ABSTRACT

The use of Electricity is needed by all people everywhere. Electricity is also very much needed to meet daily needs in agencies and households. The use of Electricity every period is always increasing due to the number of developments everywhere. This difference in Electricity use is influenced by habits, a person's lifestyle, and even seasons can cause changes in Electricity consumption.

Therefore, the importance of predicting electrical loads is very much needed during the development of this technology, which is in dire need of Electricity. In fulfilling these efforts, researchers will develop a system that can predict the electrical load in the future. In this study using a Deep Learning system and the algorithm used is Radial *Basis Function* (RBF).

The choice of the Radial *Basis Function* (RBF) Algorithm is because the RBF Algorithm has a high level of accuracy. This study aims to predict future electrical loads using a Radial *Basis Function* (RBF) based algorithm that will be implemented on the web using the Flask *framework*. The results of predictions made on the RBF method at a ratio of 30% of Testing data and 70% of Training data with detailed parameters including the number of center/cluster units of 80, Epoch 350, Batch Size 5, Learning Rate 0.001, and the Optimizer used is SGD (Stochastic Gradient Descent). Prediction uses an error approach on MAE, MSE and RMSE which can be said to be quite good because the error value is close to 0.

Keyword : *Radial Basis Function*, Electrical Load, prediction.