Abstract

Compression of videos results in mosquito and flickering artifacts. This paper illustrates the reduction of flickering and mosquito artifacts using adaptive fuzzy filter and bilateral filter and
their comparison. Adaptive fuzzy filter is a motion compensated spatiotemporal filter applied to the inter-frame and intra-frame pixels for the reduction of artifacts. Bilateral filter depends on the combination of two parameters – intensity and spatial distance. We have calculated and plotted the graph for PSNR values for the comparison of the two. Experimental results show that the reduction of artifacts using bilateral filter gives better image quality and better robustness. Experimental results illustrating the performance of the two techniques are presented and evaluated.

Reference

- Du˝ng T. Vö, Student Member, IEEE, Truong Q. Nguyen, Fellow, IEEE, Sehoon Yea, Member, IEEE, and Anthony Vetro, Senior Member, IEEE, “Adaptive Fuzzy Filtering for Artifact Reduction in Compressed Images and Videos” IEEE Transaction on Image Processing ,vol 18, No.6, June 2009

Index Terms

Computer Science

Signal Processing
Reduction of Artifacts in Compressed Videos using Adaptive Fuzzy Filter and Bilateral Filter and Comparison

**Key words**

Artifact reduction  
adaptive fuzzy filter  
bilateral filter