Abstract

In this paper a comparative analysis of K-Principal Component Analysis (K-PCA) and K-Nearest Neighbor (K-NN) classifier is done for age invariant face recognition using Indian Face Age Database (IFAD). IFAD is a real time and wild in face database which can be used for face recognition at different variation parameters. These variations can be pose, illumination, occlusion, and age. In this paper age variation is prime issue for face recognition. The IFAD database consists of 55 subjects. The images are not preprocessed. In IFAD face detection is done by Viola Jones face detection algorithm. It is analyze that K-NN gives high classification rate but take more execution time at high values of K components. On the other hand Euclidean distance gives less classification rate and less execution time at high values of K components. So K-NN can perform better for age invariant face recognition if its execution time improved in future.

References


Index Terms

Computer Science  Image Processing
Keywords

Image Processing, Feature Extraction, Face Recognition and Machine Vision.