

基于小波降噪度量的图像去雾研究

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摘 要： 提出基于小波降噪度量的图像去雾方法，通过确定阈值来达到对浓雾图像小波降噪目的，对降噪后的图像数据信息进行背景和目标图像的分割，进行 Harr 的小波层级去雾计算，按照不同级别物体按重要级别分层级进行去雾计算，最后通过局部细节和整体纹理关联计算将浓雾图像还原，完成图像的去雾过程。通过仿真实验对基于小波降噪度量的图像去雾算法进行测试，从降噪效果、去雾时间和图像去雾速度三个方面进行了比较，该算法均优于传统方法，证明了该算法的有效性，并且具有比较广泛的应用价值。

关键词： 小波；降噪；度量；图像去雾

Image to Fog Research Based on the Wavelet

Noisereduction Measures

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Abstract: Proposed image to fog method based on wavelet noise reduction measure, by determining threshold value to achieve the aim of fog image wavelet noise reduction, image data information after the noise of background and target image segmentation, wavelet hierarchy to fog calculation, according to the different level objects to fog calculation according to the layer classification of the important level, finally through the local and the overall texture details relevance computing will fog image restoration, completing the process of image to fog. Through the simulation experiment of image to fog algorithm based on wavelet measure reduction test, from the effect of noise reduction, to the time and speed of image to fog fog three aspects has carried on the comparison, the algorithm is superior to the traditional method, prove the effectiveness of the algorithm, and has more extensive application value.

Key words: wavelet; the noise reduction; measure; image to fog

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