

## **ABSTRACT**

*In this final task, entitled "Prediction of Spread the Drill Stem Pest Based on Weather Information Using Adaptive Neuro-Fuzzy Inference System Algorithm in Kabupaten Bandung" using pest distribution data obtained from the Department of Agriculture Soreang. Because the data obtained contains many missing value, then the handling missing value by using a linear interpolation method. Data will be partitioned into two parts, namely the training data and the data of testing using crossvalidation.*

*After a study of scenarios with the use of PCA on overall average performance results obtained districts for the training error of 0.23% and for the testing of 134,99% while the scenario without the use of PCA showed error performance for training by 0,10% and tresting amounted to 116,30%. From the results of the performance of the resulting error can be concluded that this research has not produced enough performance for an accurate prediction.*

*Keywords: Adaptive Neuro-Fuzzy Inference System, the spread of pests, prediction, crossvalidation, PCA.*