ABSTRACT

Alfin, Moh. 2023. **Multi-Document Summarization Using Recurrent Neural Network Algorithm**. Thesis. Informatics Engineering Department, Faculty of Science and Technology. *State* Islamic University of Maulana Malik Ibrahim Malang. Supervisors: (I) Zainal Abidin, M.Kom. (II) Puspa Miladin Nuraida Safitri A Basid., M.Kom.

News document summarization is an important aspect of natural language processing and this journal aims to describe the latest developments in this field. With the explosion of information and the ever-increasing number of news, news document summarization is key to facing the challenge of accessing relevant and valuable information. In this paper, multi-document summarization in Indonesian is performed using the RNN (Recurrent Neural Network) method, the variation used is Long Short-Term Memory (LSTM), with feature extraction using two different Word2Vec models, namely CBOW (Continuous Bag of Words) and *Skip-gram*. The results show significant recall, precision, and F-measure values. For the CBOW model, the recall, precision, and F-measure values found are 0.487, 0.704, and 0.550. Meanwhile, for the *Skip-gram* model, the test results show a recall value of 0.414, a precision value of 0.687, and an F-measure value of 0.504

Keyword: *Summarization, Recurrent Neural Network, Long Short-Term Memory, Word2vec.*