

# The Utilization of Naive Bayes and C.45 in Predicting The Timeliness of Students' Graduation

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## Abstract

An assessment of the success of a college is if the student's graduation rate is on time and high every year. The timeliness of students' graduation can be influenced by several factors. This study aims to determine the profile of the students who graduated both on time and not on time given a certain graduation predicate set by the institution and to know the factors influencing students' graduation. The model used in this study using the NBC to determine the graduation pattern and the Decision tree to determine the influencing factors. In calculating the NBC algorithm using rapidminer, it was found that the profiles of students who graduated on time and late with the predicate of less satisfactory, satisfactory, very satisfactory and cumlaude. In the Desicion Tree calculation, the highest gain values are obtained in the IPK3, IPS1 and IPK2 attributes. This research needs to be developed further by increasing the number of attributes and data, and it is necessary to make a system to determine the accuracy of students' graduation from the patterns that have been produced so that it can help universities to increase the level of students' graduation every year.

**Keywords:** Information Systems, Data Mining, UNW.