

Abstract

The percentage of students graduating on time is one of the points of assessment by the National Accreditation Board for Higher Education which will have an effect on the college accreditation score. This study identifies the importance of detecting student graduation as early as possible so that preventive action can be taken for students who are detected that their graduation is not on time, either from the university or individuals. With this research, it is expected that the percentage of on-time graduation of students from the Faculty of Informatics, Telkom University will increase. This early detection can be done with data mining techniques, namely classification, classification can be done with various techniques and algorithms, including the Artificial Neural Network algorithm and Information Gain. The artificial neural network algorithm will produce an accuracy value based on the attributes obtained from the Information Gain value. Information Gain will look for the entropy value of each attribute so that the influential attributes are known to be processed in the neural network algorithm which will produce optimal accuracy. The results of this study are the most influential attributes based on Information Gain to be processed in the artificial neural network algorithm. The attributes used are 60% of the total attributes which result in an accuracy of 74.5% for level 1, 78.6% for level 2, 81.9% for level 3, and 83.6% for level 4.

Keyword : Educational Data mining, Classification , Information gain, Artificial Neural Network