A New Method For Implementation Of Edge Detection Based On Proposed Bcfgst With Svm Classification

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Keywords: Robert edge detector, Prewitt edge detector, Sobel edge detector, Canny edge detector, Filtering, Gradient, Classification and Multi-level Thresholding

ABSTRACT

In photograph processing, system vision, and laptop vision, edge detection is a crucial tool, particularly in the domains of feature detection and characteristic extraction. It's also one of the most significant aspects of image processing, especially when determining image quality. Sobel, Prewittt, Canny, Laplacian of Gaussian (LOG), Robertss, and Zero-Crossing are examples of common edge detection algorithms. To find edges in photos, the Canny operator is commonly employed. However, as the size of the image dataset grows larger, the canny operator's overall edge detection performance suffers, and its runtime becomes excessive. The main disadvantage of the canny part detector is that it takes a long time to compute due to its sophisticated processing. In order to overcome these issues, this work proposes a new method for handling component detection. In this research, we present a BCFGST in Face pictures with an SVM (Support Vector Machine) Classifier. First, the damaged area is found using BCFGST's component detection approach, and then functions are retrieved. When comparing Canny Edge Detection with SVM to BCFGST, the SVM approach provides superior face recognition data.

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