Wearable Entity Recognition and Detection of Visually Weakened

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Abstract: In this paper, a scheme is produced that reads product labels text and helps blind people by working as shopping aid. The mechanism is produced in python programming language utilizing the Raspberry Pi model. The Optical Character Recognition technique utilizes picture processing equipment and software programming to identify print personalities. The system depicts the picture of the paper placed before the camera

KEYWORDS: Wearable, entity recognition, detection of the blind.

INTRODUCTION

Clearly, in today's society reading is necessary. Every item package displays a printed code. These texts cannot be read by visually impaired people. This paper helps blind people[1]–[9] to view written tags and item bundles. This will improve the independence of life and accelerate economic and social adequacy. Some processor architectures are already promising for portable use, but they cannot deal with product labeling. For instance, mobile bar code editors that assist blind individuals recognize various products in a comprehensive item database can allow blind consumers to view data on the products[10]–[15] in English.

PROPOSED SYSTEM

The proposition contains a template SMS viewing scheme. This paper recommends a read-out system text for the visually disadvantaged in this paper. As input device for digitization, the implemented fully combined system is equipped with a camera, and the scanned file is processed using the 'Software Module OCR'. The object detection sequence and scanning row are used as a framework. Open CV (Open Source Computer Vision) libraries are used as part of the software growth to collect text images and to recognize character as shown in Figure 1.

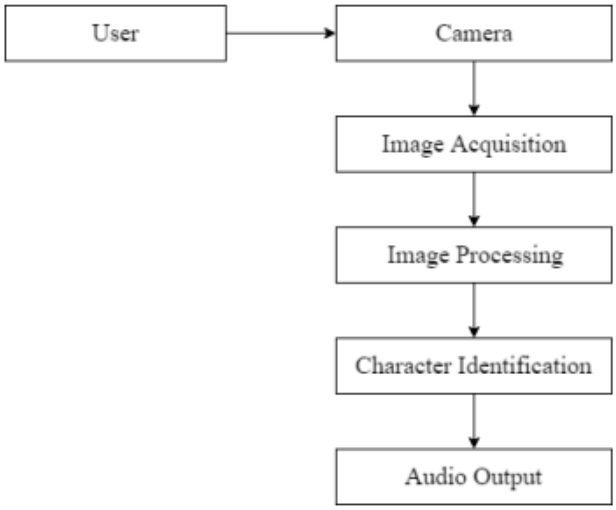

Figure 1. Proposed Architecture

RESULTS

For experiment process an image of a soap cover is taken as input unit then that input unit is converted into grayscale and then erosion, dilution process is conducted over that processed image and identification of character is done and finally the output is illustrated in the form of audio as shown in Figure 2.

Figure 2 Result of Proposed system

CONCLUSION

The outcome of the scheme is actually really good and surprisingly bad in many respects. The program can not function correctly for images without definite edges. But the picture documents with a prominent rim will operate completely. For a fancy font, transparent text and too-small text that is too blurred and does not work properly for non-flat surfaces. Improving character recognition could be a better way of labeling the components. For circular text, which is usually rejected as noise by grouping letters, this could achieve better results.

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