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## **On the Predictive Analysis of Landslide Susceptibility by ML Approached- for the Case in Taiwan**

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Due to the impact of climate change, the increasing frequency of extreme rainfall events, with concentrated rainfalls, commonly cause landslide hazard in the mountain areas of Taiwan. However, there are uncertainties for the predicted rainfall as well as the landslide susceptibility analysis.

This study employs machine learning approached, including the logistic regression method LR and deep learning method CNN, to analyze the landslide susceptibilities. Together with the predicted temporal rainfall, the predictive analysis of landslide susceptibility was performed in the adopted study area in Central Taiwan. The uncertainties within the rainfall prediction was firstly investigated before applied to the landslide susceptibility analysis. To assess the susceptibility of the landslides, logistic regression method LR and deep learning method CNN were applied. The results of predictive analysis, with the discussions on the accuracy and uncertainties, can be applied for a better landslide hazard management in the study area.