

ABSTRACT

SYSTEM PREDICTION COLLAGE STUDENT GPA BAASED ON RAPORT VALUE USING DECISION TREE ALGORITM

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Cumulative Performance Index (GPA) is one indicator of the efficiency of the learning process in tertiary institutions which also influences the length of study of students. So we need a system that can predict early categories of student GPA, so students are motivated to get high GPA scores. This study applies data mining classification techniques using the Decision Tree method to determine student GPA prediction classes, namely classes ≥ 3.51 , $3.01 - 3.50$ and ≤ 3.00 .

The attributes used in this study consisted of 6 variables, namely Year, Student Name, Cumulative Achievement Index Value (GPA), Report Card Value, GPA Label. System testing is done using Testing data and Training data. In this research, the University of Telkom Industrial Engineering Faculty Information System study program data records were from the class of 2012 to 2015. The data used as input data came from raw data in the form of 837 records in the Cumulative Achievement Index (GPA) data obtained from the Faculty Industrial Engineering and student report card scores 714 records obtained from the Telkom University National Admission.

Based on the test results it was found that the amount of varied data affects the accuracy of the predicted results. The more data and varied data used, the higher the accuracy value obtained. The highest accuracy value obtained in the first type of test with a value reaching 66,66%.