Abstract

Edge detection of real world images is a challenging task. To extract the edges from the images, derivative edge detection operators or gradient operator, such as Sobel operator, Prewitt operator, Roberts operator, and Laplacian operators, Canny operators are commonly used for which 3x3 mask is used. Different approaches have been used earlier for detecting edges that have some advantages and disadvantages like false edges are detected, some important edges are missed noise around the corners etc. So, in order to reduce these types of effects; special fuzzy inference system are used and the output of fuzzy system will decide whether that particular pixel is a part of edge or not. This paper presents a new edge detection algorithm based on fuzzy inference system. Fuzzy Image Processing is applied in combination with traditional operators used so far. Then fuzzy system will decide for each pixel using different sets of fuzzy rules.

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**Index Terms**

Computer Science

**Keywords**

Edge Detection  Fuzzy Logic  Fuzzy Inference System