

ENCRYPTION KEY GENERATION BY USING MODIFIED HAND-GEOMETRY BASED CRYPTOSYSTEM TO SECURE SMS IN ANDROID

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ABSTRACT

A biometric is defined as a unique, measurable, biological characteristic or trait for automatically recognizing or verifying the identity of a human being. Statistically analyzing these biological characteristics has become known as the science of biometrics. The very basis of this Biometric Cryptosystem lies on the very fact that some features of human body are significantly unique to each and every human in the world, such as fingerprint, DNA sequence, Iris, etc. Using those biometric we can generate an exclusive key that will be unique for each and every individual. Now having generated these keys we can use them for encrypting our message. And as because these keys are uniquely generated for individual persons there's no chance of there will be a matching keys. Moreover as I use RSA algorithm based encryption technique so the encryption lies on two basic sets of keys to decrypt the message. Hand geometry is a kind of biometric measure where Data is read and processed independently of the position of the user hand. This is done by analyzing the curvature profile of the hand contour, making the feature extraction process rotation and translation invariant. In my proposed work first I identify keys from hand geometry and after that by using those keys I can encrypt an SMS in mobile android by using RSA algorithm.

KEYWORDS: Android, Biometric Cryptosystem, Feature Extraction, Hand Geometry, RSA