Abstract

The performance of majority of algorithms employed for fingerprint identification is strongly affected by the accuracy of detection of core-point. Unintentional finger rotation during acquisition process inspite of mounting a finger "guide" on the sensor results in rotation of fingerprint images. In order to tackle this rotational variance a Discrete Wavelet Transform (DWT) based approach for core-point detection has been presented in this paper. The approach does not involve computation of orientation field and is directly employed on the gray scale images. We use 2D-wavelet coefficients in horizontal, vertical and diagonal direction to locate the core. Experimental results on two different databases have shown that approach
is robust and invariant to rotation.

References

Rotation Invariant Fingerprint Core-Point Detection using DWT


**Index Terms**

Computer Science  
Emerging Trends in Technology

**Keywords**

Biometrics  
Fingerprint  
Core-point  
Wavelet Transform