Realization of a Hybrid Face Detecting and Verifying System

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Abstract

Face recognition is a popular subject in computer vision and objects recognition area because of each person has unique facial features. In this paper, the realization of a hybrid system for face detecting and verifying was presented. Gabor wavelet transform was used to extract facial features of individuals from images. An Artificial neural network was used to classify faces by using obtained features. Phase correlation method was used for face verifying. A MATLAB Graphical user interface was designed by combining these systems for realizing proposed hybrid system, after filtering and scanning methods, the obtained face areas demonstrate within an outline. Phase correlation methods were used to accelerate the searching process. The performance of the proposed system was tested on different image database. It was understood that the proposed method works with high accuracy but is slow when considered as the whole process.

References


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Index Terms

Computer Science  Distributed Computing

Keywords

Face Recognition, Gabor wavelets, Phase Correlation, Artificial Neural Networks