Qeios

Peer Review

Review of: "Turkey’s Earthquakes: Damage Prediction and Feature Significance Using A Multivariate Analysis"

Jian Yu[1]

1. Central South University, China

The paper compares the predictive performance of different machine learning models in forecasting earthquake-related fatalities, shows the accuracy of the Random Forest model, and conducts a significance analysis of influencing factors based on this Random Forest model. Here are some suggested revisions:

1. The article contains a limited number of images. To enhance reader understanding, it is recommended to appropriately increase the number of images.

2. There are relatively few references related to machine learning. It is recommended to supplement the literature with relevant sources.

3. It is recommended to supplement explanations and definitions for MSE (Mean Squared Error), MAPE (Mean Absolute Percentage Error), and MAE (Mean Absolute Error).

4. It is recommended to supplement an explanation regarding OLS.

5. In the model selection section of Section 2.3, the explanation of the neural network architecture can be represented using a flowchart.

6. Whether the author's use of data from before 1950 aligns with the current reality in Turkey is questionable.

7. The circular model has been chosen for earthquake damage prediction. It is recommended to include comparisons with other prediction models.

8. It is recommended to supplement a comparison between the model's prediction results and actual outcomes to verify the accuracy of the model.

Declarations

Potential competing interests: No potential competing interests to declare.

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