

ABSTRACT

The student admission in colleges such as ITTELKOM is a program held annually for each school term. Because of the increases of admitted students data every year, a system is needed to solve this issue in order to avoid discrepancies, prevent inconsistent accuracy, lessen admission fraud and prevent subjective grading. This final year project establish a system to help the admission committee in selecting of student through JPPA-N program (a non-test course admission program) using application of data mining technique. The method used AHP (Analytical Hierarcial Process) for weighting and helps the decision tree method with C4.5 algorithm that allows high-accuracy data clarification and less time-consuming compared with other clarification methods.

The result showed that C4.5 using prepruning gave average accuracy above 85% for all type of composition data train and data test, whereas the C4.5 using preruning combined AHP was able to give average accuracy above 98%. C4.5 and AHP give a better sollution with the average system accuracy is about 1,15 times better than C4.5 for all type of composition data train and data test.

Keyword : *Decision Support System, decision tree C4.5, AHP (Analytical Hierarcy Process), ITTELKOM, JPPA-N, Data Mining, prepruning*