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## A secure minutiae-based fingerprint template generation approach

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The paper addresses the security and the privacy of the biometric information. It proposes a secure cancellable template generation method which creates template on the basis of individual fingerprint's features. There can be severe attacks on fingerprint authentication system and the security of fingerprint template is a big issue. A lot of studies have been done on the attacking points to solve all the vulnerabilities in the field of fingerprint security and hence, the data template is a great matter of concern. This paper presents a parameterized minutia-based approach for generating secured templates from fingerprint images. The research has a great contribution in the field of security

of the fingerprint template database. The fingerprint minutia features and their related parameters have been analyzed and finally, proposed a method that can hide fingerprint features by adding chaffs or fake minutiae and changing the real minutia information to generate secure templates or vaults. In this technique, the template pattern has been changed for every new fingerprint image. As a result, there is no way to get vault information. The proposed method achieved highest accuracy for verification and has diversity that creates dissimilar vaults to resist correlation attacks.

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