

ABSTRACT

Hash function is one of the cryptography technique that is used for data authentication and verification. Hash function that commonly used are SH-1 and MD5. both of them technique are rarely used in audio file processing. Robust audio hashing is one of the hash function that applied for audio processing.

Robust hash function for audio watermarking is implemented in this final project. Watermarking method that used is spread spectrum. RSA public key encryption is also applied on the encoding process. For watermarked audio, objective and subjective quality testing are done and also robust testing for filtering and noising hash function

From the testing in objective and subjective way on hash function and the watermarked audio, hash function is robust to filtering and noising processing, that shown by the BER value of hash function. Watermarked audio SNR is about 127,978 and BER high values, show that applying robust audio hashing, audio watermarking and encryption is not recommended.

Keyword : *Robust audio hashing, Audio watermarking, RSA, BER, SNR Spread Spectrum*