

ABSTRACT

Data security is a method to secure specific data using data encryption algorithms. Security of data is necessary to prevent illegal data collection, in order to protect the intellectual property rights of the owner of the data. Moreover, the Android operating system with open source basis to make the data contained in Android easily found and distributed illegally.

Therefore, the aim of this final task is to apply data encryption using AES and Twofish algorithms to create a security system on Android. In this final task used two data encryption algorithms to compare performance. Comparing the two algorithms is important to find the most optimal performance to be applied in the case of digital Quran applications using image data. Performance is measured include levels of data encryption processing speeds up the image data appears to read on the reader.

From the results of the tests performed on the application of digital Quran known that the AES algorithm is faster than the Twofish algorithm. As for the memory utility Twofish algorithm uses memory lower than the AES algorithm. While the level of security that is done, it was found that the test of key matching in AES algorithms is longer than the Twofish algorithm.

Keywords : *Data security, Android, AES algorithm, Twofish algorithm, Digital Quran.*