عنوان مقاله:

Face Recognition based on Discrete Wavelet Transform and Sobel - Roberts Features

محل انتشار:

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خلاصه مقاله:

Face is one of the physiological features used in identifying or verifying a person. Different methods have been proposed for recognition of a person’s face in a pool of imagesof faces belonging to different persons. We used Discrete Wavelet Transform (DWT) and Sobel-Roberts Feature (SRF)for face recognition. For this purpose, in the training phase, DWT was applied to the input image, and SRF was used to extract features from approximation image. The system wastrained through Support Vector Machine (SVM) and the parameters were stored. In the recognition phase, againfeatures of the input image were extracted and faces were recognized using SVM and the parameters stored in the previous stage. Olivetti Research Laboratory (ORL) databasewas used for the purpose of recognition in this study. For 4 and 5 images of any person for the training set gave recognitionrates of 97.5% and 98.6%, respectively which is higher than other methods. The time required for phase detection was approximately .7ms. Results show that the proposed method has high accuracy and high speed

کلمات کلیدی:

Face Recognition, Discrete Wavelet Transform (DWT), Sobel-Roberts Features (SRF), Support Vector Machine ((SVM