

عنوان مقاله:

Removing Rain from Web Images Using a Bilateral Filter

محل انتشار:

دهمین کنفرانس بین المللی وب پژوهی (سال: 1403)

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خلاصه مقاله:

Images are among the most used components used in websites, and if these images are not of good quality, the website will suffer from SEO. Rainy images are among the poor-quality images that inevitably exist in the display of products on a store website. Rain removal methods using weighted average filters have the disadvantage of blurring images and destroying image details. The innovation of this article is to propose a combined method of Bilateral filter and Guided filter to remove the effect of rain. The working method is that first the image passes through the Bilateral filter, and in order to increase the quality, the guided filter is applied to it and the output image is obtained. Four sample images are selected from rain images and the proposed algorithm is applied to them. The results have been compared with a reference method recently presented in this regard. The results show that the proposed algorithm has improved the output of the images by ۴.۴۲% on average in terms of the maximum signal-to-noise criterion and ۴.۴۵% in terms of the similarity criterion compared to the reference algorithm.

کلمات کلیدی:

Removing Rain, Bilateral Filter, Guided Filter, PSNR, SSIM

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