# Abstract

Community needs for weather forecasts rainfall especially now become very important to plan everything activity. Rainfall also has several important roles in various sectors, including agriculture in determining when the planting of a crop, especially marine and air transportation. Rainfall is also taken into consideration when a person will be holding a major event, suppose that people will tend to have a picnic in fine weather. People's thinking is based on the state of the previous days or customs that are still there. One can say that because there are lots of historical or previous condition of rainfall for the month.

The method used to solve the case of rainfall prediction is Neuro-Fuzzy Function Approximator (NEFPROX). This method combines fuzzy reasoning skills possessed by the learning ability of neural network owned. Function approximator or function approach can be defined from the input and output data pairs are drilled, then the pair of continuous functions to map data can be discovered. The results of this method is an optimal fuzzy system architecture that has been trained using a neural network. NEFPROX has 2 stages of learning, the first is learning to generate rules for fuzzy (structure learning) while the second is learning to shift or modification of the fuzzy parameters (parameter learning).

At the end of this task will be analyzed several parameters such as the epoch of learning and the learning rate in the form of fuzzy architecture for rainfall forecasting. Additionally, it will also researched the factors that most influence on rainfall. Results obtained from testing showed the smallest average error of 18.58 and classification accuracy of 70.3%.

**Key words**: rainfall forecasting, *neural network, fuzzy, nefprox*.