Abstract

Image recognition is one of the most important applications of information processing, in this paper; a comparison between 3-level techniques based image recognition has been achieved, using discrete wavelet (DWT) and stationary wavelet transforms (SWT), stationary-stationary-stationary (sss), stationary-stationary-wavelet (ssw), stationary-wavelet-stationary (sws), stationary wavelet-wavelet (sww), wavelet-stationary-stationary (wss), wavelet-stationary-wavelet (wsw), wavelet-wavelet-stationary (wws) and wavelet-wavelet-wavelet (www). A comparison between these techniques has been implemented. according to the peak signal to noise ratio (PSNR), root mean square error (RMSE), compression ratio (CR) and the coding noise e (n) of each third level. The two techniques that have the best results which are (sww and www) are chosen, then image recognition is applied to these two techniques using Euclidean distance and Manhattan distance and a comparison between them has been implemented. it is concluded that, sww technique is better than www technique in image recognition because it has a higher match performance (100%) for Euclidean distance and Manhattan distance than that in www.
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**Index Terms**

Computer Science

Image Processing
Keywords
3-level Techniques  image recognition  stationary wavelet transform  wavelet transform  feature extraction.