## **ABSTRACT**

POS Tagging is one of the techniques in Data Mining to identify the types of words that exist. POS Tagging is very useful in a variety of processes on Natural language processing (NLP) such as text processing voice, text and linguistics. POS Tagging using Supervised Hidden Markov Model method has some drawbacks, one of which is the handling of OOV or Out-of-Vocabulary. Handling OOV is handling the unknown word or words not previously appeared at the time of training, so it can reduce the accuracy of the tagging process is due to the possibility of giving the wrong tag is quite high. Forward algorithm and *Backward* algorithm is one of the algorithms that have the characteristics that can be used to handle the OOV problem.

Key words: Indonesian Pos Tagging, Supervised Hidden Markov Model, Forward Algorthm, *Backward* Algorithm, Out-of-Vocabulary.