

*Abstract*—The increasing spread of fake information or hoaxes in social media and online news has become a severe problem for the community. Hoax information can have a negative impact, such as misleading readers who believe it. Therefore, we need a system that can detect hoax information. Numerous models of hoax detection have been developed by researchers and developers. This paper proposes an Indonesian hoax detection model based on a long short-term memory (LSTM) with pre-trained Word2Vec Skip-gram and a 100-dimensional vector. The dataset used to develop the model is 4800 news in the Indonesian language with two class labels: Valid and Hoax. An evaluation is carried out using the 10-fold cross-validation methods. The experimental result of 10-fold cross-validation shows that LSTM with pre-trained Word2Vec corpus Wikipedia Indonesia produces an average accuracy of 89.4% better than pre-trained Word2Vec using case study corpus with a mean accuracy of 84.8%.

*Keywords*—*Hoax Information, Long Short-Term Memory, Pre-trained Word2Vec, Skip-gram.*