Abstract

Filtering is Prime important processes in Medical Image processing applications. Any post processing process aims in the removal of unwanted noise which usually corrupts the image quality and perception. This research paper focuses on searching effective De noising filters for post processing of Fractal compressed Images on Medical Images like CT of Bone, MR Images of Brain, Mammograms, Ultrasound Images of uterus. In this work Fractal Image Compression (FIC) a lossy compression scheme based on contractive mapping theorem is employed to map the Range blocks and Domain blocks by using the property of self similarity in the images. We have used two types of filters namely anisotropic diffusion filter and bilateral filter for the removal of noise in Medical images. The Peak signal to noise ratio (PSNR) was measured after applying the two different filters and a comparative analysis of PSNR values before and after filtering was recorded. The simulated results obtained showed an increase in PSNR value for bilateral filter than with anisotropic filter and also the quality of the image was improved.
2. Fractal Compression of Medical Images –A Master Thesis-Wojciech Walczak
5. N.A.koli and M.S.Ali-“A survey on Fractal Compression Key issues” International technology Journal -2008
18. Dr. Fakhiraldeen H. Ali Quad-tree Fractal Image Compression University of Mosul
Performance Measure Analysis between Anisotropic Diffusion Filter and Bilateral Filter for Post Processing of Fractal Compressed Medical Images

1 – No. Comparative Analysis in Medical Imaging”
24. Raka Kundu* and Amlan Chakrabarti** Research front-Denoising image filters for biomedical image processing
26. Shokhan Mahmoud Hama1 and Muzhir Shaban Al-Ani2 University of Al-Anbar, Collage of Computer, Anbar, Iraq International Journal of Advances in Engineering & Technology, july 2013. ©ijaet issn: 22311963 “Medical image enhancement based on an efficient approach for adaptive anisotropic diffusion
27. Garima Goyal1, Ajay Kumar Bansal2, Manish Singhal3 International Journal of Scientific and Research Publications, Volume 3, Issue 1, January 2013 1 ISSN 2250-3153“Review paper on various filtering techniques and future scope to apply these on TM images”
28. Mohamed Saleh Abuazoum “Efficient analysis of medical image de-noising for mri and ultrasound images”-a Dissertation

Index Terms

Computer Science Image Processing
Keywords

Fractal Theory, Iterated Function systems, quad-tree, Range blocks, Filtering, Isotropic filters, Bilateral filters, medical imaging, PSNR