Abstract

This paper introducing a fingerprint algorithm to increase the detection performance against nonlinear deformation in fingerprint. Here proposed method uses ridge feature which is composed of four standard elements these are ridge count, length, curvature direction and type. Benefit of this ridge feature is that they can represent topology information in entire ridge patterns. These patterns are existing between two minutiae but not changed by nonlinear deformation. Here we are using both ridge feature and conventional minutiae (minutiae type, orientation and position). For ridge feature extraction; one ridge based coordinate system in skeletonized image is used. So using both this approach ridge feature and minutiae we are getting additional information for fingerprint matching.
Biometric Fingerprint Authentication for Security using Minutiae Matching

- FBI. U. s. department of justice, washington, d. c. 20402. The Science of Fingerprints, Classification
- R. Cappelli, D. Maio, and D. Maltoni, &quot;Modeling plastic distortion in fingerprint images,&quot; in Proc. ICAPR, 2001, pp. 369–376
- Bhupesh Gour, T. K. Bandopadhyaya and Sudhir Sharma, &quot;Fingerprint Feature Extraction using Midpoint 8, Ridge Contour Method and Neural

Index Terms

Computer Science

Security

Keywords

Minutiae  Ridge  Breadth First Search  Non Linear Deformation Of Finger Print.