Abstract

This paper describes the recognition of multimodal biometric systems based on the face and palmprint features. The common feature extraction technique between the palmprint and face recognition system is the Local Binary Pattern. In the palmprint recognition, the region of palm was extracted from the entire hand. The Histogram of Oriented Gradient (HOG) and Local Binary Pattern (LBP) were used to extract the features of palm. The Zernike moments and LBP were used to extract the features of face. The features of palm and face were integrated as feature vector. To evaluate the accuracy of the system, different classifications were applied such as SVM, KNN, Linear Discriminant. This experiment was performed on the ORL and CASIA database. The proposed system was tested on the said database and found to be satisfactory.

References

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LBP, HOG, Zernike Moments, ROI, SVM, KNN.