

**Universiti Teknologi MARA**

**AUDIO WATERMARKING  
(ENCRYPTION AND PROTECTION)**

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## **ABSTRACT**

Nowadays, as the internet grows larger, the number of digital theft also increases. Therefore, every owner of copyright protection should have some protection and security for their products. One of the ways that can be done in order to protect them is by using watermarking. Watermark consists of unique information about the owners. This project not only focuses on the watermark, but also the security of the watermarked file. This is important in order to protect the information embedded in the files. This project focused only on audio files where the watermark is invisible. There are few tools that had been selected in order to insert the watermark. This project produced two sample copies of every single audio file where one of the files had been inserted with noise and the other copy was kept in its original form. After that, some scripting using Java Script had been used in order to protect the watermark inside the audio files. The encryption techniques also had been used to mask the audio file name in case of interception during any transmission over the network. As a result, an encrypted and watermarked audio file is being used on the product. It is hoped that this project gave benefits to all producers and owners of all digital and multimedia contents.

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