

## ABSTRACT

*Watermarking* is one of the technique that used for data security. Digital watermarking technique is the technique for hiding some data into another set of data as host file by utilizing the weakness in human sense, such as hearing in audio signal processing. This research will review digital watermarking system in audio signal. The objective of this system is used especially for copyright protections.

*Watermarking* Method that used in this research is Phase Coding Method. The proposed method is characterized by excellent audio quality vs. robustness trade-off, high bit rate, low processing load, and particularly, a good security. The application in this research is made using MATLAB.

The core of this research is to attached some information without destroying quality of the source when played. Further, that audio played and will be recorded using another device such as smartphone (Ambient Mode). The result from phase coding method in file mode is BER value 0 and accuracy rate 100%, and in ambient mode is BER value 0.25 accuracy rate 75%.

Keywords : Digital Watermarking, Audio, Phase Coding, recorded, Ambient Mode.