

International Journal of Computer Science and Mobile Computing

A Monthly Journal of Computer Science and Information Technology

ISSN 2320-088X

IJCSMC, Vol. 3, Issue. 1, January 2014, pg.487 – 494

RESEARCH ARTICLE

Performance Analysis of Image Fusion Algorithms using HAAR Wavelet

Deepika.L¹, Mary Sindhuja.N.M²

¹PG Student, Department of Electronics and Communication Engineering, Kamaraj College of Engineering and Technology, Anna University, Tamilnadu, India

² Assistant Professor, Department of Electronics and Communication Engineering, Kamaraj College of Engineering and Technology, Anna University, Tamilnadu, India,

¹deepikaloganathan0790@gmail.com, ²sindhunm_2006@yahoo.co.in

Abstract- Image Fusion is a technique used to integrate information from multiple images such that the fused image is suitable for processing tasks. Medical image fusion is used to derive useful information from Medical image. The basic idea is to improve the content of an image by fusing images like Computer Tomography (CT) and Magnetic Resonance Imaging (MRI) images. The proposed method use the Discrete Wavelet based fusion algorithms on medical image fusion of CT and MRI, implementation of fusion rules and the fusion image quality evaluation. Therefore the fused image has the information which is useful for human or machine perception. The fused image with such rich information will improve the performance of image analysis algorithms for medical applications. The fusion performance is done using Entropy, the Root Mean Square Error (RMSE) and Peak Signal to Noise Ratio (PSNR).

Keywords- Medical image fusion; Discrete Wavelet transform; Fusion rule; Performance evaluation; Entropy; Root Mean Square Error; Peak Signal to Noise Ratio

Full Text: <http://www.ijcsmc.com/docs/papers/January2014/V3I1201475.pdf>