

4. Conclusion

For thresholding images with uneven illumination we propose an adaptive image thresholding algorithm combined the background estimation in Gaussian scale space with the background subtraction. Our method firstly construct a Gaussian scale space using two-dimensional Gaussian function and estimate the background image of the input image need to be thresholded. And then we extract the difference as the object image using background subtraction scheme. Finally for obtaining a very accurate object image we enhance it using γ correction approach and the global thresholding algorithm is applied to the enhanced object image simultaneously. Our algorithm is more efficient for those uneven illumination images than GWT algorithm and MFCM algorithm.

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