**JARAMOGI OGINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**SMSENCRYPT ANDROID APPLICATION**

**(ALGORITHMIC APPROACH)**

**BSC COMPUTER SECURITY AND FORENSICS**

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## **ABSTRACT**

*Due to the risk involved in stored messages on phones being accessed by persons who are not supposed to access it was proposed that an application that stores messages in encrypted form be develop*e*d*. *SMSEncrypt has been developed to take care of this problem. SMSEncrypt is an android based application which sends and stores messages in a cipher form.*

*This paper focuses on showing how SMSEncrypt has been developed: The methodology used, the conceptual design, testing and implementation. It also shows how this application has addressed the problem.* *Ahmet et al introduces BabelCrypt, a system that addresses the problem of retrofitting arbitrary mobile chat applications with end-to-end encryption. This system protects messages against access by the messaging service providers. Protecting against service providers is not enough since they are not the only potential threats to messages privacy. Therefore SMSEncrypt takes care of encrypting the messages in storage. The methodology used is software prototyping since it was necessary to consider feedback from users and improving on the prototype. The implementation and testing is done using two android real devices.*

*SMSEncrypt sends and stores messages in encrypted form using a base 64 encoding, 8set encryption algorithm as well as sender and receiver phone numbers encoding. SMSEncrypt has successfully solved the problem and has as well ensured maintenance of confidentiality and integrity as goals of security. This study has recommended that further work be done on biometrics and threads management in this application.*