A NOVEL APPROACH TO FINGERPRINT IDENTIFICATION USING GABOR FILTER-BANK

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ABSTRACT:
Fingerprint Identification is a widely used Biometric Identification mechanism. Up till now different techniques have been proposed for having satisfactory Fingerprint Identification. The widely used minutiae-based representation did not utilize a significant component of the rich discriminatory information available in the fingerprints. Local ridge structures could not be completely characterized by minutiae. The proposed filter-based algorithm uses a bank of Gabor filters to capture both local and global details in a fingerprint as a compact fixed length Finger Code. The Fingerprint Identification is based on the Euclidean distance between the two corresponding Finger Codes and hence is extremely fast and accurate than the minutiae based one. Accuracy of the system is 98.22%.

KEY WORDS: Core Point, Euclidean Distance, Fingerprints, Feature Vector, Finger Code, Gabor Filter-bank.

REFERENCES


