ABSTRACT

Access to information become easier along with the development of technology, not only provide benefits but also cause new problems. One of the problem is the issue of copyright infringement. Copyright is the exclusive right of the Creator or Copyright Holder to govern the use of an idea or certain information. One example that is often become the subject of copyright infringement is music or digital audio. Knowing these problems, we need a protection technique to the original digital data, Digital watermarking be one of the solutions used.

Digital watermarking is the insertion of watermark information in the form of identity of ownership into digital data. When the watermark information is inserted into a digital audio it is called audio watermarking. In this research applied audio watermarking with spread spectrum insertion method and BCH Code as error correction coding. The watermark information used in this research is text, as well as digital audio format (* .wav).

Watermarking performance in this final project is tested on watermark audio without BCH encoding and with BCH encoding. The parameter values used for the test are as follows Rpi 3, nblock 7, FHPF 7000 Hz, and Alpha 0.005. The test results using the best parameters in watermark audio without BCH encoding are as follows BER = 0, SNR = 46.7354 dB, ODG = -2.0223, and watermark capacity = 114.8438. Testing of watermark audio with BCH encoding yields BER = 0, SNR = 50.27 and ODG = -1.4518.

Keywords: *Audio Watermarking, Spread Spectrum, BER, SNR.*