Abstract

Image Enhancement is one of the most important and difficult techniques, also the first stage in
the pre-processing of images which have to be subjected to image recognition algorithms. The
goal of image enhancement is to improve the quality of images. Palmprint image quality is an
important factor in the performance of hyperspectral palmprint recognition system. To the best
of knowledge there is no evidence of work specifically directed towards image enhancement
techniques on hyperspectral palm print images. In this paper different thirteen types of image
enhancement techniques are compared based on image quality measure (subjective and
objective), subjective image quality measure based on histogram and objective quality measure
is based on mean square error (MSE), Peak signal to noise ratio (PSNR), Normalized cross
correlation (NK), Average difference (AD), Structural content (SC), Maximum difference (MD),
Normalized absolute error (NAE). Such a comparison would be useful in determining the best
suited image enhancement method for hyperspectral palmprint. Median filter gives good
performance as compare to other image enhancement techniques. The performance of
different thirteen image enhancement techniques are tested on PolyU hyperspectral palmprint
database. The comparative results are tabled.

Refer
Comparative Analysis of Image Enhancement Technique for Hyperspectral Palmprint Images

References


Index Terms

Computer Science

Image Processing
Keywords
Image Enhancement  image quality measure  Spatial and frequency Domain
Image restoration