Abstract

With the increasing emphasis on the automatic personal identification applications, biometrics especially fingerprint identification is the most reliable and widely accepted technique. In this paper Fingerprint Verification based on fusion of Minutiae and Ridges using Strength Factors (FVMRSF) is presented. In the preprocessing stage the Fingerprint is Binarised and Thinned. The Minutiae Matching Score is determined using Block Filter and Ridge matching score is estimated using Hough Transform. The strength factors Alpha (α) and Beta (β) are used to generate Hybrid matching score for matching of fingerprints. The proposed algorithm has better matching percentage for different fingerprints compared to the existing algorithms.

Reference

Fingerprint Verification based on fusion of Minutiae and Ridges using Strength Factors


Index Terms

Computer Science
Pattern Recognition

Key words

Minutiae
Ridge

Dilation
Ridge Bifurcations
Block Filter
Hough Transform
Strength Factor
Fingerprint Verification based on fusion of Minutiae and Ridges using Strength Factors