in a table.

The first part of section 4 has information that should be in section 3.

The performance of the model is quite good. However, for a model to be implemented, it should be taken into account that information with delays is used to train the model. That is, the model should predict using data from previous days or hours. Can that be assured in this study?