Abstract

Filtering is widely used in image and video processing for various applications among which Edge-Preserving is the most popular one. Edge-preserving image smoothing has recently emerged as a valuable tool for a variety of applications such as denoising, tone mapping, non-photorealistic rendering in computer graphics and image processing. This can be achieved by a local filtering method such as bilateral filter [1]. However, this method has to face the problem of trade-off between edge-preservation abilities and smoothing abilities [2] and tends to result in staircase effect which is not acceptable for some applications. Hence, in this paper the guided filter is proposed which filters the output depending upon the information provided by
the guidance image.

References

- Y. Ding, J. Xiao, and J. Yu, "Importance filtering for image retargeting", in


**Index Terms**

Computer Science

Image Processing

**Keywords**

Edge-preserving Filtering  Bilateral Filter  Guided Filter  Guidance Image