Abstract

Rainfall is a deposit of water in liquid or solid form that originated the atmosphere. Information about the amount of rainfall is one important element and the greatest effect on all sorts of life activities such as: public safety, agricultural production, plantations, fisheries, aviation, public service, and others.

At the time the order is, how big the amount of rainfall that fell. And the amount of rainfall that fell was any particular time is different (non-linear). So, with the pattern of non-linear data, will predict how much rainfall in the future or also known as time-series prediction.

Adaptive Neuro Fuzzy Inference System (ANFIS) is a combination of Fuzzy Inference System with Artificial Neural Networks in which the membership value of the Fuzzy Inference System will be improved through learning with neural networks that can provide better accuracy for a prediction system.

This final project implements the architecture of ANFIS to predict rainfall for the region depok using rainfall data. First, rainfall data divided into training data and test data. Then do the training to find the parameters that will be used during testing. After it was examined by using the parameters obtained from training.

Key Words **:** Fuzzy Inference System, Adaptive Neuro Fuzzy Inference System (ANFIS), neural networks, time-series prediction, rainfall.