Electrical energy consumption has an important role in the implementation of development for the welfare and increase economic activity. Thus, necessary for forecasting electricity load menyelenggakan electric power supply business in a number of evenly. Number of electric power consumption by the public in kWh units greatly affect the calculation of the provision of electric power. The purpose of the electrical load forecasting is to make policy evaluation of electricity supply in the future.

The objective of this final project is create software that can predict power consumption using Kohonen Neural Network method and to compare the forecasting accuracy generated by merging Kohonen with backpropagation method and Kohonen with counterpropagation. Kohonen method selected to solve this electrical load forecasting which is a network of competition with his training without supervision (unsupervised competitive learning) that can directly process the data types are seasonal, with no preprocessing data. In this final project, before entering the electric load forecasting using a Kohonen neural network method, first used counterpropagation and backpropagation method to forecasting the mean and standard deviation. Both the mean and the standard deviation forecast value will then be used as a Kohonen network-forming parameters.

Keywords: electrical load, forecasting, kohonen, neural network.