Abstract

Document binarization plays important role to preserve the historical document. Recently number of researcher present numerous techniques of document binarization that can vary in sensitivity, quality and some more control parameters. The document image binarization focuses on extracting the text and background of the image. In doing this the edge detection approach also played the crucial role. In this paper a framework for digitations of historical physical document has been proposed. This framework suggest to use Markov random function to evaluate contrast of pixel and try to overcome the problem of appearance of a single document that can vary greatly depending on factors such as lighting, viewing angle. Following that, proposed framework uses this energy to differentiate foreground and background ink. Final binaries image document have significant enhance in PSNR (db) value. Proposed scheme use DIBCO (2013) for evaluation and validation.

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Index Terms

Computer Science  Pattern Recognition
Keywords

Document digitization, Markov Random field, Contrast measurement, Gaussian filter, Weiner filter