Abstract

A number of global and local methods are available for the representation of face images, still no single approach is found to be suitable in most of the situations. As the information conveyed by these two feature sets, is different hence the techniques that combine the global and local features together are necessary to obtain the optimal results. In this paper, we have developed an approach to combine two feature sets obtained from SVD and LBP approaches. SVD approach is able to efficiently represent the global variations of face images whereas the LBP is one of the most useful descriptors to extract the local variation of face images. In order to analyse the effectiveness of the proposed approach obtained by the fusion of SVD and LBP approaches, various experiments have been carried out on ORL and Yale face databases. The proposed approach has also been compared to some existing techniques and from the detailed experiments it has been observed that the results obtained by the proposed method are far better than these approaches.

References

- Zhao, W. , Chellappa, R. , Rosenfeld, A. and Phillips, P. 2003. Face recognition: A
Index Terms

Computer Science

Image Processing

Keywords

Face Recognition  Singular Value decomposition (SVD)  Local Binary pattern (LBP)

Complementary features

Global Face Descriptors

Local Face Descriptors.