

## **Abstract**

Development of mobile devices today is really fast. One of the notable development is android operating system. Encryption technology are a process that have complex computation, therefore can slowed down mobile devices. For an encryption application can work well in android device, cryptographic algorithm that can run most optimum on android devices need. Therefore an implementation made for SMS encryption on android devices. That implementation done with Android SDK and Android Studio for make the application. Cryptographic algorithm used in this implementation are Serpent and AES. That implementation will tested with parameter like encryption time, decryption time, heap memory, and avalanche effect. Result of the test concluded AES are most optimum cryptographic encryption to implement on android device.