Abstract

The task of text detection natural scene images is very challenging due to the complex background and unpredictable text appearances in the image. Apart from the background and the structure of the text, unpredictability also lies in the image capturing quality. These issues include noise, orientation, low exposure, blurring, and other kinds of degradations.

It is therefore necessary to first restore the target text in the image in order to ensure robust text detection and recognition. This research focuses on removing a maximum number of degradation factors from a natural scene image containing text such that the detection and recognition of the text present in that image becomes very easy. Text Specific Dictionaries will be used in order to restore the text in the images. The sparse representation method is selected with an aim to apply techniques such as denoising, deblurring, sharpening and implementing other forms of enhancement in a single text image restoration system.

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**Index Terms**

Computer Science  
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**Keywords**