A Novel Multimodal Medical Image Fusion Approach based on Phase Congruency and Directive Contrast

Abstract

In this paper, Non-subsampled medical image fusion is a unique tool, which develops many imaging techniques in medical field. The main work is to capture the information from different image sources and convert them into single output. Two different fusion rules like phase congruency and directive contrast are introduced. The work was discussed based on the images in medical field which gives accurate results with less distortion is based upon transformation and parameters. The main drawback of previous methods are they cannot produce a color image for better clarity and accurate analysis of medical image. In this paper, the parameters such as Mutual Information(MI), Edge Based Similarity Measure(QAB/F), Structural Information Metric(Qe), Degree Of Distortion(Qo) and Normalization Of Image(Qw) are introduced to increase the visual perception of an image. The parameters and lab-transform is used for better quality of the image.

References
1. Harvard University site (http://www.med.harvard.edu/AALIB/home.html).


**Index Terms**

Computer Science

Image Processing

**Keywords**

NSCT domain, MRI image, CT image, phase congruency and directive contrast.