

ABSTRACT

Electrical energy is one of the most important needs for use in various activities. In the future, the need for electrical energy will definitely increase along with the development of technology. As a consumer of electrical energy, you should be able to calculate your energy use every month in order to calculate the costs that must be incurred and to plan for energy use savings in the future.

To be able to find out how much you have to pay each month, it is necessary to predict the electricity load for the next few days. In this study, a model will be made to predict how much electricity will be in the short term. The method that will be used is an artificial neural network. Artificial neural networks function like the human brain which will basically learn from an experience, as well as just which will learn a previous pattern to predict the next data..

The results obtained from this study are able to predict short-term electrical loads using the artificial neural network method according to the Mean Absolute Percentage Error expected(MAPE) value. The test carried out is to predict the electrical load for the next 7 days. To predict the load for the next 1 day has a MAPE value of 8.294%, predictions of electricity loads for the next 2 days have a MAPE value of 12.123%, predictions of electricity loads for the next 3 days have a MAPE value of 10.317%, predictions for the next 4 days of 7.447%, predictions for the next 5 days are 5.737%, predictions for the next 6 days are 6.625% and predictions for the next 7 days are 9.606%.

Keywords: *electrical energy, prediction, artificial neural network.*