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N.E.R. technique to improve image quality in singly image

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Abstract:

Noise is major issue observed during the image processing in image processing applications. These noise levels have to be predicted and after estimation get it reduced to certain maximum declined level. We can't be completely structure noise free image but we can improve the quality of image by estimating those noise. The proposed approach is an innovative way to estimate and remove the noise which found through observation during the processing of image. Principal component analysis (PCA) approach is followed to remove the noise by estimating it, this can be done by following one of the statistical techniques which is frequently used in signal processing for data dimension reduction or for the data correlation. In principal component analysis image blocks were rearranged into vector and compute the covariance matrix of this vector. Then by selecting the covariance matrix Eigen values which corresponds only to noise. With the help the average of the Eigen values we can be able to estimate the noise present in the image , for estimation of noise in image we just take a partial region of the image so that it will be convenient for us to reduce it by using the denies function .

Keywords:

Principal Component Analysis, Noise Estimation, Noise removal, Contour Based Segmentation