Image blurring is one of the major problems in the field of digital image processing. Generally, camera shake causes blurring. As a result, uneven blur kernel is present in the image which is random in nature. Therefore, every image in the burst is blurred in a different way. Deblurred image can be obtained using single image or multiple images. A clean sharp image is recovered by fusing the group of images without calculating the blurring kernel. In this paper, a new technique called a new weighted average filter is introduced for removing camera shake using single or multiple images. This technique takes a burst of images and calculates a weighted average in the Discrete Wavelet domain, where the weights of images depend on their Discrete Wavelet Spectrum magnitudes.
A New Weighted Average Filter for Removing Camera Shake


15. Removing Camera Shake via Weighted Fourier Burst Accumulation by Mauricio Delbracio and Guillermo Sapiro.

Index Terms

Computer Science
Artificial Intelligence

Keywords

Blur, burst, Discrete Wavelet