Abstract
Weather observation is a fairly challenging problem in the meteorological department for several years. With continuous weather observations, the largest data has been produced for a long period of time. Climate is the amount or synthesis of weather data displayed over a long period. Therefore, predicting a comprehensive need for the coming spring for humans can be guarded in carrying out activities. In this study, the author uses techniques from data mining in performing climate predictions using 5 variables of average temperature, rainfall, solar radiation, air and wind pressure. This study uses the Artificial Neural Network method with the backpropagation algorithm and meteorological data from 2010 until 2018 in the Bogor area with data from 2010 until 2016 being used as training data and 2017 until 2018 as test data. The evaluation result using backpropagation algorithm and artificial neural network method showed that the use of different amounts of training data and the use of different variables can influence the results of the accuracy in predicting climate. In this study showed that the design of the model with data in 6 years and 5 variables data has an accuracy rate 83,33% which means that model can be used to predict climate.

Keywords: backpropagation, climate, artificial neural network, prediction