

## *Abstract*

SMS is still one of the most important services in the communication media. However, because SMS is cheap and widely used, it appears many spam SMS. To overcome, in this thesis the author uses Naive Bayes classifier and Apriori Algorithm frequent itemset. The author chose Naive Bayes classifier because Naive Bayes classifier is regarded as one of the effective learning algorithms. While the frequent itemset Apriori Algorithm is an algorithm that is suitable to cope with a lot of data and transactions. In the case of SMS spam classification using Naive Bayes classifier, every word that is considered as the data and every sms is considered a transaction. The result, by combining Apriori Algorithm frequent itemset on Naive Bayes classifier, there is increasing rather than using the classic Naive Bayes classifier on the data SMS Corpus v.0.1 Big. Average accuracy Naive Bayes classifier at 97,22 while the average accuracy Naive Bayes classifier and Apriori Algorithm frequent itemset increased to 97.33.

**Keywords :** SMS, *Naive Bayes classifier, Apriori frequent itemset algorithm, spam*