

ABSTRACT

Short Message Service or SMS is an important service found on mobile devices beside calling services. SMS spam is a very serious problem for almost all users of SMS services. To solve the problem of spam, filtering techniques can be used to distinguish between SMS spam and ham (not spam) when mobile device get incoming SMS. In this research will using Artificial Immune System (AIS) method and combine with Tokenization With Vectors algorithm that serves as the preprocessing of text before the text is classified by AIS method. From the experiment results, for testing with 5-fold cross validation, the result of average accuracy is 89.26% for the AIS method that adds Tokenization With Vectors algorithms and 89.06% for the AIS method that does not add Tokenization With Vectors algorithm. While for testing with 10-fold cross validation, the result of average accuracy is 81.92% for AIS method that adds Tokenization With Vectors algorithms and 81.24% for the AIS method that does not add Tokenization With Vectors algorithm. Implementing of Tokenization With Vectors algorithm have higher average accuracy than not implementing that algorithm, but the difference of both average accuracy does not significantly.

Keywords : Short Message Service, Artificial Immune System, filtering, spam, ham, Tokenization With Vectors