Abstract

Correlogram method is a method that is often used to identify the ARIMA model. Forecasting accuracy with this method will be low when there is a mixed effect ARMA, the behavior of complex time series data and data assumptions are not met, so that the sample ACF and PACF can not give the exact model identification. Therefore, artificial intelligence is developed to obtain the best solution from several possible solutions that could be offered and can predict the behavior of the data without specific assumptions. Artificial intelligence method is more accurate for non-stationary data, but there is likely to be trapped in local optimum. One method of artificial intelligence is Genetic Algorithm. This final project using data that contain seasonal and non-seasonal pattern (mixed pattern). Identification of the model obtained with the Genetic Algorithm will be compared with the final results Ribaan (2008) using correlogram method. The results show that model identification using Genetic Algorithm has a lower MSE than correlogram method.

Keyword: ARIMA, Correlogram, Genetic Algorithm, MSE