Abstract

A New method for Extracting signature from image document is proposed based on the auto cropping method. This method improves the performance of security system based on signature images as well as provides the region of interest of the used image for the biometric system. This method also reduces the time cost associated with signature detection. Region of Interest in an image document is taking attention in research area. In this method, the signature document image converted into the binary image. This Binary image is normalized (resize) the signature image. To show the signature effective areas in signature image resizing may be required. Now we are performing Adaptive thresholding because it dynamically set all pixels whose intensity values are above a threshold to a foreground value and all the remaining pixels to a background value over the signature document image. This signature document image has some discontinuity between the pixels to remove this discontinuity we are using morphology. This morphological method uses bridge to connect the pixels and remove operator to remove the interior pixel region. The remaining pixel makes the signature image skeleton. This skeleton is used to select the signature Region of Interest (ROI) using auto cropping method. Auto cropping is the fast procedure to select the ROI. In this auto cropping method we are
using Image Station Automatic Elevations (ISAE) technique to select the connected pixel which sizes are greater than 250 pixels. This cropped signature has no garbage region it crops only the ROI of signature image. This method takes less processing time then other methods. To extract the features of cropped image we are using the 'Sobel' edge detection to identify the points in a digital image at which the image brightness changes sharply or, more formally has discontinuities.

References

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Automatic Extraction of Signatures from BankCheques and other Documents. 2003

Index Terms

Computer Science

Image Processing

Keywords

Binarization    ROI    ISAE    Adaptive Thresholding    Image normalization (resizing)

Morphology

Auto cropping