Abstract

Forecasting method is used to describe about future that is the closest to real. That representation is used as information in making policy and strategic decision determination. In the world of stock exchange, forecasting method often be used to forecast share price in the future.

It is not easy to remember pattern and search for mathematical formula which can be used to depict fluctuation of share data. The Artificial Neural Network is implemented to learn pattern in data of Time Series Share.

The advantage of using Artificial Neural Network is the algorithm ability to learn pattern self-supporting and do forecasting process quickly. In contrary, the ANN has main problem in determining appropriate architecture. The definition of architecture is the structure and weighting internodes in ANN. This problem can be displayed as problems optimization that is a lot of possibility of architecture which can be happened. In problems optimization like Evolutionary Algorithms (EAs) such as Genetic Algorithm (GA) and Evolutionary Programming (EP) are really suitable for implementation.

From examination to EANN algorithms to IHSG forex index, the result show us about error which made by best arsitecture time series =3 , hidden node = 3, aktifation function in hidden layer= tansig, aktifation function in output layer = logsig,in predicting are 0.009 for learning data, 0.013 for validation data, 0.104 for testing data, and 0.01 for all of the data. this error is using Mean Absolute Error.

Keywords: ANN , Time Series, Genetic Algorithm, Evolutionary Programming.