

## **ABSTRACT**

Generally cryptography is the science and art of maintaining the confidentiality of news and the study of mathematical techniques related to information security such as data confidentiality, data authenticity, data integrity, and authentication of data.

Digital Rights Management (DRM) is a system intended to overcome the problems associated with setting up the access and distribution of digital material which ensures rights and obligations between the owner .

In this final project is made an implementation that combines cryptography and DRM for digital audio files in order to form a digital audio file can not be pirated or distributed illegally. First audio file is encrypted and uploaded to the cloud and then use a mp3 player that has been made to the audio files that are downloaded can not be played on other mp3 player.

Algorithm AES-128 bit that implemented have a good performance, this can be seen at the given value of Avalanche Effect ranged from 0.40 to 0.53. Audio files have different frequencies while after encrypted with the average change in frequency of 0.24x original frequency.

Keyword : Cryptography, DRM, AES, Audio Files