Abstract

Demand forecasting is a procedure for identifying the electrical demand that can be expected from a specified number of consumers in a specified period. Electrical demand and electrical supply system could be in terms of average system demand, maximum system demand, and load demand in MW or energy demand in MWhr. Demand forecasting is usually undertaken with the prediction of hourly, daily, weekly and annually of the system demand and peak demand. Categorized form of load forecasting are short-term, long-term and medium-term which takes a few hours ahead of few weeks, one week to one year and five years to twenty years etc. This paper describes the demand forecasting of Kerala power system by using two different methods and a comparative analysis on its impact on the accuracy of load forecasting. This paper also present an error reduction based demand forecasting of Kerala power system. The performance evaluation parameters MAPE, MSE, RMSE, MAE/MAD and percentage error have been used for testing this proposed forecasting models with error reduction strategies.

**Index Terms**

Computer Science

Artificial Intelligence

**Keywords**
Demand forecasting, optimization, neural network and time series.