

## ABSTRACT

Flood is one of the incidents that result in a major adverse impact, causing the inactivity of various sectors of human life. In overcoming it, there are various ways that have been done, such as developing a river water level prediction system using machine learning. However, based on the research, the system does not make predictions into the future. In addition, it does not have a dashboard that can display the results of river water level prediction. This Final Project proposes to implement the prophet method on river water level prediction. Then, the system can display the results of river water level prediction in a dashboard. Furthermore, the data set used for flood prediction is only the results of river water level measurements every 1 hour by ignoring the factors that affect it. Evaluation after hyperparameter tuning with 3 different data using Theil's U has shown the smallest average error that is 0.187044. The dashboard can predict and display data directly after uploading. Then, the dashboard has sample data that can be used to see the performance in making predictions.

Keywords: *prophet, forecast, dashboard*