A Novel Technique for Fingerprint Classification based on Naive Bayes Classifier and Support Vector Machine

Abstract

Fingerprint classification decreases the number of possible matches in automated fingerprint identification systems by categorizing fingerprints into predefined classes. Support vector machines are widely used in pattern classification and have produced high accuracy when performing fingerprint classification. In order to effectively apply Support vector machines to multi-class fingerprint classification systems. It is proposed a novel method in which the fingerprint classification can be done by the classifier used Naïve Bayes and Support vector machines efficiently reduce the search time by restricting the subsequent searching stage to either left hand thumb and right hand thumb databases.

References

1. Biometric System Laboratory, University of Bologna.
A Novel Technique for Fingerprint Classification based on Naive Bayes Classifier and Support Vector Machine

LNCS 3072, pp. 731-738, Hong Kong, July 2004.


Index Terms

Computer Science

Pattern Recognition

Keywords

Fingerprint classification, Support vector machine; FingerCode; Naïve Bayes classifier; classifier combination, directional image, feature selection, subspace classifiers.