

ABSTRACT

Rainfall is an important factor in climate change. With a tropical climate of Indonesia. Evaporation of water into the air is very large, consequently the intensity of rainfall is often unstable, therefore need a system for rainfall prediction. Competitive Neural Network is part of an Artificial neural network architecture which consists of an input layer and competitive layer. Architecture results in the can by using some of the scenarios is in the form of weight and accuracy that can be used to predict.

At this final project Competitive Neural Network algorithm used to predict monthly rainfall Soreang region, the weighting parameter. The results of the process are grouped into several clusters that form a pattern recognition to predict rainfall. Expected from the results of this study showed grouping data corresponding to each group.

Best weights of Competitive Neural Network learning is at the scenario with the number of iterations is 500, learning rate 0.02 and initial weight range [-0.5; 0.5] with an average accuracy of training and testing of 82 915%.

Keyword : *winner-takes-all, Competitive Neural Network, competitive layer.*