

ABSTRACT

Electricity has become a necessity in people's daily life, from the household sector to the large-scale industrial sector. In the household sector, the level of awareness about controlling the amount of electricity used is far from ideal. Therefore, there is no accessible way for electricity users to monitor their daily electricity usage. This lack of awareness will cause a significant fluctuation of electricity bills that cannot be avoided or prevented. In consequence, an electricity usage prediction system is required that can be used as a reference for user regarding household electricity consumption.

In this research, a system was designed to predict the use of electricity loads in the household sector, using the SARIMA (Seasonal Autoregressive Integrated Moving Average) method which uses previous electricity usage data as a historical data for predicting the electrical usage in upcoming 7 days. This system then will be applied via a web with the flask framework. This system is expected to be used as a medium for predicting electricity load usage in the household sector.

The data used in the prediction system is the amount of daily electrical power usage in hours for 37 days, from March 22 2020 to April 27 2020. The prediction results obtained are the total amount of electrical power usage for 7 days from April 21 to April 27 2020 with a MAPE (Mean Percentage Error) of 14,995%

Keywords: *Electrical Load, Prediction Method, ARIMA (Autoregressive Integrated Moving Average), Web.*