

## **ABSTRACT**

Data mining is the process of data analysis by using software to find patterns and rules in the data set. Data mining is able to analyze the big data into information in the form of a pattern that is meaningful for decision support. One of the techniques that exist in data mining is classification which is a process to find a model or function that describes or distinguishes the concept or the class data, with the aim to estimate the class of an object that its label is not known.

PPDB (Acceptance of New Students) is the process of filtering prospective students who are accepted at a high School. Identify the pattern of Admissions can provide useful information both to the School in this case prospective students who enroll at a particular school. The determination of the pattern can be done with a classification model, the classification model is created by analyzing the training data, the resulting model can then be used to predict the class of unknown data. The classification Model can be described in a variety of forms, one of which is by using a Decision Tree.

In this paper will be discussed the classification model using Decision Tree algorithm C4.5, for the determination of the pattern of a data Acceptance of New Students with a reference to the parameter attributes used when the prospective students of the register and carry out the entrance exam. From the results of the discussion of case studies obtained attributes that are influential on the determination of pattern data Reception of New Students consists of three attributes, namely the Ranking/Achievements, Score of Entrance Exam and National Test scores.

**Keywords:** Diknas, PPDB, Prediction, Decision Tree, C4.5 Algorithm, High School.