Abstract

Face Recognition is a biometric application which can be controlled through hybrid systems instead of a solitary procedure. This paper focus at Principal Component Analysis system alongside SVM and SURF for Face Recognition. Preprocessing abrogates improper, superfluous and unnecessary information. PCA naturally decreases dimensionality and Feature extraction to minimize highlights. Furthermore, after element extraction, the recognition is performed on these elements to perceive the person. SVM classifier is a classifier which is utilized as a part of this paper for performing the recognition capacity and SURF is utilized for matching the source image with the database. This outcomes in an adequate error rate and accuracy furthermore this gives better MSE and PSNR results. In this paper, a novel facial methodology is used to hunt the element space down the ideal component subset where elements are extricated by PCA , while matching and recognition is done utilizing SVM classifier and SURF Technique. For the usage of this proposed work we utilize Image Processing Toolbox under the MATLAB programming.
References

5. Dong Hui, Han Dian Yuan, “Research of Image Matching Algorithm Based on SURF Features”, in International Conference on Computer Science and Information Processing (CSIP), 2012.
16. Mr. Hamid M. Hasan, Prof. Dr. Waleed A. AL.Jouhar & Dr. Majed A. Alwan, “Face Recognition Using Improved FFT Based Radon by PSO and PCA Techniques”, International
Computer Science

Image Processing
Keywords

Face Recognition, Principal component Analysis, Support Vector Machine, SURF.