Patent Search

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Abstract:

Due to varying light source distributions and positions, the problem of overexposure or underexposure might arise during the imaging process. The goal of image en technology is to overcome problems with an image's detailed information that are relatively poor. The fundamental purpose of improving the image is to reveal the h or increase the contrast among images and a new dynamic range. The equalization of histograms is one of the most widely utilized methods for the improvement of contrast as it is quick and simple to implement. The Fuzzy based Threshold Histogram Equalization approach is a strong tool for enhancing image contrast. The prese disclosed herein is Image Contrast Enhancement System with Fuzzy based Threshold Histogram Equalization comprising of: Input Image (201); Fuzzification (202); PD (203); Histogram Equalization (204); Mapping (205); and High Contrast Image (206); used as a scalable method for enhancing the contrast of an image with the help o and Threshold based Histogram Equalization. The present invention discloses the method and the apparatus used, the type of the input image, the use of fuzzy logic enhancement method is estimated numerically with Features Similarity index (FSII), Contrast Improvement Index (CII), and Entropy (H) in present invention, as set ou present invention. With the present invention, implemented in the Mat Lab R2019 (a) environment, the Feature Similarity Index (FSIM) of 0.992, a Contrast Improvem of 8.32 and 0.682 bits/symbols entropy are obtained.

Complete Specification

Claims:We claim:

1. Image Contrast Enhancement System with Fuzzy based Threshold Histogram Equalization comprising of: Input Image (201); Fuzzification (202); PDF Estimation Histogram Equalization (204); Mapping (205); and High Contrast Image (206); used as a scalable method for enhancing the contrast of an image with the help of Fuz and Threshold based Histogram Equalization.
2. Image Contrast Enhancement System with Fuzzy based Threshold Histogram Equalization as claimed in claim 1, wherein Image Fuzzification (202) transforms t intensity levels of an image into the fuzzy plane whose values are between 0 and 1. The Intensity values of an image are having range (0, L) are considered as fuzzy Fuzzy matrix is computed from the fuzzy set.
3. Image Contrast Enhancement System with Fuzzy based Threshold Histogram Equalization as claimed in claim 1, wherein the PDF Estimation (203) is to comput Probability Density Function (PDF) by computing weighting and threshold function.
4. Image Contrast Enhancement System with Fuzzy based Threshold Histogram Equalization as claimed in claim 1, wherein the Histogram Equalization (204) appl the fuzzy plane based on the weighted and threshold PDF.
5. Image Contrast Enhancement System with Fuzzy based Threshold Histogram Equalization as claimed in claim 1, wherein the Mapping (205) is performed to cor fuzzy plane to the image gray level intensities.

View Application Status