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Review on various Contrast Enhancement Strategies used in Image Processing

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Abstract - *The image processing is used in order to enhance the image. The image can be enhanced if the color of the image is adjusted. The image can also be enhanced if the contrast associated with the image is adjusted. The contrast enhancement can be achieved when histogram equivalence is used. The histogram equivalence is used within the image processing to better represent the image. The Medical images must be carefully monitored so that falsifying aspect cannot be disclosed the review of the various techniques which are considered for image enhancement is considered in this case.*

Keywords: Image processing, contrast enhancement, histogram, equivalence, image enhancement

1. INTRODUCTION

The image enhancement process will result in the betterment of the image. Legion of work is done toward this approach. The image enhancement will be achieved by removing the noise or other problems present within the image. The image representation will result in Graphical User Interface. The GUI will be relatively easy to understand rather than Command User Interface. The enhanced image represents the information in a better way. There are number of existing mechanisms like Medium, Mean Filter etc are available for removing the noise present within the image. There are papers which consider the histogram equivalence mechanism in order to enhance the contrast associated with the of all image is represented histogram image. The image contrast can decide how clear the image is. In case of this mechanism first and then problems present within the with the image are discovered. The image contrast will be improved when noise is identified be last in first out system. The image compression as well as decompression mechanism will be used along with histogram equivalence. The compression within the image using histogram. Some papers has followed iterative histogram equivalence procedure and some have followed recursive approach. The iterative approach is simple in nature and recursive approach is complicated. The recursive approach also utilized the concept of stack. The stack will technique will compress the image and histogram equivalence strategy will decompress the image without losing the pix

2 RELATED WORK

The histogram equivalence is the mechanism by which encryption and decryption can be achieved. It is also possible to clear the image from noise. [1]The texture patterns are analyzed using histogram equivalence strategies. The Patterns are analyzed and then histogram is generated. The generated patterns will give the accurate information about the image.

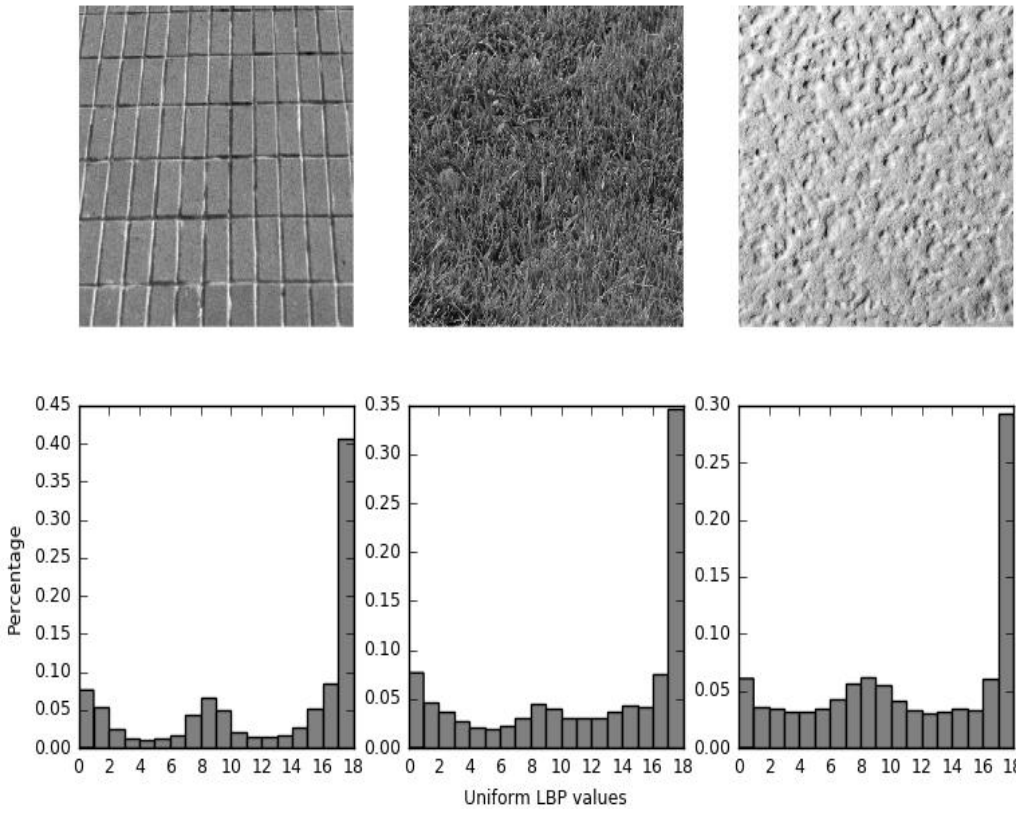

Fig-1: Histogram of images

The histogram will be a bar chart in which various pixel intensities are plotted. [2]the multidimensional queries are considered in this case. The multidimensional queries deal with the geographical images and VLSI databases. The limits are specified in this case. Within the specified bounds image areas are searched. In this paper an algorithm for generating equi depth multidimensional histograms are generated. The pattern present within the image is analyzed in this case. [3] Histogram-based template matching is an important method to search the globe optimization exhaustively. However, this method is commonly algorithmic complex. In this paper, the proposed work is to replace the traditional histogram-based method with equivalent histogram-based method, which distinctly improves the matching efficiency. We first introduce the equivalent histogram on the basis of the relative centralization of the template's color information and prove the equivalence. Then, we discuss the application of equivalent histogram in the current algorithms and analyze the algorithmic complexity. The equivalent histogram calculates the histograms and their distances according to the relative centralization of color information, which decreases the memory and computation spending from the calculation of redundant information. [4] Noise removal from within the image is considered in this case. Analog to digital conversion strategies are followed. After conversion histogram is generated and image is analyzed.

3 COMPARISON OF EXISTING WORK

Table-1: Comparison of Techniques in image enhancement.

Sr. No	Technique	Work Done
1	Texture Description Through Histograms of Equivalent Patterns	The texture patterns are analyzed using histogram equivalence strategies. The Patterns are analyzed and then histogram is generated. The generated patterns will give the accurate information about the image.
2	Equi-depth multidimensional histograms	The multidimensional queries are considered in this case. The multidimensional queries deal with the geographical images and VLSI databases. The limits are specified in this case. Within the specified bounds image areas are searched. In this paper an algorithm for generating equi depth multidimensional histograms are generated. The pattern present within the image is analyzed in this case.
3	Swift template matching based on equivalent histogram	Various templates are considered. These templates are already created and will be compared against the generated patterns to identify the noise present within th image.
4	Noise sensitivity of the ADC histogram test	Noise removal from within the image is considered in this case. Analog to digital conversion strategies are followed. After conversion histogram is generated and image is analyzed.
5	A general histogram modification framework for efficient contrast enhancement	The histogram is used in order to enhance the contrast of the image. The contrast will introduce the clarity within the image

4 CONCLUSION AND FUTURE WORK

The papers which we have analyzed deal with the histogram equivalence in order to enhance the contrast present within the image. The contrast enhancement will be accomplished by using the contrast enhancement functions. The contrasts will represent the image in better way. However no paper has considered the concept of redundancy and also on medical images. The clarity of the image will be affected by the redundancy. Same pixel may be plotted multiple times by which fog may be introduced within the image. In the future work fog removal using unique pixel plotting will be considered.

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