

## ABSTRACT

The development of information technology and widespread internet access has changed the way we create, consume and disseminate digital information in Indonesia. However, this phenomenon can also open up great opportunities for the spread of fake news or hoaxes. The impact of the spread of hoax news for the government is that it can cause people to lose trust in government institutions, and create doubts, anxiety and suspicion about government performance. In addition, hoax news can also trigger hate speech, discrimination, and hostility towards groups of different ethnicity, religion, race, or ethnicity. This can lead to social friction and violence. To avoid these adverse effects, we need a machine learning-based system that can help us classify hoax news. In this research, a hoax news classification model is built using Support Vector Machine (SVM), and a combination of BoW and TF-IDF feature extraction. The parameters used in SVM are *kernel* and C value. The results showed that the combination of BoW and TF-IDF with the Support Vector Machine model resulted in an accuracy of 84.6% in classifying hoax news.

**Keywords** : Hoax, TF-IDF, BoW, Machine Learning, Support Vector Machine