

## ABSTRACT

*In the last decades, technology has thrived and piloted to electronic devices. In addition, the influence of modern lifestyles can affect the use of electrical energy continues to increase. If this is allowed to continue, it can soon result in an electrical energy emergency. The purpose of this research is to predict the use of electrical energy that is displayed on a website.*

*The research starts by collecting pictures of electricity balance, which processed into the electrical energy consumption to developing a prediction model. The proposed prediction algorithm in this research is a Long Short-Term Memory (LSTM), selected for suited to tackle time series. In this study, a web-based developed as interface for the predicted outcomes.*

*The LSTM model is designed to be able to predict the use of remaining electrical energy for the next day and calculate electricity will run out. To obtain the best LSTM model, the dataset and hyperparameter testing is carried out. The results of testing the best LSTM model get a loss value with Mean Square Error of 0.00059, while the results of the alpha test on the website get an accuracy 100%, and beta testing gets an average accuracy 82.64%.*

**Keywords:** *electricity usage prediction, LSTM, mean square error, website.*