## ABSTRACT

Predicting student academic achievement is very important for education providers because these strategic programs can be planned to improve or maintain student performance during their studies in college. Telkom University is one of the best private universities in Indonesia. It can be said to be one of the best universities because Telkom University can produce graduates who are competent and have good integrity plus graduates from Telkom University have good competitiveness at the national and international levels. So by observing the graduation rate using data mining can bring a considerable contribution to educational institutions, in an effort to increase curriculum competence in Higher Education, it is hoped that the results of data mining can make reference to curriculum standards as a form of increasing graduate competence. Each data collection or warehouse can provide important knowledge which is invaluable information for higher education. In tertiary institutions, an information system can be used to obtain information that supports any decision making. Therefore a classification system for student graduation is made on time using the waterfall model to solve these problems. So that the classification of student graduation on time can be more effective according to the information provided by the system created. Data mining with the Naïve Bayes algorithm. The naïve Bayes method classifies data into 2 into Right and Late. This study resulted in an accuracy of 75% naïve Bayes. This student graduation rate detection system can be developed further according to the needs of a university, such as adding additional modules that do not exist such as managing study plans.

Keywords: Naïve Bayes, Data Mining, Algorithms, Prediction