Abstract

Biometric features have received great attention for many applications. Iris recognition is one of the most modern biometric techniques that is used for accurate and reliable authentication. Recently, Gray-Level Cooccurrence Matrix (GLCM) is one of the advanced techniques used for features extraction. In this paper, an iris recognition system proposed involves; preprocessing, feature extraction, and matching processes. After the preprocessing process, the feature extraction technique based on GLCM has been applied to pure iris region to extract features. Only one of the second-order statistical features known as contrast will be calculated from the generated co-occurrence matrix and stored it as a numerical feature vector in CASIA-v4.0-iris database. During recognition, the matching metric based on Euclidean distance has been used for authentication. Results have demonstrated (99.5%) highly accuracy rate with (0.02) FAR, and (0.01) FRR.

References
Iris Feature Extraction and Recognition based on Gray Level Co-occurrence Matrix (GLCM) Technique


Index Terms

Computer Science

Image Processing
Keywords

Gray Level Co-occurrence Matrix (GLCM), Feature extraction, Euclidean distance, Iris recognition system.