



International Journal on Recent Researches In Science, Engineering & Technology

A Journal Established in early 2000 and upgraded to International journal in 2013 and is in existence for the last 10 years. It is run by Retired Professors from NIT, Trichy. It is an absolutely free (No processing charge No publishing charge etc) Journal Indexed in DIIF and SJIF.

Research Paper

Available online at: www.jrrset.com

Chief Editor : 1. Dr. M.Narayana Rao, Rtd. Professor, NIT, Trichy.
(Engg.&Technology division)

2. Dr. N.Sandyarani, Ph.D., Professor,
Chennai based Engg.College, (Science division)

ISSN (Print) : 2347-6729
ISSN (Online) : 2348-3105

Volume 1, Issue 10,
Oct. 2013

DIIF IF :1.46
SJIF IF: 1.329

Image Retrieval Using Wavelet Denoising Algorithms

D. Yughandhar

Abstract : Literature reported several methods of reducing or completely eliminating noise in images, such as fast fourier transform (FFT) method, weiner filtering (FF) method, normal shrink (NS) method, etc. A comparative study of the above methods have not gone deep, in to the issues of preservation of edges in the processed image, simplicity and adaptability to each subband, significant removal of noise etc. We made an attempt in this paper to address above issues, through the application of wavelet transforms, which provide for preservation of edges, simplicity and easy adaptability. The proposed wavelet transform algorithms provide new form of signal analysis which out beats the conventional FFT method where the signals are either transient or discontinuous . The issues relating to poor image acquisition or noise introduced while data transmission are satisfactorily addressed in the proposed method. The issues relating to blur edges after processing in spacial low-pass filters and background noise amplification in high pass filters are well addressed in the proposed methods. In the present investigation a natural uncorrupted image is chosen, and is corrupted with Gaussian noise. The corrupted image is subjected to wavelet transforms and equations are written for wavelet coefficients. The threshold values of the coefficient are obtained and the components below the threshold are given zero value and the image is reconstructed. The main contribution of the present work is that the proposed algorithm and the generated programme provides for variation of Gaussian

noise level in the uncorrupted image and provide for a visual inspection of the retrieved image and to qualitatively estimate the effect of wavelet transform method of image processing.