

Abstract

In this paper, we evaluated the performance of face recognition based on Wavelet Packet Decomposition (WPD) and Principal Component Analysis (PCA) at second level of decomposition where six wavelet families are employed namely: Daubechies, Haar, Coiflets, Symlets Biorthogonal, and Reverse Biorthogonal. Firstly by taking all of the sixteen subbands obtained after the second level of decomposition and combine them using mean and product rules. Then, each subband is run separately with the purpose of selecting among them the ones that provide lowest Equal Error Rate (EER). After that, subbands with lowest EER are combined together using mean and product rules; aiming for dimensionality reduction of the input image as well as increase the performance of the recognition system