ABSTRACT

Predicting precipitation with accurate results will greatly help the success of farming in the predicted area. Time Series is a statistical data that is arranged in order of time of occurrence. The data used for this research is a rainfall data that has been obtained from the Indonesian Meteorology Climatology and Geophysics Agency (BMKG) Bandung Regency in 2005 until the year of 2016. The time series algorithm used for this research is EGARCH (Exponential Generalized Autoregressive Conditional Heteroscedasticity) model. Precipitation data is obtained based on the sequences time information, the model chosen for this research is heteroskedastic model for modeling rainfall forecasting moving and depends on the previous time information. The result of rainfall forecasting which is it's pattern is far compared with the actual. And then the results of validation from MAPE and RMSE for training data and testing data are 3172 with 217.2 & 1106 with 224.6. Data limitations is one of the reasons why it has less accurate results which is 144 data in months.

Key Words : Time Series, EGARCH, Rain Fall, Forecasting