TEXT RECOGNITION USING MOBILE CAPTURED IMAGES

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Camera Based Document Analysis (CBDA) is an emerging field in Computer Vision and Pattern Recognition. In recent days, cameras are moulded with several items of additional equipment. Thus, they play a vital role in a replacement of scanners with hand-held imaging devices (HIDs) like digital cameras, mobile phones and gaming devices. Availability of High Resolution Camera incorporated in mobile phones has lead to new dimension in digital image processing. Text data present in mobile camera captured images contain useful information for automatic annotation, indexing and structuring of images. Extraction of this information involves detection, localization, tracking, extraction, enhancement and recognition of text from a given image. However, variations of text due to differences in size, style, orientation and alignment, as well as low image contrast and complex background make the problem of automatic text extraction extremely challenging. The various methods have been proposed in the past for detection and localization of text in images. These approaches take into consideration different properties related to text in an image such as color, intensity, connected-components, edges etc. These properties are used to distinguish text regions from their background and/or other regions within the image. The goal of the work is to extract text from camera captured multilingual images based on edge and connected component based hybrid algorithm (EC). Further, the extracted text will be recognized by maintaining a suitable database of all letters and numbers and converted into an editable form such as Notepad.

Keywords: - Text extraction; CBDA; canny edge detector; connected component labeling; Text recognition; Template matching;