

Abstract

The ability to predict data based only on past data can be useful for an organization or individual to achieve success. Time series forecasting is predict a variable that well organize in time without care about factors that influence data and modelling data pattern for forecasting.

This Final Project proposed a time series forecasting method using evolving Radial Basis Function Neural Network(RBFNN) which centre and radius are trained using evolutionary algorithm. RBF neural network can handle nonlinear data that dispose to the real world. RBF is faster convergence than MLP because RBF neural network only have one hidden layer. In a comparative study with naive method and auto-regressive moving average (ARMA), evolving RBFNN shown better forecast results in most benchmark data. Thus, evolving RBFNN can be used as an alternative method in time series forecasting.

Keywords: *time series forecasting, evolutionary algorithm, rbf neural network.*