ABSTRACT

The importance for knowing the intensity of rainfall is very useful in various aspects of human activity. Indonesia is a country with the tropical and dry climates which have the unstable rain. The rains can not be determined with certainty, but can be predictable and predicted. Rainfall prediction is an effort that is still ongoing to determine the level of rainfall in the future by using rainfall data in the past. In this thesis, the author will analyze the rainfall data in Bandung regency on 2005-2014, by using Fuzzy association rule with Apriori algorithm. The expected is to get a new information from the rules of the asscociation formed, and then the author will make predictions of rainfall in Bandung regency with a Fuzzy inference system using the association rules that already formed. Through these methods , produced a best prediction of rainfall using the membership function of Fuzzy C-Means and using the 10 rules of 30% minimum support and 50% minimum confidence. The error rate is 0.3553 and the accuracy of the process of grouping classes is 75%.

Keywords: rainfall prediction, Fuzzy association rule, Apriori algorithm, Fuzzy inference system.