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Abstract

Edges characterize boundaries and are therefore a problem of fundamental importance in image processing. Edge detection is one of the most critical tasks in automatic image analysis. There exists no universal edge detection method which works well under all conditions. This paper shows the new approach based on the one of the most efficient techniques for edge detection, which has advantages of its robustness and its flexibility. Edge detection is a very important process for many image processing applications, especially in Car License Plate

Detection and Recognition Systems (CLPDRS). The need to distinguish the desired details is a very important pre-process in order to give good results in short time processing. We proposed a new and fast Vertical Edge Detection Algorithm (VEDA) which is based on the contrast between the gray scale values. After binarizing the input image using adaptive thresholding (AT), an unwanted-line elimination algorithm (ULEA) is proposed to enhance the image, and then, the VEDA is applied. The results revealed accurate edge detection performance and demonstrated the great efficiency of using VEDA in order to highlight license plate details.

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Computer Science

Index Terms

Algorithms

Keywords

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