

A Fast Enhanced Iterative Blind Deconvolution Algorithm

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Abstract

This paper presents an exact estimation of the PSF size for both noisy and noiseless images that is essential for good quality image restoration. Having accurately estimated the PSF, the paper also proposes a fast double updating algorithm for improving the quality of the restored image. It is based on minimizing some largest errors between the blurred image and its equivalent computed as the 2-D convolution of the estimated restored image and the estimated PSF. Simulation results have been given to verify that the proposed technique manages to correctly estimate the PSF size for noisy and noiseless cases as well as yielding a sharpened image with higher PSNR than classical approaches.

Keywords: Blind Image Deconvolution, Image Restoration

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