Abstract

Most of the binarization techniques associate a certain intensity value called threshold which separate the pixel values of the concerned input grey scale image into two classes like background and foreground. Each and every pixel should be compared with the threshold and transformed to its respective class according to the threshold value. In this paper an automatic binarisation technique with local adaptation without any intensity value (threshold) of partition, is described. It creates a binarised image by transforming the input image to its respective binarised image automatically without using any threshold value. It uses local mean to adapt to local environment within a window of size WxW. Local mean determination is time consuming one and to reduce the time consumption, integral sum image is used as prior process. The input grey scale image is self transformed to an integral sum image within itself and then transform to binary image from the integral sum image itself.

References
Local Adaptive Automatic Binarisation (LAAB)

- P. Viola and M. J. Jones, 2004 “Robust real-time face detection,” Int. Journal of Computer Vision 57(2), pp. 137– 154,
- B. Gatos, I. Pratikakis and S.J. Perantonis, ’ Improved Document Image Binarization by Using a Combination of Multiple Binarization Techniques and Adapted Edge Information’, 978-1-4244-2175-6/08/$25.00 ©2008 IEEE.
- F. Kleber, M. Diem and R. Sablatnig. “Scale Space Binarization Using Edge Information
Local Adaptive Automatic Binarisation (LAAB)

Weighted by a Foreground Estimation”, ICDAR 2011.

Index Terms

Computer Science
Image Processing

Keywords
Automatic Binarisation local adaptive integral sum image autobinarization