

Edge Detection in Low Contrast Images

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Abstract : The edges of low contrast images are not clearly distinguishable to the human eye. It is difficult to find the edges and boundaries in it. The present work encompasses a new approach for low contrast images. The Chebyshev polynomial based fractional order filter has been used for filtering operation on an image. The preprocessing has been performed by this filter on the input image. Laplacian of Gaussian method has been applied on preprocessed image for edge detection. The algorithm has been tested on two test images.

Keywords : low contrast image, fractional order differentiator, Laplacian of Gaussian (LoG) method, chebyshev polynomial

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