Fingerprint feature extraction based discrete cosine transformation (DCT)

ABSTRACT

Fingerprint identification and verification are one of the most significant and reliable identification methods. It is impossible that two people have the same fingerprint. Automatics identification of humans based on fingerprint requires the input fingerprint to be match with a large number of fingerprints in the database. Generally, the fingerprint recognition systems are unable to solve the problem of rotated scanned input images. The classification systems are failed to classify the rotated scanned fingerprint image with the fingerprint image that store in the database, which both of the fingerprint images are actually belonging to the same person. In this paper, a simple and effectiveness algorithm is proposed for fingerprint image recognition and the proposed algorithm is able to solve the problem discussed above. The proposed algorithm involved two stages, which is pre-processing of fingerprint image and feature extraction based nCT. The extracted nCT data is used as input for the backpropagation neural network training for personal identification.