ABSTRACT

Study program of Information Systems is one of the existing study programs at Telkom University which has produced many graduates until 2017. However, not all graduates produced successfully completed the study period during four years of normal study period in which may cause the decrease of study programs quality and affect the assessment of study program if there is an audit or evaluation so it can affect the achivement level of the study program. To solve the problem can be by making a prediction model of student graduation that can be obtained from data classification process using decision tree with algorithm C4.5 and implement it to the academic data record of existing student so that got two group of student, that is student which predicted pass on time and student predicted to pass late. From the results of the classification of student data can be done an analysis of what factors that can affect the graduation of students who are predicted to pass on time and plan appropriate strategies for groups of students who may not pass on time. The data classification process is done with the help of open source based tools using RapidMiner application. The result of the classification is a prediction model that has an accuracy value of 82.24% and states that the most influential factor in predicting students' graduation is GPA Level 2. The result of the student's graduation classification is expected to be used as the reference base to support the academic planner in making the right decision to the student groups generated so that all students can graduate on time.

Keywords : *prediction of student passing, data classification, decision tree, algorithm C4.5, RapidMiner*