Abstract

Digital image filtering is an important approach towards image enhancement. It involves the manipulation and interpretation of digital images. Images may get noisy due to various factors then filtering of images is become an important operation to de-noise the noisy images. Image smoothing and image sharpening must be performed to achieve it. In our paper we work on Ideal, Gaussian and Butterworth filters to apply high pass and low pass filtering on images. We implement and simulate these filters on MATLAB platform and analyze their performance for equal cutoff frequency. This work gives great experience to understand differences among various above define filtering techniques through keen analysis of their respective results.

References

Analysis of Digital Image Filters in Frequency Domain


Index Terms

Computer Science

Image Processing

Keywords

Frequency domain image filtering, high pass filter, low pass filter, Ideal filter, Butterworth filter, Gaussian filter.