

## Abstract

Copyright infringement is a misuse of information technology that occurs often nowadays. One of the digital data that infringed often is text. Natural Language Watermarking is a way to protect the ownership of digital text data format with specific language. Watermarking which is done by inserting a message into the text. The technique used in this Final Project is Syntactic Alteration, where the text contains natural language, in this case Indonesian language, to be inserted with the watermark by doing some changing or transformation to the sentences from the text.

The insertion concept is inserting one watermark code in to one sentence. The inserted sentence will be transformed according to the transformation tool for that sentence. The transformation that applied in this Final Project are activation, passivisation, adverb displacement, and conjunct/word order change. In addition, there is also a pass tool which used to pass the sentence that suppose to be inserted with the watermark codes.

Natural language watermarking must satisfy the conditions such as imperceptibility, payloads, and robustness. For that, the technique which used in this Final Project is hopefully expected can keep the originality of the text's semantic, knowing the coverage or capacity of the watermark that can be inserted, and robust again attacks such as synonym substitution and word insertion.

**Keywords:** *natural language, watermarking, transformation, syntactic, attack*