Robust Fingerprint Matching

Abstract

Pattern recognition aims to classify data (patterns) based on a priori knowledge or on statistical information extracted from the patterns. Under fingerprint recognition we have chosen the Fingerprint Matching as the research work. Most automatic systems for fingerprint comparison are based on minutiae matching. Minutiae are essentially terminations and bifurcations of the ridge lines that constitute a fingerprint pattern. A minutia extraction approach has been presented using the midpoint ridge contours [17]. The technique conferred in this paper is based on the extraction of minutiae from the thinned, binarized and segmented version of a fingerprint image. This paper describes fingerprint matching by using occurrences of minutiae points which enhances the performance of the matching algorithm. The quality of the proposed algorithm is that it can be associated with any algorithm as a part of pattern matching.

Reference

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Index Terms

Computer Science       Pattern Recognition
Key words

Minutiae Extraction
Segmentation

Contrast Enhancement

Midpoint Ridge Contour

Minutiae matching