Abstract

In this paper, we present a new approach for facial face recognition. The method is based on the Fourier transform of Gabor filters and the method of regularized linear discriminate analysis applied to facial features previously localized. The process of facial face recognition is based on two phases: location and recognition. The first phase determines the characteristic using the local properties of the face by the variation of gray level along the axis of the
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characteristic and the geometric model, and the second phase generates the feature vector by the convolution of the Fourier transform of 40 Gabor filters and face, followed by application of the method of regularized linear discriminate analysis on the vectors of characteristics. Experimental results obtained on sample of images from the XM2VTSDB database [1] have shown that the proposed algorithm gives satisfactory results in a precise manner.

Reference

- Juwei Lu, K.N. Plataniotis, A.N. Venetsanopoulos, "Regularization studies of linear discriminant analysis in small sample size scenarios with application to Face recognition", Bell
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