

## ABSTRACT

The development of information technology through multimedia services such as Video on Demand can not be separated from the issue of data security. Security is very important to maintain the data from those who do not have the right to see it. Therefore, it needs a method of concealment of information / data that cryptography to be able resolve this security issue.

This final project will discuss the implementation of Sosemanuk algorithm cryptography which is a symmetric key algorithm and ranks stream cipher on Video on Demand. The system built is a desktop application that provides video content to be encrypted and decrypted using Sosemanuk algorithm cryptography based Digital Rights Management. DRM aims to manage and control the right client to the existing data. At the time of non member users make requests a video, the displayed video is encrypted video Sosemanuk algorithm, while the user is currently a member to request a video, the system performs decryption of the encrypted video earlier and display video decryption results to the members.

This study aims to analyze the performance of the Sosemanuk algorithm on Video on Demand in terms of processing time to encrypt and decrypt, avalanche effect and quality of data video.

Keywords : *Cryptography*, Sosemanuk, *Video on Demand*, DRM