Abstract

In the field of image processing, edges of an image are important as they characterize boundaries. To reduce the volume of data and refine insignificant information without damaging the structural properties of an image, a process called Image Edge Detection may be performed. Understanding algorithms of edge detection is therefore imperative because it is essential in image processing, particularly in object detection. This paper aimed to recognize this importance to detect human object in particular by conducting an experiment, with emphasis on entropy. Similarly, a comparison of the entropy-based edge detector was done based on the different edge detection techniques such as Prewitt, Robert, Sobel, Canny, and LOG operators. Result show that Canny edge detector exhibits a better performance as compared to the other edge detectors to detect the human object in the image. This is derived from the detectors.


**Index Terms**

Computer Science  
Image Processing

**Keywords**

Edge Detection, Canny, LOG, Sobel, Prewitt, Roberts