Abstract

In past three decades, two dimensional face recognition has been one of the most important and attractive research areas in computer vision. However, pose and illumination variations in the face images have been the dominant factors which have hindered many practical applications of two dimensional face recognition systems. In order to overcome these limitations and inherent drawbacks of two dimensional recognition system, many researchers have turned to 3D or surface facial information which is now commonly believed to have the potential to achieve greater recognition accuracy than just 2D. In this paper, a novel 3D face recognition approach based on radon transform and factorial discriminant analysis using SVM is
proposed. The proposed approach has been tested on three publicly available databases, namely, Bhosphorus, Texas and CASIA 3D face databases. The experimental results yielded 99.70% recognition accuracy using SVM classifier.

References

Factorial Discriminant Analysis for 3D Face Recognition System using SVM Classifier

Index Terms
Computer Science
Image Processing

Keywords
Radon Transform  Factorial Discriminant Analysis  Knn  Svm.