

IAPR Asian Conference on Pattern Recognition (ACPR 2013)
November 5-8, 2013

Okinawa, Japan

Title: An ICA based Approach for Complex Color Scene Text
Binarization

Reviews

Review 1

Overall evaluation:	3: (strong accept)
Reviewer's confidence:	5: (expert)
relevance (potential interest to the ACPR community):	5: (excellent)
originality:	4: (good)
technical soundness:	4: (good)
experimental evaluation:	5: (excellent)
presentation:	5: (excellent)
Review:	<p>Good paper. This paper is written in very simple and clear expressions, and the idea is so reasonable. As the basic idea comes from some common technique in signal processing and is similar to show-through removal, I've make the originality point to 4. But applying ICA to document binarization is so reasonable that it would be a common approach in the future.</p> <p>The experiment are alsoo good because there are a lot of image samples shown in the paper and it would help the readers understand advantages and limits of the proposed method.</p> <p>One point I am wondering is the use of RGB colors as input channels. According to the fig.4, the axes of input channel look affecting the result. I would like to know how the proposed method work when input channels were not RGB.</p> <p>In addition, according to the fig.5, ICA looks like not separating foreground and background but separating different color planes. It means when foreground or background include many colors, this method would not work properly. (as shown fig.5)</p> <p>I would like to discuss aboue these points if it was accepted.</p> <p>BTW, please add a full expression of "SVD" in the second page.</p>

Review 2

Overall evaluation:	1: (weak accept)
Reviewer's confidence:	4: (high)
relevance (potential interest to the ACPR community):	5: (excellent)
originality:	3: (fair)
technical soundness:	4: (good)
experimental evaluation:	4: (good)
presentation:	4: (good)
Review:	It is quite surprising to get a nice text binarization results just with a ICA step. Although the performance comparison in Table 1 shows a better performance, the comparison should be conducted more with state-of-the-art scene text binarization methods.

Review 3

Overall evaluation:	1: (weak accept)
Reviewer's confidence:	4: (high)
relevance (potential interest to the ACPR community):	4: (good)
originality:	2: (poor)
technical soundness:	3: (fair)
experimental evaluation:	4: (good)
presentation:	4: (good)
Review:	<p>The authors present a method for binarization with ICA. Comparative study with some methods shows the effectiveness for using ICA.</p> <p>However, there are researches on document processing with ICA. Some examples are listed below. The relationship between the presented method and these methods should be described.</p> <p>U. Garain, A. Jain, A. Maity, and B. Chanda, "Machine reading of camera-held low quality text images: An ICA-based image enhancement approach for improving OCR accuracy," Proceedings of the 19th International Conference on Pattern Recognition, 2008.</p> <p>B. Chi and Y. Chen, "Reduction of Bleed-Through Effect in Images of Chinese Bank Items," Proceedings of the 2012 International Conference on Frontiers in Handwriting Recognition (ICFHR), pp. 174-178, 2012.</p>